CONSTRUCTOR TECH

PROCTOR

Administrator Guide

docs.constructor.tech

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About this guide

The Proctor Administrator Guide is intended for administrators who integrate the application with external systems using LTI plug-ins, manage the setting of Constructor Proctor, manages users, and is involved into the solution user interface localization processes.

Secure Browser download links

Secure Browser is a standalone application for Windows and macOS that locks down a learner's computer during exams by blocking other websites, shortcuts, and apps, ensuring a secure and cheat-free testing environment. If an exam requires Secure Browser, learners install it during preparation steps when they start the first exam.

Secure Browser for Mac requires **macOS 12.0 (Monterey) or newer**. Earlier macOS versions are not supported.

On macOS, Secure Browser can also block system tools that could expose exam content. Dictionary is blocked in Medium and High security modes, and the built-in Screenshot app is blocked in High security mode.

In case you need direct Secure Browser download links for different operating systems, find them below.

Secure Browser download links

- macOS (x64 / Intel)
- macOS (ARM64 / Apple Silicon)
- Windows (x64)

Introduction

Constructor Proctor enables educational institutions, universities, certification organizations, and businesses to conduct secure online exams and prevent cheating or academic dishonesty.

Constructor Proctor allows educational personnel to identify test takers, monitor, verify, and maintain the integrity of online exams.

As an administrator of Constructor Proctor, you can do the following:

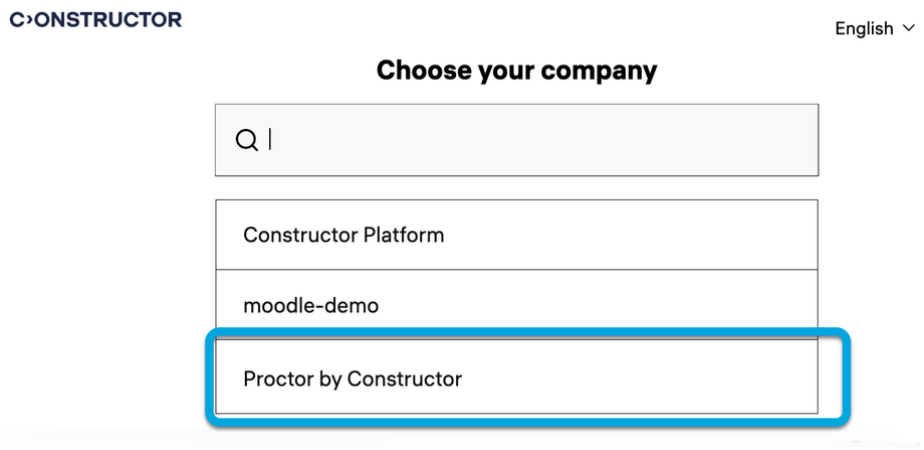
- Manage other users and the configuration of Constructor Proctor through the administrator dashboard.

See Signing in to Constructor Proctor further in this section for the information about how to enter the system.

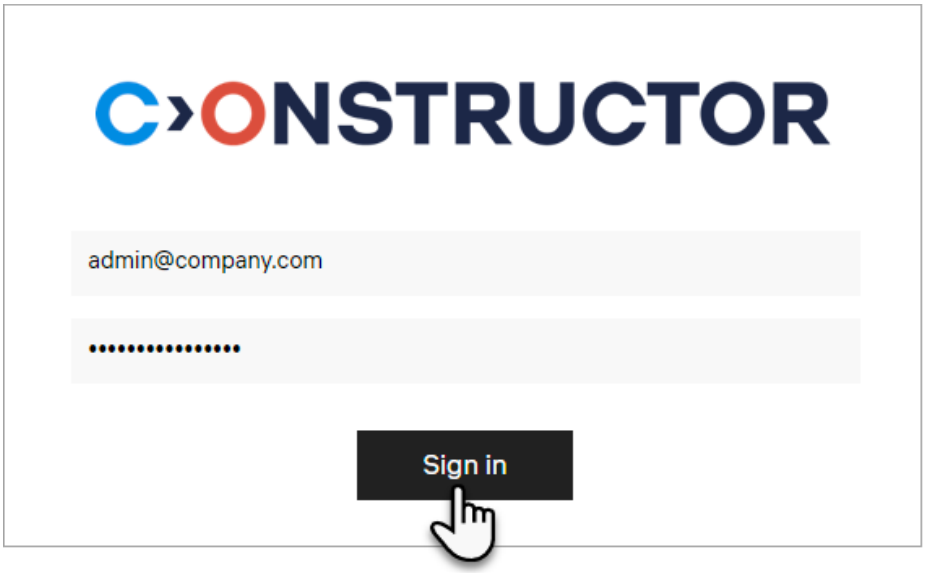
Signing in to Constructor Proctor

To sign in to the Constructor Proctor UI, where you will find the administrator dashboard, do the following:

1. Open the link to your dashboard (for example: https://server.constructor.com/dashboard/home).
2. In the companies list, click Proctor by Constuctor to select it.



3. Enter your administrator login and password and click **Sign in**.


admin@company.com
Sign in

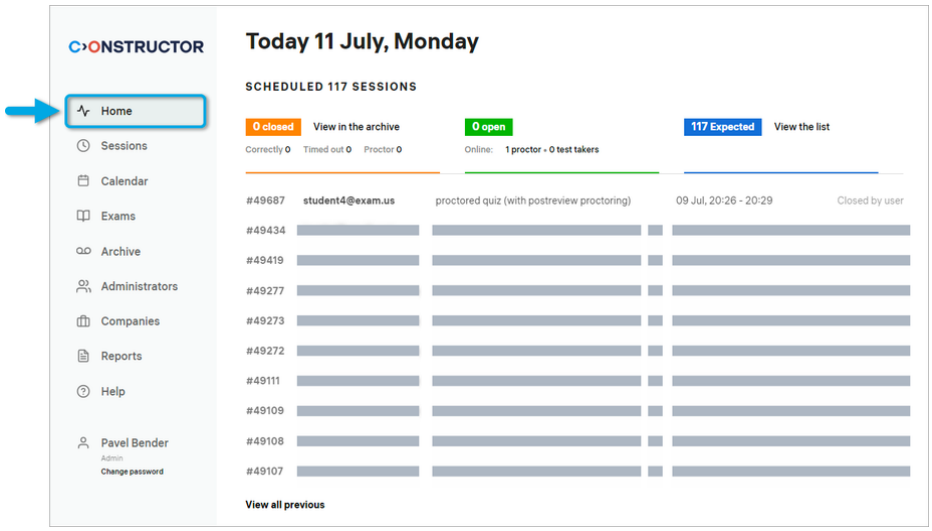
Using administrator dashboard

Learn how to use the administrator dashboard in Constructor Proctor. You can do the following actions:

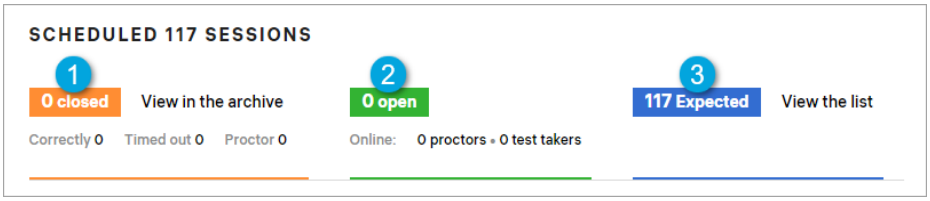
- View the dashboard home page
- View live learner sessions
- Manage exam sessions
- Work with Calendar
- Manage exams
- Work with Archive
- Manage administrators
- View companies available to you
- Generate reports

Viewing dashboard home page

After successfully signing in, you will land on the **Home** tab:



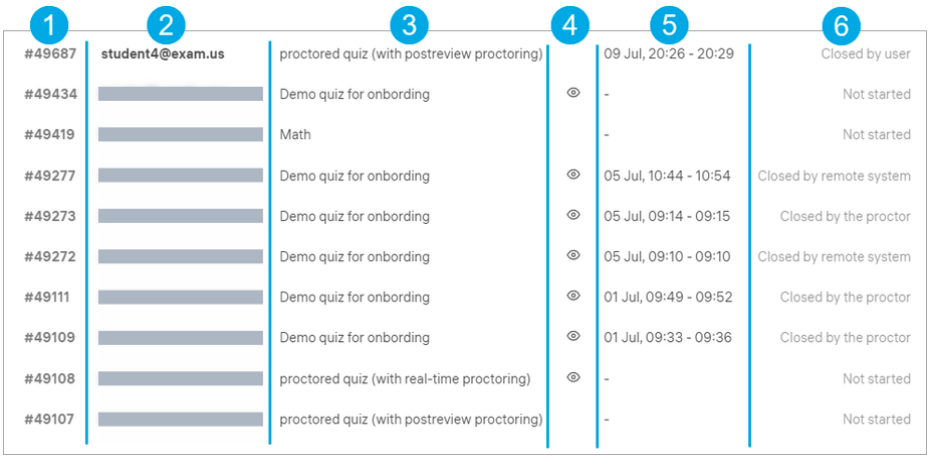
At the top of the screen, the following counters are displayed:



According to the numbers in the screenshot, each counter represents a number of exam sessions that were:

- **1** — closed today.
- **2** — are currently open.
- **3** — are scheduled for the future.

In the middle of the screen, the 10 most recent exam sessions are displayed:

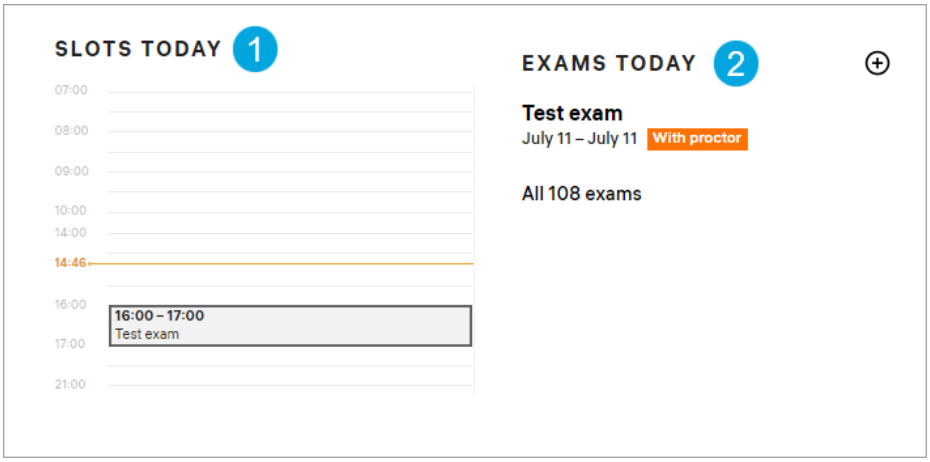


According to the numbers in the screenshot, the columns represent the following:

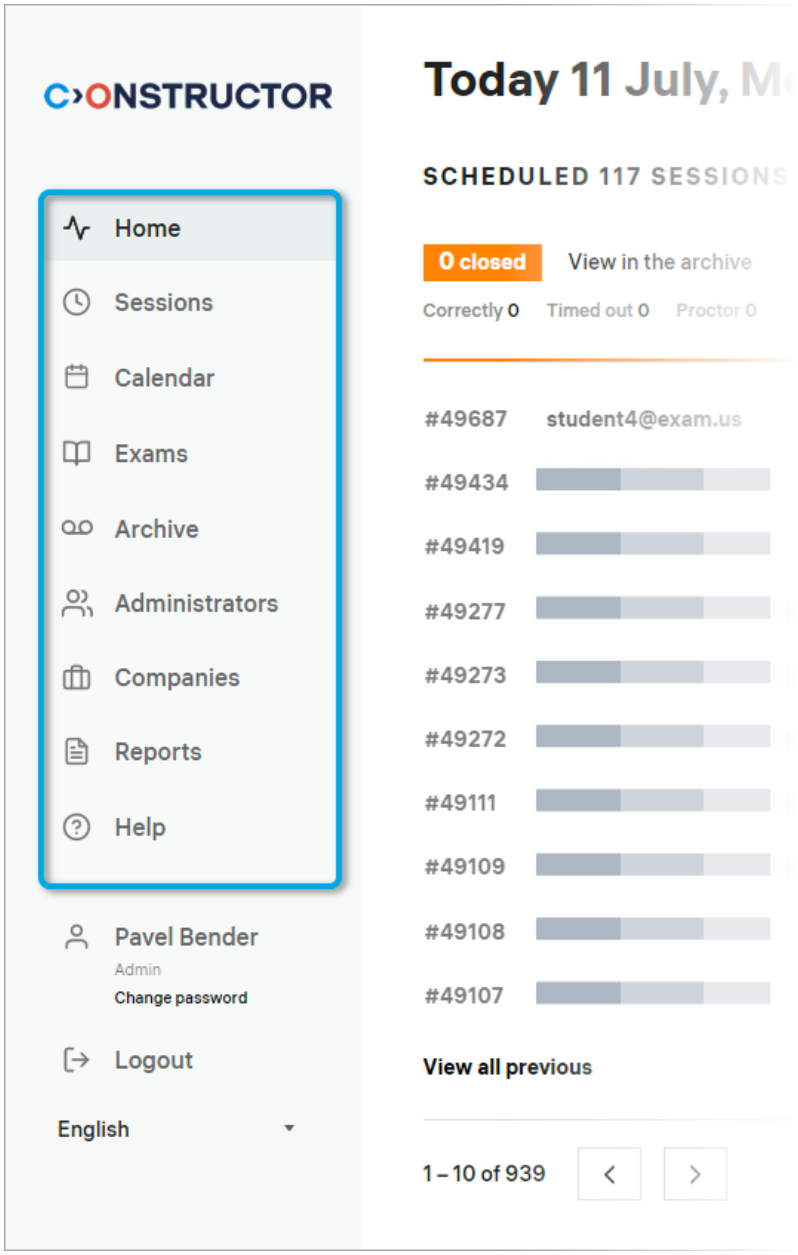
- **1** — a session number.
- **2** — the email address of the participating examinee.
- **3** — the exam name.
- **4** — the type of proctoring used in the exam (the eye icon means live review, no icon means post-exam review).
- **5** — the date of the session and its duration.
- **6** — the session status.

Scroll the **Home** page down to see:

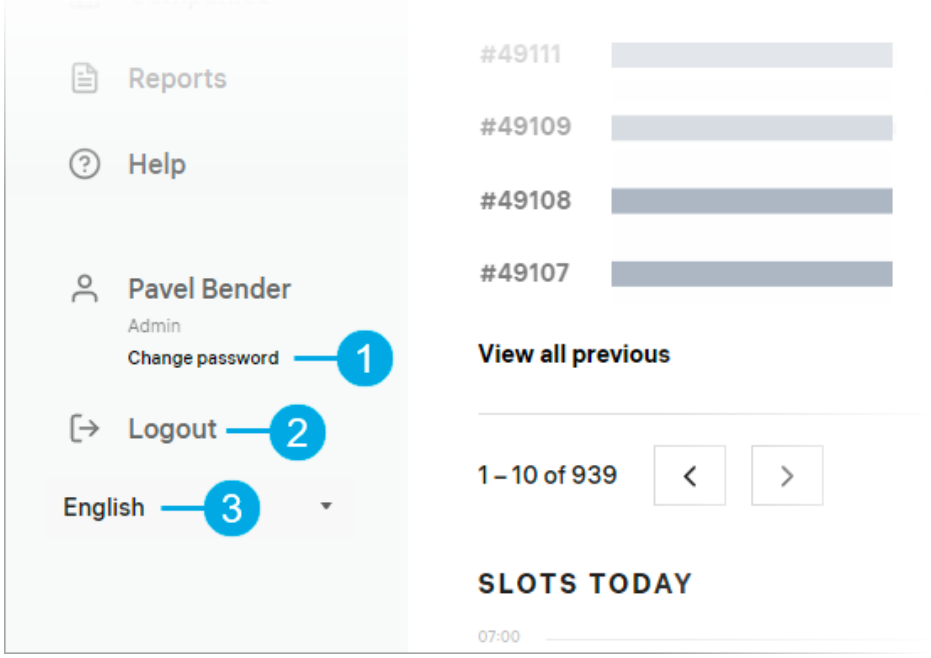
- **1** — proctoring slots created for today's exam sessions.
- **2** — a list of exams scheduled for today.



1. On the left, there's a sidebar that lets you access various functions of the admin portal:



2. Below the sidebar are a few controls that let you change your password (1), log out from the admin portal (2), and change the language in which the portal is displayed (3):



Now we'll take a look at each of the tabs located in the sidebar starting from **Sessions**.

Viewing live learner sessions

As an administrator, you can view the sessions of learners who are currently online and broadcasting.

The required roles in the system for that are:

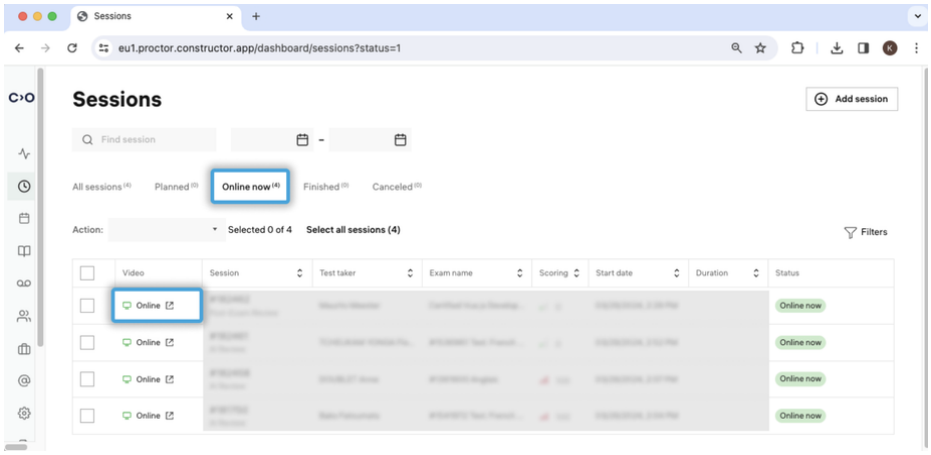
- Super Administrator
- Company Administrator

Users with other roles cannot use the viewing functionality because they do not have access to the **Sessions** section of the Dashboard.

Viewing online sessions

To view sessions of learners who are online:

1. Go to the **Sessions** section of the Dashboard.
2. Filter sessions in the status Online now.



3. Select the required session and open it .

Using chats for sending messages

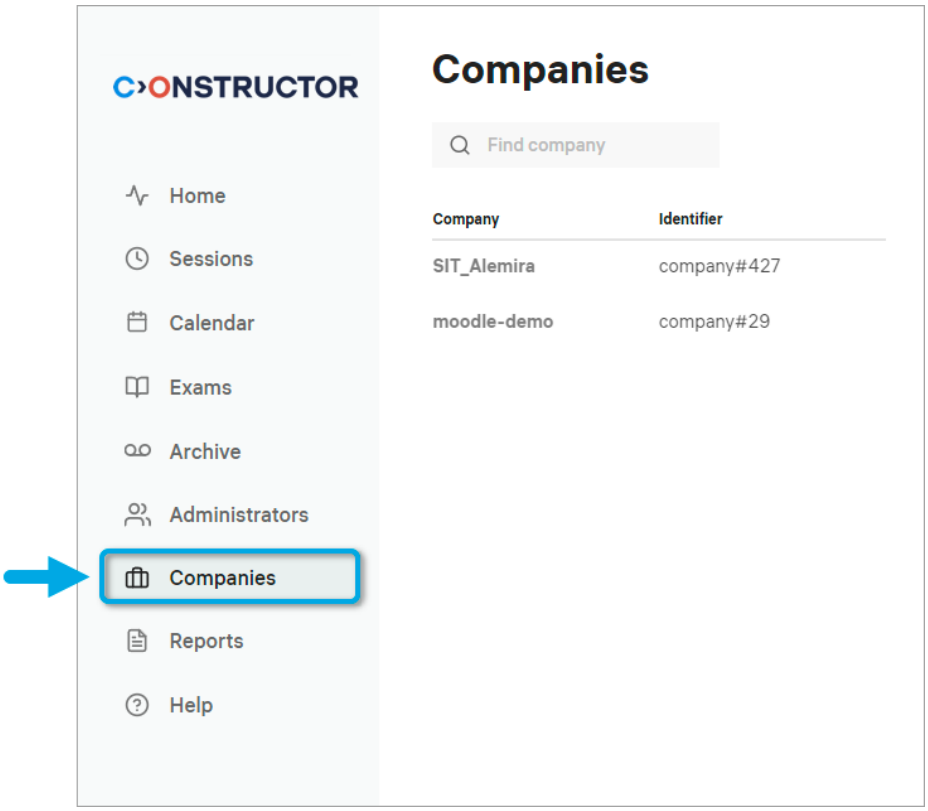
This sessions viewing functionality allows you to enable chats between a learner and a Company Administrator. Enabling chats is configured by changing the value of the **alwaysShowChat** option in the webapp config to true.

When chat is enabled in the web application, the learner will receive messages and violation notifications with the sidebar expanding each time to display the new event.

In live-review mode, both the Company Admin and the Proctor have the same permissions to send chat messages and issue violations. The Proctor does this via the Proctor Room, while the Company Admin uses the **Session** section.

Viewing available companies

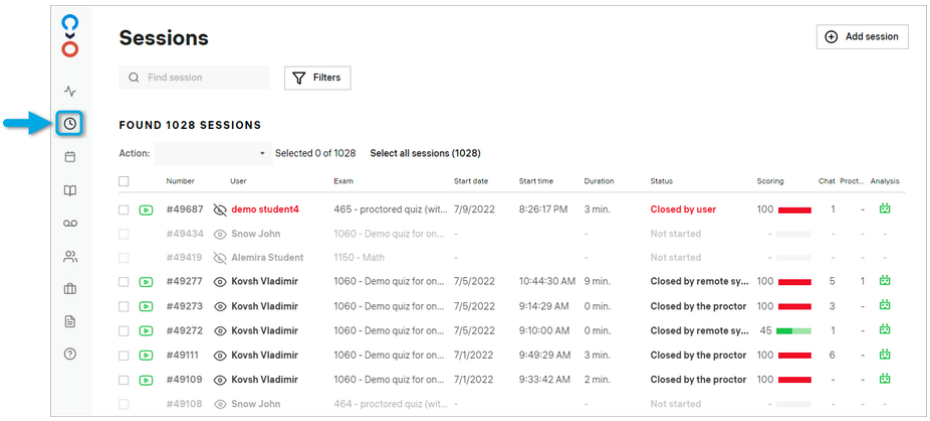
The **Companies** menu shows a list of companies that you have access to:



IMPORTANT: Company accounts are automatically created and added to the Proctor Dashboard when a user takes a proctored exam. You cannot add companies manually. Administrator accounts must be created manually and linked to the corresponding company account.

Managing exam sessions

In the **Sessions** tab, you can find all past and upcoming exam sessions:



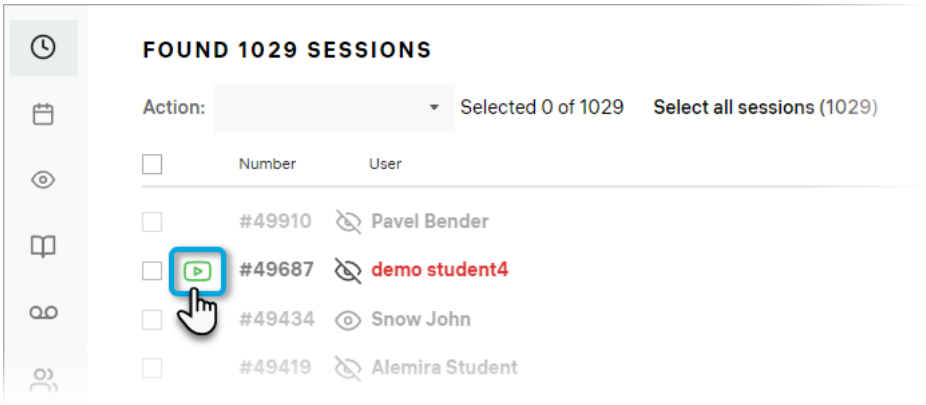
See:

- Opening session videos
- Viewing session statuses
- Using search and filters
- Exporting session list to XLS
- Reviewing sessions

Opening session videos

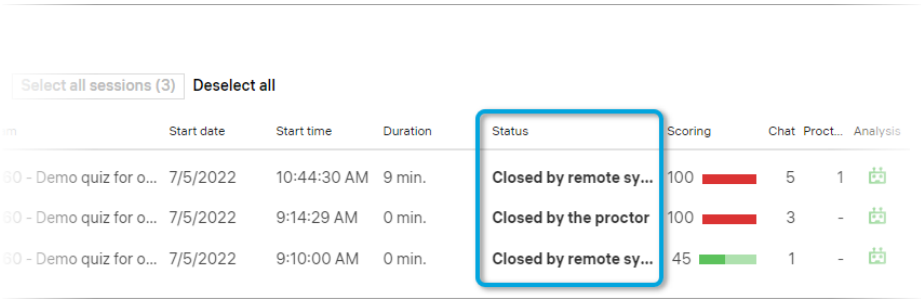
Sessions available for watching have a green icon next to their session number.

Click on this icon to open the session video in the **Archive**:



Viewing session statuses

Each session in the list has a status that is displayed in the corresponding column:



Possible session statuses

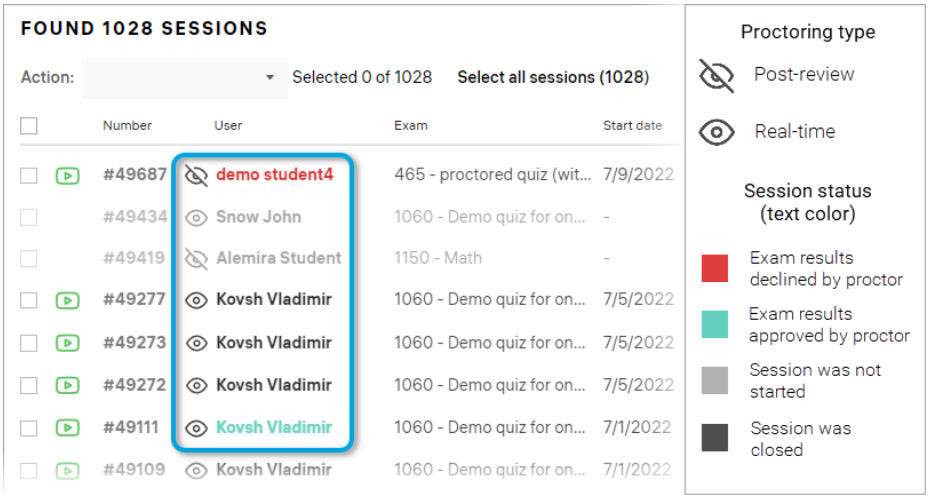
The possible session statuses and their descriptions are listed in the table below:

Status	Description
Not started	The user has not started the session.
Open	The user started the session.
Closed by the proctor	The exam proctor closed the session manually.
Closed by timeout	The user closed the tab with the exam so the session was closed by the timeout.
Closed by anti-cheat system	The AI proctor automatically closed the session.
Closed by remote system	The session was closed correctly.
Closed by user	The user closed the session by clicking on **Finish the exam**.
Canceled	The user canceled their enrollment for the exam.

Details on individual exam sessions

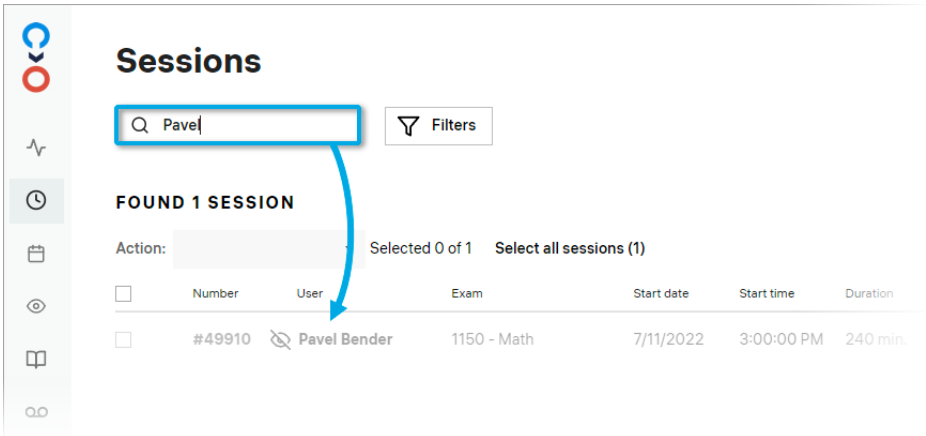
In addition to checking the status column, you can quickly identify the type and the

status of an individual exam session by knowing certain conventions:

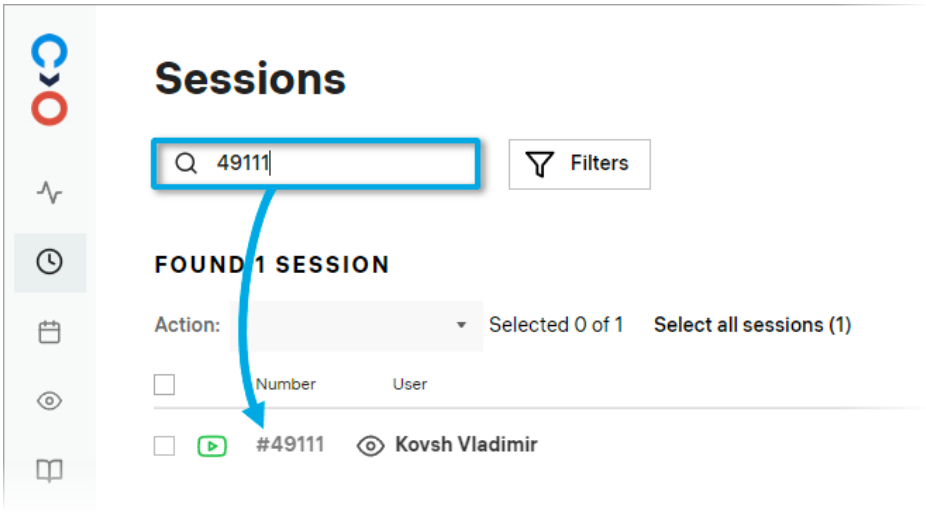


Using search and filters

To find sessions more easily, you can use the search box. Simply enter the name or email address of the examinee to find all their exam sessions.



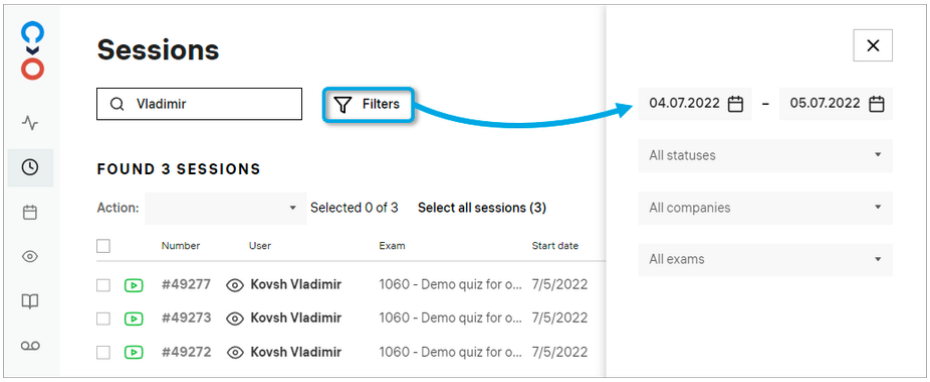
You can also find a particular session by entering its number in the search box:



Filtering sessions

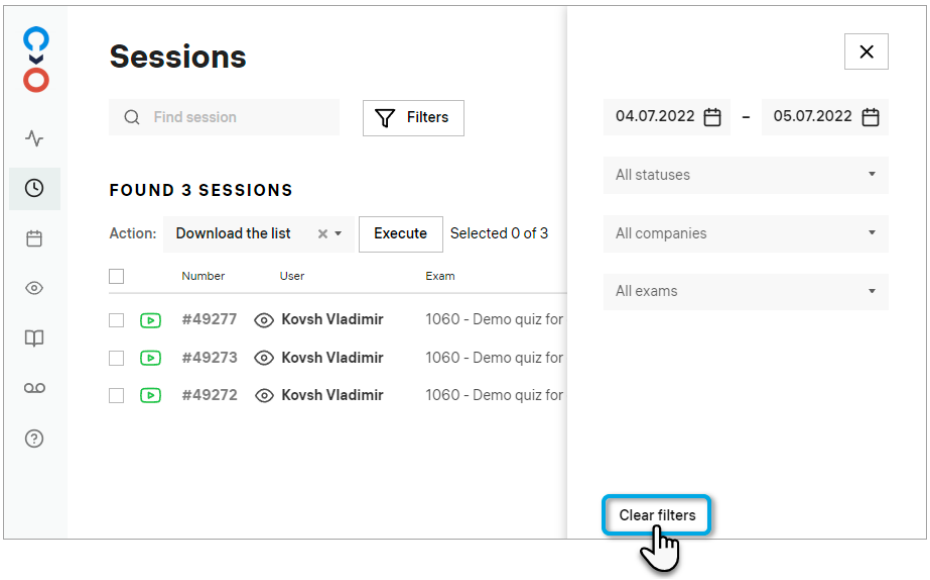
Use **Filters** to narrow down your search. For example, you can filter the search results

by exam name or by start/end exam date:



Resetting filters

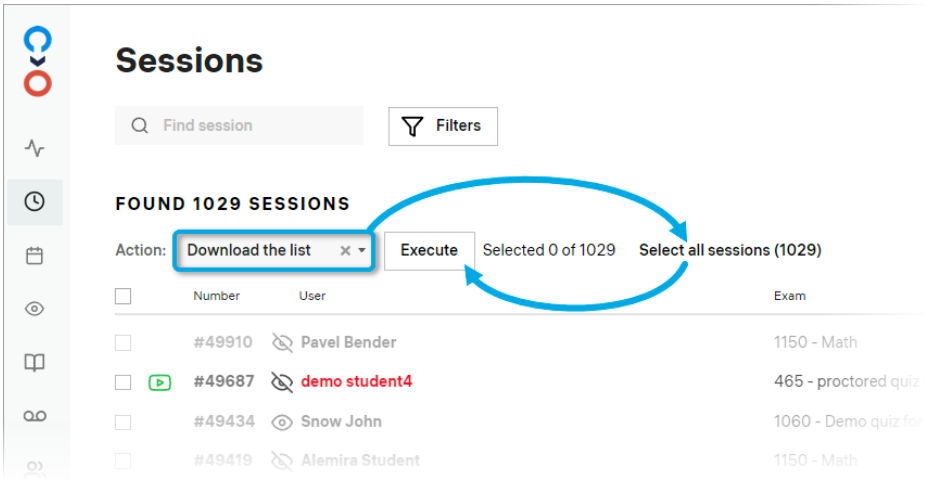
To reset the filter, click **Clear filters** at the bottom right:



Exporting session list to XLS

When you have a list of sessions filtered by certain criteria, you can export it to a Microsoft Excel file.

1. Select **Download the list**.
2. Click **Select all sessions**.
3. Click **Execute**:

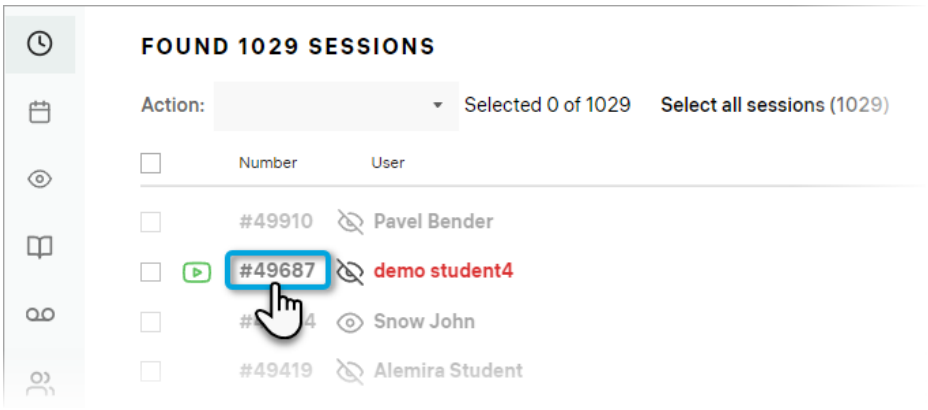


An XLSX spreadsheet with the list of sessions will be downloaded to your computer.

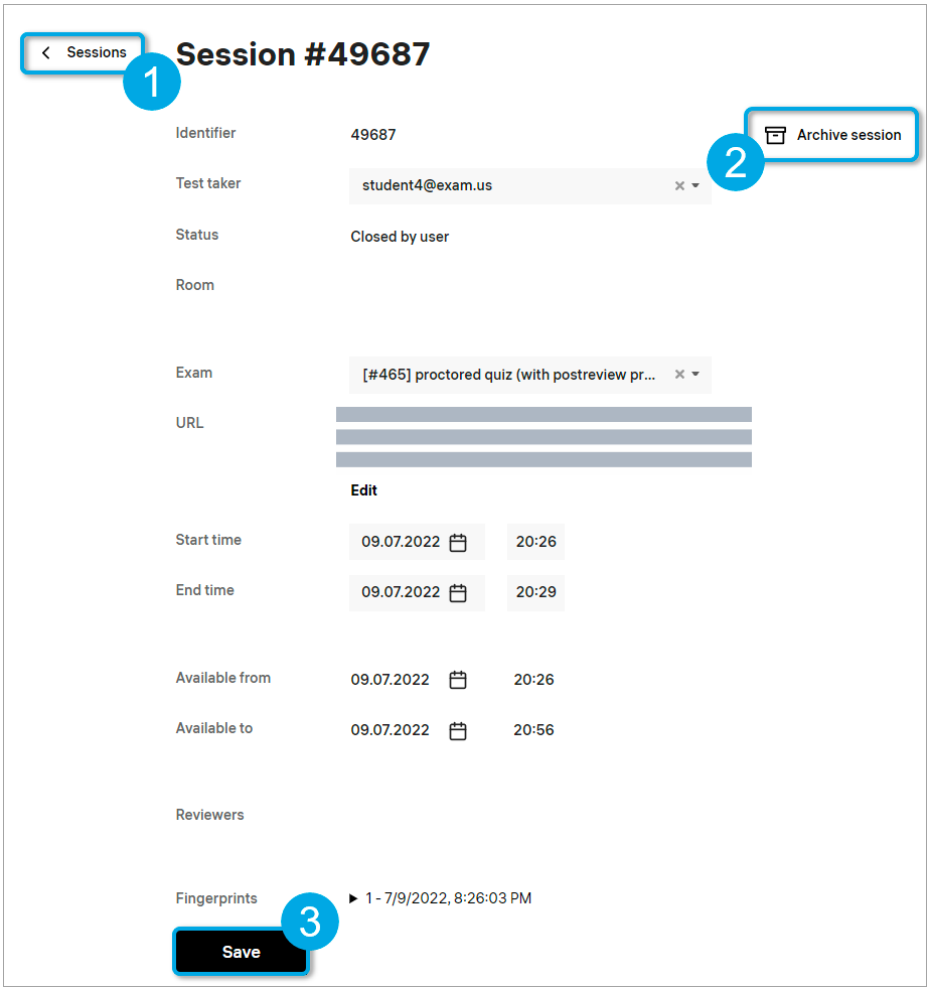
Note: The maximum number of sessions per file is 2500.

Reviewing sessions

Click on a session number to open the page with the detailed information about the session:

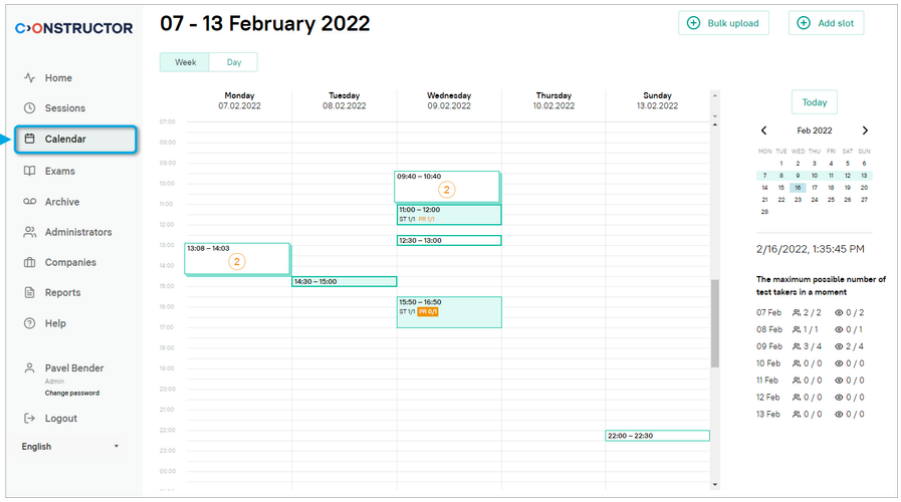


On this page, click **Sessions** (**1** in the screenshot) to go back to the session list, **Archive session** (**2**) to open the session video in the **Archive**, or **Save** (**3**) to apply changes in case you edited session information:

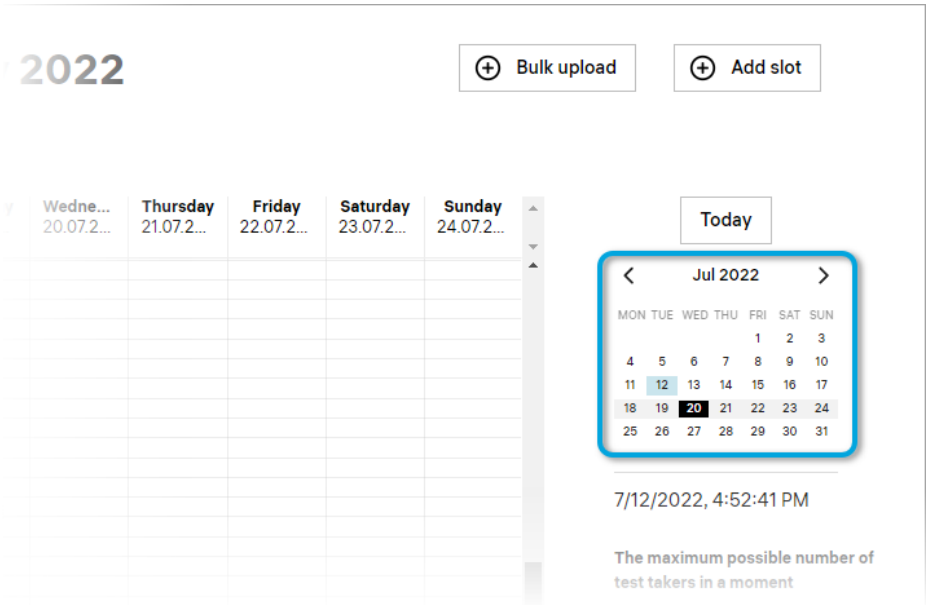

Sessions
1
Session #49687
Identifier
49687
Archive session
2
Test taker
student4@exam.us
Status
Closed by user
Room
Exam
[#465] proctored quiz (with postreview pr...
URL
Edit
Start time
09.07.2022
20:26
End time
09.07.2022
20:29
Available from
09.07.2022
20:26
Available to
09.07.2022
20:56
Reviewers
Fingerprints
1 - 7/9/2022, 8:26:03 PM
3
Save

Working with Calendar

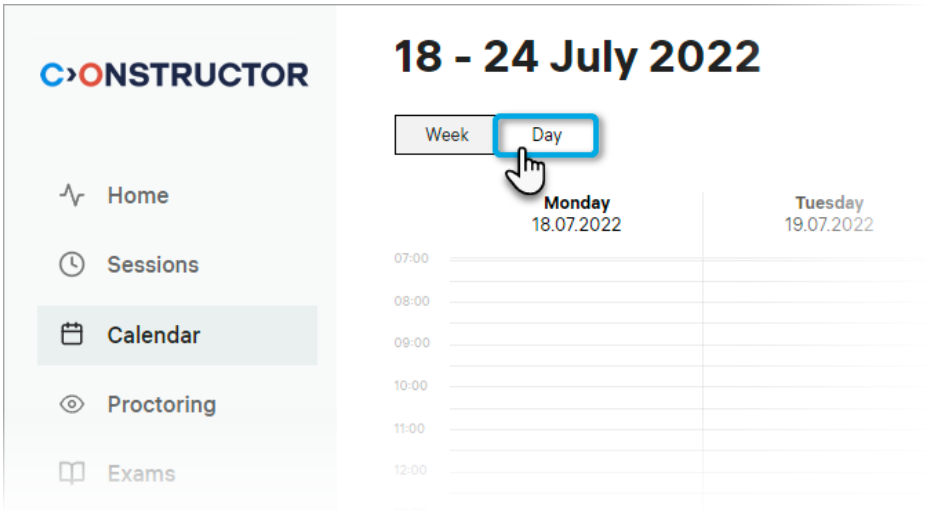
The **Calendar** menu contains the information about all exam slots created in your organization. It also allows you to add proctors and learners to scheduled exam sessions:



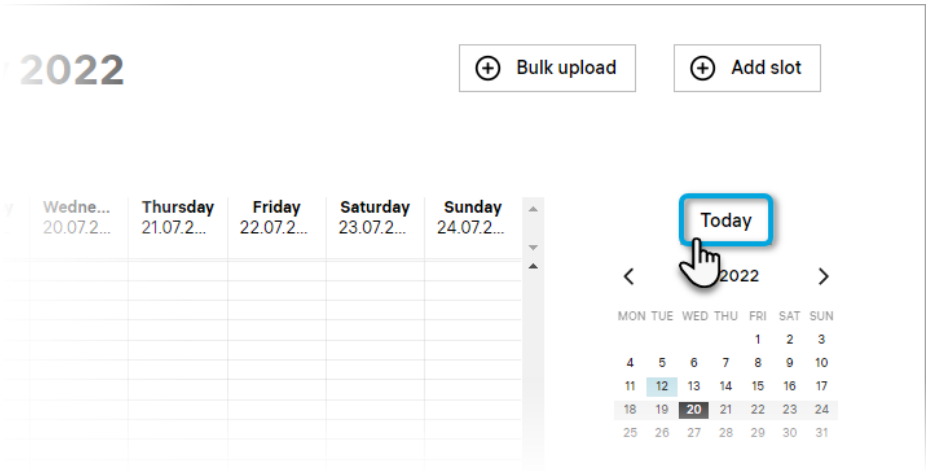
- To choose a different week to be displayed, click on a day in the mini-calendar on the right:



- Click **Day** to display the schedule only for the selected day:



- To go back to today's schedule, click **Today**:



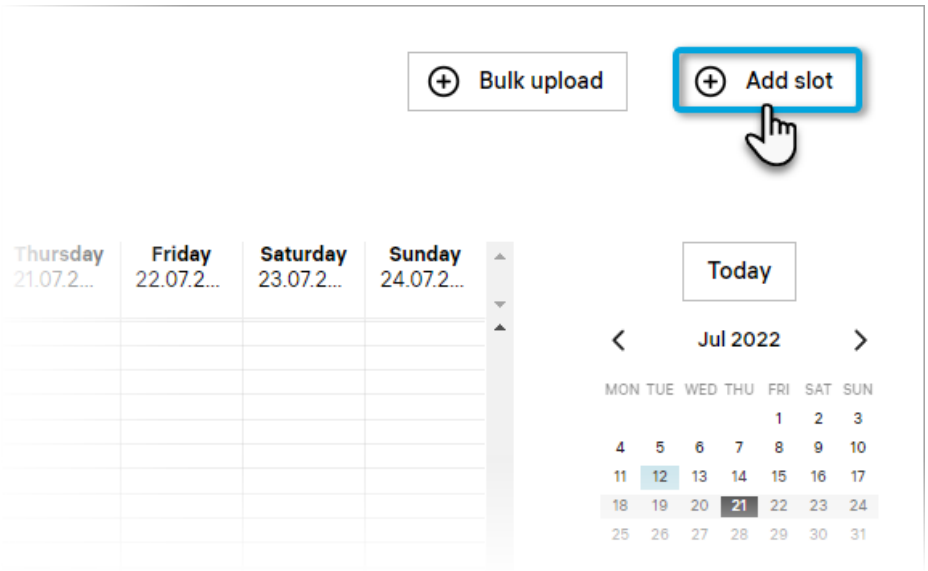
See:

- Creating exam slots
- Editing exam slots
- Adding test takers to exam slots in bulk
- Removing test takers from exam slots
- Adding proctors to exam slots
- Removing proctors from exam slots
- Removing exam slots from the calendar

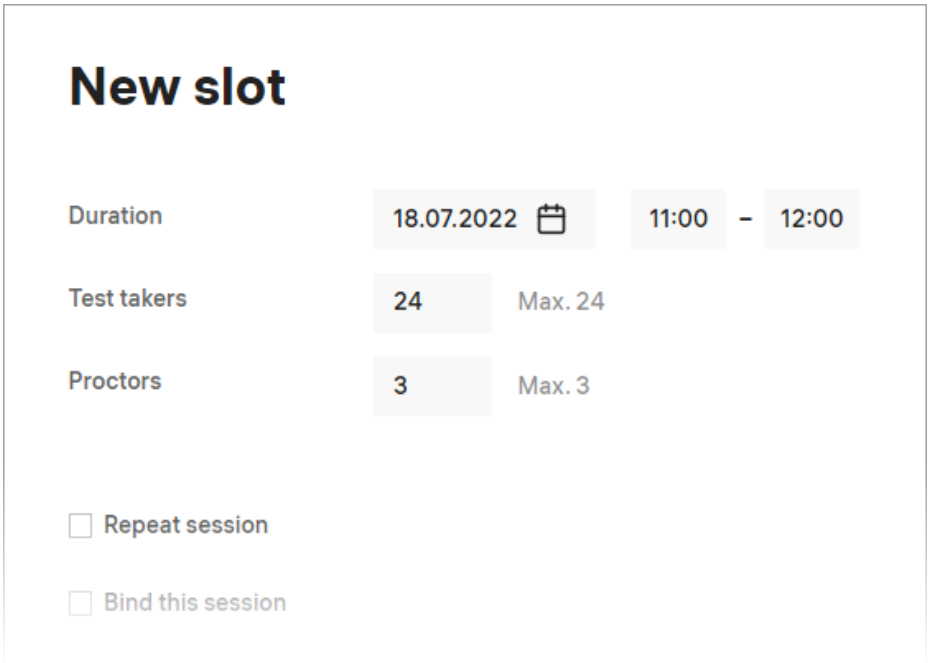
Creating exam slots

To add a new exam slot, do the following:

1. Click **Add slot** in the upper right corner of the calendar screen:



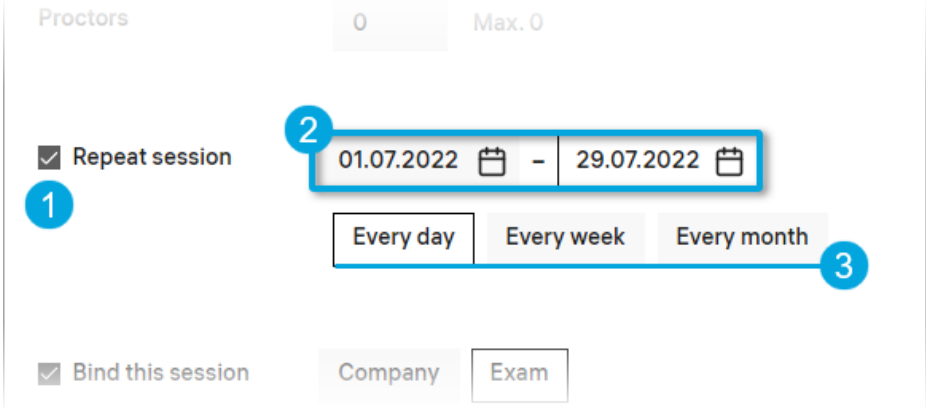
2. In the **New slot** form, enter the date and duration of the upcoming exam session and the number of test-takers and proctors.



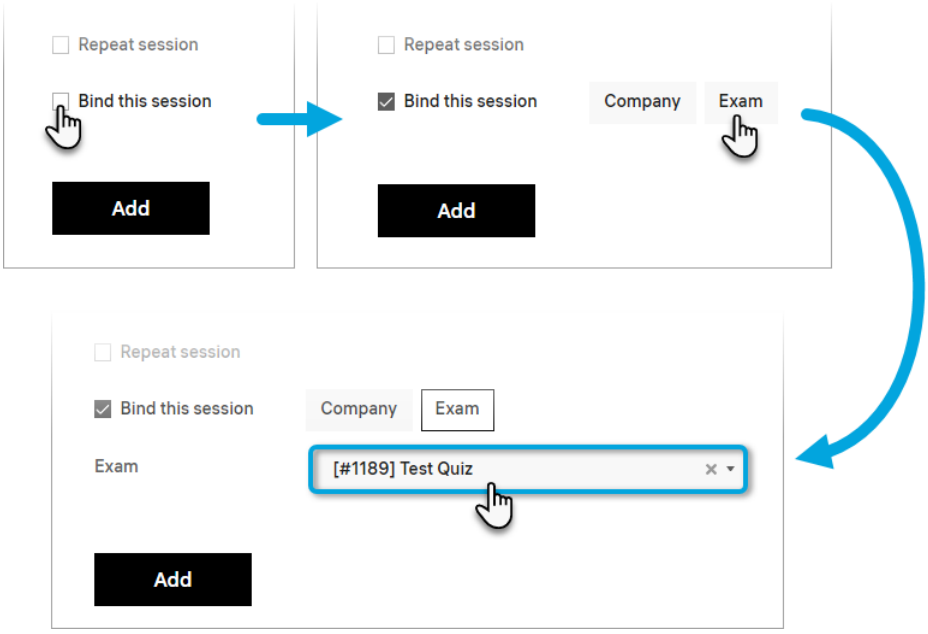
IMPORTANT: Match the slot duration with the duration of the exam. If the slot duration does not match the duration of the exam, it will not be possible to enroll students in it.

3. Specify these parameters:

- **Repeat session** — check this box (**1** in the screenshot below) if you need to create a repetitive slot. Select the period in which the slot should be repeated (**2**), then specify the session's frequency (daily, weekly, or monthly (**3**)).

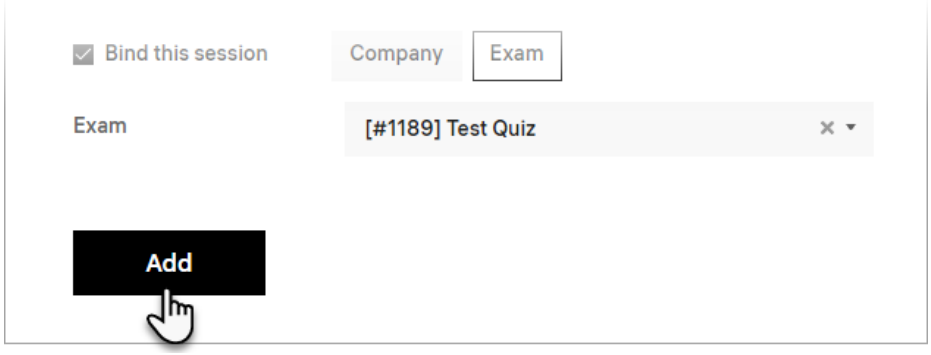


- **Bind this session** — check this box to bind the slot to an exam or a company.



IMPORTANT: Binding a slot to a company or exam is mandatory. If you link the slot to a company, only learners from this company can participate in the exam.

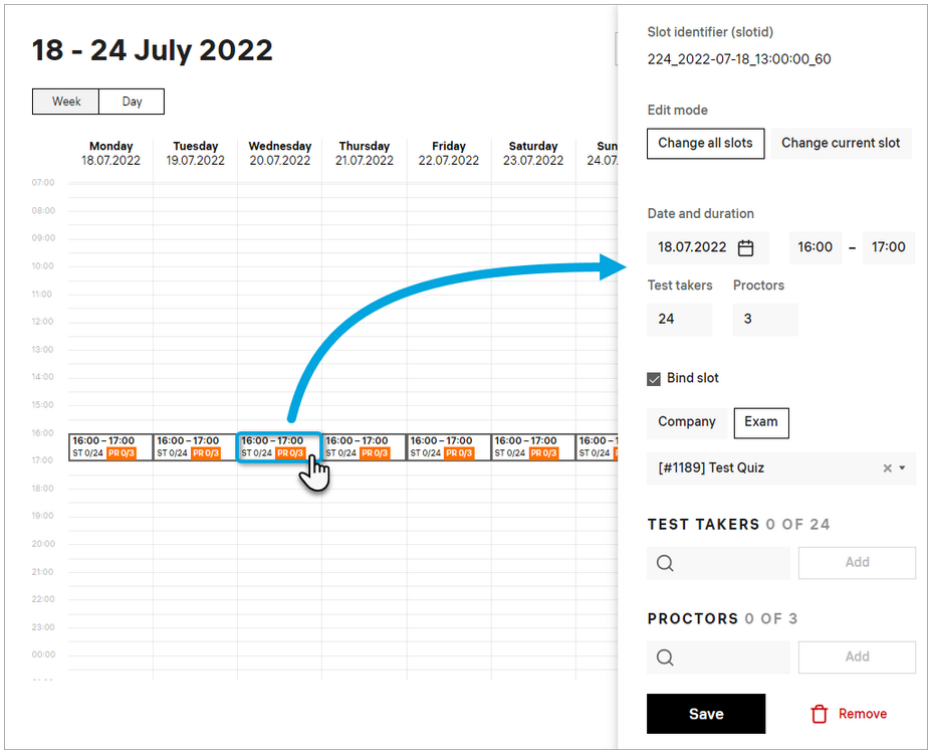
4. Click **Add** to the slot to the calendar.


Bind this session
Company
Exam
Exam
[#1189] Test Quiz
Add

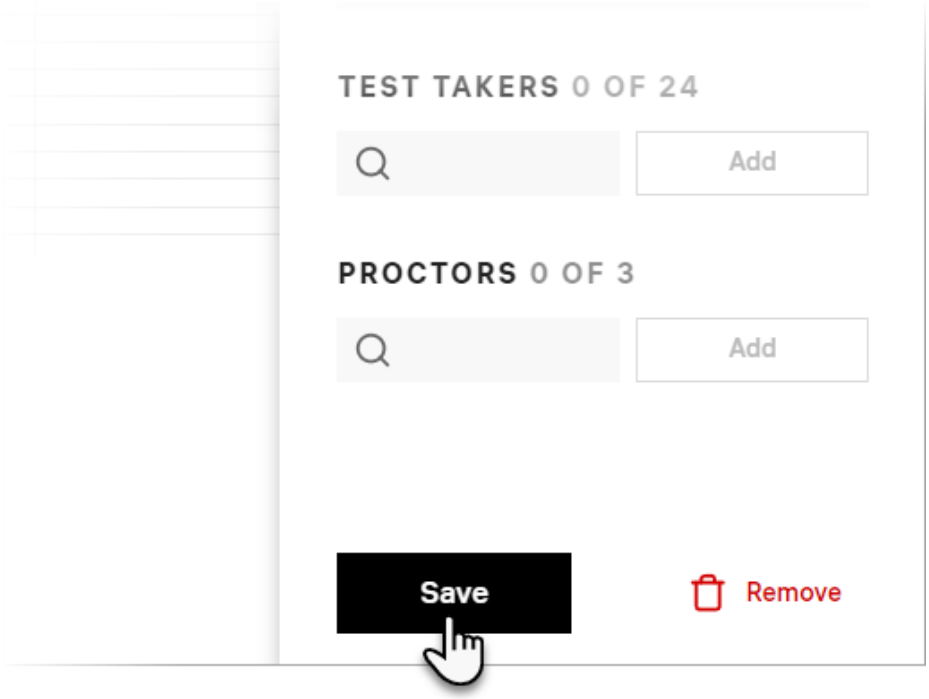
Editing exam slots

To edit an existing exam slot:

1. Open **Calendar**.
2. Click an existing slot. The side panel with the parameters of the slot will open.



3. Change the required basic properties of the slot (the date, duration, number of test takers, exam binding, an so on).
4. Click **Save** to apply the changes.



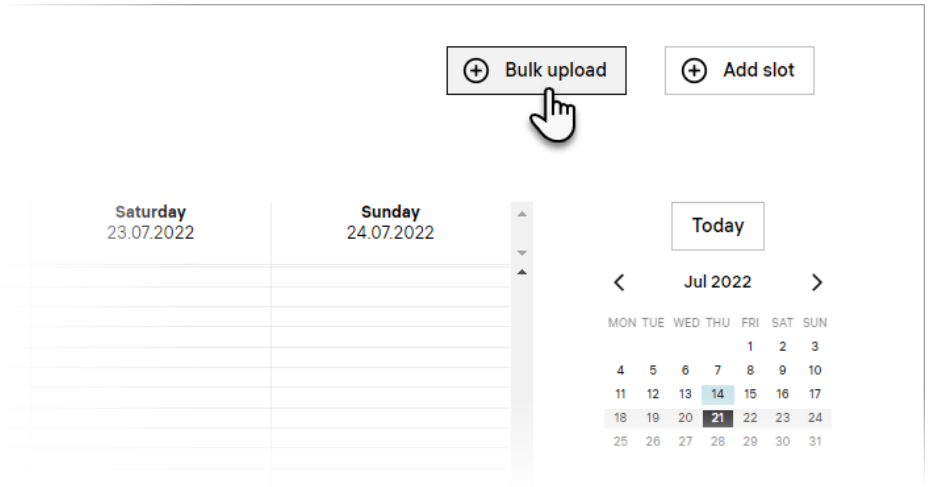
Note: It's impossible to edit slots that have already started.

In this side panel, you can also add test takers and proctors to the exam slot.

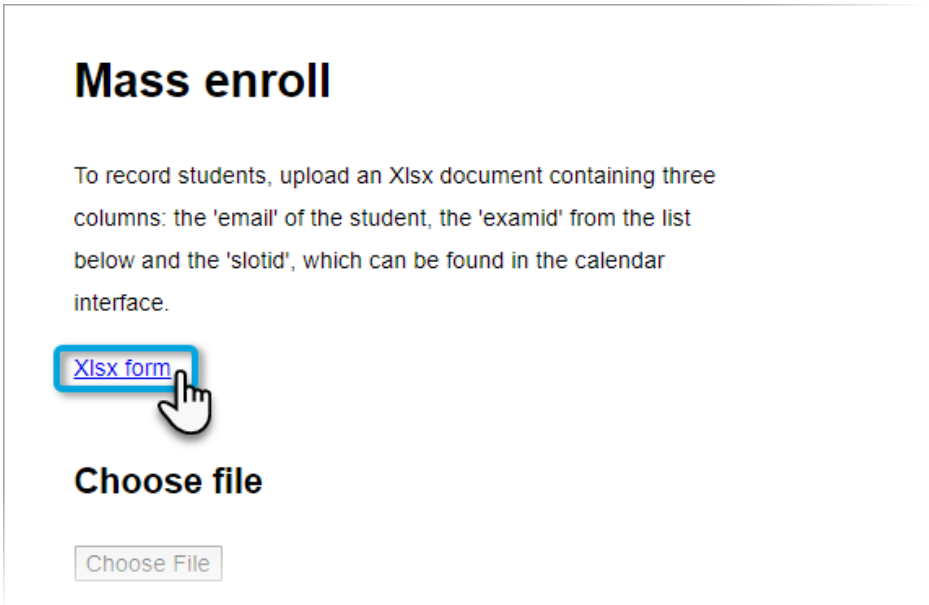
Adding test takers to exam slots in bulk

To add test takers to a slot in bulk:

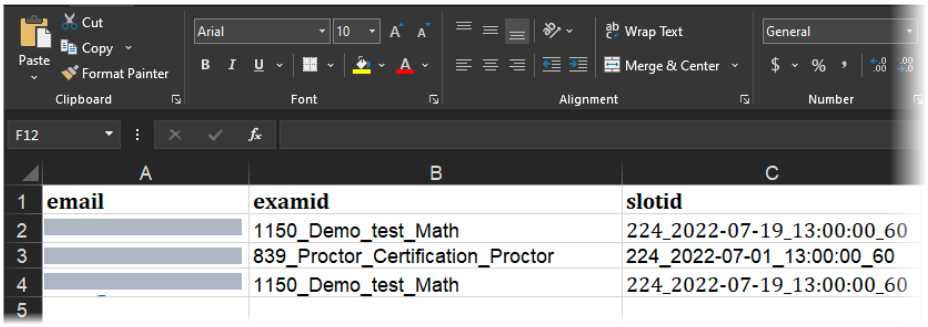
1. Click an exam slot in the calendar to open the side panel.
2. Click **Bulk upload**.



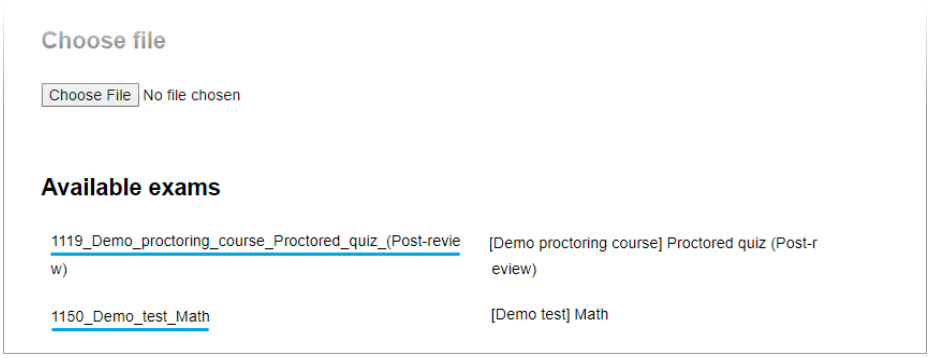
3. Download the sample XLSX file.



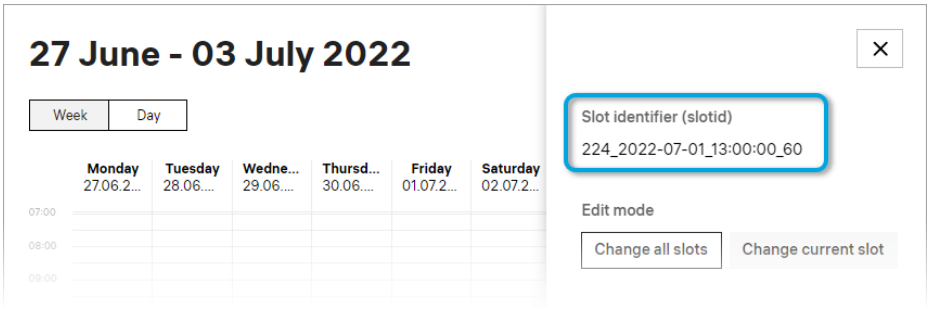
4. Open the file and fill out with necessary information: test takers' email addresses, exam IDs, and slot IDs.



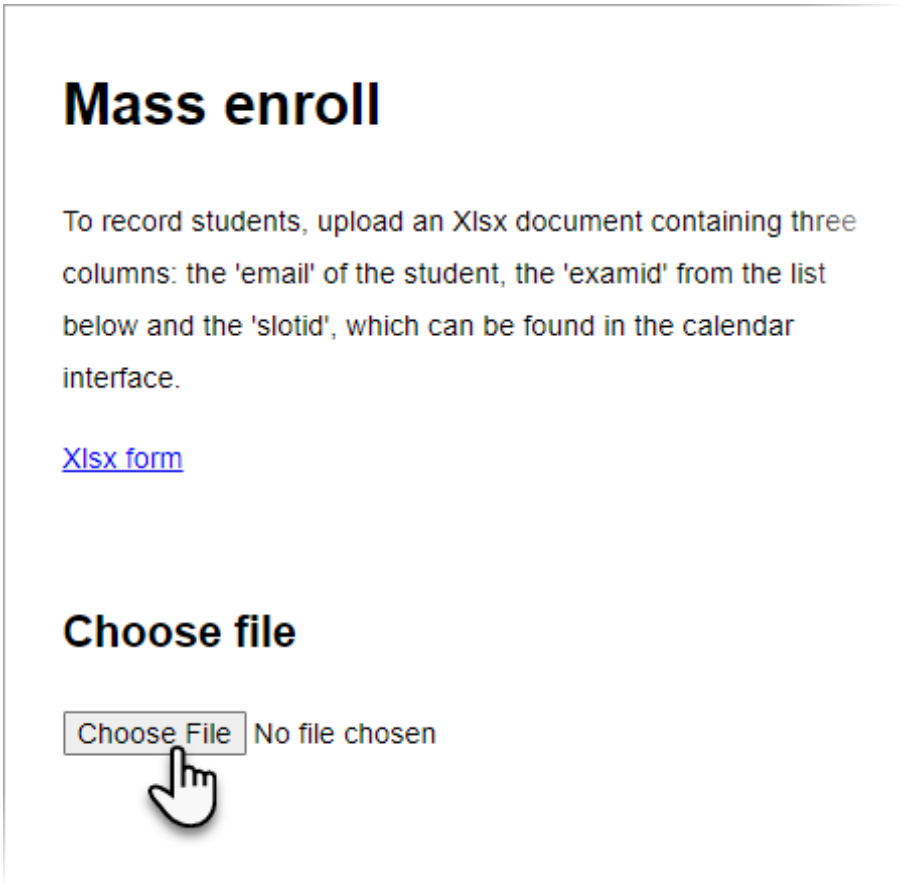
Note: You can find a list of existing exam IDs at the bottom of the page with the sample Excel file.



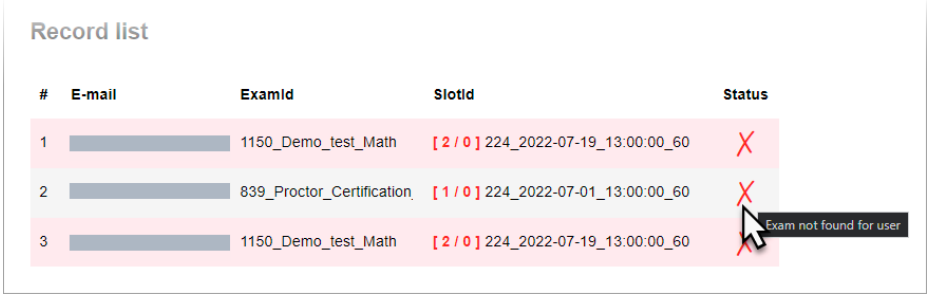
To find an ID of a slot, click on it in the calendar. The slot ID will be displayed at the top of the side panel:



5. Save the XLSX file and upload it to the platform:



After the file is uploaded, the platform will process it and show the results at the bottom of the page. If any issues were found during import, you will see a negative status. Point the cursor at the X mark to see the error message.

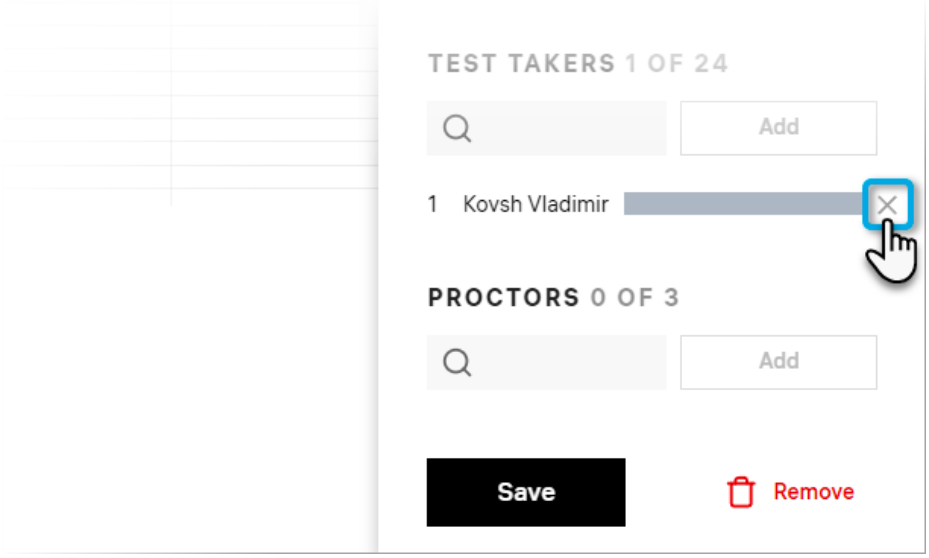


In this example, the learners were not enrolled in the exams that are specified in the XLSX file. See how to enroll learners in exams.

Removing test takers from exam slots

To remove a test taker from a slot:

1. Click a slot in the calendar.
2. On the side panel, click next to the name or email address of the test taker that you want to remove from the slot:



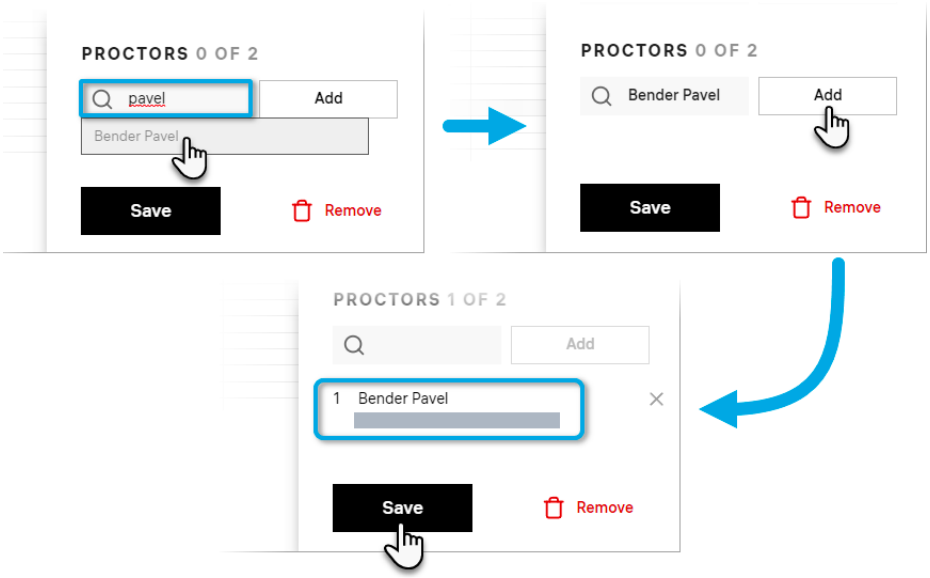
3. Click **Save** after you removed the test taker to save the changes.

Note: It's impossible to remove test takers from a slot that has already started.

Adding proctors to exam slots

To add a proctor to an exam slot:

1. Click the slot in the calendar.
2. Start typing in the name or emailaddress of the proctor into the Proctors search box.
3. Select the proctor from the list.
4. Click **Add**.
5. When you see the proctor in the list, click **Save**:

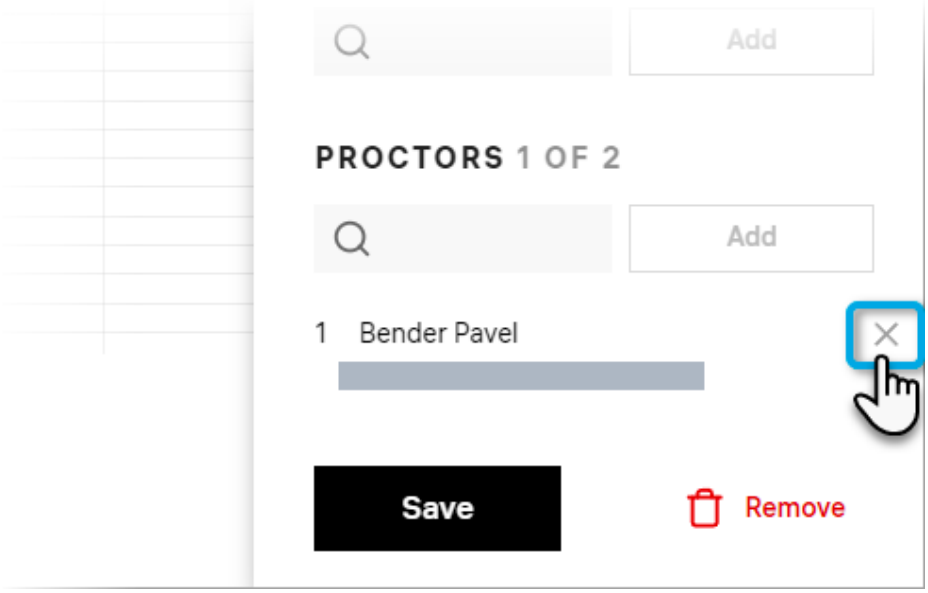


If you cannot find the proctor you're looking for, add them through the **Administrators** tab.

Removing proctors from exam slots

To remove a proctor from an exam slot:

1. Click the slot in the calendar.
2. Click next to the proctor's name:



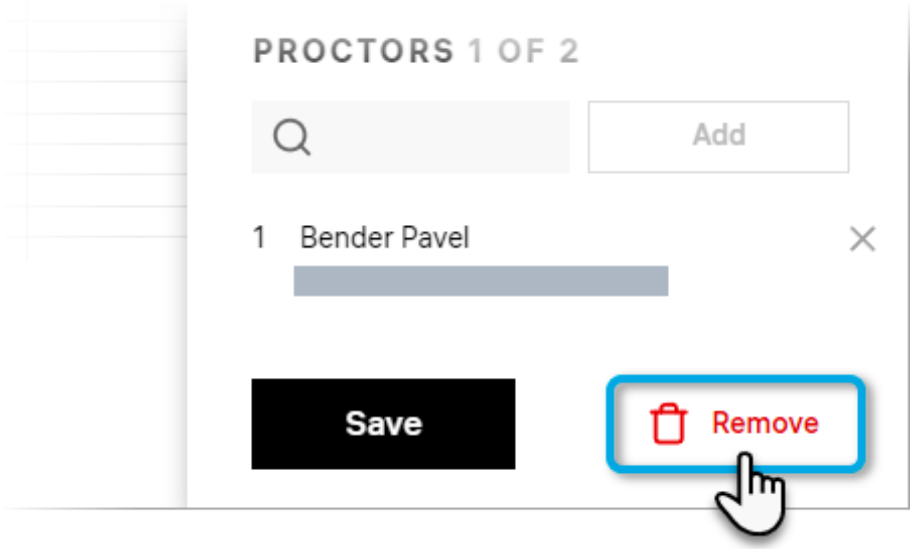
3. Click **Save** to apply the changes.

Note: Proctors cannot be removed from a slot that has already started.

Removing exam slots from the calendar

To remove an exam slot from the calendar:

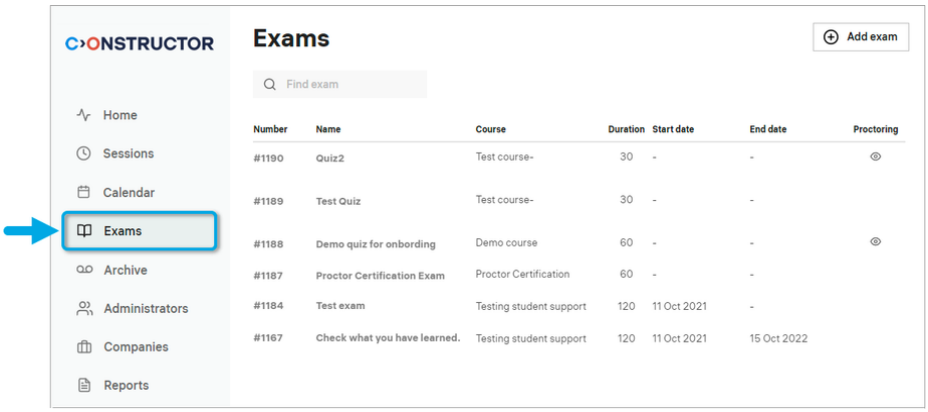
1. Click the slot in the calendar.
2. Click **Remove** on the side panel:



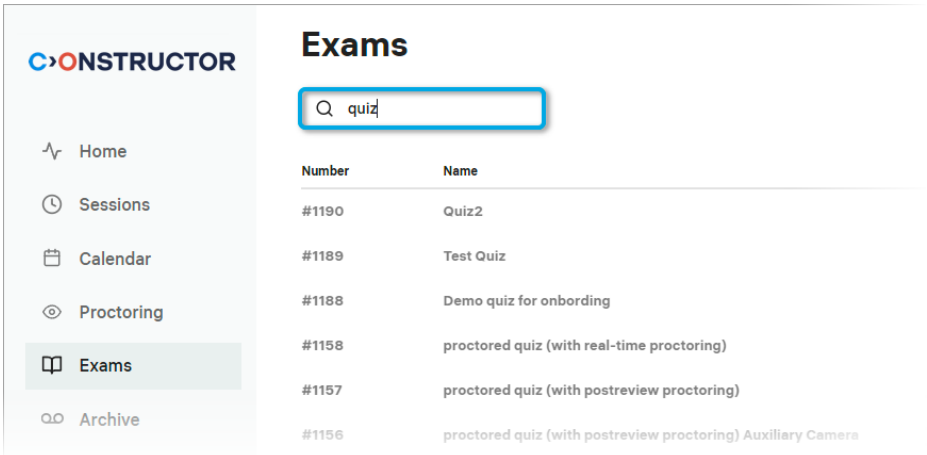
Note: A slot cannot be removed if it has already started.

Managing exams

This tab shows a complete list of past and future exams created on the training platform integrated with Proctor by Constructor:



- Enter the exam name or the course title in the search field to find the exam in the list:



See:

- Creating exams
- Editing exams

Creating exams

Exams are created in the training platform that is integrated with Constructor Proctor. It's impossible to create an exam from the Proctor Dashboard.

Editing exams

Editing exam parameters through the dashboard applies only to the Link Generator integration. For this integration type, all changes to exam settings (such as scoring, notifications, and other parameters) must be done in the dashboard.

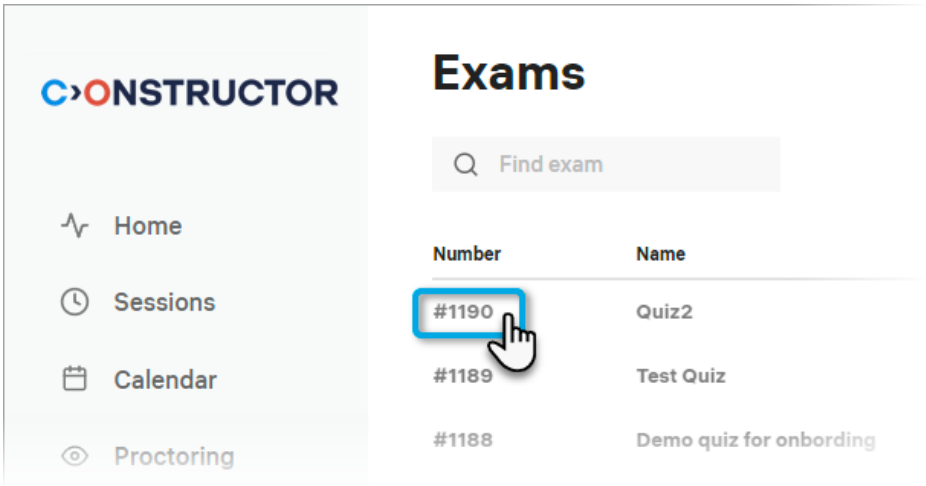
If you are using the API or Moodle integration, exam parameters must be updated directly in your training platform.

Some parameters cannot be changed through the dashboard and must always be updated using the Link Generator:

- Exam name
- Exam URL (the start exam link)
- Proctoring mode

To change exam parameters when using the Link Generator integration type:

1. Click the exam number to open the exam properties window.

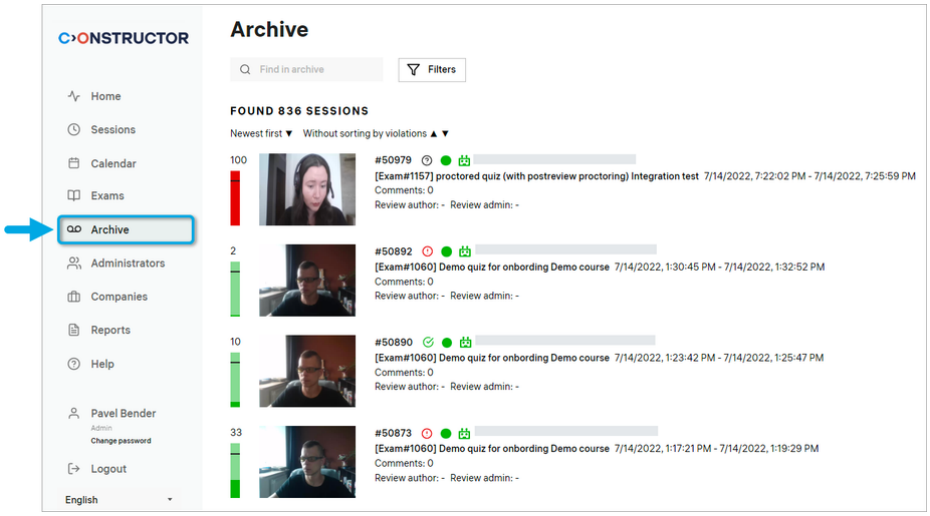


2. Edit the exam information.

3. Click **Save**.

Working with Archive

The **Archive** menu gives you access to all recorded proctoring sessions (both post-exam review and live review). You can watch session recordings, download them to your computer, and approve or decline exam results in the post-exam review proctoring interface:

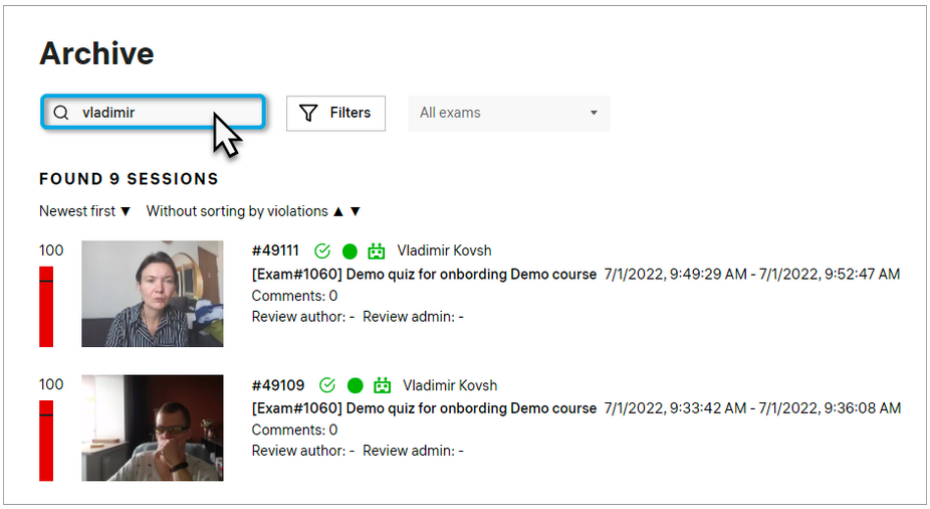


See:

- Finding session recordings
- Downloading session videos
- Downloading session reports
- Downloading session videos and reports in bulk

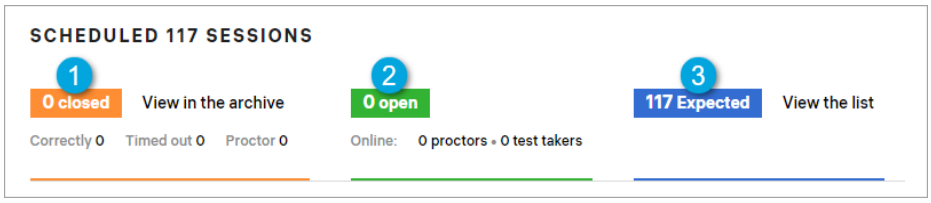
Finding session recordings

To find a session to proctor, use the **Search** bar:

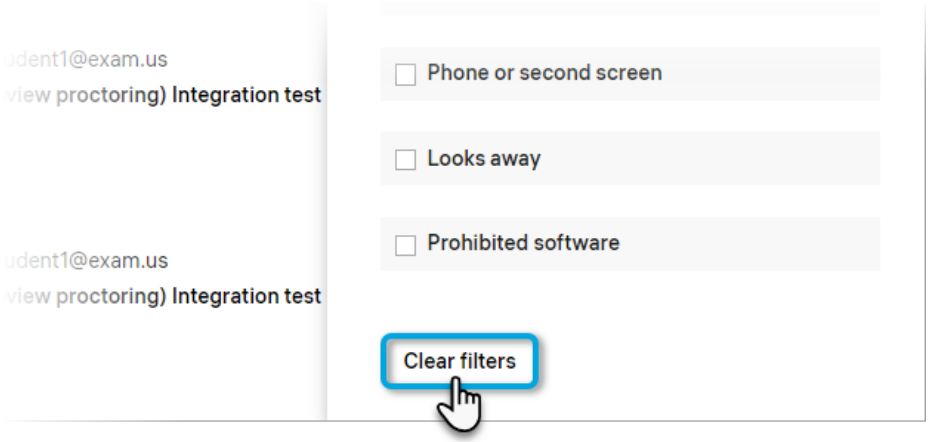


You can work with session recordings as follows:

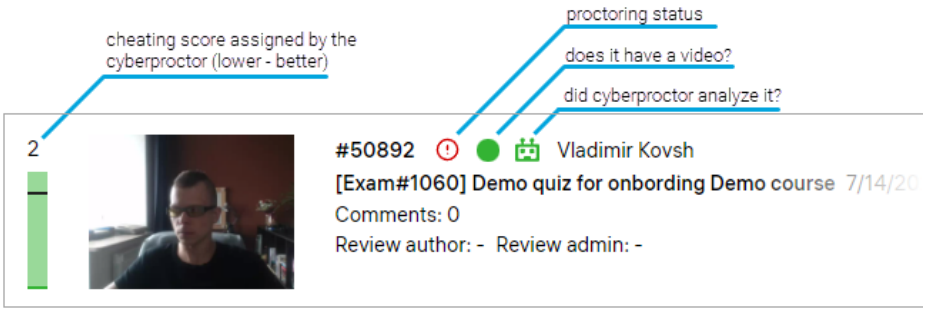
- Use the filters to narrow down the search. For example, you can choose a particular exam to display only sessions recorded during this exam:



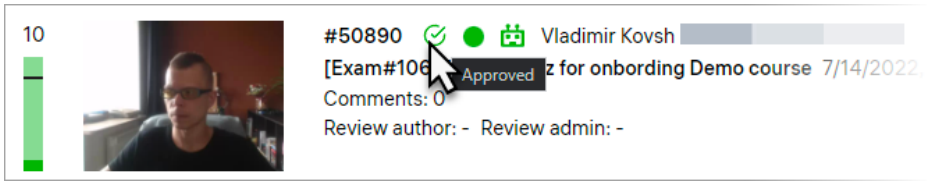
- To cancel the created filter, scroll the side panel down and click **Clear filters**:



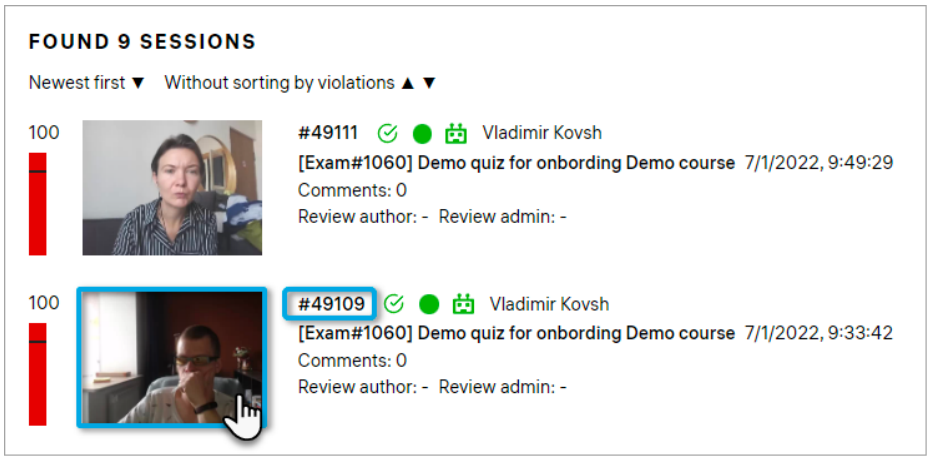
- Each session has a number of indicators that will tell you more about its status:



- Point the cursor at one of the icons to see an explanation:



- When you found the session you're looking for, click the video thumbnail or the session number:



The post-exam review proctoring interface with the session video will open. You can learn about it in detail from the post-exam review proctoring guide.

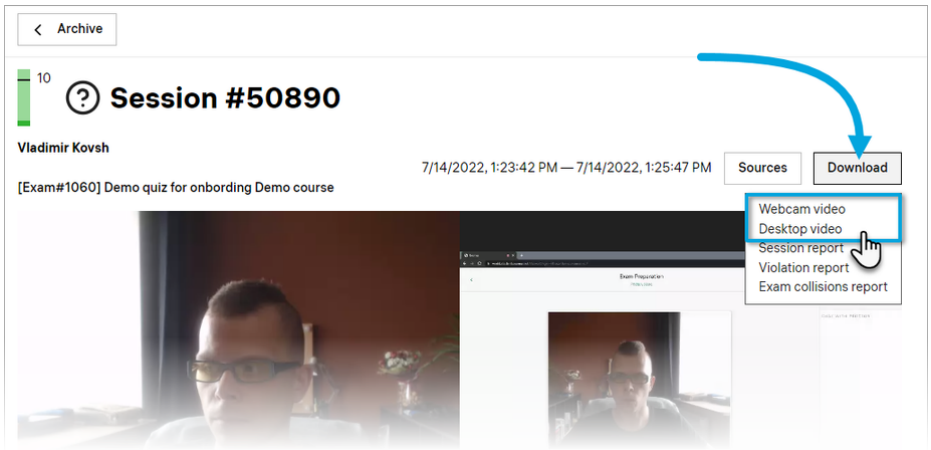
Downloading session videos

You can download the following details on a separate exam session to your local computer:

- The examinee's webcam video
- The desktop recording of the session
- The exam session report
- The exam violation report
- The exam collision report

To download the details on a separate session:

1. In the Proctor administrator dashboard, go to **Archive**.
2. Click the video thumbnail of the session you want to download to open the session details.
3. Click **Download** and specify which video or report you want to download.



The video or report will open in the same browser tab.

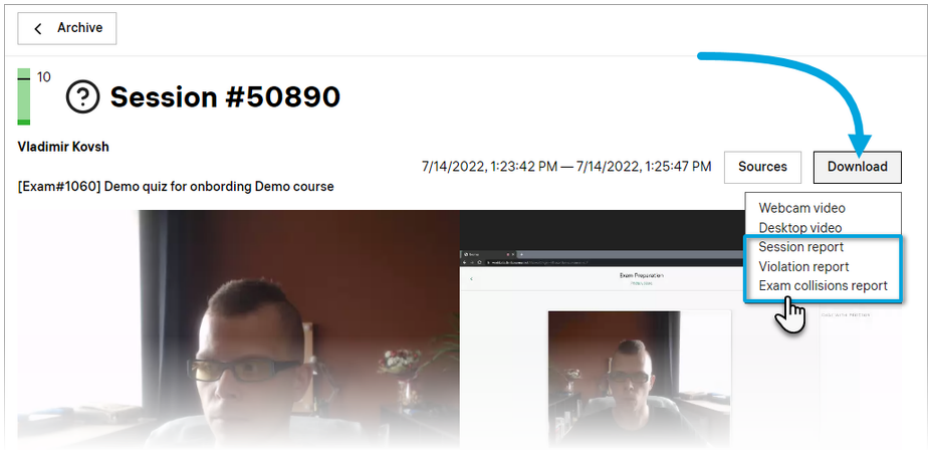
4. Save the video or report locally.

Downloading session reports

You can download for a recording session, violation, and exam collision reports. Such reports are generated for every recorded exam session that was analyzed by the cyberproctor.

To access reports:

1. Click **Download**.



2. Select the required type of report:
   - **Session report** — shows a timeline of the video recording and all AI-detected warnings with their duration.
   - **Violations report** — shows all violations reported by human proctors during proctor review.
   - **Collisions report** — shows users with faces and photos similar to the test-taker from the selected session.

Downloading session videos and reports in bulk

You can download all videos of proctored sessions stored in **Archive** at once. To do so, you will need to:

1. Install the Proctor Video Downloader when downloading videos for the first time (or run earlier installed Proctor Video Downloader locally).
2. Download session videos.

Installing Proctor Video Downloader

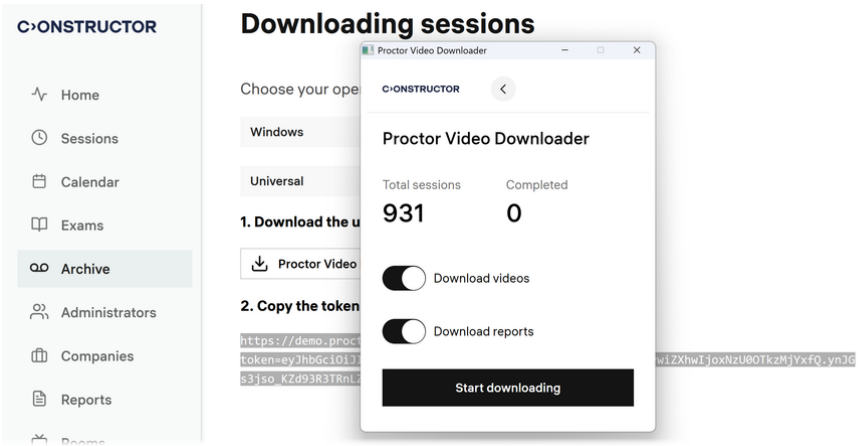
1. In the Proctor administrator dashboard, go to **Archive**.
2. Click **Download**.
3. Select your operating system and architecture.
4. In the Download the utility section, click **Proctor Video Downloader**.
5. Run the Proctor Video Downloader.exe file and install the utility. The Proctor Video Downloader dialog for token entry will open.

Downloading session videos

To download session videos or reports in bulk:

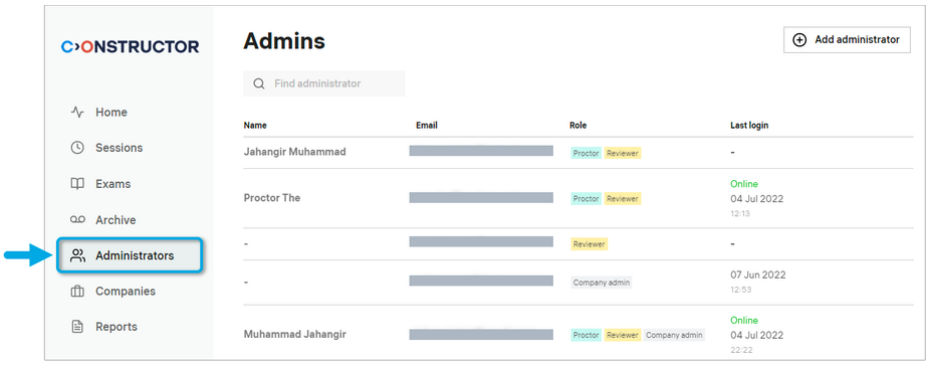
1. In the Proctor Administrator dashboard, go to **Archive**.
2. Click **Download**.

3. Select your operating system and architecture.
4. Copy the token provided on the Downloading sessions page. A new token is generated on each download.
5. Run Proctor Video Downloader locally.
6. In the token entry dialog, paste the token.
7. Click **Next step**.
8. Specify what you want to download:
   - **Download videos** — to download multiple exam session videos.
   - **Download reports** — to download multiple exam session reports.
9. Click **Start downloading**.
10. Specify the local folder where the videos or reports should be saved. Each session video or report will be saved in its own folder labeled with the session ID.



Managing administrators

The **Administrators** menu shows all users that have access to the dashboard (administrators, proctors, an so on):



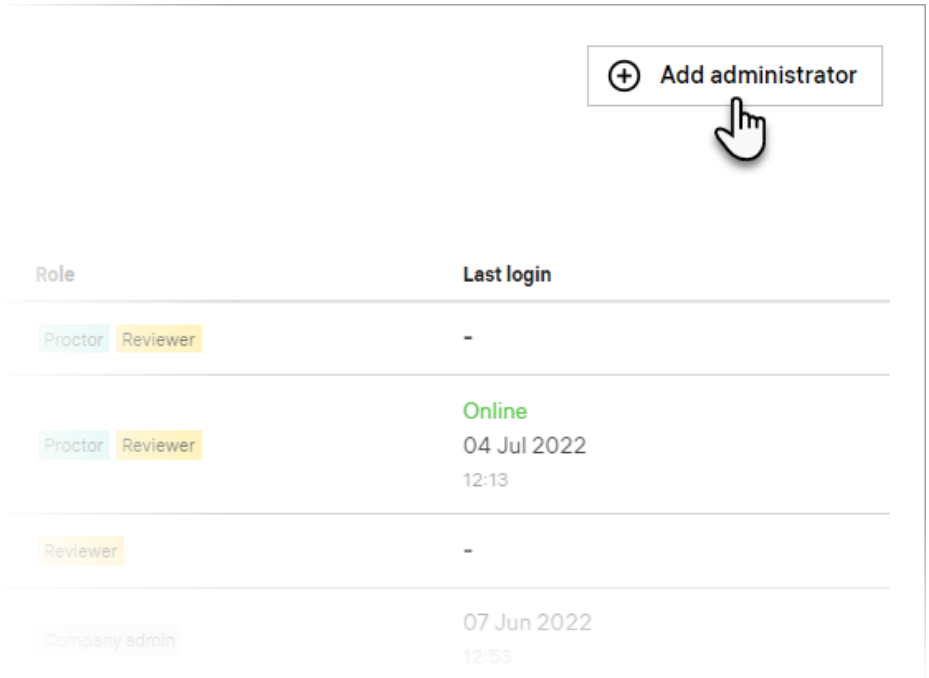
See:

- Adding administrators and proctors
- Editing administrator or proctor accounts

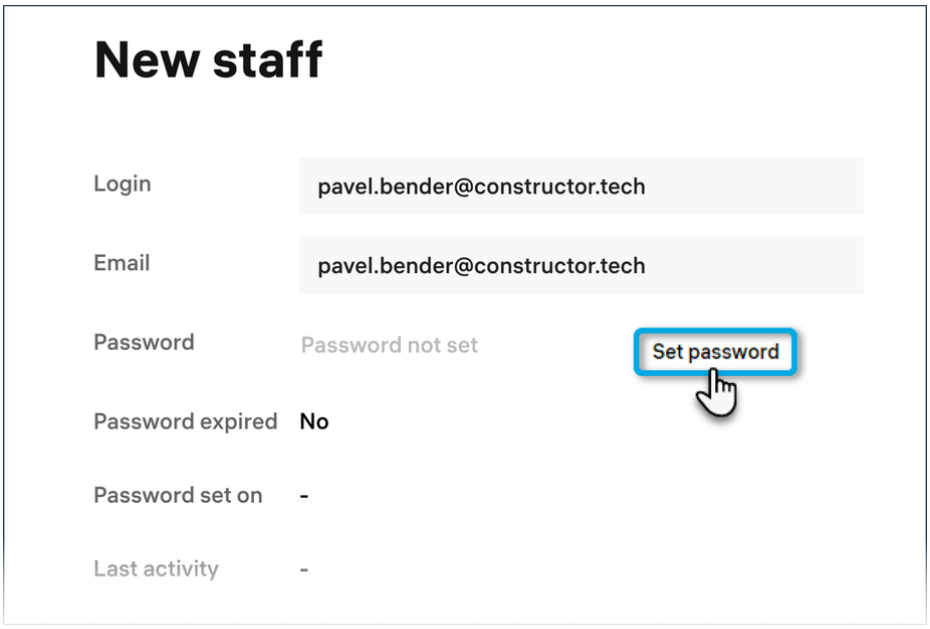
Adding administrators and proctors

To add an administrator or proctor account:

1. Click **Add administrator** in the upper right corner.



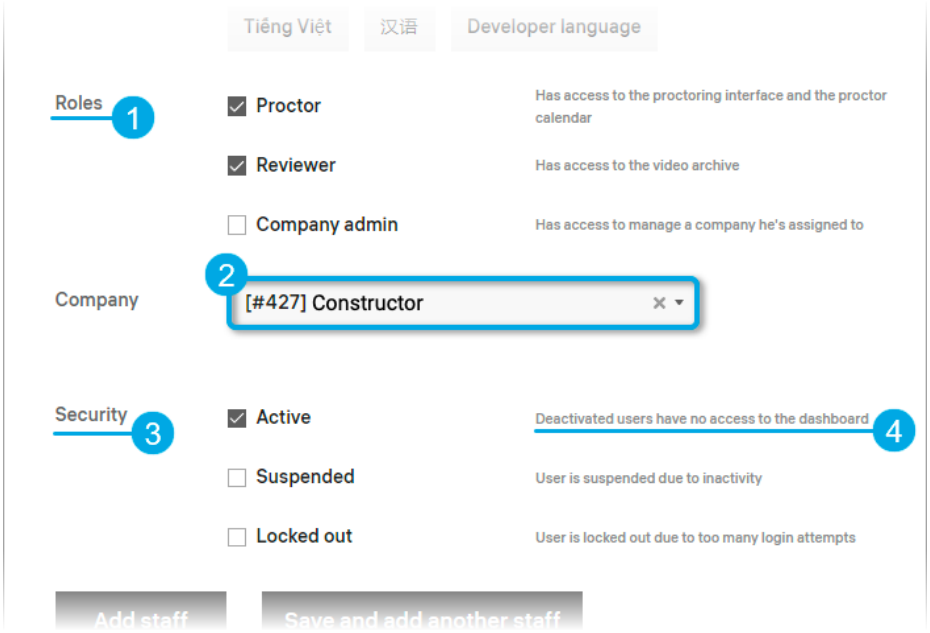
2. Enter the email address of the new user and click **Set password**.



3. Enter the user's first and last name, select the language for the user's dashboard.

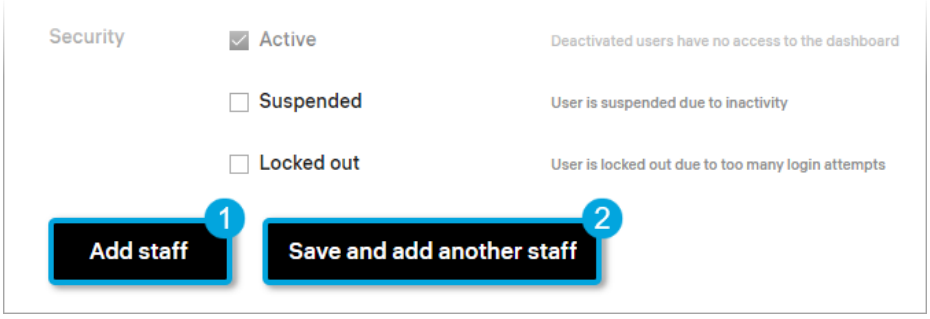
Note: The user will be able to change the interface language at any time.

4. Specify the remaining information.



Select the roles that this new user should have (**1** in the screenshot), choose the company that they will be added to (**2**), and set whether this user should have access to the dashboard right away (**3**). Each role and security option has a description (**4**).

5. Click **Add staff** to add the new user to the platform. Click **Save and add another staff** to add this user and start creating another one right away.

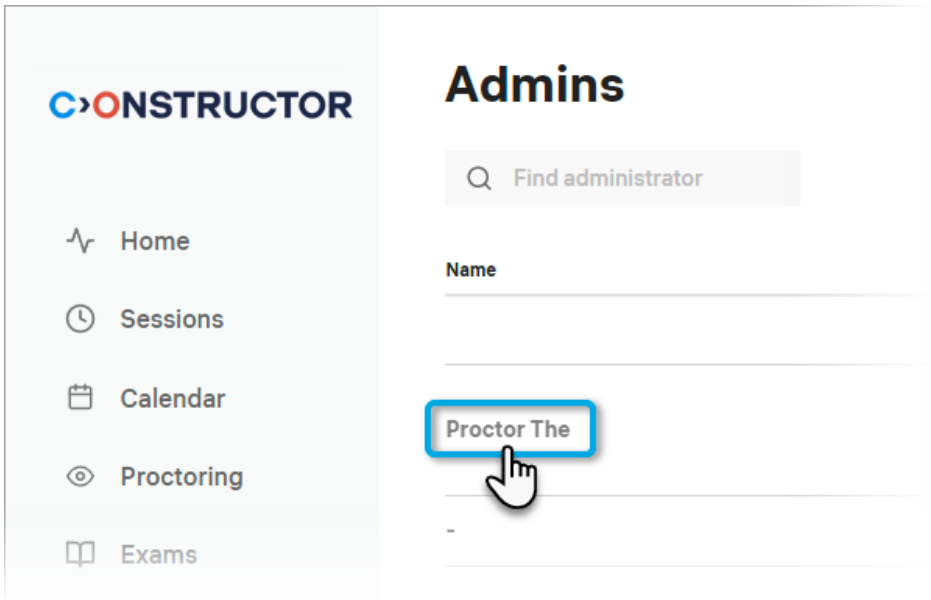


The new user will now appear in the list on the **Administrators** tab. You can edit or delete their account in the future.

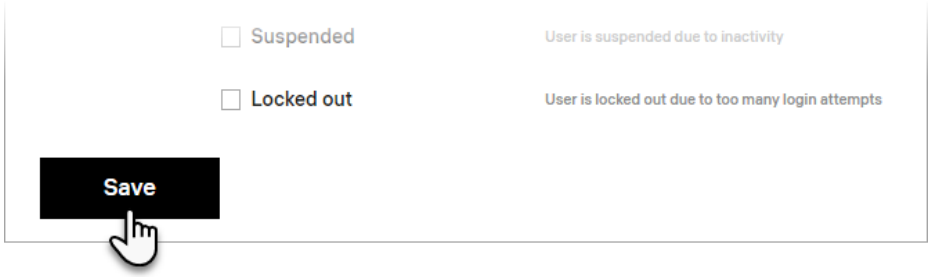
Editing administrator or proctor accounts

To edit or remove an administrator:

1. Click the name of the user in the list.



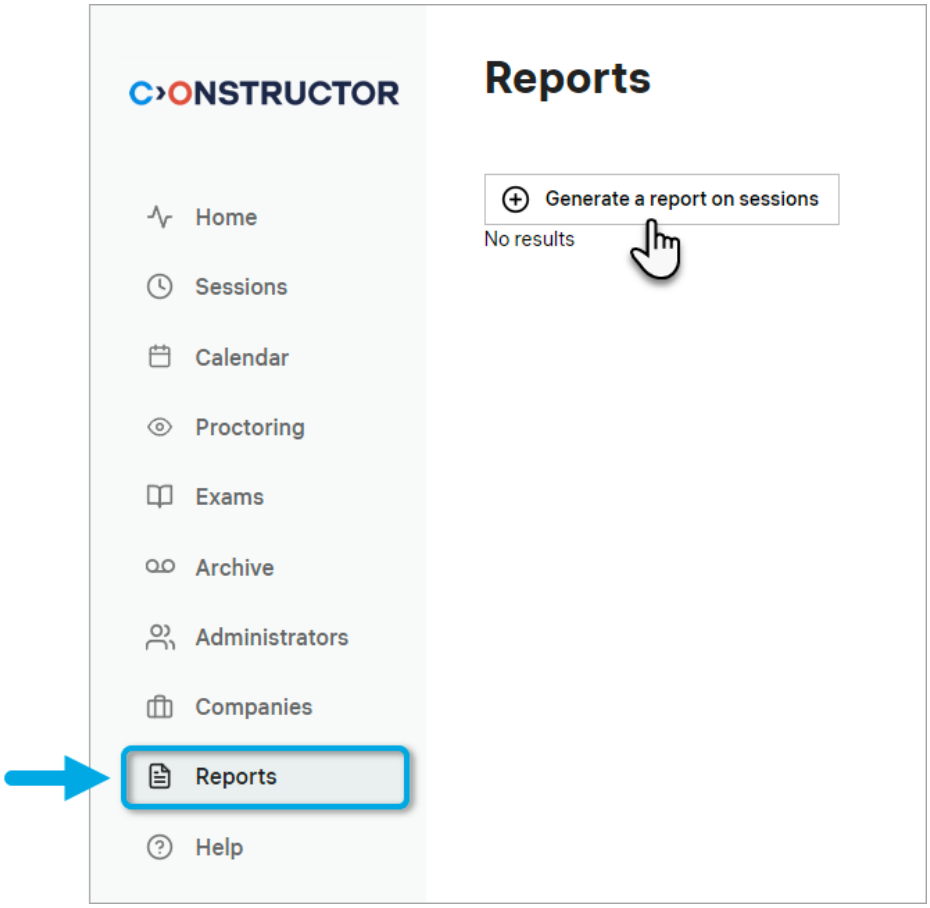
2. Edit the user's information in the opened window.
3. Click **Save**.



Generating reports

In the **Reports** menu, you can generate reports on exam sessions, statistics, and proctor activity.

To create a report, click **Generate a report on sessions**:



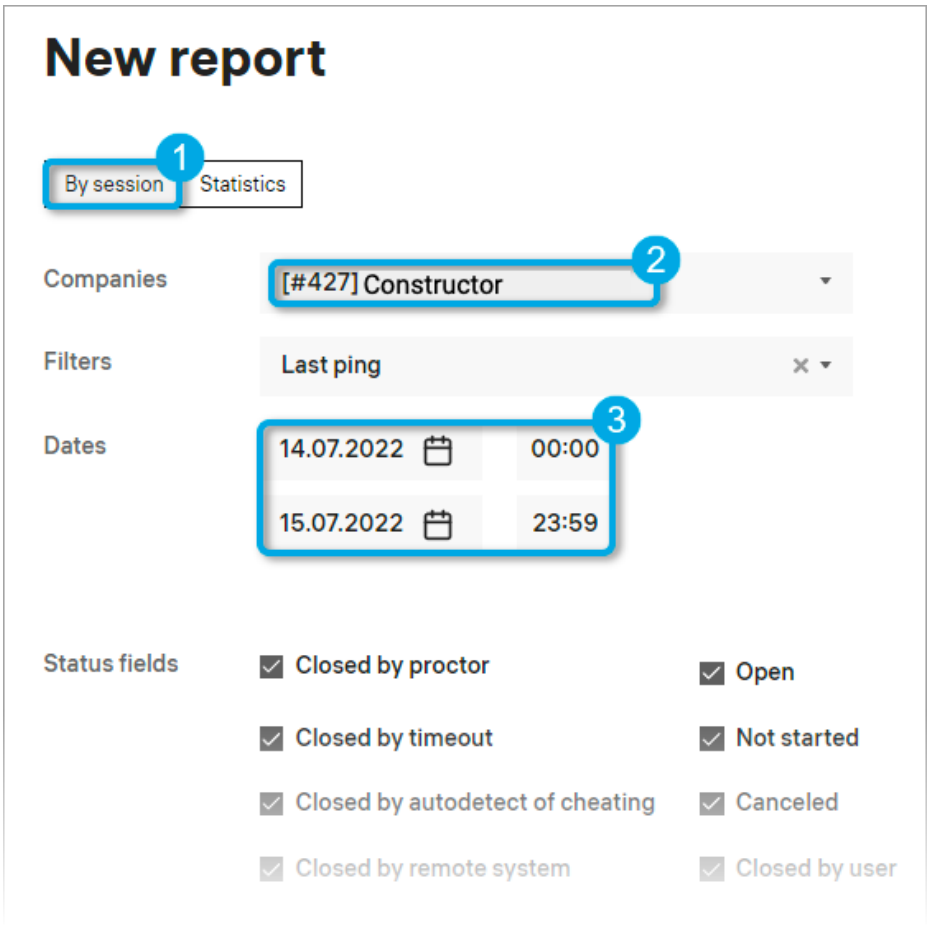
See:

- Generating By session reports
- Generating Statistics reports
- Generating Proctor activity reports

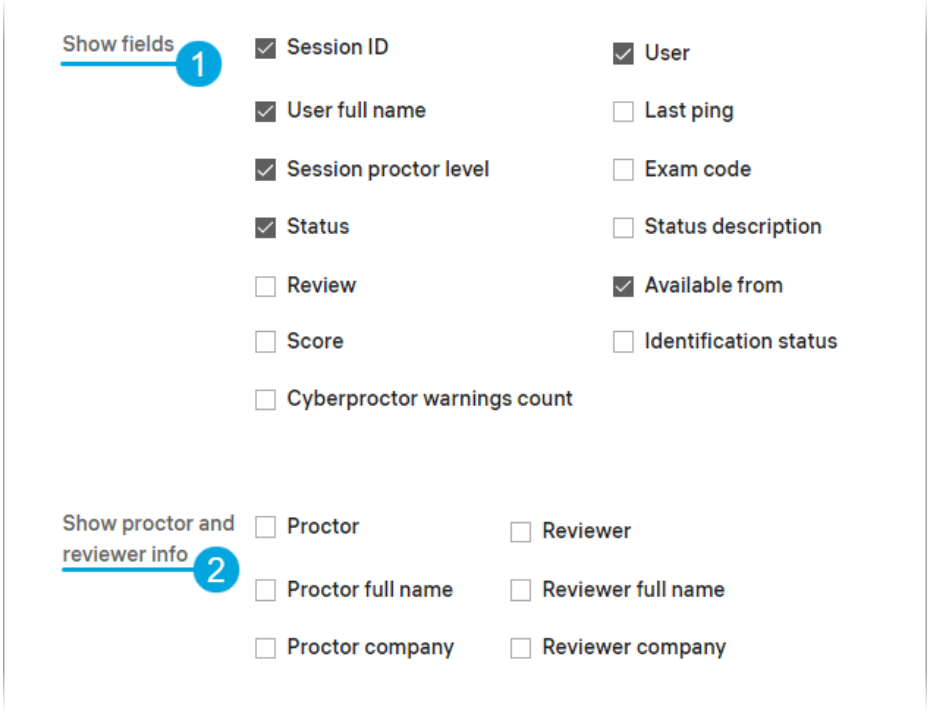
Generating By session reports

To generate a By session report:

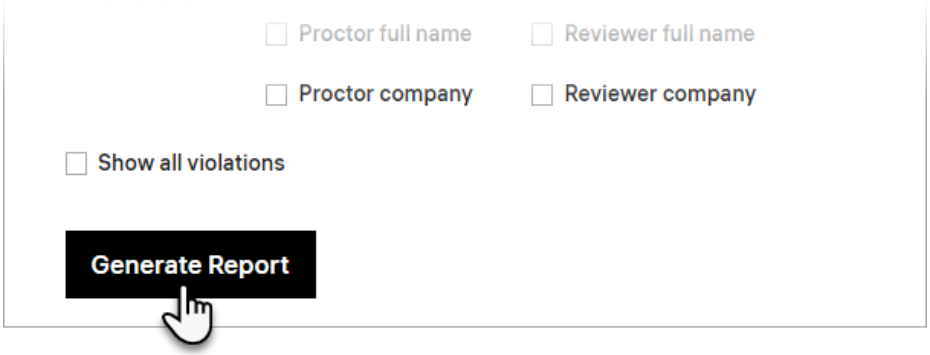
1. Click **Generate a report on sessions**.
2. Select By session (**1** in the screenshot), select the company that you would like to include in the report (**2**), and set a date range (**3**).



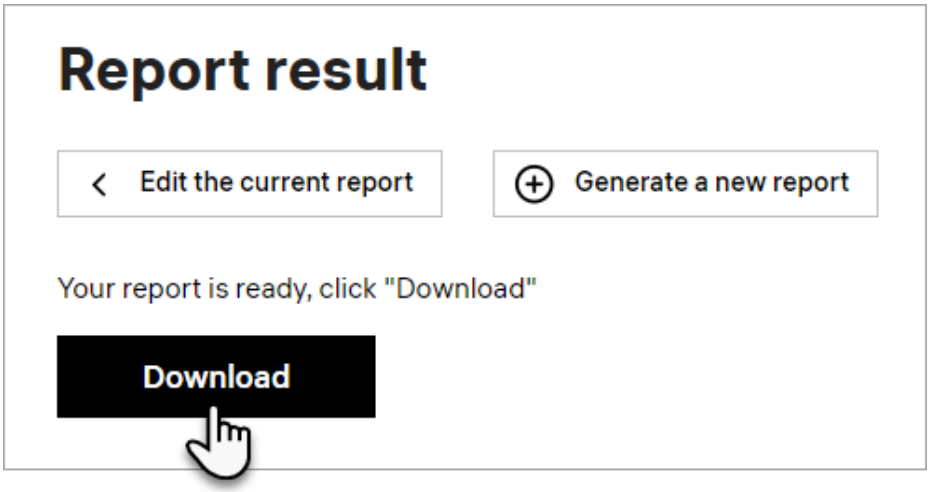
3. Select the data fields to include in the report (**1**) and whether to include the proctor information (**2**).



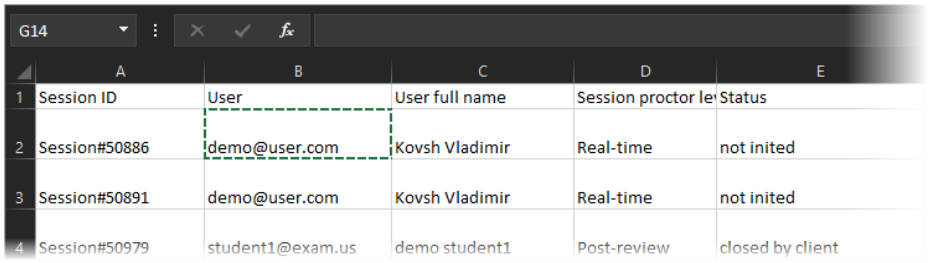
4. Click **Generate Report**.



5. Wait until the screen is refreshed and displays the “Your report is ready” message. Click **Download**.



6. Save the XLS file with the report to your computer. Now you can open it in Microsoft Excel. The report will look like this:

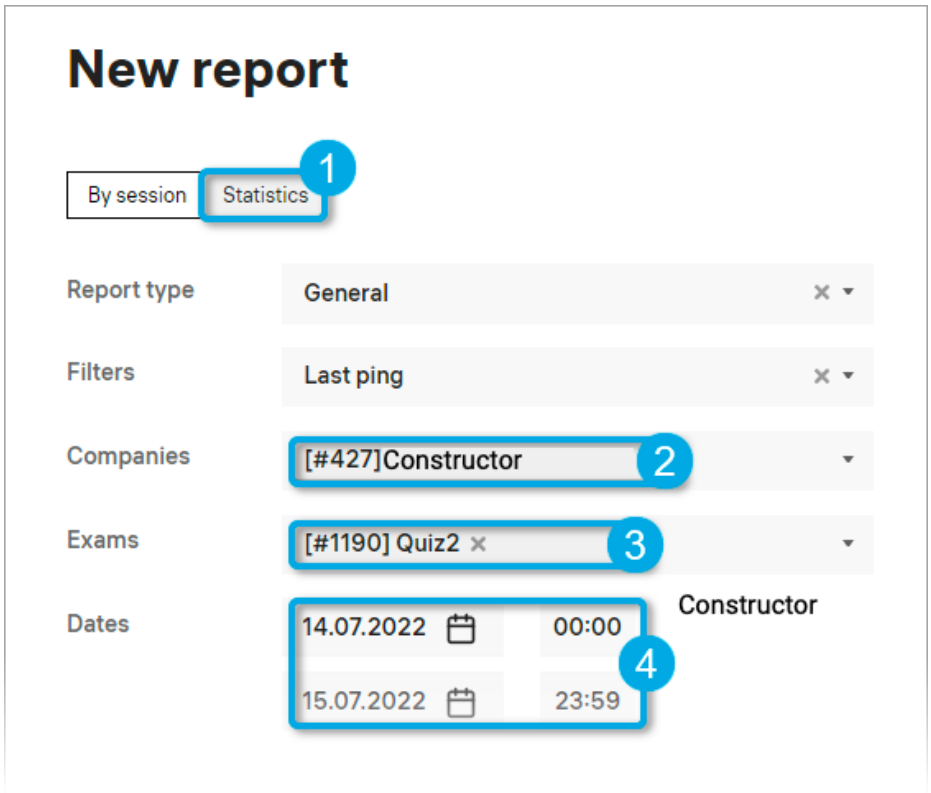


	A	B	C	D	E
1	Session ID	User	User full name	Session proctor le	Status
2	Session#50886	demo@user.com	Kovsh Vladimir	Real-time	not inited
3	Session#50891	demo@user.com	Kovsh Vladimir	Real-time	not inited
4	Session#50979	student1@exam.us	demo student1	Post-review	closed by client

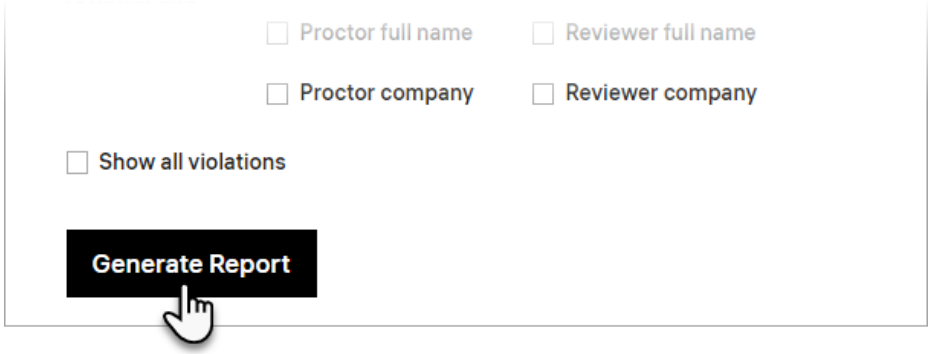
Generating Statistics reports

To generate a Statistics report:

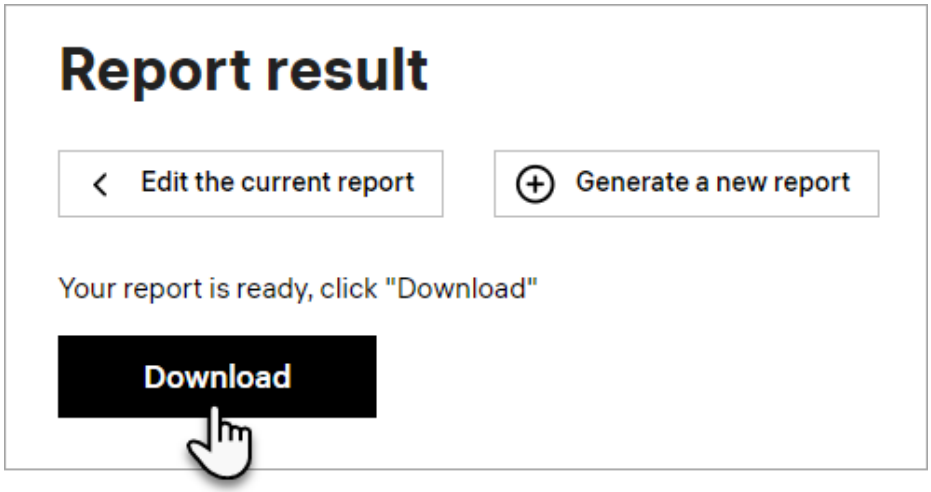
1. Click **Generate a report on sessions**.
2. Select **Statistics** (**1** in the screenshot), select the company for which you want to see the statistics (**2**), the exam (**3**), and the date and time interval (**4**).



3. Click **Generate Report**.



4. Wait until the screen is refreshed and displays the “Your report is ready” message. Click **Download**.



5. Save the XLS file with the report to your computer. Now you can open it in Microsoft Excel.

Generating Proctor activity reports

Use the Proctor activity report to review when proctors were active in the proctor interface and how long each activity interval lasted. The report is available to authorized reporting users, such as company administrators and super administrators.

To generate a Proctor activity report:

1. Click **Generate a report on sessions**.
2. Select **Proctor activity**.
3. Select the company, proctor, date and time interval, and timezone for the report.
4. Click **Generate Report**.
5. Wait until the screen is refreshed and displays the “Your report is ready” message. Click **Download**.
6. Save the XLS file with the report to your computer. Now you can open it in Microsoft Excel.

The report includes the proctor identifier, activity start time, activity end time, and calculated duration. If a proctor has several separate activity intervals during the selected period, each interval appears separately in the report.

An activity interval ends when the proctor is no longer active in the proctor interface. For example, a break that is longer than the configured proctor activity timeout starts a new interval in the report.

Active intervals are shown in the report without being presented as completed intervals. For example, the activity end time can be empty until the interval ends.

The generated XLS file contains the same activity intervals as the selected report.

Timestamps use the timezone selected for the report.

Managing proctoring rooms

A proctoring room is a virtual space where a proctor monitors a group of examinees during an exam.

You may need to enter a proctoring room to assist a proctor or exam taker.

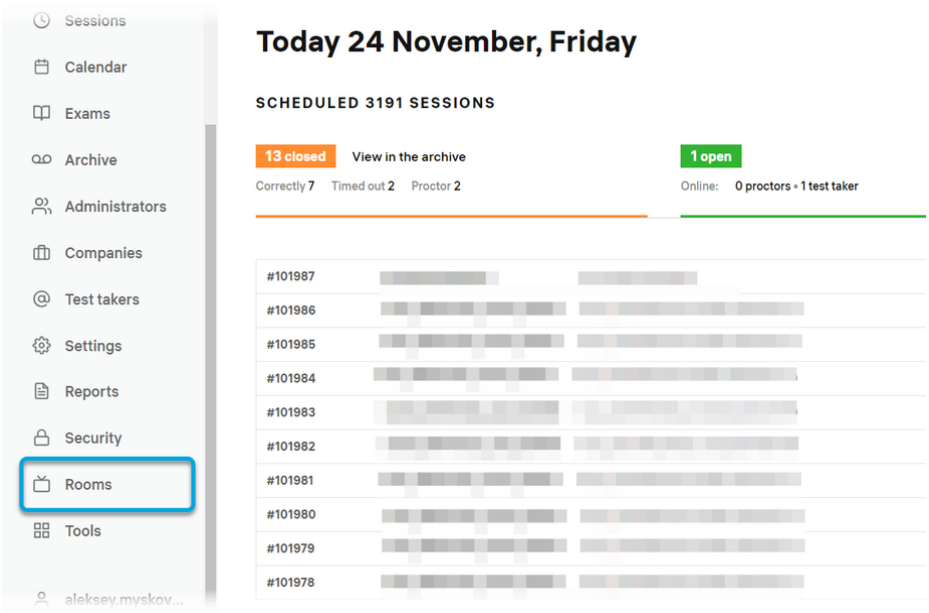
See:

- Viewing proctoring rooms
- Joining proctoring rooms
- Switching between proctoring rooms

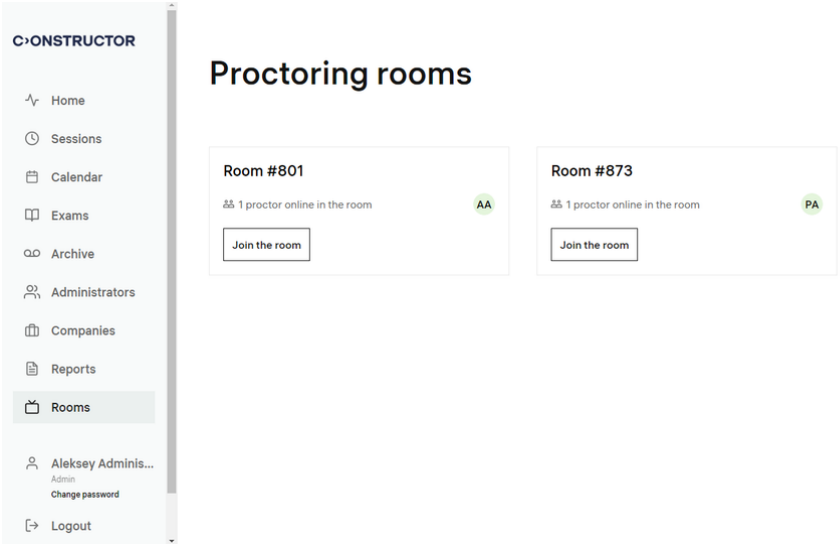
Viewing proctoring rooms

To see the current proctoring rooms:

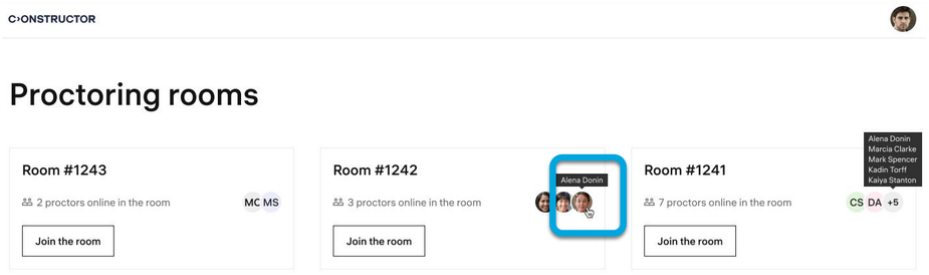
1. In the dashboard, click **Rooms**.



All the active rooms with proctors will be displayed.



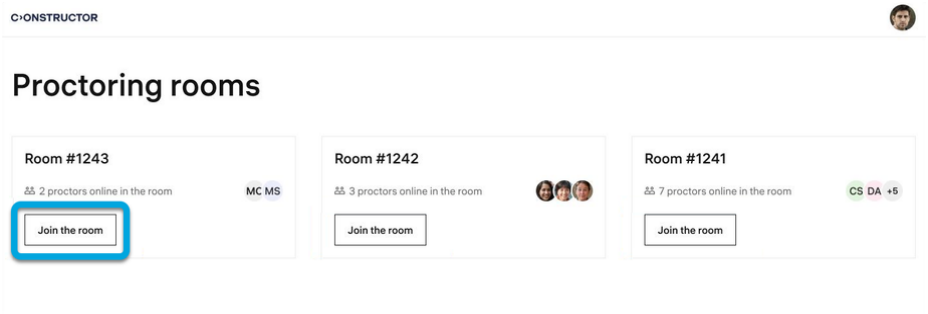
2. To see which proctor is in a room, hover the cursor over their icon to display the last name and first name of the proctor.


C›ONSTRUCTOR
Proctoring rooms
Room #1243
2 proctors online in the room
MC MS
Join the room
Room #1242
Alena Donin
3 proctors online in the room
Join the room
Room #1241
Alena Donin
Marcia Clarke
Mark Spencer
Kadin Torff
Keiya Stanton
7 proctors online in the room
CS DA +5
Join the room

Joining proctoring rooms

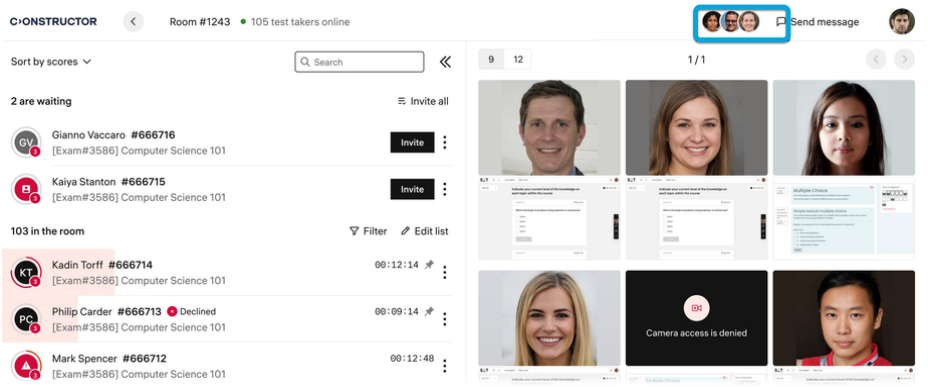
To enter a proctoring room to assist a learner or troubleshoot issues:

1. In the **Rooms** menu, select the required room and click **Join the room**.

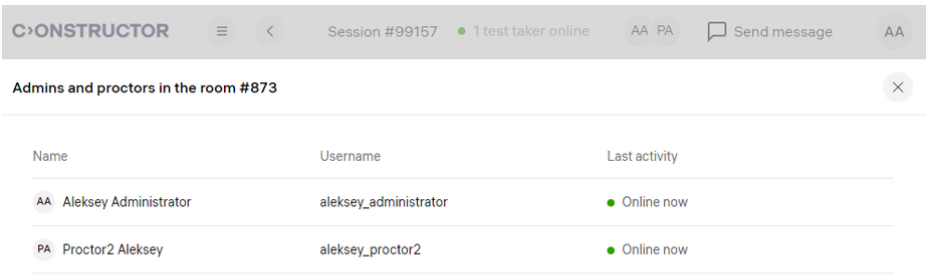


   The room will open in a new tab with the list of examinees and proctors.

2. To see the details of the proctors in this room, hover the cursor over the proctors list icon.



   A pop-up window with active proctors and inspectors in the room will be displayed.



Managing scoring settings

Scoring plays a central role in online proctoring by providing a systematic way to evaluate the integrity of a monitored exam session. It quantifies observed violations and helps distinguish between sessions with compliant behavior and those requiring further review. By offering a transparent framework, scoring supports fair assessments and helps maintain trust in the examination process.

What is scoring?

Scoring is the process of assigning points to rule violations or suspicious behaviors detected during a proctored session. Regardless of the proctoring method used (live, AI-assisted, or automated) each session is assigned a score that reflects its level of compliance. The higher the score, the more serious or frequent the violations.

This score serves as a flagging mechanism, helping administrators quickly identify candidates who may have breached exam rules.

The scoring color scale

To simplify interpretation, each session is visually tagged using a three-color system: green, yellow, or red. This intuitive scale gives proctors and administrators a quick overview of a session's risk level:

- Green — the session is low-risk. Violations, if any, are minor and fall well below the alert threshold. The candidate’s behavior is considered compliant.
- Yellow — the session shows moderate risk. The cumulative score is nearing the threshold for a violation. These sessions may warrant a closer look.

- Red — the session is high-risk. The score exceeds the defined threshold, indicating strong evidence of suspicious or non-compliant behavior.

This color-coded system enables efficient triaging, helping teams prioritize reviews and take appropriate action.

How is the score calculated?

Scoring is based on a specialized formula developed by our engineering team. This formula takes into account several key factors, including the duration of the video, the type of each violation, their assigned coefficients, and the total number of violations recorded during the session.

Each violation is given a specific coefficient, which reflects its severity. These coefficients are pre-set on our servers but can be customized in the Dashboard for each exam. For greater flexibility, some coefficients can also be passed via the API (see Constructor Proctor API in the Proctor Developer Guide).

The final score for a session is calculated using several parameters:

- Violation weight — this is expressed as a percentage and is based on the duration of the violation relative to the session length. If the session's end time is unknown, the current duration is used instead.
- Scoring points for the violation — each violation contributes to the final score based on its weight, its coefficient, and a duration multiplier. These values are combined to determine the total score for the session.

Together, these calculations provide a fair and consistent way to assess the overall

integrity of a proctored session.

See also:

- Configuring exam scoring
- Including scoring in exam reports

Configuring exam scoring

To configure scoring for a proctored exam:

1. Go to **Dashboard > Exams**.
2. Click the exam's number to open the exam properties window. The information about the exam will be displayed.
3. Scroll down and click **Scoring**.
4. After making changes, click **Save**.

For the details on scroing calculation, see Managing scoring settings.

Including scoring in exam reports

To get a report reflecting the scoring of test-takers who passed the exam with proctoring:

1. Go to **Dashboard > Reports**.
2. Click **Generate a report on sessions**.
3. Select **By session**, select the company that you want to include in the report, and set a date range.
4. Select what data fields to include in the report and select whether you want proctor information to be included in it.
5. Click **Generate report**. Wait until the screen is refreshed and displays “Your report is ready”.
6. Click **Download**.
7. Save the XLS file with the report to your computer and open it in Microsoft Excel.

Constructor Proctor LTI integrations

You can configure simple integrations between Constructor Proctor and external systems that do not require additional development, but use pre-set LTI (Learning Tools Interoperability) plug-ins. To get a respective plug-in, address your contact person in Constructor.

See further in this section:

- Integrating Constructor Proctor with Moodle
- Integrating Constructor Proctor with Blackboard
- Integrating Constructor Proctor with Canvas

Integrating Constructor Proctor with Moodle

If you are using Moodle Cloud to host your Moodle instance, you need an LTI integration (as Moodle Plugin is not supported by Moodle Cloud).

During setup, some unique values will be generated that Constructor Proctor needs to complete the integration. When encountering a callout like this in the guide, ensure the generated value is copied and pasted into a document. Once the steps in this guide are completed, send the values along with the Moodle URL to the integration manager in Constructor.

Here's an example of what the message might look like:

Platform id	https://moodle.dev.proctor.example.com/
Moodle URL	https://moodle.dev.proctor.example.com/
Moodle token	5496894aa85896c0e4c694baf3c361bb
Client ID	oKxDiUxXXFov8Pw
Deployment ID	4

See further in this section the details about how to configure the integration using the plug-in:

- Prerequisites for Moodle integration through LTI
- Obtaining a token
- Configuring the adapter
- Creating a proctored exam in Moodle

Prerequisites for Moodle integration through LTI

The prerequisites for Moodle integration through LTI are as follows:

- **(Mandatory)** The Moodle domain must be accessible via HTTPS and have a valid SSL certificate.
- (Recommended) The LMS server should configure its cookies with the following cross-site attributes: SameSite=None and Secure=True. This ensures seamless user authentication.
- (Optional) Your Moodle LMS can be hosted on your organization's server. The hosting location impacts the student experience:
  - On-premise Moodle: This setup allows the LMS to be embedded in an iframe, enabling examinees to take proctored exams on a desktop using Google Chrome without needing to install the Constructor Secure browser.

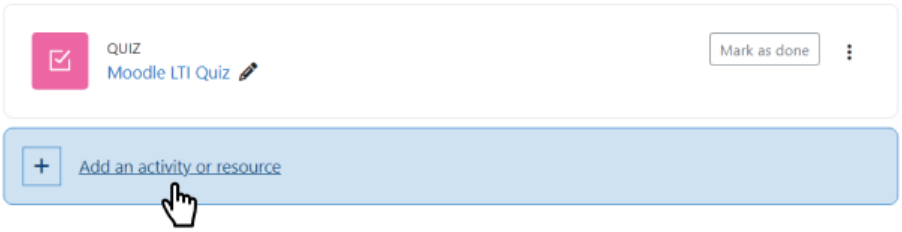
You need to be logged into Moodle as an Admin to set up the integration.

If you have any concerns about any of these requirements, address your contact person in Constructor.

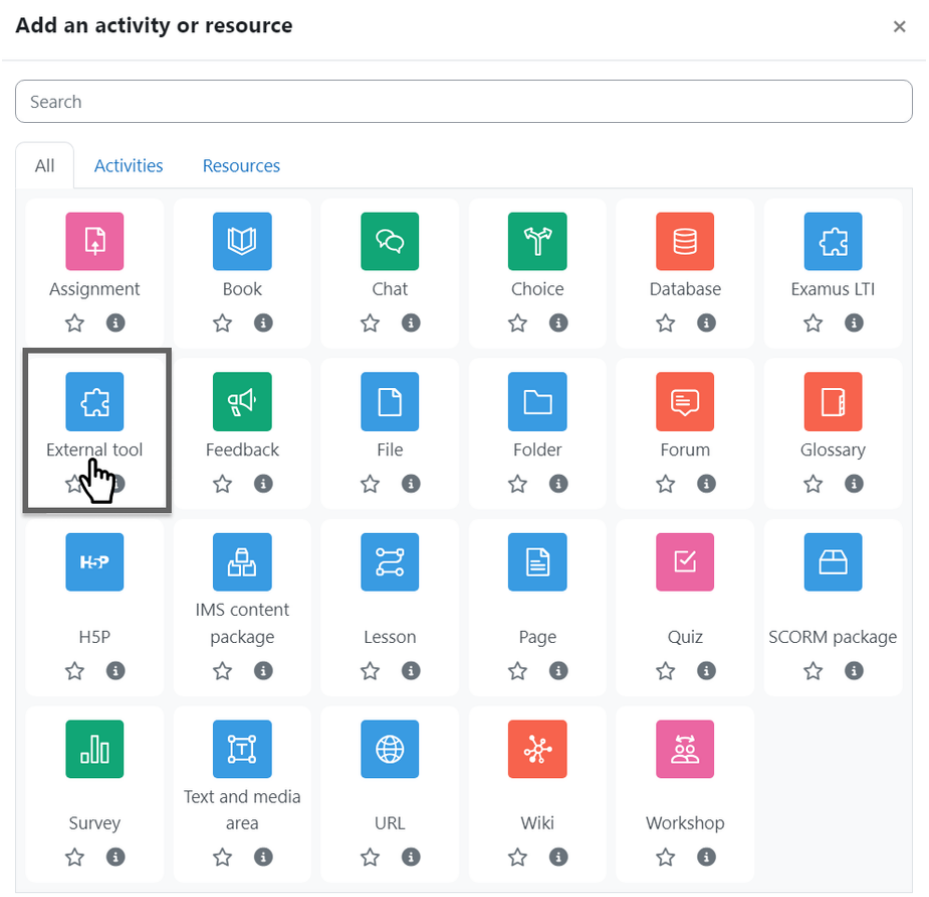
Creating a proctored exam in Moodle

To create a proctored exam:

1. Navigate to the course.
2. Create a quiz or any other activity that requires student engagement.
3. Click **Add an activity or resource**:



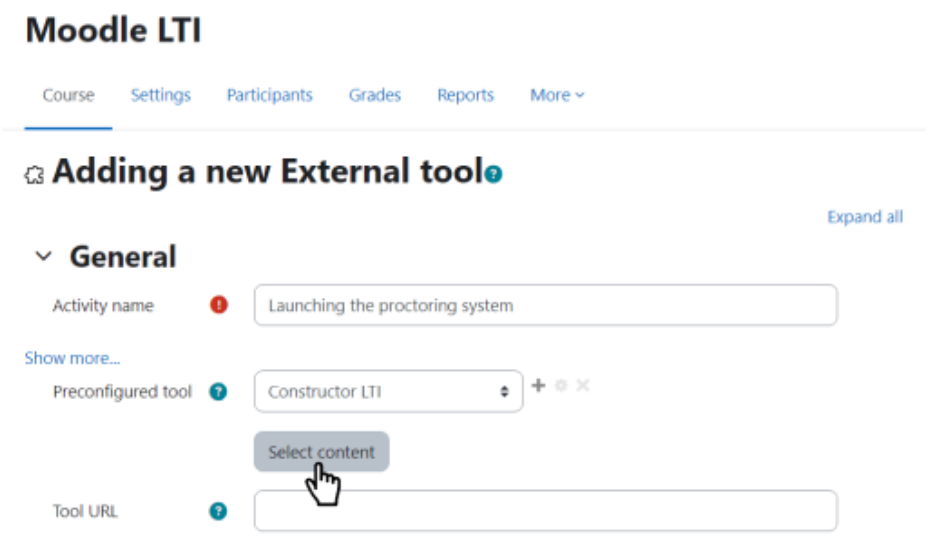
4. Select **External tool**:



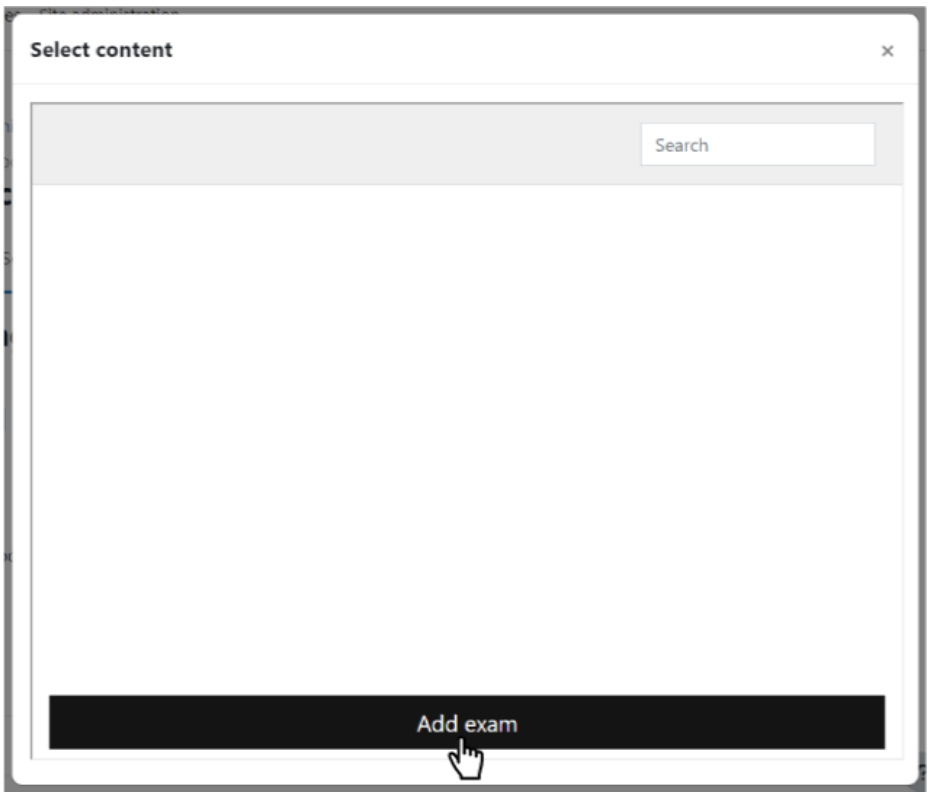
5. Fill in the **Activity name** and choose the **Preconfigured tool** that was created

before. This name will be displayed in the course.

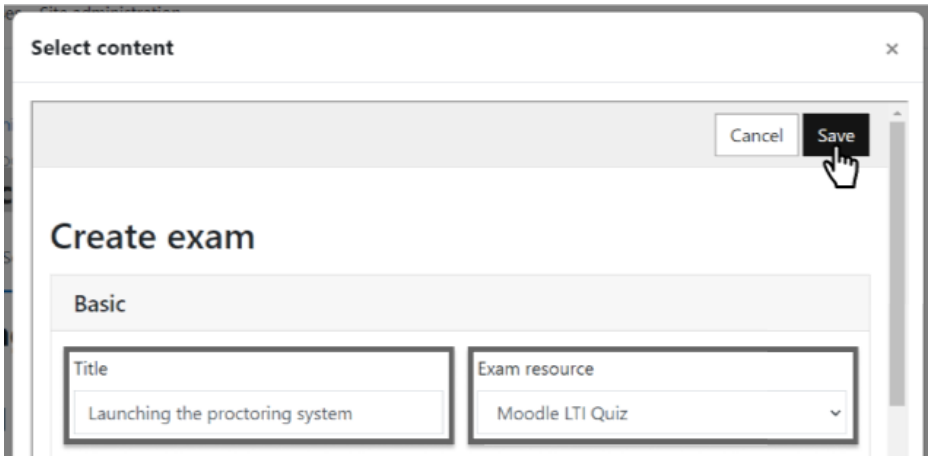
6. Click **Select content**:



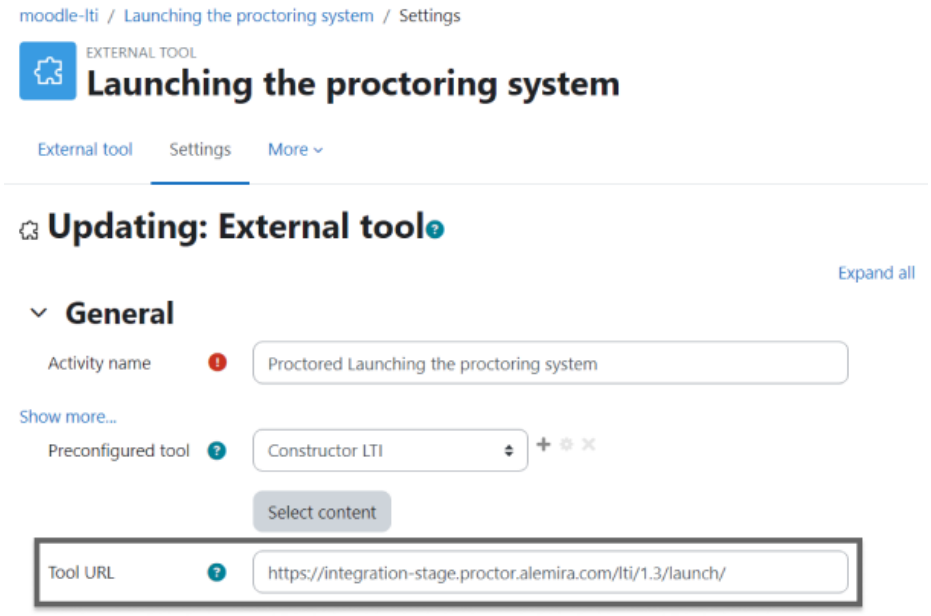
7. In the opened window, click **Add exam**:



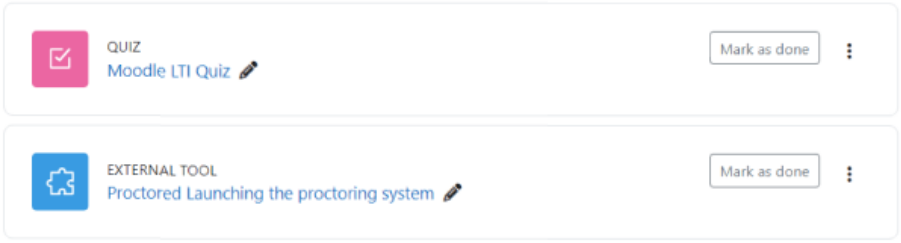
8. Add a title for the link that will launch the proctoring service. Select the specific test that requires proctoring and click **Save**:



9. You will see the **Tool URL** for the proctoring service:



10. Click **Save and return to the course** to complete the setup:



Obtaining a token

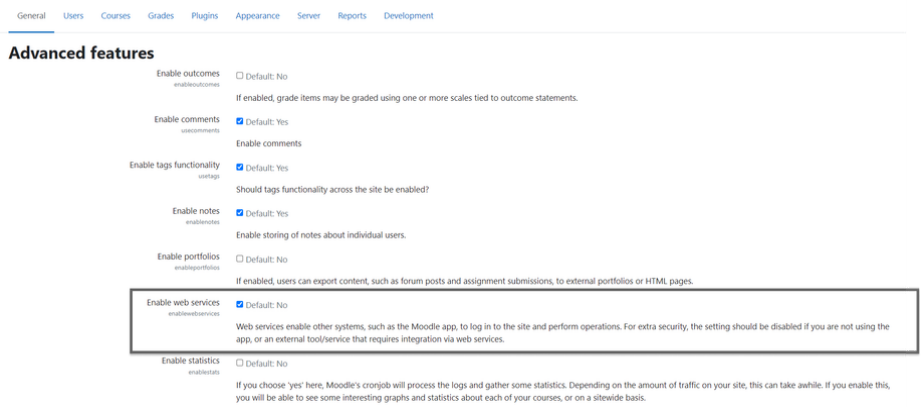
There are several preliminary steps to obtain a token. See them further in this section:

- Setting up the environment
- Enabling the REST protocol
- Creating a user
- Creating a role
- Creating a token

Setting up the environment

To set up the environment:

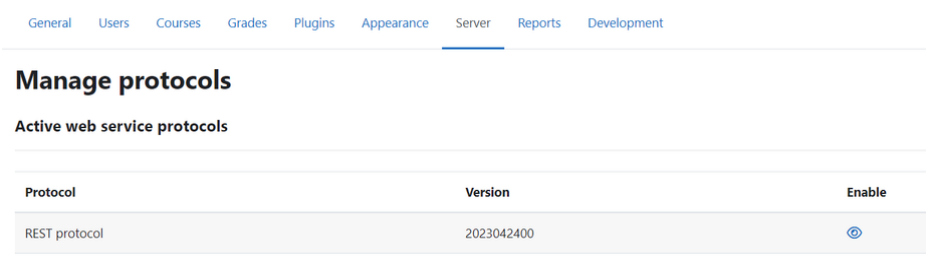
1. Navigate to **Site administration > General > Advanced features**.
2. Enable web services:



Enabling the REST Protocol

To enable the REST protocol:

1. Navigate to **Site administration > Server > Web services > Manage protocols**.
2. Enable the REST protocol:



Creating a user

To create a user:

For security purposes, you need to create a separate user for integration, which will be used only once for generating the token and not used anywhere else.

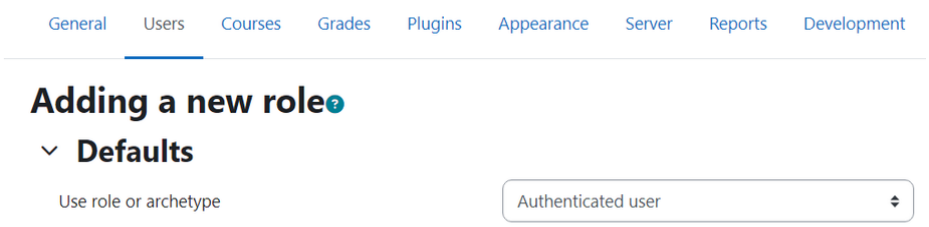
Follow these steps to create the user:

1. Navigate to **Site administration > Users > Accounts > Add a new user**.
2. Fill in the required fields, make sure to record the details for yourself, and click **Create user**.

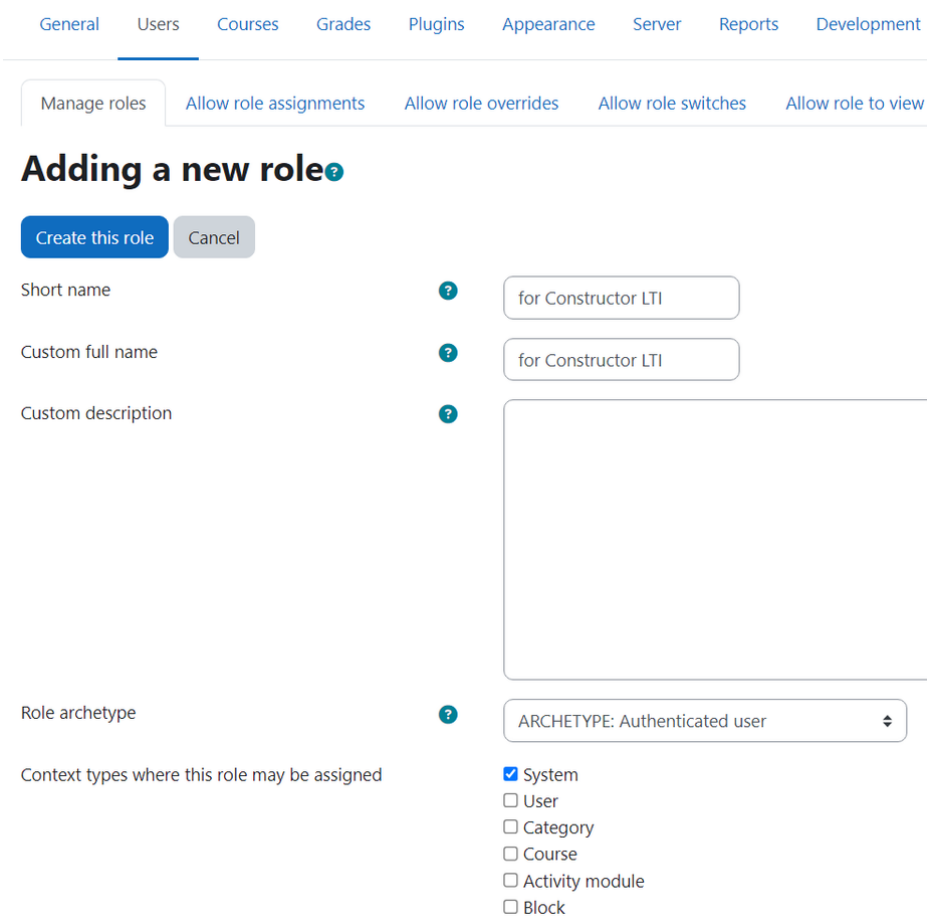
Creating a role

To create a role:

1. Navigate to **Site administration > Users > Permissions > Define roles**.
2. Click **Add a new role**.
3. Select Authenticated user in the **Use role or archetype field**:

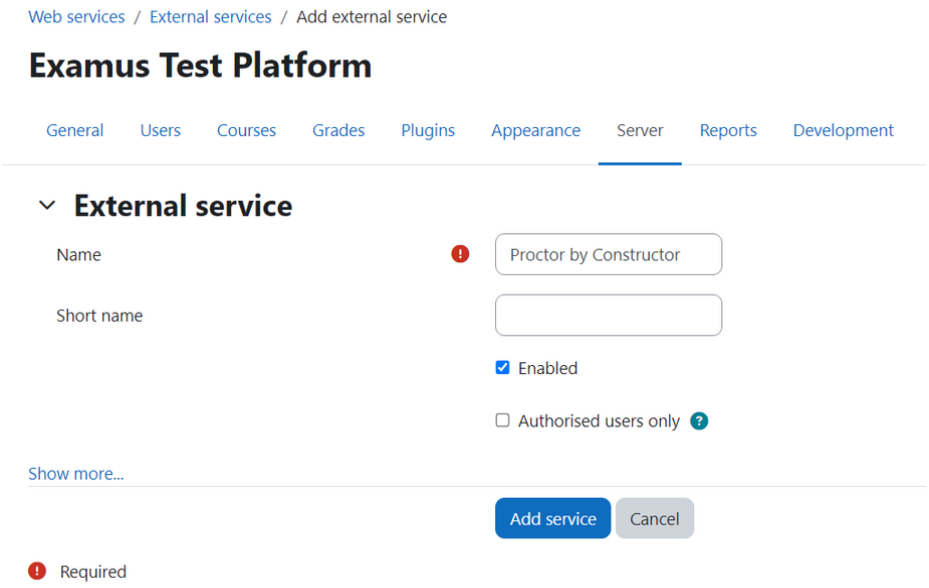


4. Click Continue.
5. Fill in the following fields:
   - Short name and Custom full name.
   - Check the box for System in the Context types where this role may be assigned field:

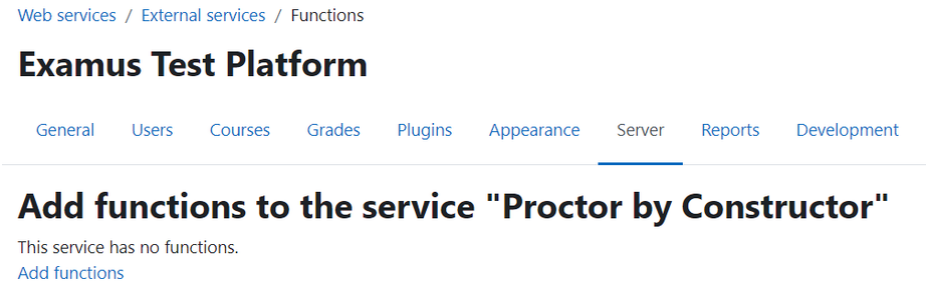


6. Grant the following permissions to the role at the bottom of the page:
   - Use REST protocol (webservice/rest:use)
   - View hidden courses (moodle/course:viewhiddencourses)
   - Update course settings (moodle/course:update)
   - View courses without participation (moodle/course:view)
   - Manage quiz settings overrides (mod/quiz:manageoverrides)
   - View quiz information (mod/quiz:view)
   - Manage quizzes (mod/quiz:manage)
7. Click Create this role.
8. Navigate to Site administration > Users > Permissions > Assign system roles.
9. Choose the created role to assign by clicking on it, then add the user.
10. Navigate to Site administration > Server > Web services > External services.
11. Click Add at the bottom of the page.

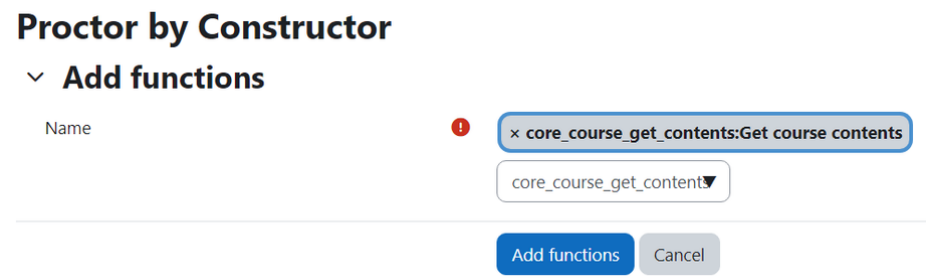
12. Fill in the Name field.
13. Enable the Enabled. The remaining settings should be left as default.
14. Click Add service:



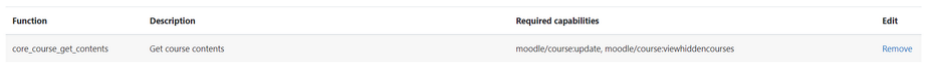
15. Click Add functions:



16. Enter the core_course_get_contents in the Name field, then click on Add functions:



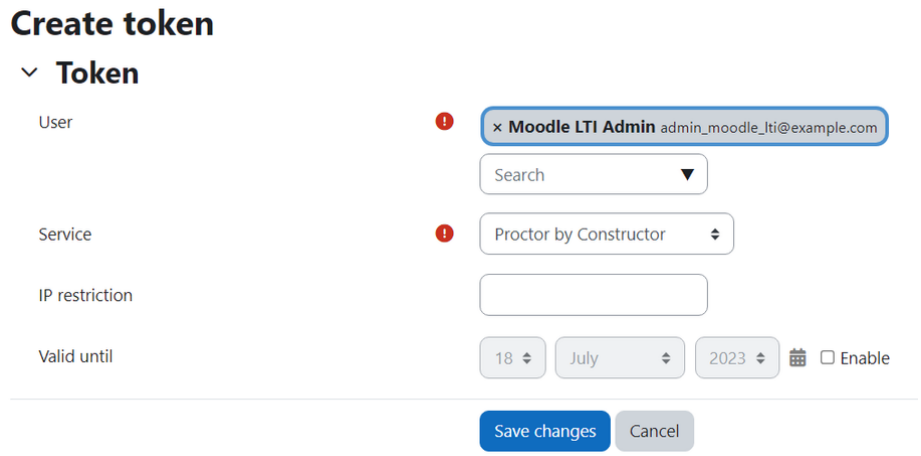
The result:



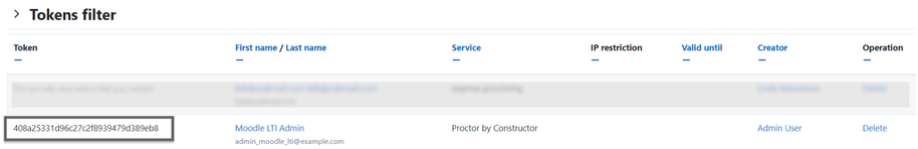
Creating a token

To create a token:

1. Navigate to **Site administration > Server > Web services > Manage tokens**.
2. Click **Create token**.
3. Fill in the **User** and **Service** fields. Select the created user and service. Leave the **Restrict IP addresses** and **Valid until** fields empty.



4. Click **Save changes**. Here is the Moodle token:



Note: Provide the Moodle token value value to your Constructor solutions engineer to complete the LTI integration setup on the Constructor side.

Configuring the adapter

In order to receive content from Moodle and then integrate that data into Proctor, the adapter must first be configured.

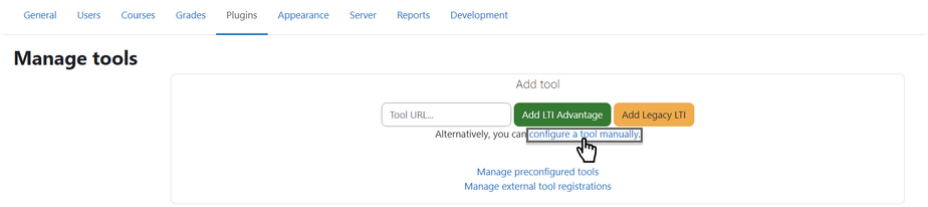
Adapter configuration includes three steps:

- Configuring an LTI tool
- Obtaining a Client ID
- Obtaining a Deployment ID

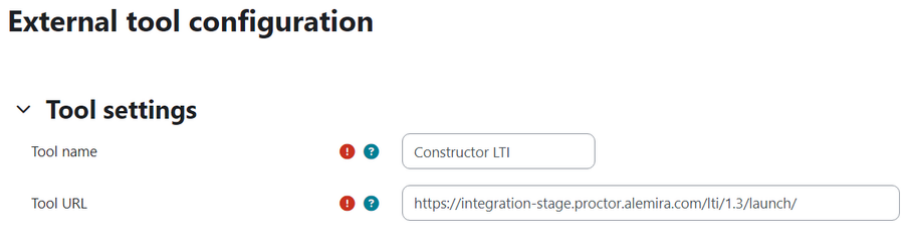
Configuring an LTI tool

To configure LTI tool:

1. Log in to Moodle as an Administrator.
2. Navigate to **Site Administration > Plugins > External tool > Manage tools**.
3. Click on **Configure a tool manually**:



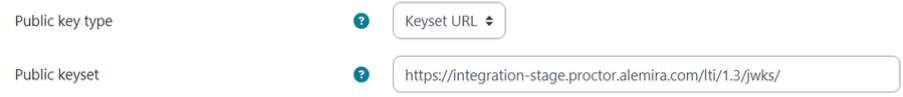
4. Configure a tool:
   - **Tool name**: Enter the name of the integration.
   - **Tool URL**: Use the following rule: https://**url_integration_sever**/lti/**lti-moodle-int**/launch/:



   - **Tool description**: This field is not involved in the integration.
   - **LTI version**: Specify the 1.3 LTI version:



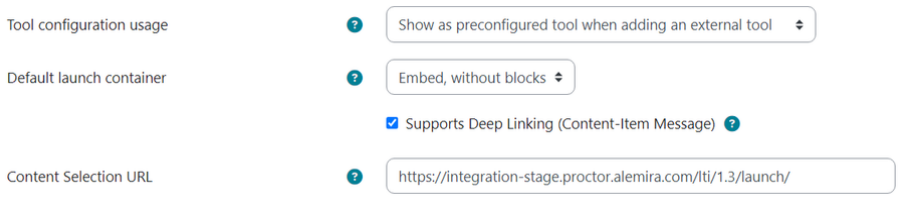
   - **Public key type**: Select **Keyset URL**.
   - **Public keyset**: Enter the URL for the public keyset: https://**url_integration_sever**/lti/**lti-moodle-int**/jwks/:



- **Initiate login URL**: Enter the URL to initiate login: https://**url_integration_sever**/lti/**lti-moodle-int**/login/.
- **Redirection URI(s)**: Enter the Redirection URI: https://**url_integration_sever**/lti/**lti-moodle-int**/launch/:



- **Tool configuration usage**: Select **Show as preconfigured tool when adding an external tool**.
- **Default launch container**: Select **Existing window**.
- **Supports Deep Linking (Content-Item Message)**: Enable this option.
- **Content Selection URL**: Use the following rule: https://**url_integration_sever**/lti/**lti-moodle-int**/launch/:

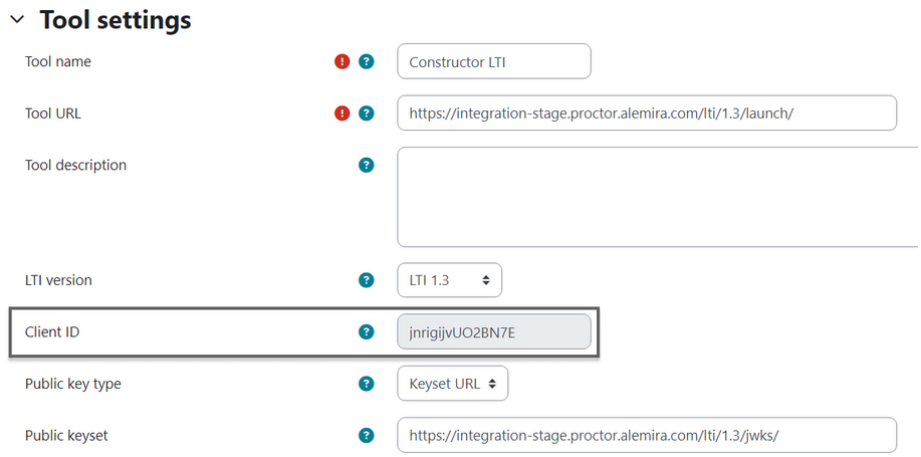


After configuring the above settings, click on **Save changes.**

Obtaining a Client ID

To obtain a client ID:

1. Navigate to the integration settings: Site Administration > Plugins > External tool > Manage tools.
2. The Client ID:

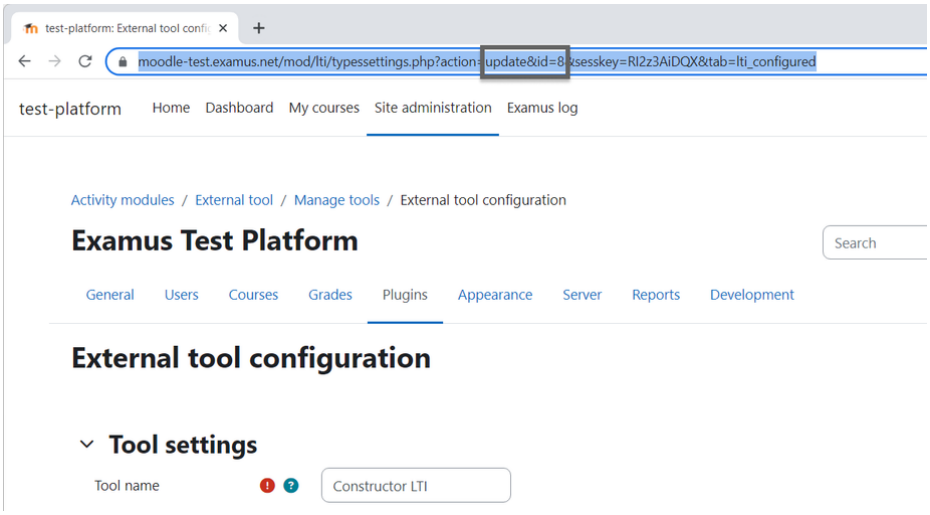


Note: Provide the **Client ID** value to your Constructor solutions engineer to complete the LTI integration setup on the Constructor side.

Obtaining a Deployment ID

To obtain a Deployment ID:

1. Navigate to the integration settings: **Site Administration > Plugins > External tool > Manage tools**.
2. Find the value after "update&id=". This is the Deployment ID:



Note: Provide the **Deployment ID** value to your Constructor solutions engineer to complete the LTI integration setup on the Constructor side.

Integrating Constructor Proctor with Blackboard

Learning Tools Interoperability (LTI) is a standard that facilitates the integration of external tools, such as Constructor Proctor, with the BlackBoard Learning Management System (LMS).

See further in this section the details about how to configure the integration:

- Prerequisites for Blackboard integration through LTI
- Setting up Blackboard
- Creating Blackboard integration with LTI tools
- Enabling permission to use LTI in Blackboard
- Creating a proctored exam in Blackboard
- Creating a proctored exam in Blackboard Ultra

Prerequisites for Blackboard integration through LTI

The prerequisites for Blackboard integration through LTI are as follows:

- (Mandatory) The BlackBoard domain should be accessible via HTTPS so it must have a valid SSL certificate.
- (Recommended) The Blackboard cookies should have the following attributes: **SameSite=None** and **Secure=True**. This is required for seamless user authentication.
- (Optional) Your BlackBoard LMS installation can be running on your organization's server. Where it's hosted is important for how student experience will look like:
  - **On-premise** BlackBoard: can be embedded in iframe, so examinees will be able to take proctored exams on desktop using Google Chrome (no Constructor Secure browser installation required).
  - **Cloud-based** BlackBoard: can't be embedded in iframe so examinees will have to take tests in Constructor Chromium-based Secure Browser.

You need to have an admin account in BlackBoard to set up the integration.

Enabling permission to use LTI in Blackboard

To enable permission to use LTI:

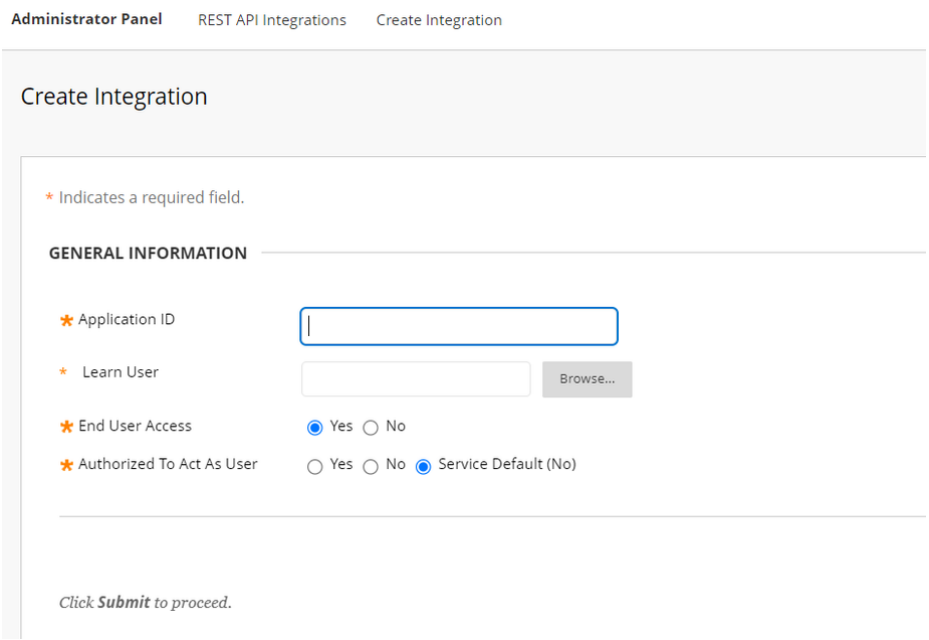
1. Go to the System **Admin section > Tools and Utilities > Tools.**
2. Find LTI in the list and enable permission to use **LTI** as a **Course Tool.**
3. Then click **Submit.**

Creating Blackboard integration with LTI tools

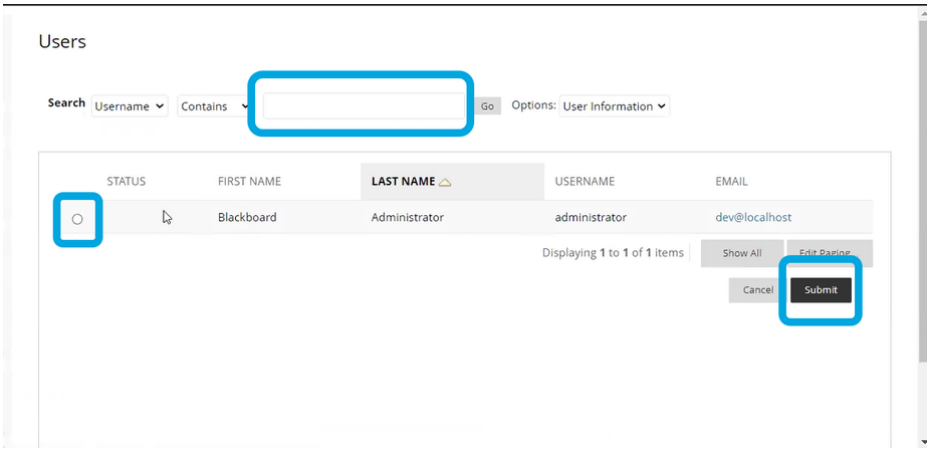
At this stage of integration, you need to grant our Proctor LTI adapter access to your Blackboard client. This step is required so that the proctoring LTI adapter can retrieve a list of quizzes from the Blackboard client.

To grant the application access:

1. Open **System Admin > REST API Integration**.
2. Click **Create Integration**. The integration creation window will open.
3. In the **Application ID** field, enter the number received from the support service.



4. In the **Learn User** field, add an administrator: a. Click **Browse**. The search window opens. b. In the search field, enter the administrator's login and click **Go**. c. From the results list, select the appropriate user and click **Submit**.



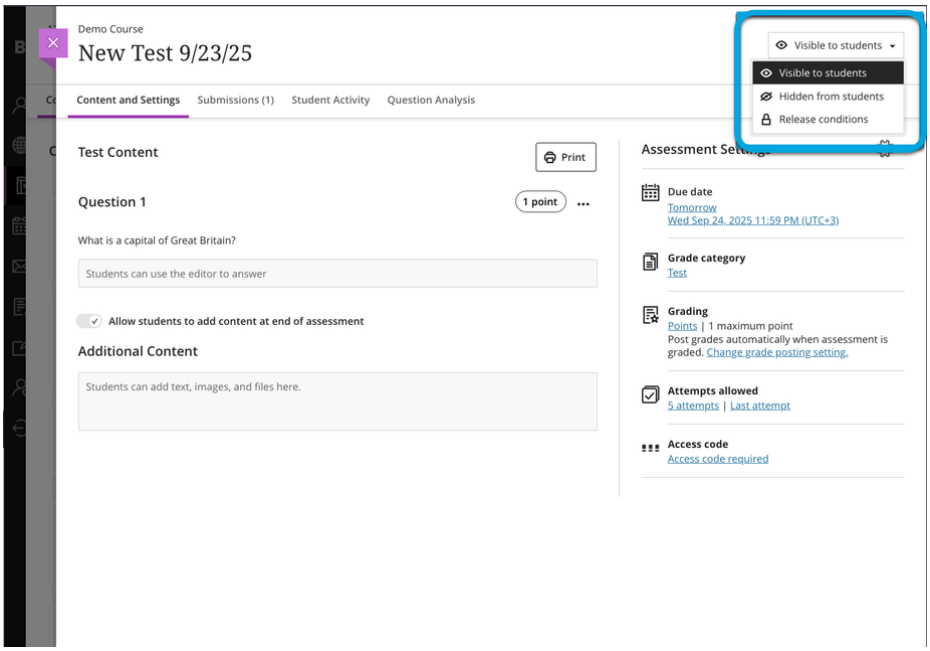
5. You are redirected back to the integration creation form, where the **Learn User** field is now filled with the selected administrator. Leave the other settings at their default values and click **Submit**.

Creating a proctored exam in Blackboard Ultra

Blackboard Ultra is the newest version of Blackboard. Create and configure a proctored exam in Blackboard Ultra as follows:

Make the exam quiz visible

1. Log in to your organization Blackboard account.
2. Open the quiz you plan to use in the exam and select **Visible to students** in the visibility settings.

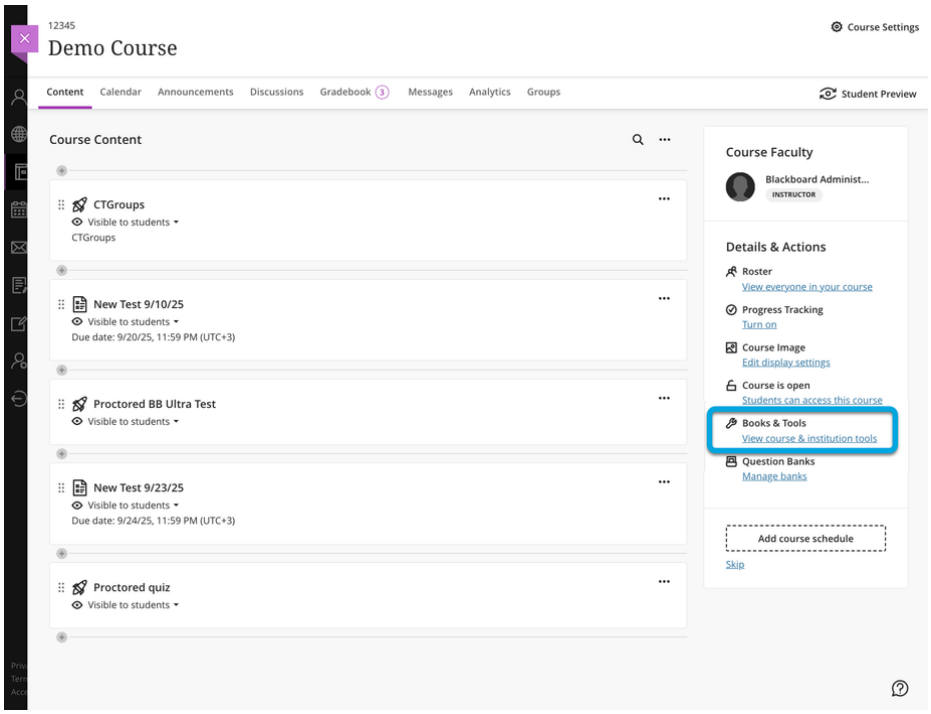


Note: To prevent learners from starting a Blackboard quiz outside proctoring, set a password for the quiz in Blackboard. No additional password setting is required in Constructor Proctor. When learners start the exam through Constructor Proctor, Proctor retrieves the Blackboard exam password and enters it automatically.

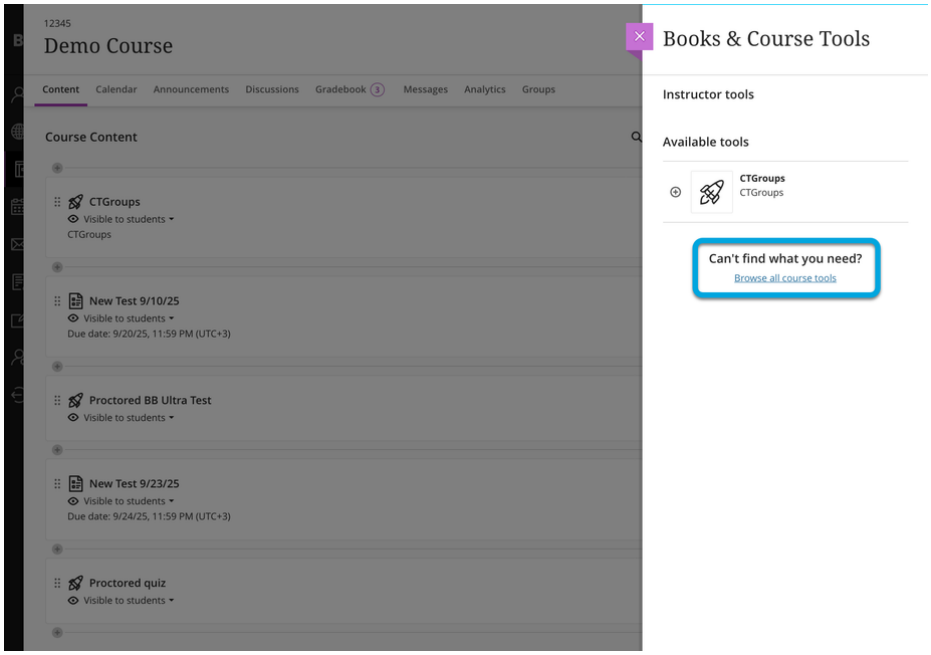
Create proctored LTI activity in course

Add a proctored LTI activity to the course to which the exam belongs:

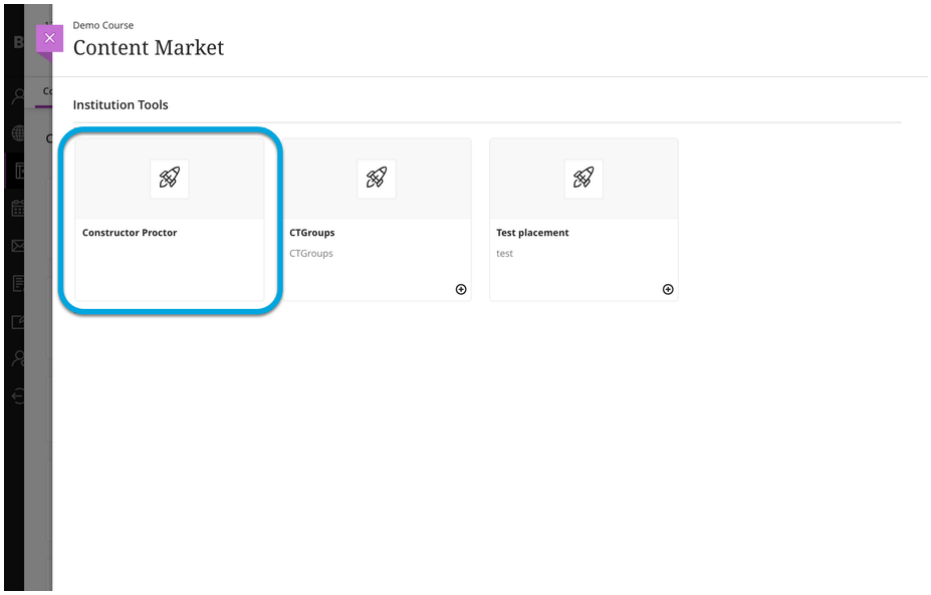
1. Go to the course. On the **Course Faculty** panel, click **View course & institution tools**.



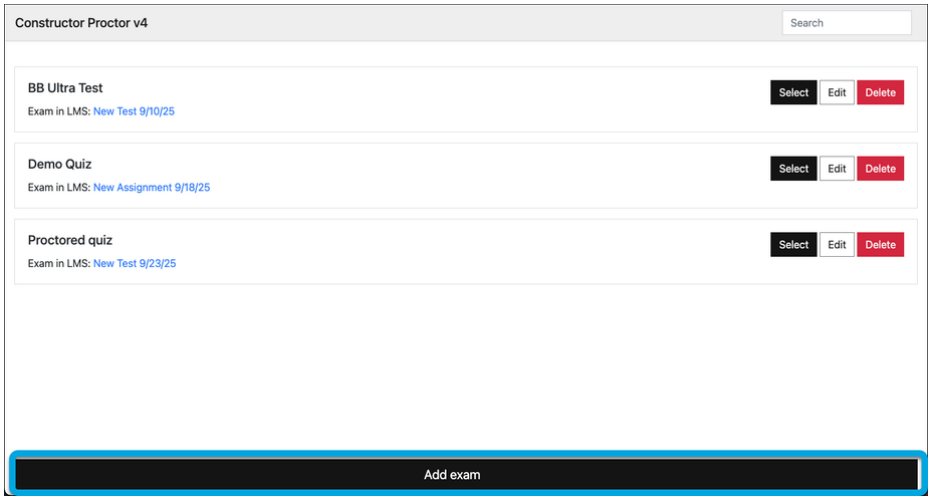
2. If you do not see the proctoring tool on the panel that opens, click **Browse all course tools**. The Content Market menu opens.



3. In the Content Market menu, select the previously added proctoring **LTI tool**. You are redirected to the page for creating a proctoring activity.



4. Click **Add exam**.

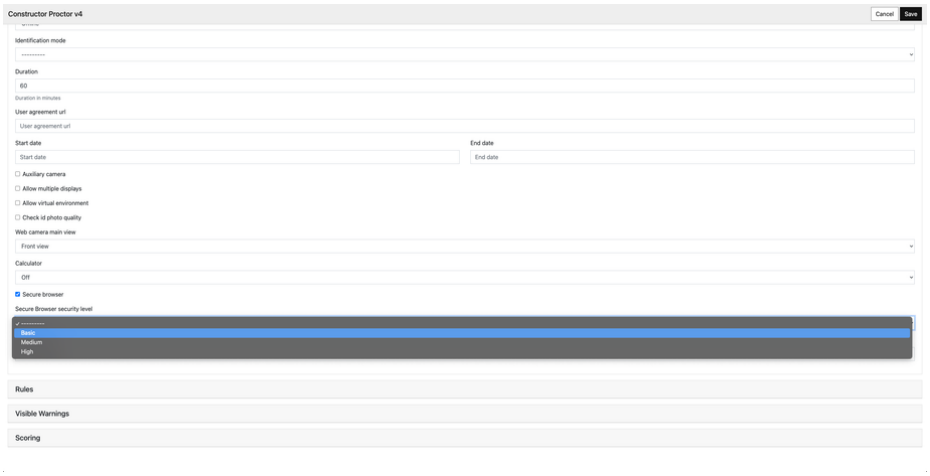


5. Set proctoring parameters as needed:
   - **Title** — the name of the proctored exam that will be saved in the Constructor Dashboard.
   - **Exam resource** — select the quiz in Blackboard that will be displayed to examinees.
   - **Proctoring mode** — define the type of proctoring mode used during the exam that determines how monitoring and authentication are handled for examinees and proctors:
     - Offline— examinees can take the test at any time within the defined **Start date**and **End date**. AI monitors the session in real time, issues warnings, and records any detected violations to the archive. After the exam, the proctor reviews recorded sessions, can manually add violations, and confirms or rejects the authenticity of each session.
     - Online— multiple examinees take the test simultaneously at a scheduled time. AI provides real-time warnings and logs violations to the archive. Human proctors verify learner identity before the exam, monitor up to 8 examinees each in real time, can manually add violations, and confirm or reject authenticity during the live session.
     - Auto — same as Offline, but AI is able to confirm or reject authenticity based on the automatically calculated cheating score (see further in the list). No human proctor involvement is needed.
   - **Identification**— same as Offline, but human proctors need to identify students before letting them start the exam.

- **Duration** — the duration of the exam in minutes. Note that if a session lasts longer than the specified duration, it won't stop automatically.
- **User agreement URL** (optional) — use custom HTML if you want to alter the agreement page displayed to examinees before the exam start.
- **Start date** (optional) — the exam can be started only after this date.
- **End date** (optional) — the exam can be started only before this date.
- **Auxiliary camera** — if checked, examinees will need to have a smartphone to take the exam. Depending on the exam settings, the phone camera captures periodic photos or continuous video for the duration of the session. Video mode is used by default unless Photo mode is selected.
- **Allow multiple displays** — if checked, examinees will be able to start the exam with more than one monitor. Note that Constructor Proctor can only record video from a single monitor.
- **Secure Browser** — examinees will need to download and install Constructor Proctor Secure Browser, a desktop application.

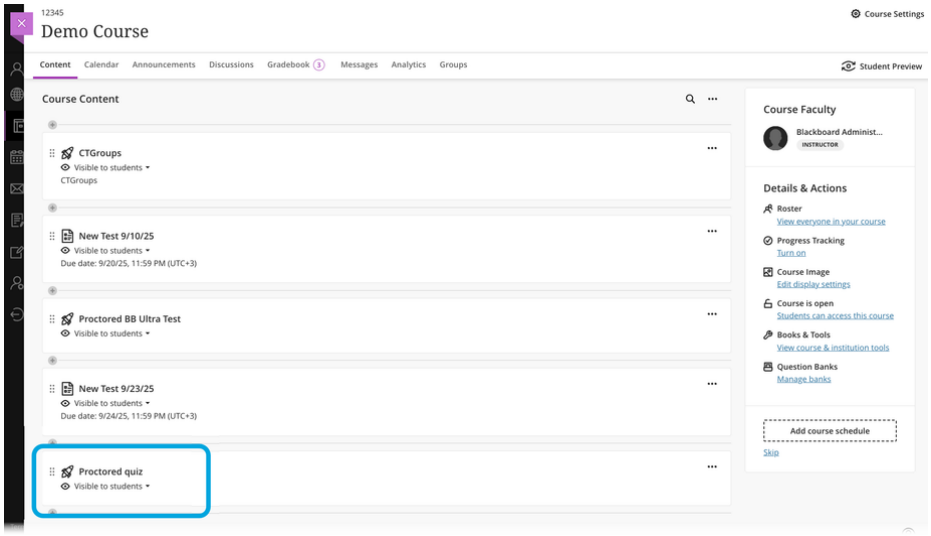
IMPORTANT: The **Secure Browser** parameter must be enabled for a proctored exam.

- **Secure Browser security level** — depending on the selected level, a different set of restrictions and security settings will apply. The basic level is applied by default. On macOS, Secure Browser blocks Dictionary in Medium and High modes. In High mode, it also blocks the built-in Screenshot app.



- **Rules** — define what is allowed during the exam. It affects which warnings are visible to examinees. For example, enabling **Allow Excel** will disable the Active Application Changed notification.
- **Visible warnings** — specify which warnings are displayed to examinees.
- **Scoring** — customize the weight of each type of AI-detected violation in the calculated cheating score.

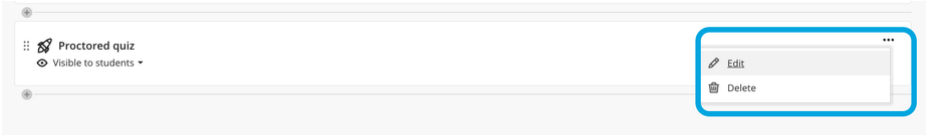
6. Click **Save**. On the Content page of your course, the added LTI module is displayed:



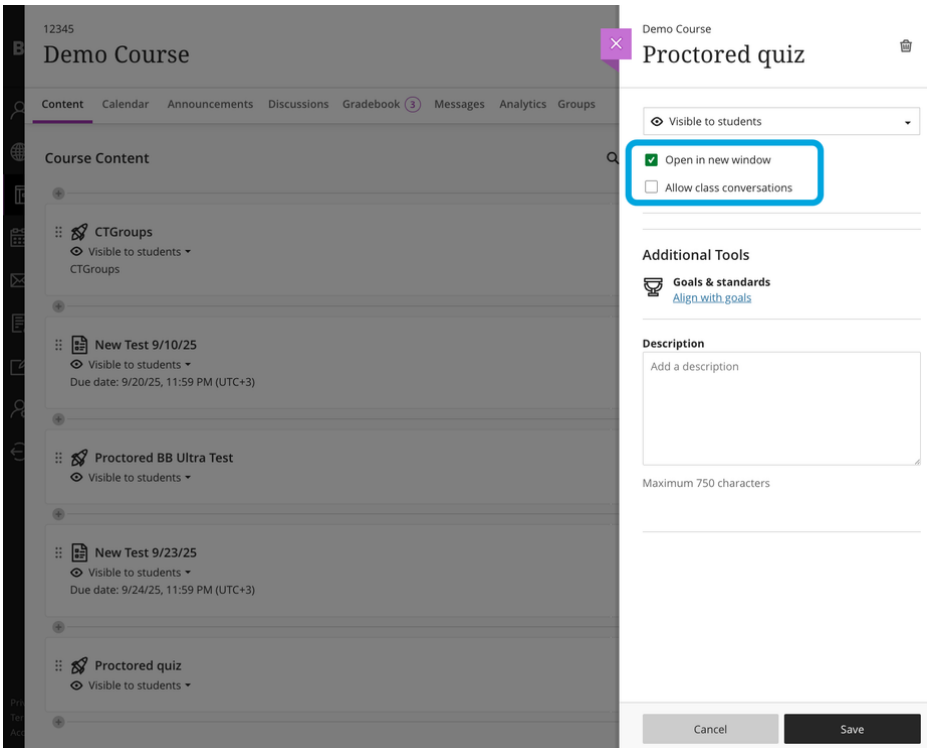
Set up the proctored activity to open in a new window

For proctoring to work correctly, the exam must open in a new window. To set this up:

1. Expand the menu next to the added LTI module on the course page, and click **Edit**.



2. In the module settings, select **Open in New Window** and click **Save**.



LTI setup for exams in Blackboard Ultra is now complete. You can enroll learners to the course and start proctored activity.

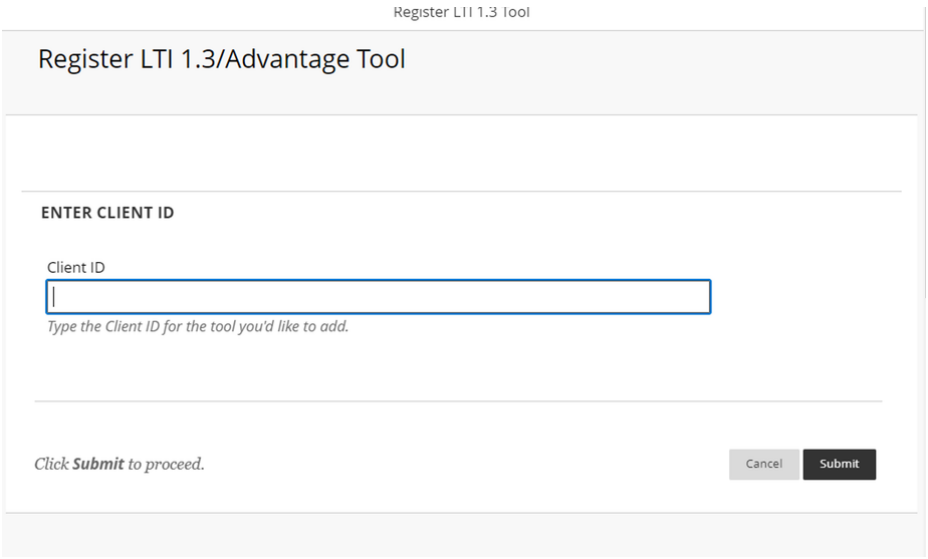
Setting up Blackboard

There are several preliminary steps to setting up Blackboard, which are described later in this section:

- Adding an LTI tool
- Adding placements

Adding an LTI tool

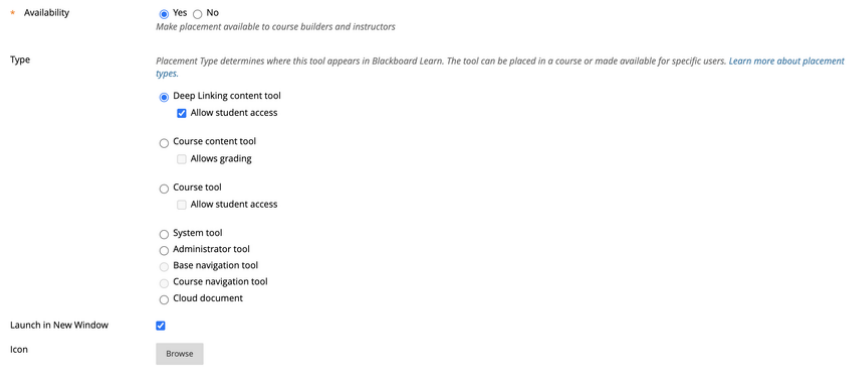
1. Log in to Blackboard as admin.
2. Open **System Admin > LTI Tool Providers**.
3. Click **Register LTI 1.3**.
4. Click **3/Advantage Tool**.
5. Enter {YourClientID} in the **Client ID** field and click **Submit**:



6. In the new window, copy the **Deployment ID** and send it to the Constructor support service together with the Blackboard URL of your organization: [Image unavailable]
7. Ensure that:
   - **Tool Status** was set to **Approved**
   - **User Fields to Send** has **Role in Course, Name, Email Address** enabled.
8. Click **Submit**.

Adding placements

1. On the page with the list of all tools, click on the drop-down menu next to the previously added **LTI tool** and select **Manage Placements:**
2. Click **Create placement.**
3. Fill in the **Label** and **Handle** fields. Check **Allow student access** under **Deep Linking** content tool and **Launch** in **New Window**. Leave the rest of the settings at their defaults.



4. In the **Target Link URI** field, enter the launch url received from the support team.
5. Click **Submit**.

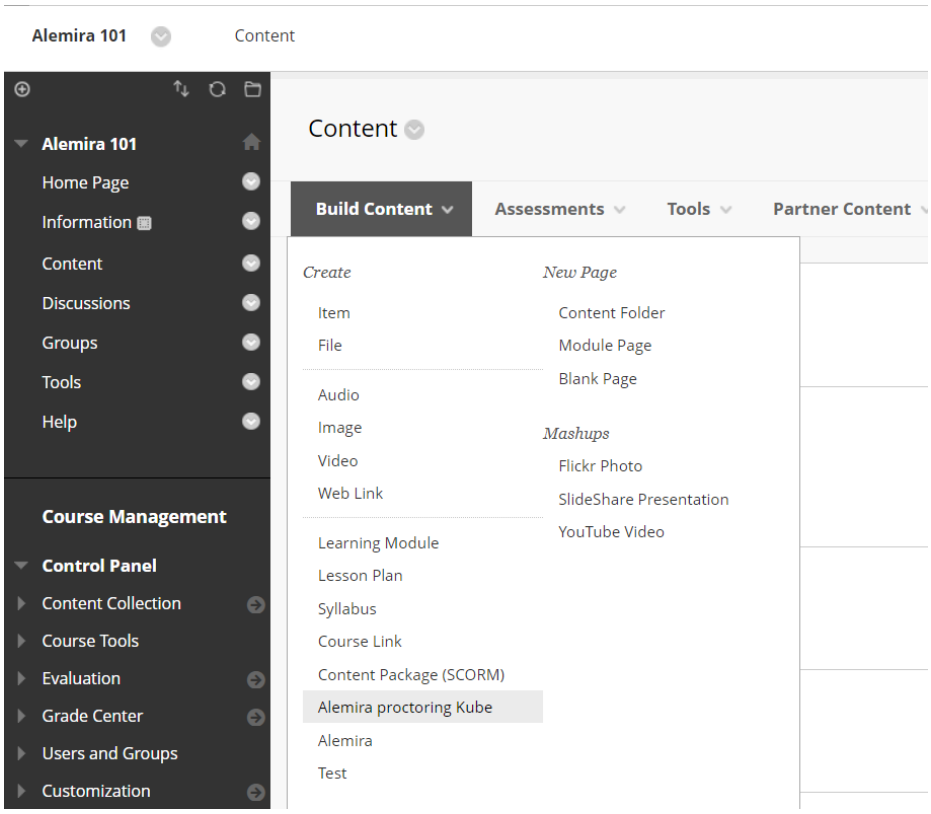
Creating a proctored exam in Blackboard

There are two steps to creating a proctored exam in Blackboard:

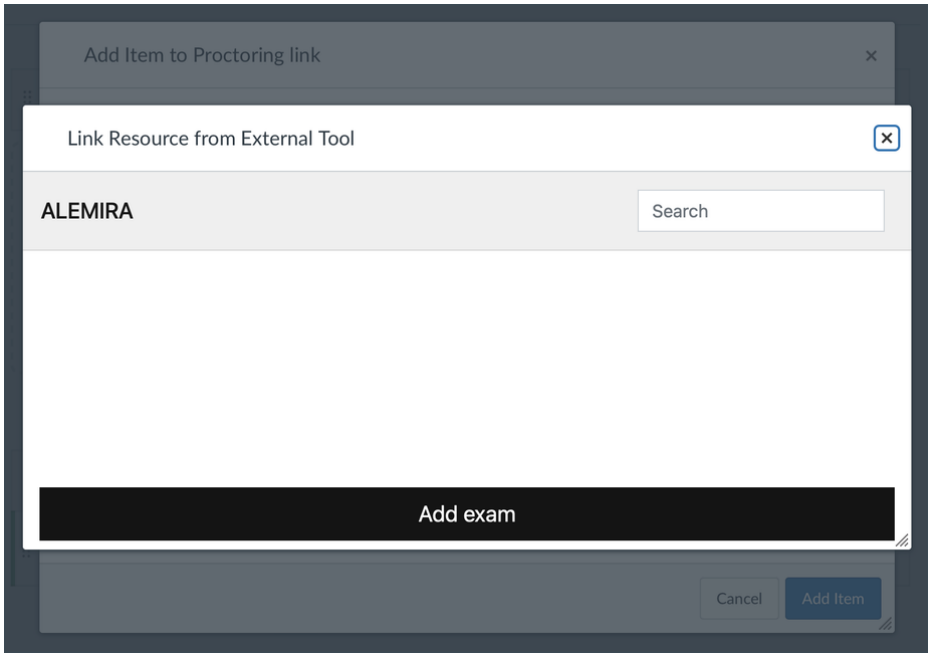
- Setting proctoring parameters in Blackboard
- Setting up the exam to open in a new window

Setting proctoring parameters in Blackboard

1. To do this, while in the **Content** section, click on the **Build Content** button. In the menu that appears, select the previously added **LTI tool:**



2. Give it some time to load – you should see a popup like this:



3. Click **Add exam**.
4. Set proctoring parameters as needed. Here's a quick explanation for each of these parameters:
   - **Title** – name of the proctored exam that will be saved in the Constructor Dashboard.
   - **Exam resource** – quiz in Blackboard that will be displayed to examinees.

     Note: To prevent learners from starting the Blackboard quiz outside proctoring, set a password for the quiz in Blackboard. No additional password setting is required in Constructor Proctor. When learners start the exam through Constructor Proctor, Proctor retrieves the Blackboard exam password and enters it automatically.

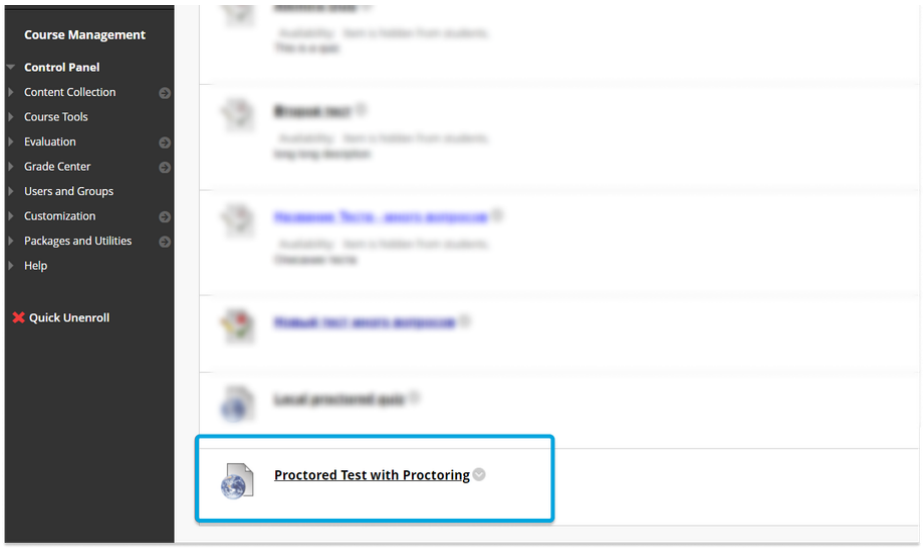
   - **Proctoring mode** – what the proctoring experience will be like for both examinees and proctors.
     - **Offline**: examinees take the test at any time that suits them individually (should be between the **Start** and **End** dates – see further in the list). AI gives warnings in real-time and records found violations to the archive. After the

exam is finished, proctor can watch recorded sessions in the archive, manually add violations, and either confirm or reject authenticity of each session.

  - **Online**: multiple examinees take the test at a certain time. AI gives warnings and records found violations to the archive. Human proctors identify students before letting them start the exam. They are watching the examinees in real time (8 examinees per proctor by default), are able to manually add violations, and either confirm or reject authenticity of each exam session in real time.
  - **Auto**: same as Offline, but AI is able to confirm or reject authenticity based on the automatically calculated cheating score (see further in the list). No human proctor involvement needed.
  - **Identification**: same as Offline, but human proctors need to identify students before letting them start the exam.
- **Duration** – duration of the exam in minutes. Note that if a session lasts longer than the specified duration, it won't stop automatically.
- **User agreement url** (optional) – use custom HTML if you want to alter the agreement page displayed to examinees before the start of an exam.
- **Start date** (optional) – exam can only be started after this date.
- **End date** (optional) – exam can only be started before this date.
- **Auxiliary camera** – if checked, examinees will need to have a smartphone to take the exam. Depending on the exam settings, the phone camera captures periodic photos or continuous video for the duration of the session. Video mode is used by default unless Photo mode is selected.
- **Allow multiple displays** – if checked, examinees will be able to start the exam with more than one monitor. Note that Constructor Proctor can only record video from a single monitor.
- **Rules** – what is allowed during the exam. Can affect what warnings are visible to examinees: for example, **Allow Excel** will disable the **Active Application Changed** notification.
- **Visible warnings** – what warnings are displayed to examinees.
- **Scoring** – customize the weight each occurrence of each type of AI-detected

violation has in the calculated cheating score.

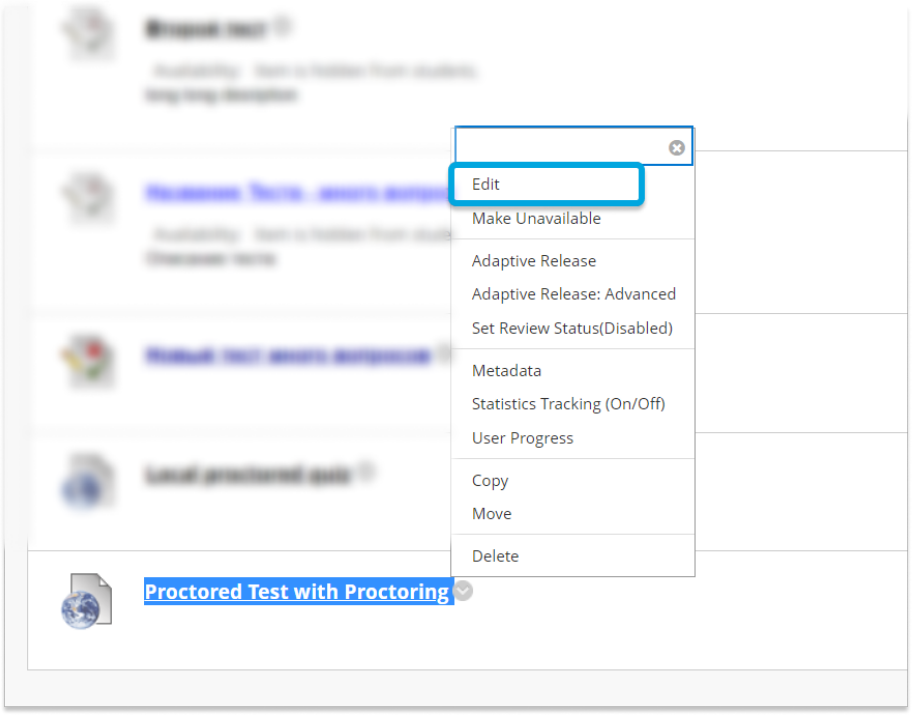
5. On the Content page of your course, the added LTI module should appear.



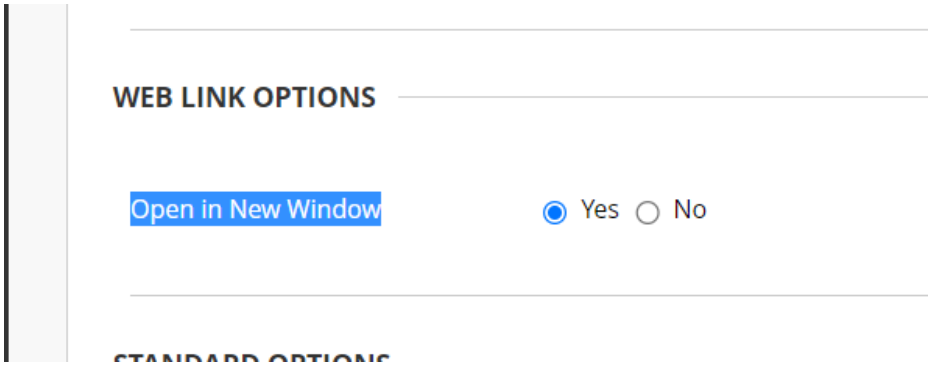
Setting up the exam to open in a new window

In order for Proctoring to work correctly, the exam must be opened in a **new window**. To set this up:

1. Expand the menu next to the added LTI module on the course page and click on **Edit:**



2. In the **WEB LINK OPTIONS** section of the settings, select the **Open in New Window** option -
Yes:



3. Then click **Submit**.

LTI setup for exams in Blackboard is now complete.

Integrating Constructor Proctor with Canvas

During setup, you will generate three unique keys (tokens) that Constructor needs to complete the integration. When you see a call like this in the guide, make sure you copy and paste the token you just generated into a document. Once you have completed all the steps in this guide, send the tokens along with your canvas URL to the integration manager in Constructor.

Here's an example of what the message can look like:

Access token	YPbAMRMNqunBc48vJ8geFMp9OEtarC5z3vncTelx1Ob2hxyoqV7y6NGQPbbM3qVa
Client ID	10000000000004
Deployment ID	pOvOFPA6lUFFA5i71aB3oJeNTHVl0Cs1GAtKlMJft8Fkr1UySFeHPqlxp0y6XEsl
Canvas URL	https://canvas.constructor.com

See further in this section:

- Prerequisites for Canvas integration through LTI
- Setting up Canvas
- Creating a proctored exam in Canvas

Prerequisites for Canvas integration through LTI

- (Mandatory) **SSL Certificate**: the Canvas domain should be accessible via HTTPS so it must have a valid SSL certificate.
- (Recommended) **Authorization**: The LMS cookies should have the SameSite=None and Secure=True attributes. This is required for seamless user authentication.
- (Optional) Test-taker experience will differ depending on how your Canvas is deployed: on premise or in the cloud (SaaS):
  - **On-premise Canvas:** tests can be embedded in iframe, so examinees can take proctored exams in Google Chrome.
  - **SaaS Canvas:** tests can’t be embedded in iframe, so examinees should use Constructor Chromium-based Secure Browser.

Setting up Canvas

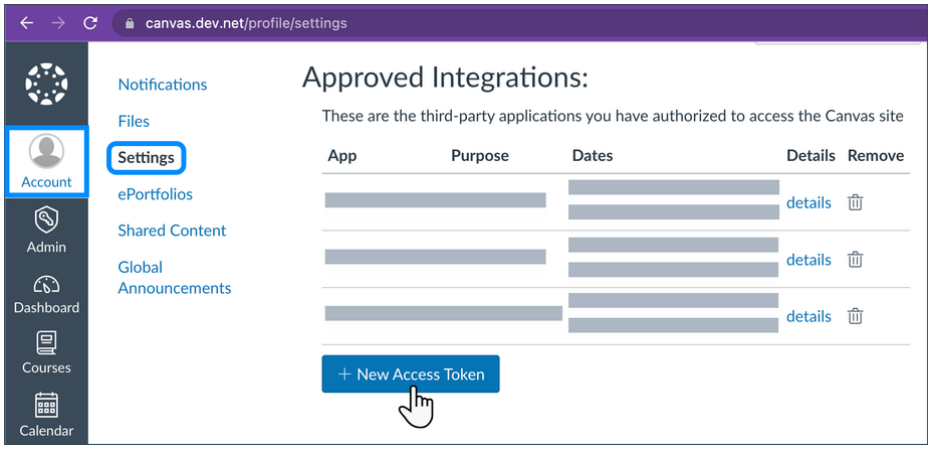
See further in this section:

- Creating access token
- Adding a Developer Key
- Adding the Constructor App in course settings

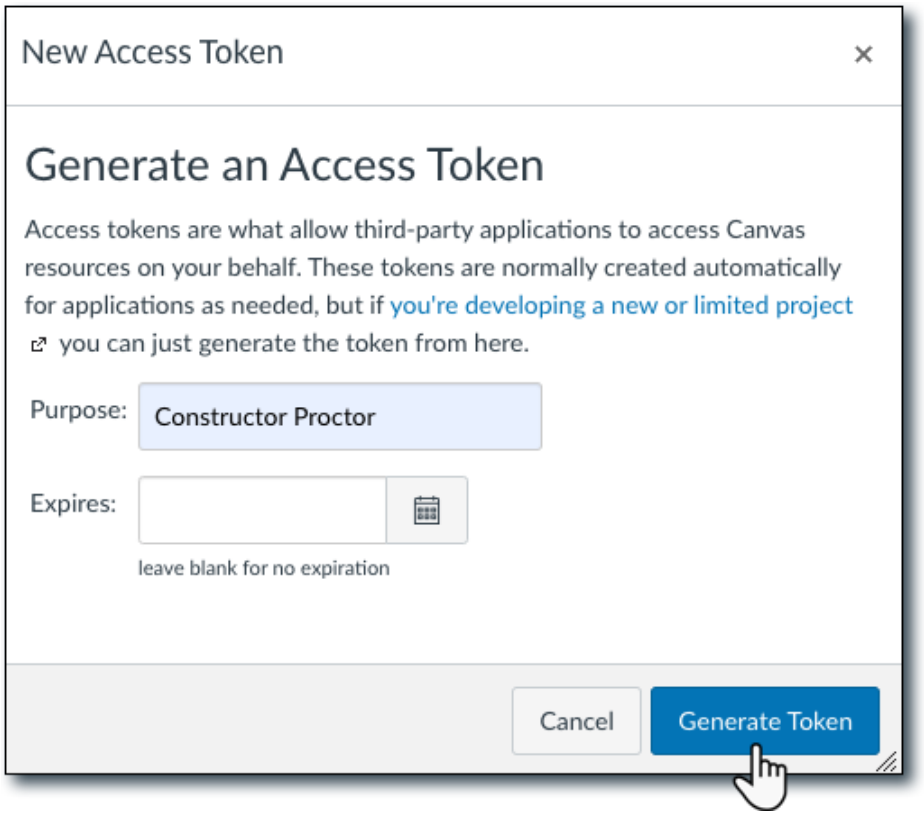
Creating access token

To create access token:

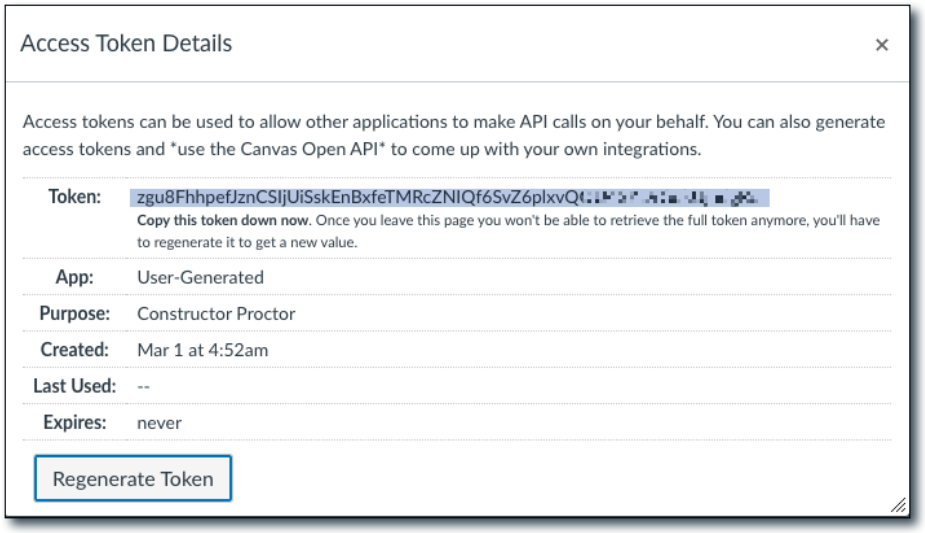
1. Log in to your Canvas admin account.
2. Open **Account > Settings**.
3. Scroll down to **Approved Integrations**.
4. Click **New Access Token**:



5. Enter “Constructor Proctor” in **Purpose**. Leave the **Expires** field empty—this ensures the token remains valid until it is deleted.
6. Click **Generate Token**:



7. The token will be displayed in a popup window:

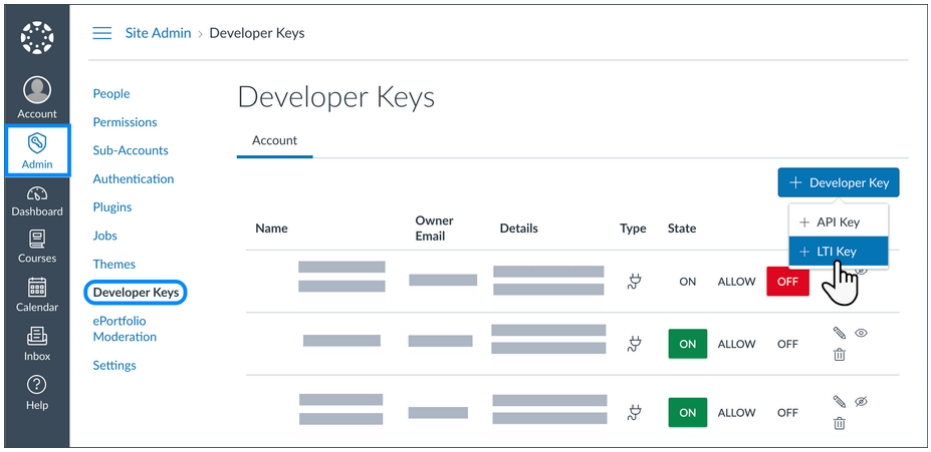


8. Save this token.

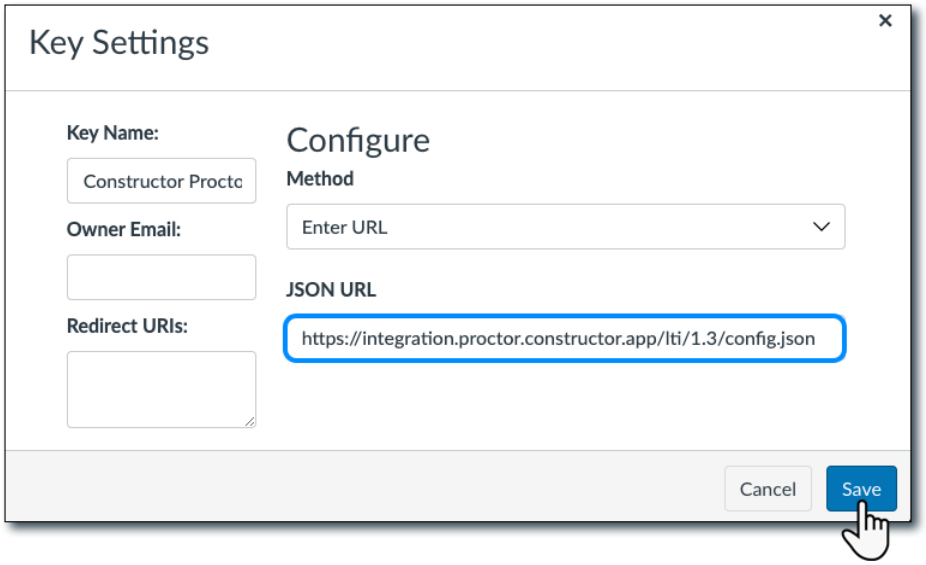
Adding a Developer Key

To add a Developer Key:

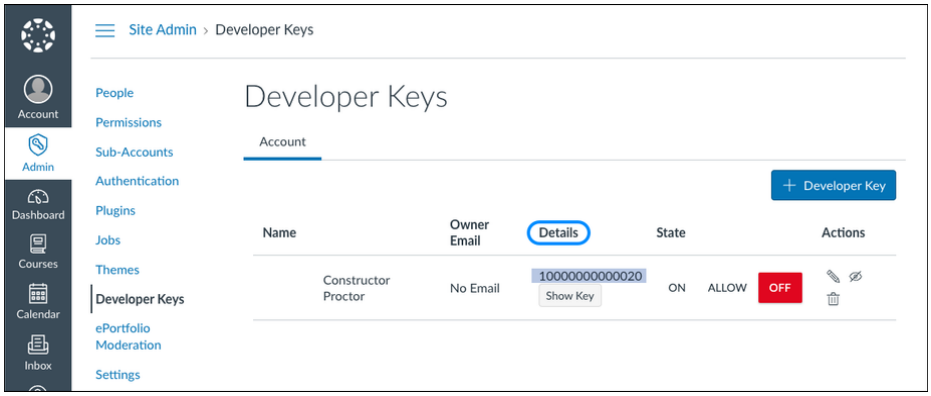
1. Open **Admin > Site Admin > Developer Keys**
2. Click **Add Developer Key** and select **AddLTI Key**:



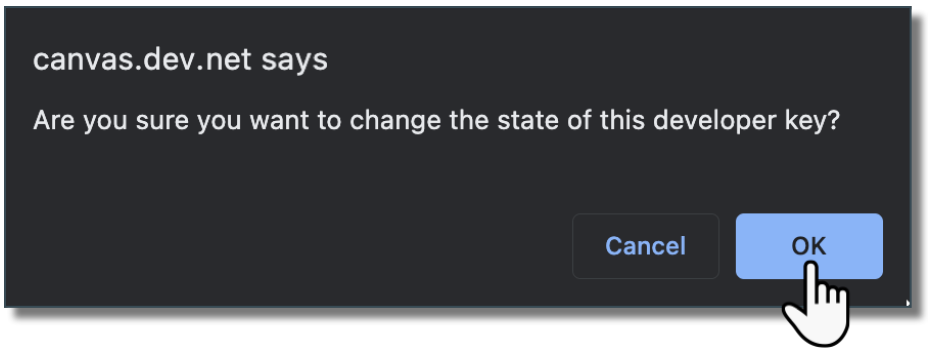
3. A popup will open. In the **Key Name** field enter “Constructor Proctor”.
4. Click the **Method** field and select **Enter URL**.
5. Copy the **JSON URL** sent to you by the Constructor integration manager, paste in the corresponding field and click **Save**:



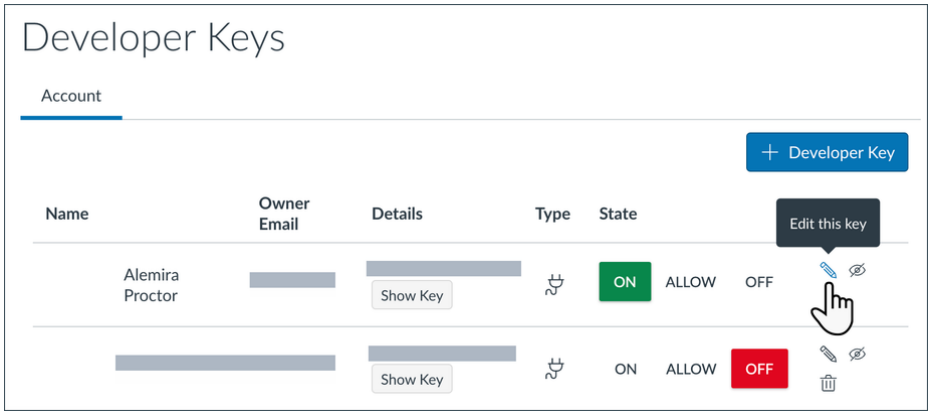
6. There will the **Client ID** in the **Details** column:



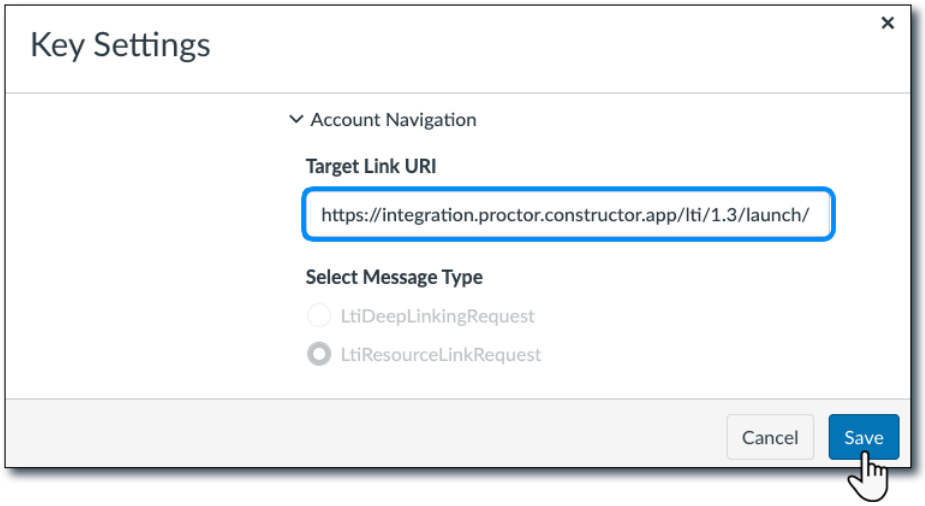
7. Save this ID.
8. Refresh the browser page.
9. Change the **State** of the newly added key from **OFF** to **ON**:
10. Confirm key activation:



11. Click the **Edit** icon on the right:



12. Copy the **Target Link URI** sent to you by the Constructor integration manager, paste in the corresponding field and click **Save**:

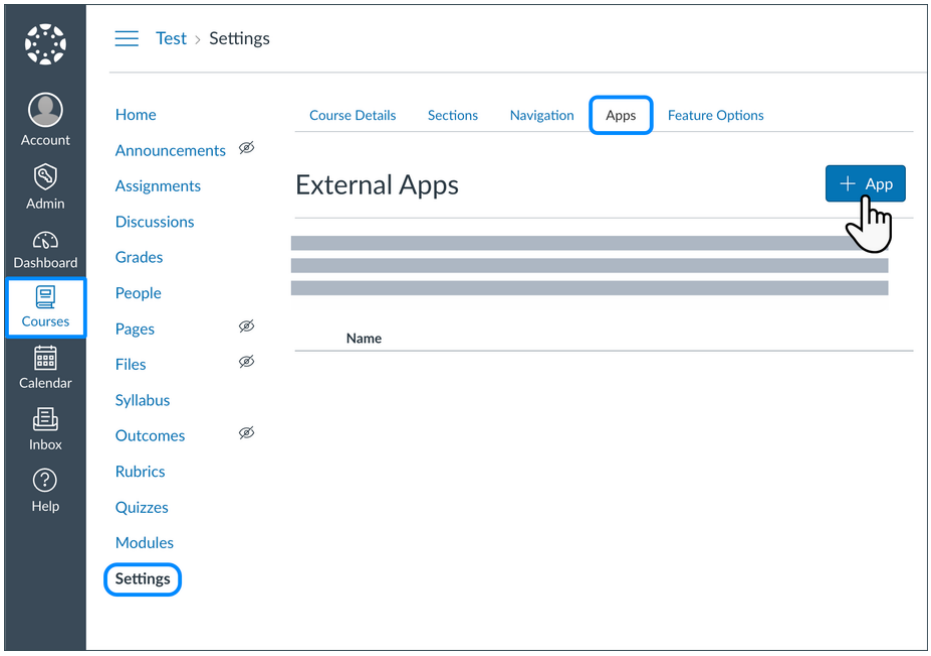


The configuration of the **Developer Key** is now complete.

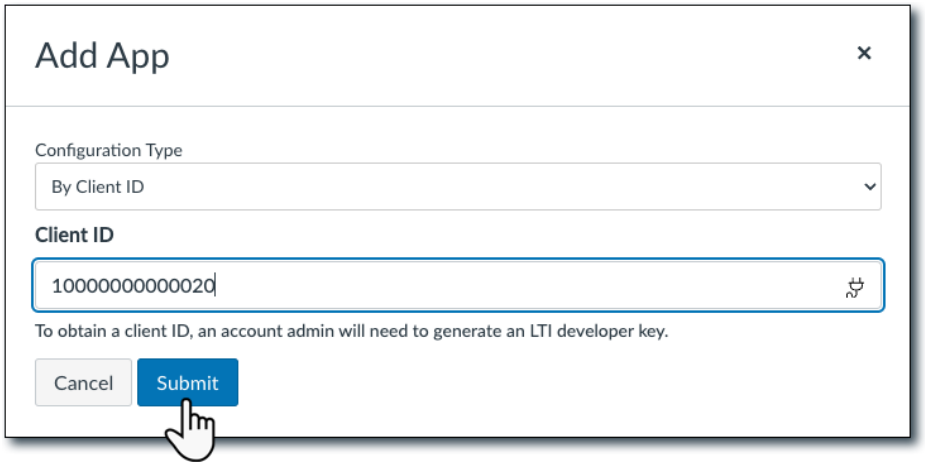
Adding the Constructor App in course settings

To add the Constructor App in course settings:

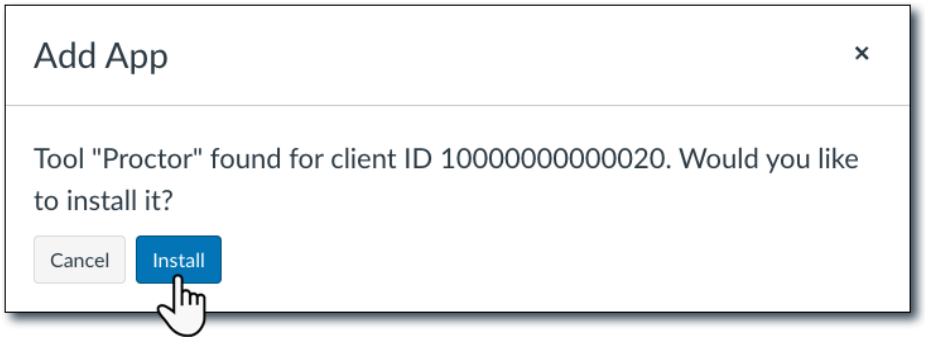
1. Go to **Courses** and select the course from the list.
2. Go to **Settings > Apps** and click **AddApp**:



3. In the popup, select **Configuration Type: By Client ID**.
4. In the **Client ID** field, enter the code obtained earlier in the **Adding a Developer Key** section (in the Details column).
5. Click **Submit**:

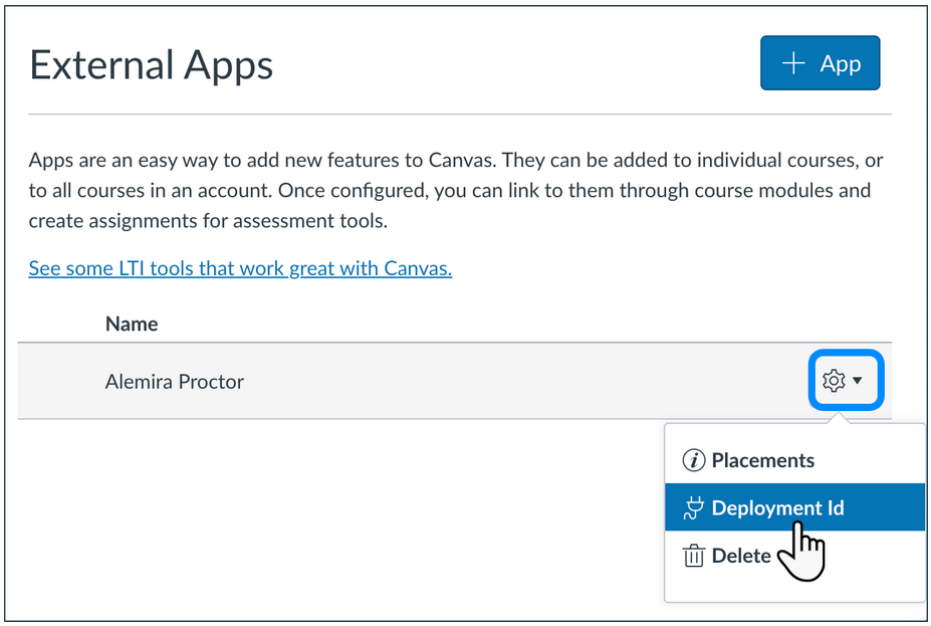


6. Click **Install** in the new popup:



The new Proctor app should appear in the list of external apps.

7. Click on the gear icon and select **Deployment ID**:



8. You will see the **Deployment ID** in the popup:



9. Save this AD and send it to the integration manager at Constructor along with two

other keys and your Canvas URL. You will need to create a new deployment ID and send it to Constructor for each course where you'd like to have proctoring.

Creating a proctored exam in Canvas

Before you create a proctored exam in Canvas using Constructor Proctor you need to:

- Set up an LTI integration with Proctor by Constructor (as explained in Integrating Constructor Proctor with Canvas).
- Have access to a teacher or admin account on Canvas.

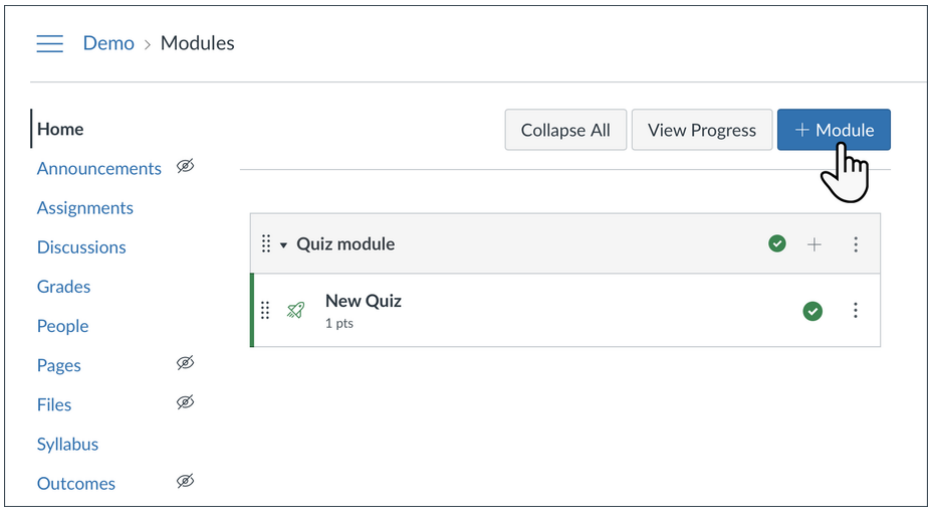
Then you can create an exam as described further in this section:

- Adding a new module
- Setting proctoring parameters in Canvas
- Proctoring module: requirement
- Quiz module: requirement

Adding a new module

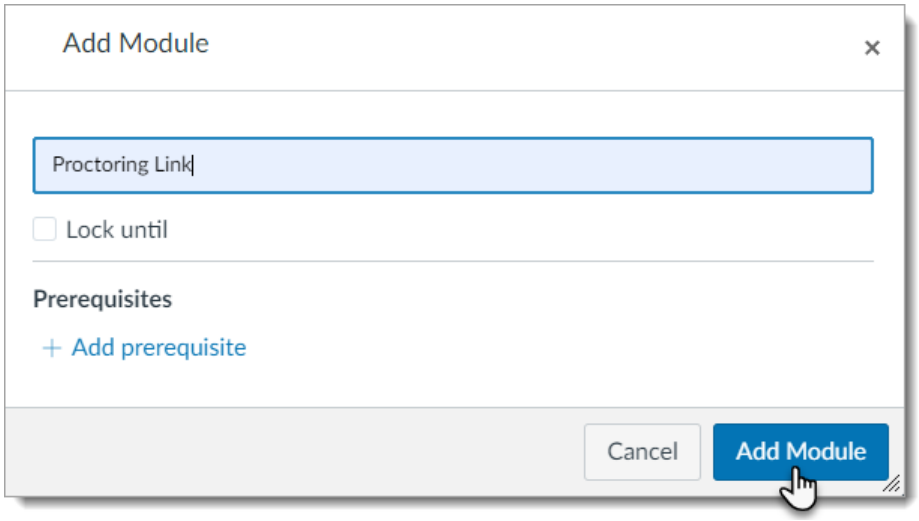
To prevent examinees from starting the quiz without proctoring, you will add a separate module with just the Constructor LTI app to the course.

1. Login to Canvas with a teacher or admin account.
2. Go to **Courses** and select the course with the Constructor LTI app deployed. See Constructor Proctor LTI integrations.
3. Add a new module:

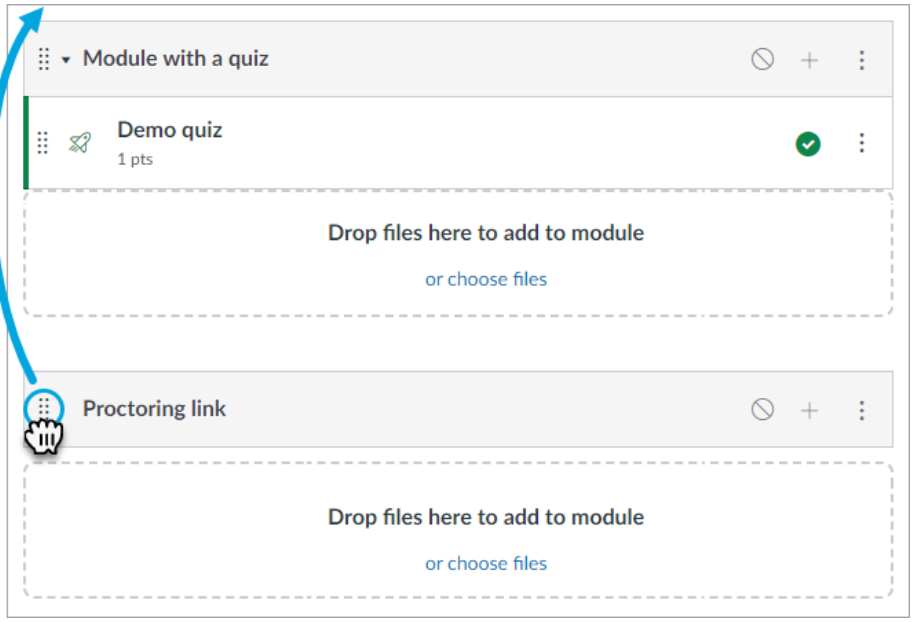


Note: It is important to have the quiz that you want to associate with the exam in this course. The quiz needs to be protected by a password. Remember this quiz password as you will need it later in the proctoring settings.

4. Type in a name for the module and click **Add Module**:

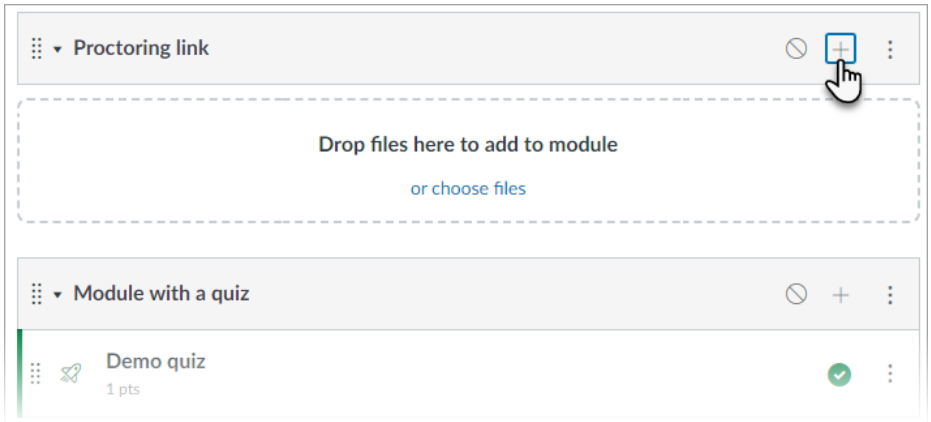


5. Place the proctoring module above the one with the quiz:

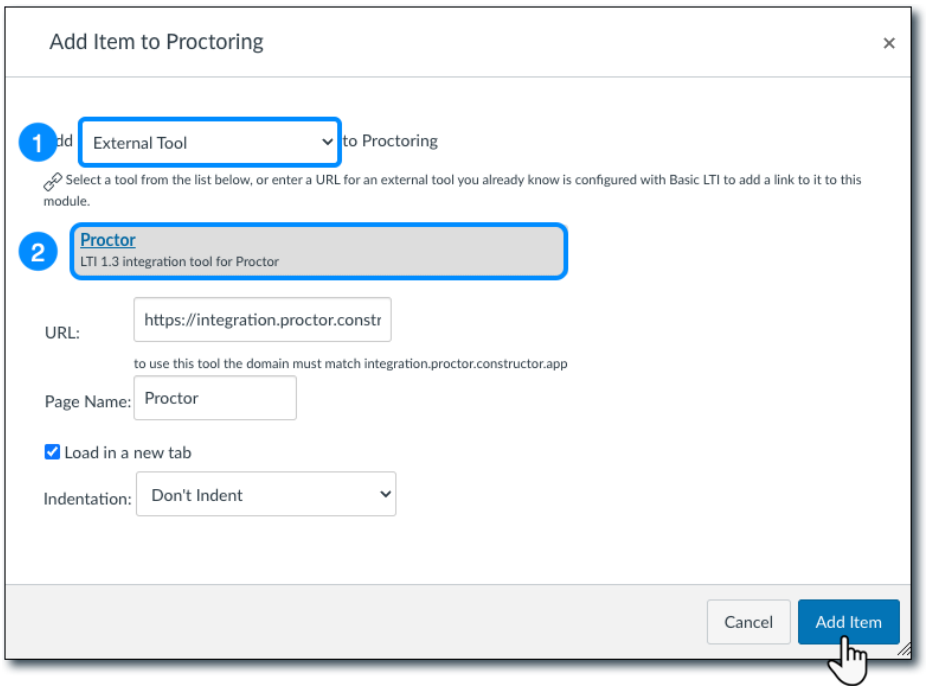


Setting proctoring parameters in Canvas

1. Click on “**+**” inside the new module:

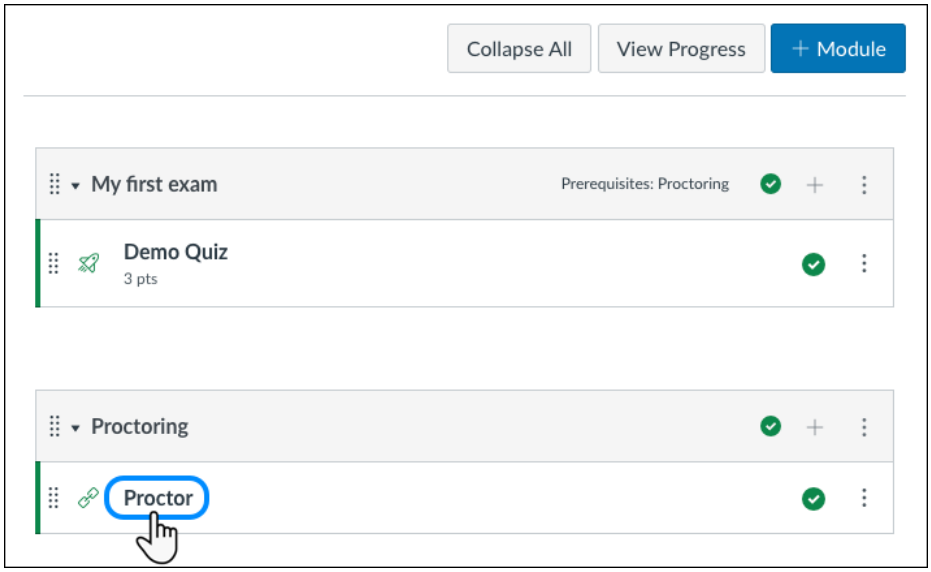


2. Select **External tool (1)** and click on **Constructor Proctor (2)**, then click **Add Item**:

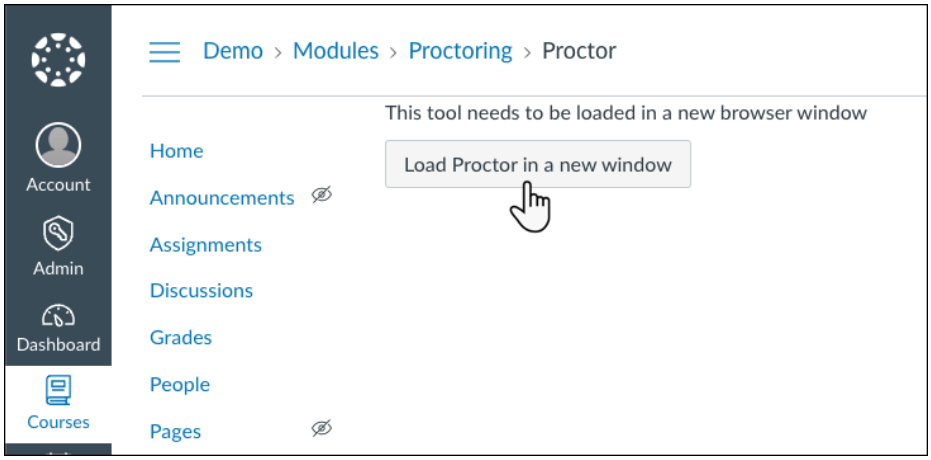


Note: If you are testing the solution on Constructor Canvas testing environment, select Proctor_new_integration. You can disregard the other listed tools. Once Proctor is integrated with your organization’s Canvas environment, you will have only one integration option to select at this stage.

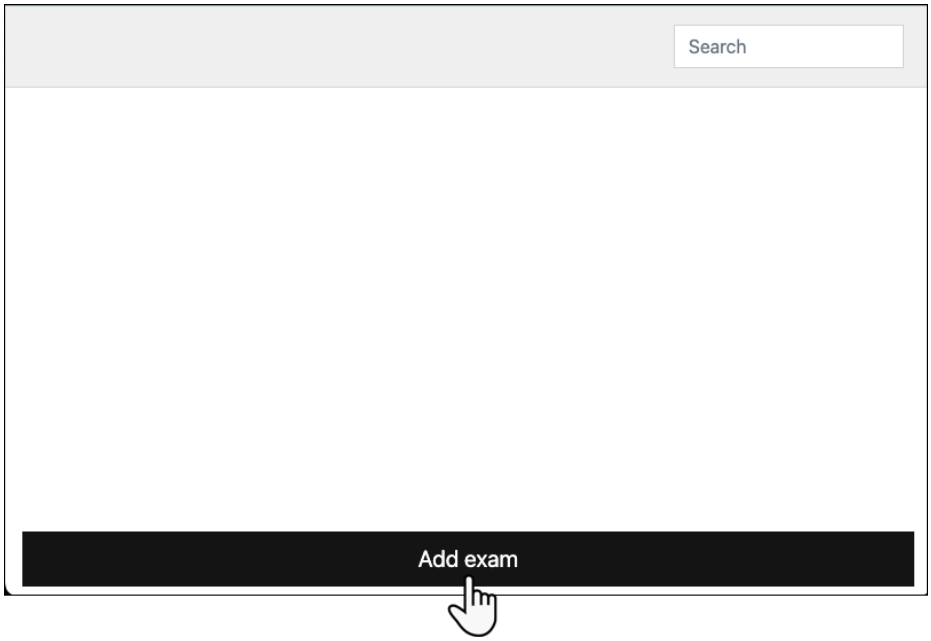
3. Click the new item in the module:



4. Click **Load Proctor in a new window**:



5. A new window will open. Click **Add exam** at the bottom to create a new proctored exam:



6. Set proctoring parameters for the exam as needed. You can find the details about each of the parameters in the table below.

Important requirements for Proctor and Canvas exam integration

For the integration of Proctor and Canvas to operate correctly, make sure to:

- Select the Canvas quiz you want to associate with this exam.
- Enable Secure Browser.
- Use the same password for this exam as the one set in the quiz.

If any of these actions are missed, the integration will not function correctly.

Exam parameters:

Parameter	Description
Title	Name of the proctored exam that will be saved in the Proctor Dashboard.
Exam resource	The Canvas quiz that you want to associate with this exam. This requires you to have a quiz already created in the **Quizzes** section of the course.
Proctoring mode	• **Offline:** multiple examinees take the test at a certain time. AI gives warnings and records found violations to the archive. Human proctors identify students before letting them start the exam. They are watching the examinees in real time (8 examinees per proctor by default), are able to manually add violations, and either confirm or reject authenticity of each exam session in real time. • **Online:** examinees take the test at any time that suits them individually. AI gives warnings in real-time and records found violations to the archive. After the exam is finished, proctors can watch recorded sessions in the archive, manually add violations, and either confirm or reject authenticity of each session. • **Auto:** same as Offline, but AI is able to confirm or reject authenticity based on the automatically calculated cheating score (see further in the list). No human proctor involvement needed. • **Identification:** same as Post-Review, but human proctors need to identify students before letting them start the exam.
Identification mode	Determines what photos are requested from students before the exam starts: • **Passport**; • **Face**; • **Face and Passport**; • **Skip** - do not request any photos.
Duration	Duration of the proctored exam. The exam will not stop automatically if this duration is exceeded. If you want to put a limit on exam duration, apply **Timing** settings instead.
User agreement url (optional)	Use custom HTML if you want to alter the agreement page displayed to examinees before the start of an exam.
Start date (optional)	Currently not functional.
End date (optional)	Currently not functional.
Auxiliary (secondary) camera	If enabled, students will have to use their smartphone as a second camera. Depending on the exam settings, the phone camera captures periodic photos or continuous video. The Video mode is used by default unless the Photo mode is selected.
Allow multiple displays	If enabled, examinees will be able to start the exam with more than one display connected to their computer.
Allow virtual environment	If enabled, examinees will be able to start the exam on a virtual machine.
Check id photo quality	If enabled, AI will attempt to check if the ID photo is readable (text is clear).

Web camera main view	• **Front** – examinees will have their webcams in front of them. This is default. • **Side** – examinees will have their webcams set on the side.
A calendar entry is required	If enabled, an Proctor calendar entry is needed to take for the exam.
Calculator	Applicable only if Secure Browser is ON. If enabled, then during the exam, students will have access to a built-in calculator in Secure Browser.
Secure Browser	If enabled, the exam can only be taken in Constructor Secure Browser. This parameter needs to be enabled, for the Proctor and Canvas integration to work correctly.
Secure Browser security level	Choose which security level is used in Secure Browser. • **Basic**: same features as in webapp (Google Chrome / Edge experience) plus virtual machine detection, USB devices detection (additional keyboards, mice, etc.) during exam. • **Medium**: same as in basic level plus screen capture prevention on macOS, blocks macOS Dictionary, can close blocked app processes before and during exam, and does not allow resizing the secure browser. • **High**: same as in medium plus blocks certain OS keyboard shortcuts (Alt+tab, Win+R, Print Screen, etc.) and the built-in macOS Screenshot app, forces full screen (kiosk mode), and keeps Secure Browser displayed on top of other apps.
Exam password	The same password you set for the exam quiz (for example, if you have set the quiz password to 123456, you need to fill in this field with 123456).
Rules	Select which exam rules should be seen by examinees before the session starts. Note that a small number of rules disables the “Exam page lost focus” full-screen overlay when enabled. These rules are: • **Allow to use websites** • **Allow to use excel** • **Allow to use messengers** Custom rules**:** enter any text you would like to show to examinees in the rules section
Visible Warnings	Turn AI alerts that are displayed to examinees on or off
Scoring	Customize the individual weight that each AI-detected violation type will contributed to the automatically calculated cheating score. For initial testing it’s recommended that you leave the values in this category as is.

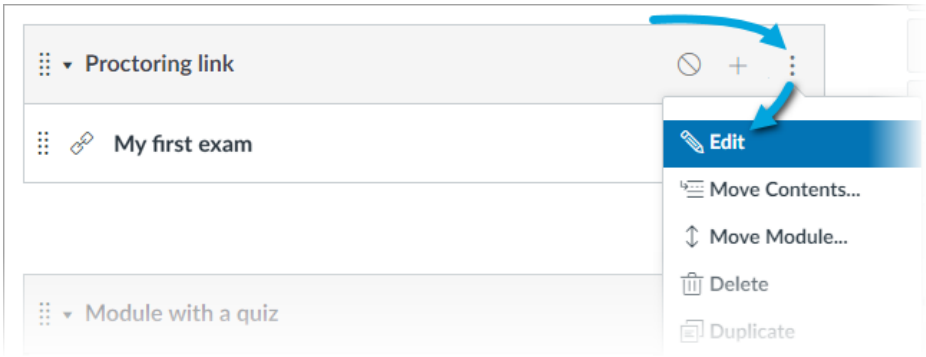
Now you can set up a requirement for the proctoring module and a prerequisite for the quiz module in order to make it impossible to launch the quiz without proctoring.

An alternative way to solve this concern would be to add a password for the quiz in Canvas settings, and then include this password into Custom exam rules. However, this

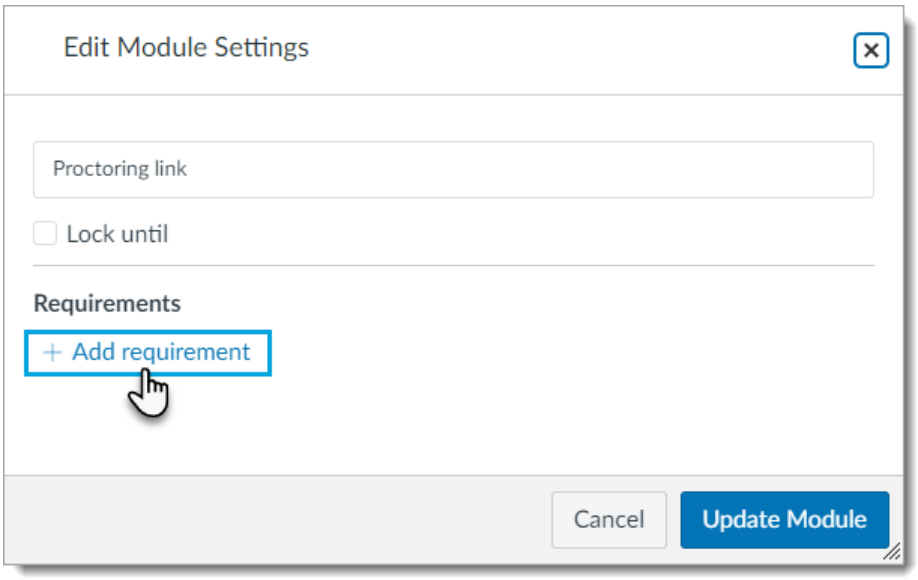
will not prevent learners from sharing the password with their peers if their exam starting times are different.

Proctoring module: requirement

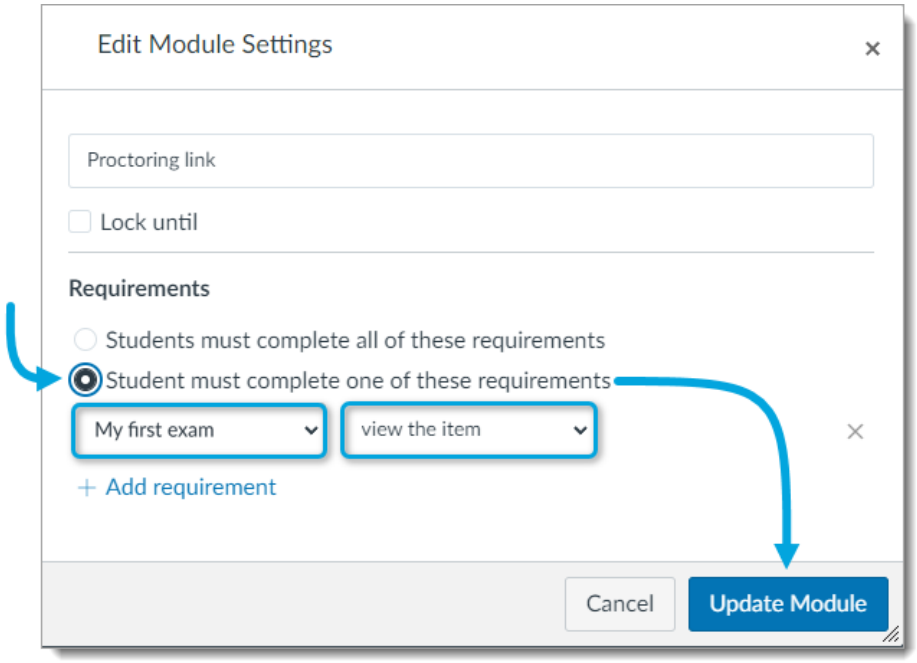
1. Click more inside the proctoring module and select **Edit**:



2. Click **Add requirement**:

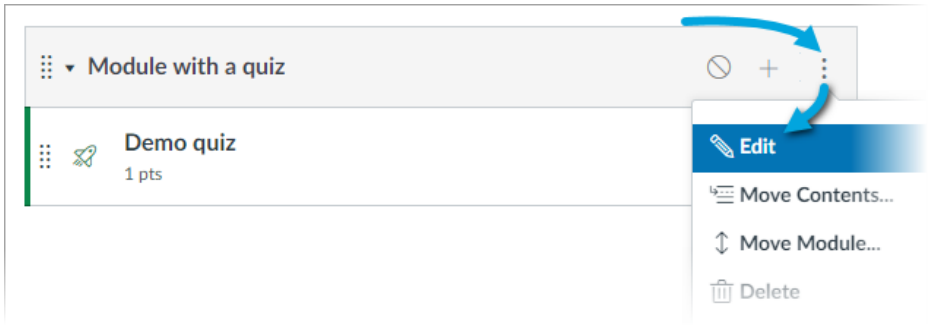


3. Select **Student must complete one of the following requirements**. Make sure the proctoring item is selected with **View the item**, then click **Update Module**:

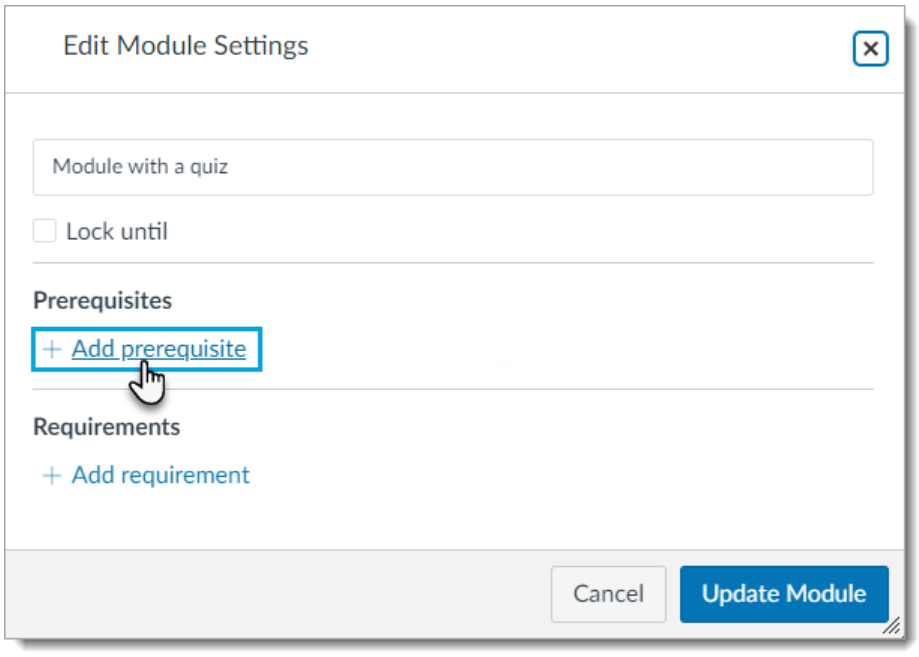

Edit Module Settings
Proctoring link
Lock until
Requirements
Students must complete all of these requirements
Student must complete one of these requirements
My first exam
view the item
Add requirement
Cancel
Update Module

Quiz module: requirement

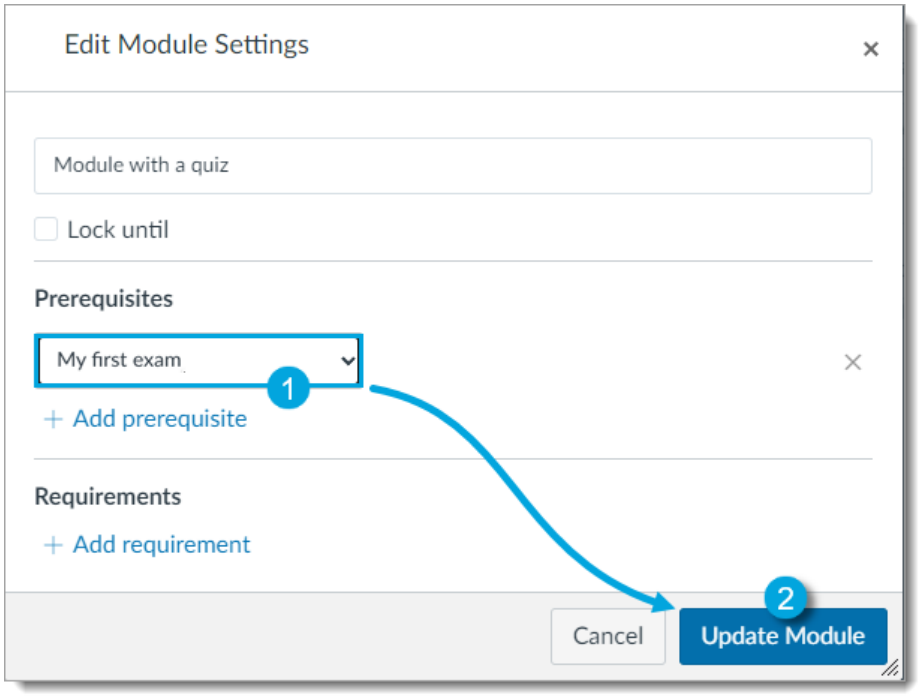
1. Click more inside the quiz module and select **Edit**:



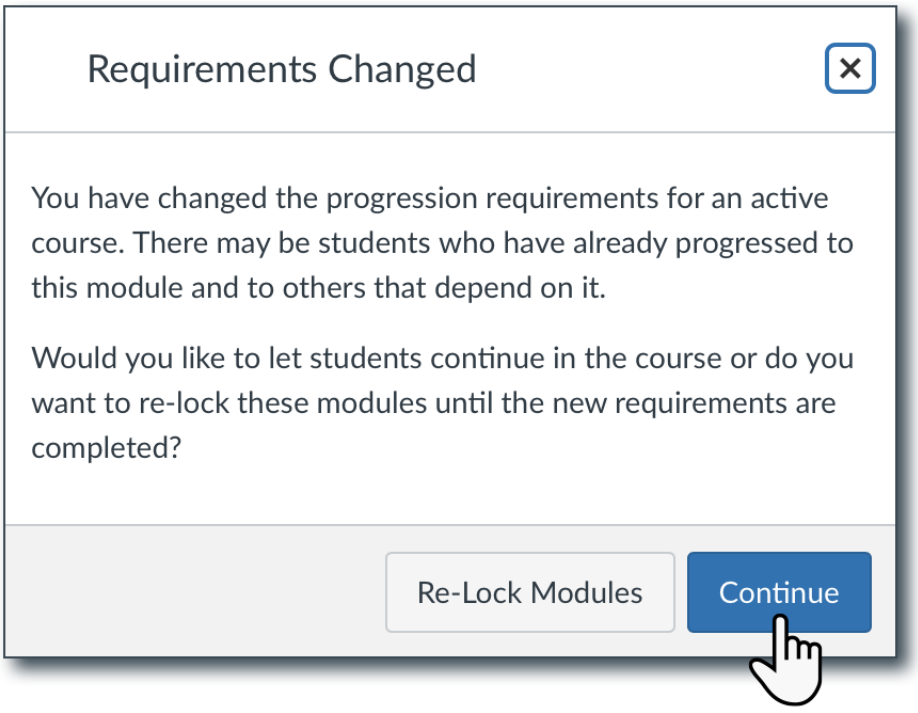
2. Click
   Add Prerequisite:



3. Select the proctoring tool **(1)** and click **Update module (2)**:

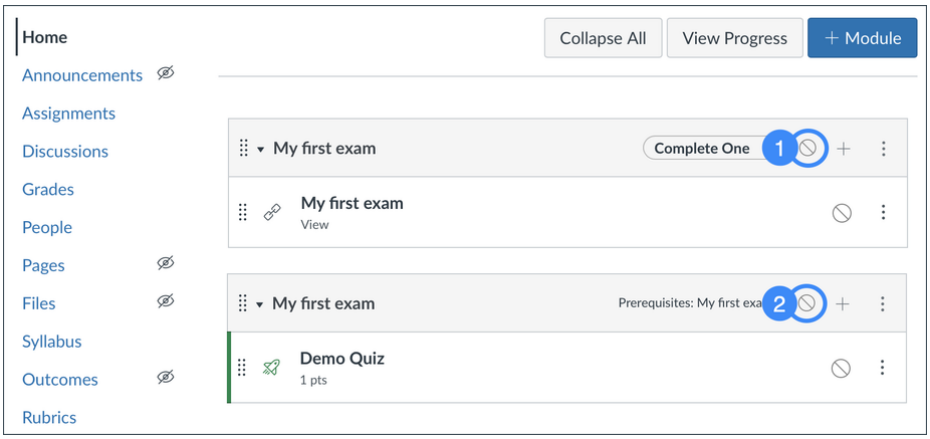


4. Click **Continue** if prompted with the **Requirements changed** popup:



5. Publish both modules one by one using **Publish module and all items** and **Publish module only**:

IMPORTANT: Don't use the **Publish all** option, as publishing will not function correctly.



This step concludes the process of setting up a proctored exam in Canvas. Now learners who are enrolled in this course will be able to click on the proctoring item and launch the quiz with Constructor Proctor enabled.

Constructor Proctor Moodle Plugin

The Constructor Proctor Moodle Plugin integrates Constructor Proctor with Moodle to enable secure and monitored online assessments directly in the Moodle LMS. Once installed, teachers can add proctoring to any quiz or activity in their course, choose how learners are monitored, and configure rules for each exam.

To get the integration parameters required for setup, contact your Constructor representative.

See further in this section:

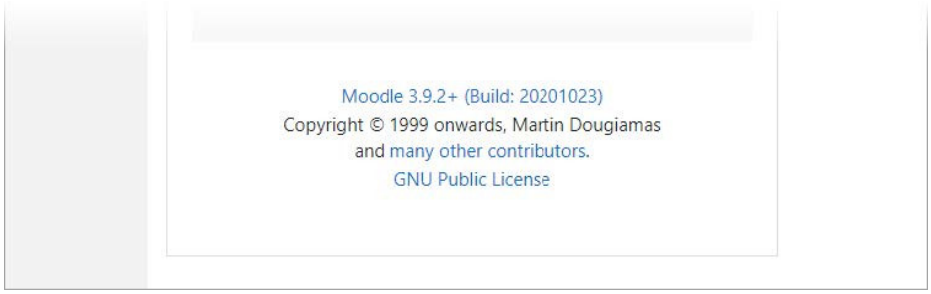
- Prerequisites for Moodle integration
- Installing and configuring the plugin
  - Installing the plugin
  - Configuring the plugin
  - Configuring global proctoring presets
- Creating a proctored exam in Moodle

IMPORTANT: The Constructor Proctor Moodle Plugin does not work with MoodleCloud sites. If your organization uses MoodleCloud to host the Moodle site, use Moodle LTI integration instead.

Prerequisites for Moodle integration

The prerequisites for Moodle integration are as follows:

- **Moodle Version**: the Constructor Proctor plugin supports all Moodle versions from 3.8 onwards, including Moodle 5. To check your Moodle version, go to **Moodle > Site Administration > Notifications** and scroll to the bottom of the page:



- Open **Moodle > Site Administration > Security > HTTP Security** and make sure the following parameters are enabled:
  - **Allow frame embedding**
  - **Secure cookies only**
- **SSL Certificate**: for the integration to work, your Moodle domain needs to have a valid SSL certificate, which means it must be accessible over HTTPS. You can obtain a free SSL certificate from https://letsencrypt.org/ or https://greenlock.domains/.

IMPORTANT: The Proctor Moodle Plugin does not work with MoodleCloud sites. If your organization uses MoodleCloud to host the Moodle site, use Moodle LTI integration instead.

Creating a proctored exam in Moodle

Use the Constructor Proctor restriction to require proctoring for a Moodle quiz or any other Moodle activity. Once proctoring is added, learners enrolled in the course will not be able to take the activity without going through the proctoring flow.

Before setting up individual exams, make sure the required global proctoring presets have been configured. Presets save time by letting you apply a ready-made configuration to each exam instead of setting everything from scratch.

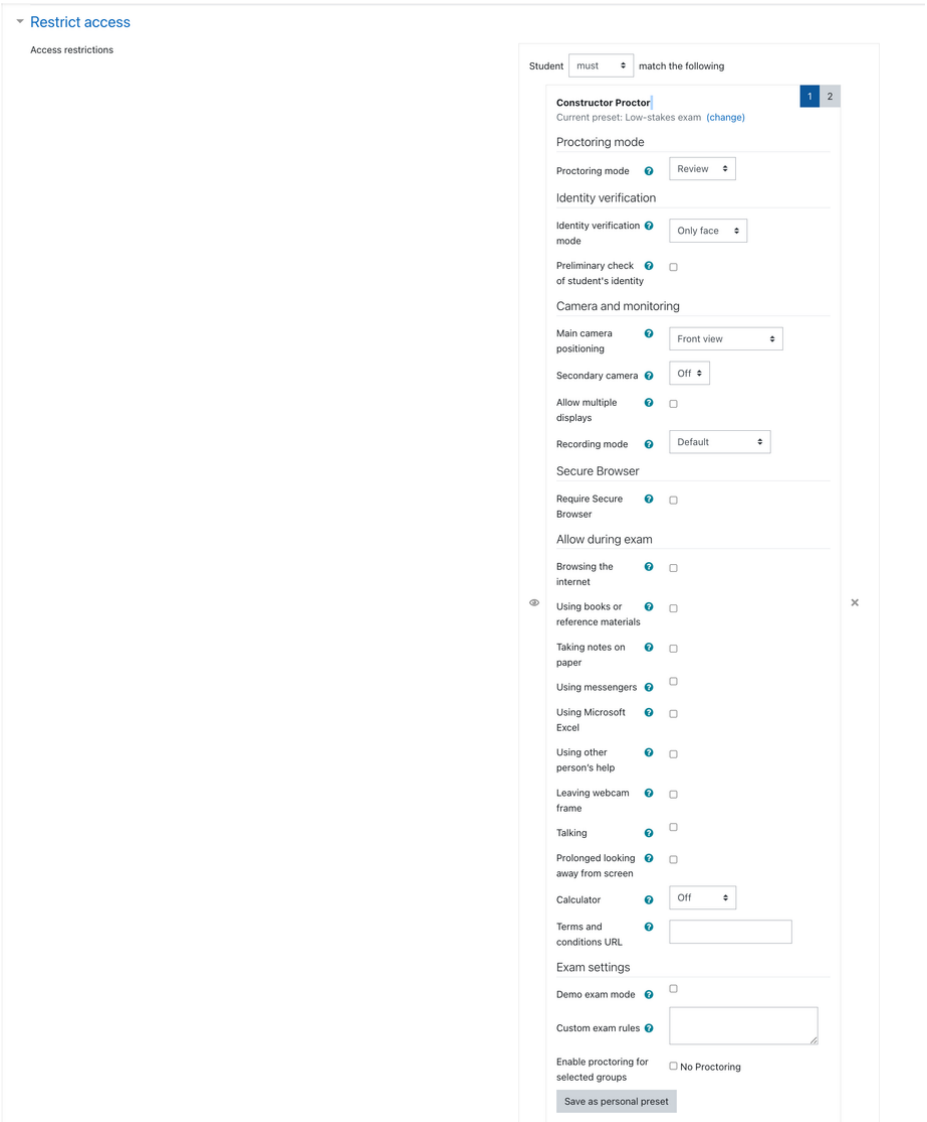
Tip: It is a good idea to create a mock exam first so that learners can practice the pre-exam process and test their equipment before the real exam.

Add the Constructor Proctor restriction

To add proctoring to a Moodle activity:

1. In course editing mode, open **Edit settings** for the activity that must be proctored.
2. Scroll down to **Restrict access**.
3. Click **Add restriction... > Constructor Proctor**.
4. The Constructor Proctor panel opens with the **Current preset** shown at the top. To use a different preset, click **change** and select one from the list. The form reloads with that preset's values, which you can then adjust for this specific exam.
5. Configure the settings on the two tabs as described below.

6. Click **Save changes**.



After learners submit a proctored Moodle quiz, they are redirected back to Moodle. Whether learners can review quiz results, answers, or feedback depends on the review settings configured for the quiz in Moodle.

Tab 1: Proctoring configuration

The first tab contains all settings related to how the exam is monitored, how learners are identified, and what they are permitted to do during the session.

Proctoring mode

The proctoring mode determines how the exam session is monitored:

- **Review** — the session is recorded and reviewed by a proctor after the exam ends. Learners take the exam at any time under AI supervision. Suitable for most online exams.
- **Live** — a human proctor monitors the exam in real time, alongside AI monitoring. Recommended for high-stakes exams where immediate intervention may be required. Note that Live mode limits the number of learners that can be monitored simultaneously per proctor.
- **AI Review** — the session is monitored entirely by AI. No human proctor is involved during or after the exam unless the AI flags the session for review.

Identity verification

Identity verification confirms that the right person is taking the exam.

- **Identity verification mode** — select how learners verify their identity:

  Note: Identity verification can be set differently for each exam. For example, a final exam may use Face and ID, while a weekly quiz uses Only face.

  - **Only face** — the system uses facial recognition to confirm the same person is present throughout the session. No ID document is required. Suitable for lower-stakes exams.
  - **Face and ID** — the learner must present a government-issued ID document at the start. The system also matches their face throughout the session. Recommended for high-stakes exams.
  - **Only ID** — the learner presents an ID document at the start. No continuous facial matching is performed.
  - **Skip** — no identity verification is performed.
- **Preliminary check of student's identity** — if a learner has a photo in their Moodle profile, the photo they take at the start of the exam is compared to their profile photo. The system indicates whether the check passed or failed. This requires **Only face** or **Face and ID** mode to be active. Profile photos are typically synchronized from the Student Information System (SIS) to ensure they are officially approved.

Camera and monitoring

- **Main camera positioning** — select which camera is used as the primary source:
  - **Front view** — uses the front-facing camera. This is the default for most setups, including laptops and desktop webcams.
  - **Side view** — uses a side-mounted auxiliary camera. Intended for specific room setups. Note that side view uses different AI models due to the camera angle.
- **Secondary camera** — enables an additional camera that learners access via a QR code scanned with their phone during the pre-exam process. When enabled, the phone is occupied by the proctoring session and cannot be used for other purposes during the exam. When positioned to the side of the desk, it can capture the keyboard and monitor area. Recommended for high-stakes and final exams. Technical requirements for learners:When the secondary camera is enabled, select how it captures data:
  - A phone with a working camera.

  - Camera access permission granted in the phone's browser.
  - No additional application download is required — access is through the browser.
  - **Photo** — the system captures multiple snapshots throughout the session.
  - **Video** — the system records continuous video throughout the session.
- **Allow multiple displays** — if disabled, learners with more than one display connected will not be able to proceed past the pre-exam check. This setting works independently of Secure Browser.
- **Recording mode** — select how the session is recorded:
  - **Default** — standard video and screen recording. Recommended for most online exams.
  - **No web camera** — records the desktop and optional secondary camera. Webcam and microphone recording, photo capture, and room scan steps are disabled.
  - **No video** — no video is recorded from any source. Recommended for exams that use Secure Browser without video recording.
  - **No AI Processing** — recording occurs but AI and automatic violation detection are disabled, except for technical issue detection. Active-window changes and browser-resize events are ignored.

Secure Browser

Require Secure Browser forces learners to take the exam using Constructor Secure Browser, a dedicated desktop application that locks down the exam environment. Learners must download and install the application before they can start the exam.

Three security levels are available:

- **Basic** — detects virtual machine launches and connected USB devices, and applies standard restrictions.

- **Medium** — includes all Basic features plus additional restrictions. Recommended when specific applications need to be permitted during the exam.
- **High** — enforces maximum security. Forces full-screen, always-on-top mode, blocks background applications, and prevents the exam window from being minimized. Use for on-campus exams or when the highest level of control is required.

On macOS, Secure Browser blocks Dictionary in the Medium and High modes. In the High mode, it also blocks the built-in Screenshot app.

Allow during exam

These settings define which behaviors are permitted during the session. They are shown to learners on the rules page during the pre-exam process and also directly affect violation detection.

- **Browsing the internet** — when allowed, the **Active Window Changed** warning is disabled. Note: if Secure Browser is set to High, no browser tabs are available regardless of this setting.
- **Using books or reference materials** — when allowed, learners can refer to physical materials without triggering a violation.
- **Taking notes on paper** — when allowed, learners can write notes by hand.
- **Using messengers** — when allowed, messaging applications are permitted during the exam.
- **Using Microsoft Excel** — when allowed, learners can open and use Excel during the exam.
- **Using other person's help** — when allowed, assistance from another person is permitted.
- **Leaving webcam frame** — when allowed, learners can move out of the camera frame without triggering an alert.

- **Talking** — when allowed, voice detection warnings are disabled.
- **Prolonged looking away from screen** — when allowed, related warnings are disabled. Useful for open-book exams where learners may look at reference materials.
- **Calculator** — select **Off**, **Basic**, or **Scientific**. When enabled, a calculator icon appears in the exam interface.
- **Terms and conditions URL** — add a link to your institution's exam rules. This link is shown to learners before the exam begins. Most learners do not open it, but it is available if needed.

Forbidden and allowed processes

These settings require Secure Browser. Use them to control which applications are permitted during the exam at the operating system level.

- **Forbidden processes** — specify applications that must not be running during the exam. The plugin already blocks many common applications by default.
- **Allowed processes** — specify applications that should be permitted even though they appear on the default blocked list. For example, to allow Microsoft Excel, enter its process name here.

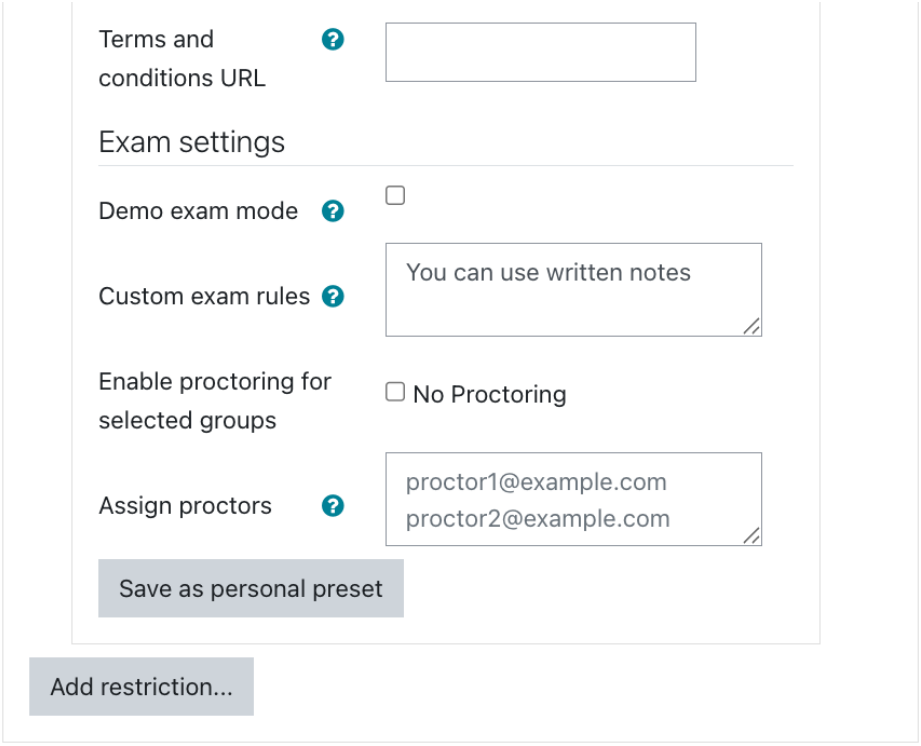
Note: Process names must be entered exactly as they appear in the operating system. Contact the Constructor support team if you need help identifying the correct process name. Medium Secure Browser mode is recommended when allowing specific processes, as High mode can interfere with those applications.

Exam settings

- **Demo exam mode** — when enabled, the exam runs in demo mode and no video is uploaded to the dashboard. Use this for testing purposes, or to allow learners to practice the pre-exam process before the real exam.
- **Custom exam rules** — add your institution's specific rules as text. These rules are displayed below the preset rules on the rules page during the pre-exam process. For example: "You may use a two-sided A4 cheat sheet for this exam."
- **Enable proctoring for selected groups** — by default, proctoring applies to all learners enrolled in the course. Check **No Proctoring** next to a specific Moodle group to exclude that group from proctoring. All other groups will still be proctored.
- **Virtual machine access** — if disabled, learners cannot proceed when a virtual machine is detected on their computer. This requires Secure Browser, as the standard browser cannot detect virtual machine usage. Typically relevant for computer science exams where learners may use virtual machines for their coursework.
- **Assess ID photo quality** — checks that the text on the ID document photo is clear and readable. If the photo quality is insufficient, the learner is prompted to retake it. Active only when identity verification is enabled.
- **Send manual warnings to learners** — available in Live mode only. Allows the proctor to send a manual warning directly to a learner during the exam, in addition to the automatic warnings generated by the AI.
- **Allow room scan using aux camera** — enables a 360-degree room scan using the secondary camera. When enabled, learners use their phone's camera to scan the room before the exam begins, allowing proctors to verify that no unauthorized materials are present. During Live proctoring, a proctor can also request a repeat room scan via chat if they suspect suspicious behavior.

Note: Room scan availability is configured at the web app level, not in individual

exam settings. If room scan is enabled at the web app level, it applies to all exams on that instance. To have some exams with room scan and others without, separate web app instances are required.



Assign proctors

This feature allows administrators or teachers to assign specific Constructor Proctor users to monitor a particular exam. When proctors are assigned, only those proctors will see this exam in their dashboard queue.

To assign proctors, enter each proctor's email address in the **Assign proctors** field, one per line.

Note: Assigned proctors must have active accounts in the Constructor Proctor dashboard. If the field is left empty, the exam is visible to all proctors with access to the account.

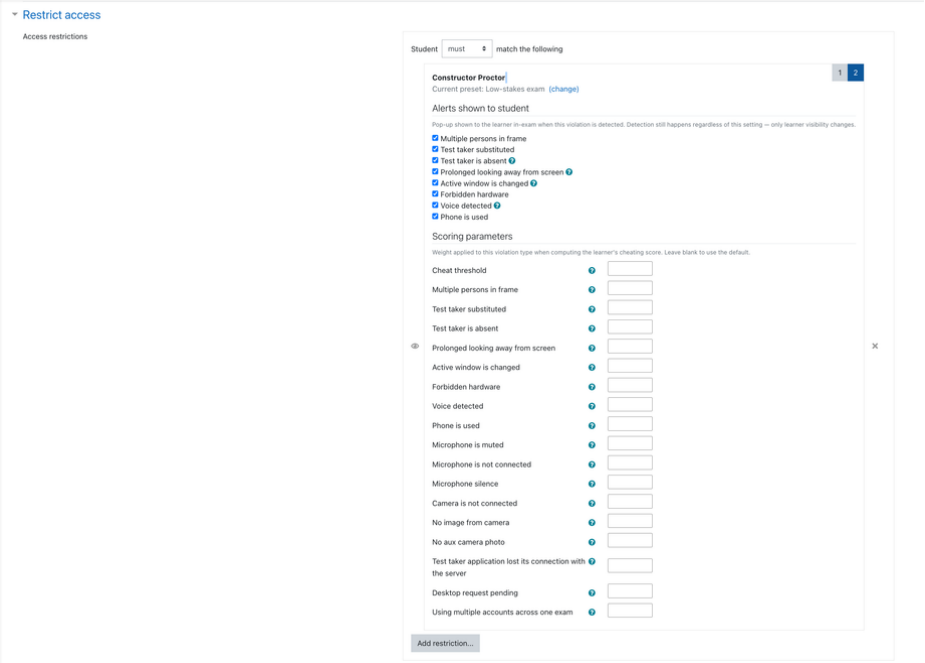
Personal preset

Once you have configured the settings for this exam, you can save them as a personal preset for future use. Personal presets are available only to the teacher who created them and can be applied to other activities without needing to reconfigure everything from scratch.

To save a personal preset, click **Save as personal preset** at the bottom of the tab. To apply a personal preset to another exam, click **change** next to **Current preset** at the top of the Constructor Proctor panel and select your preset from the list.

Tab 2: Alerts and scoring

The second tab controls which violation notifications learners see during the exam, and how violations are scored.



Alerts shown to student

This section controls which violation alerts learners see as pop-up notifications during the exam. Violation detection always occurs regardless of this setting — violations are always recorded and visible to proctors. Only the learner-facing visibility changes.

When deciding which alerts to enable, consider the following:

- **Disable all alerts** — learners do not see pop-up notifications. This reduces distraction and is useful when you do not want learners to be aware of what is being detected.
- **Enable all alerts** — learners are notified when a violation is detected, which allows them to self-correct. This is the most common setting.
- **Disable selected alerts** — useful for specific exam types. For example, in an oral exam where talking is expected, you may want to disable the **Voice detected** alert.

All alerts are enabled by default:

- **Multiple persons in frame** — an additional person has been detected in the camera frame.
- **Test taker substituted** — a different person has been detected; the original test taker is no longer present.
- **Test taker is absent** — no person has been detected in the camera frame.
- **Prolonged looking away from screen** — the learner has been looking away from the screen for an extended period.
- **Active window is changed** — the learner has switched to a different application or browser tab.
- **Forbidden hardware** — an unauthorized device has been detected.
- **Voice detected** — audio activity has been detected when talking is not permitted.
- **Phone is used** — a mobile phone has been detected in the camera frame.

Scoring parameters

Scoring parameters control how much each violation type contributes to the learner's overall cheating score. A higher weight means that violation has a greater impact on the final score.

How the score works:

- The default cheating threshold is **80 out of 100**. Sessions with a score above this threshold are automatically flagged for review.
- Each detected violation increases the score based on its configured weight, the duration of the violation, and AI analysis factors.
- If you leave a field blank, the system default weight is used.

- Custom thresholds and weights can be set per exam.

Parameter	What it detects
Cheat threshold	The score at which a session is automatically flagged as a potential violation.
Multiple persons in frame	An additional person has been detected in the camera frame.
Test taker substituted	A different person has been detected — the original test taker is no longer present.
Test taker is absent	No person has been detected in the camera frame.
Prolonged looking away from screen	The learner has been looking away from the screen for an extended period.
Active window is changed	The learner has switched to a different application or browser tab.
Forbidden hardware	An unauthorized device has been detected (for example, a second phone).
Voice detected	Audio activity has been detected when talking is not permitted.
Phone is used	A mobile phone has been detected in the camera frame.
Microphone is muted	The learner's microphone is muted during the session. This may indicate an attempt to conceal audio activity.
Microphone is not connected	No microphone device has been found. A microphone is required for audio monitoring.
Microphone silence	No audio signal has been detected despite a microphone being connected. This may indicate a muted or bypassed device.
Camera is not connected	No camera device has been found.
No image from camera	A camera is connected but is not providing a video feed.
No aux camera photo	The secondary camera is connected but is not providing images.
Test taker lost server connection	The learner's session has lost contact with the server due to a network issue.
Desktop request pending	The learner has not yet granted screen sharing permission.
Using multiple accounts across one exam	Multiple learner accounts have been detected within the same exam session.

Once all settings are configured, click **Add restriction** to save and apply proctoring to this activity.

General recommendations

Exam type	Recommended settings
High-stakes exam	Live mode, Face and ID verification, secondary camera in Video mode, Secure Browser Medium or High.
Low-stakes or intermediate test	Review mode, face-only verification, Secure Browser optional.
Open-book exam	Review mode, disable Looking Away warnings, set Looking Away score to 0, allow internet browsing if needed.
On-campus exam (GDPR)	No web camera mode, Secure Browser High, AI detection disabled. Desktop recording remains active.

Allow another attempt

If a learner has already completed the activity and needs to take it again with proctoring, you must create a new entry manually:

1. Log in to Moodle as an administrator.
2. Go to **Site Administration > Reports > Proctor by Constructor settings**.
3. Find the exam in the list.
4. Click **New entry**.

Special accommodations

Special accommodations are adjustments made for individual learners who require different exam conditions — for example, extra time, scheduled breaks, or other accessibility arrangements agreed with your institution. When this feature is configured, the accommodation details entered in a learner's Moodle profile are automatically

passed to Constructor Proctor, so the proctor is informed before the session begins.

To configure the special accommodations field:

1. Go to **Admin > Users > User profile fields**.
2. Click **Create a new profile field > Text area**.
3. Set **Short name** to `proctor_special_accommodations`.
4. Enter a readable name for the field, for example: Proctoring special accommodations.

Once the field is created, administrators or support staff can enter accommodation details on the learner's Moodle profile page. This information is then visible to the proctor when reviewing or monitoring that learner's session.

Installing and configuring the plugin

See further in this section:

- Installing the plugin
- Configuring the plugin

Installing the plugin

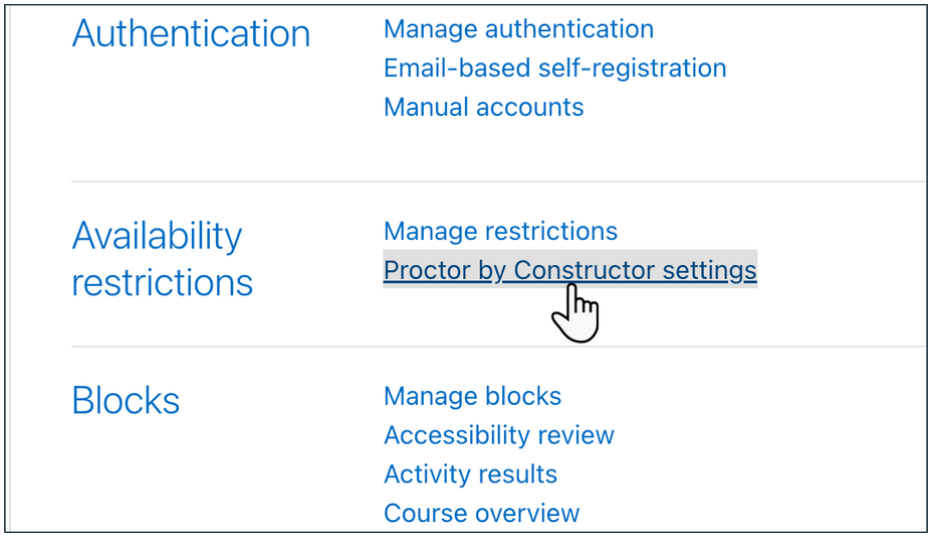
To install the Constructor Moodle plugin:

1. Download the latest plugin version from https://github.com/constructor-tech/alemira-proctor-moodle-plugin/releases.
2. Log in to **Moodle** as admin and open **Site Administration > Plugins > Install plugin**.
3. Click **Choose a file...** and select the downloaded ZIP package.
4. Click **Install Plugin from the ZIP file**.

Note: If you're installing the plugin via SSH, the directory where it should be installed is **/availability/condition**.

After the plugin is installed, your Moodle might behave differently depending on its version.

- If it opens the Proctor plugin settings automatically, move on to the **Configure Plugin** section below.
- If it doesn't open the plugin settings automatically, go to **Moodle** > **Site Administration** > **Plugins** and scroll down to **Availability Restrictions**. Click **Proctor by Constructor settings**:

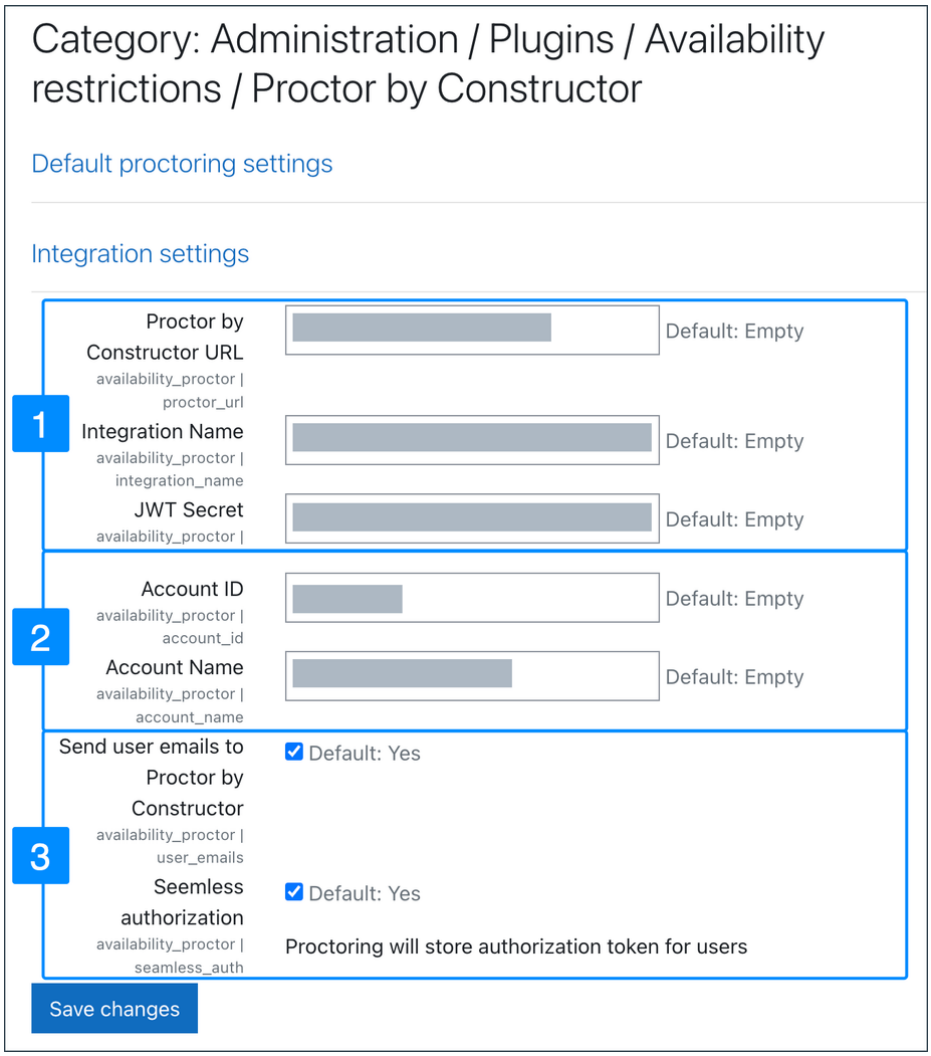


Now you can proceed with the plugin configuration.

Configuring the plugin

To configure the Constructor Proctor Moodle plug-in:

1. Request the following integration values from the Constructor Proctor team:
   - **Integration Name**
   - **JWT Secret**
   - **Account Name**
   - **Account ID**
2. In Moodle, go to **Site Administration > Plugins > Availability restrictions > Constructor Proctor > Integration Settings**.



3. Enter the integration values provided by Constructor.

4. Set the **Send user emails to Constructor Proctor** option. It is enabled by default.
   - If enabled, Moodle sends learner email addresses to Constructor Proctor.
   - If disabled, Moodle does not send learner email addresses. Instead, Constructor Proctor generates a unique mock email address for each learner to use as an identifier in the dashboard.
5. Set the **Seamless authorization** option. It is enabled by default.
   - If enabled (recommended), Constructor Proctor automatically authorizes learners in Moodle. This is especially recommended when using Secure Browser, as learners do not need to sign in again during the proctoring flow.
   - If disabled, learners must sign in to Moodle manually during the proctoring flow.
6. Click **Save changes**.
7. Configure the global proctoring presets.

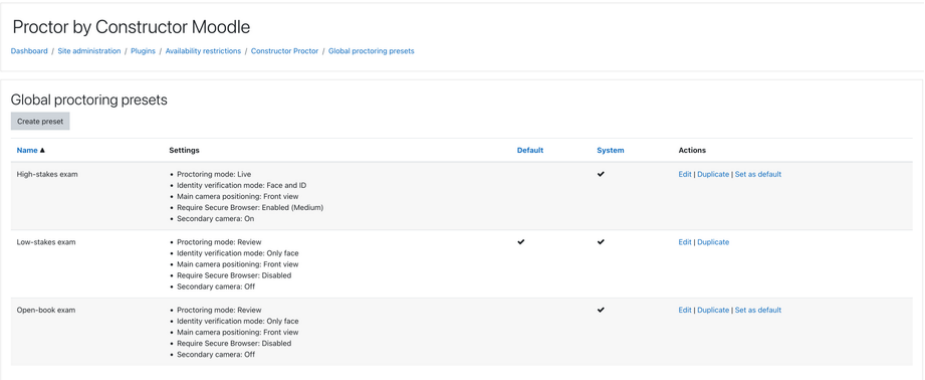
Configuring global proctoring presets

Global proctoring presets let Moodle administrators define reusable Constructor Proctor configurations that can be applied across multiple courses and exams. A preset is a reusable set of proctoring settings. It includes:

- Monitoring mode
- Identity verification settings
- Camera settings
- Allowed behaviors
- Alert visibility
- Scoring parameters

Instead of configuring these settings for each exam, teachers can apply a preset when creating an activity and adjust the settings for that specific exam if needed.

To open the presets page, go to **Dashboard > Site administration > Plugins > Availability restrictions > Constructor Proctor > Global proctoring presets**.



When to use each preset

The plugin includes three system presets out of the box. These cannot be deleted, but can be duplicated and used as starting points for your own presets:

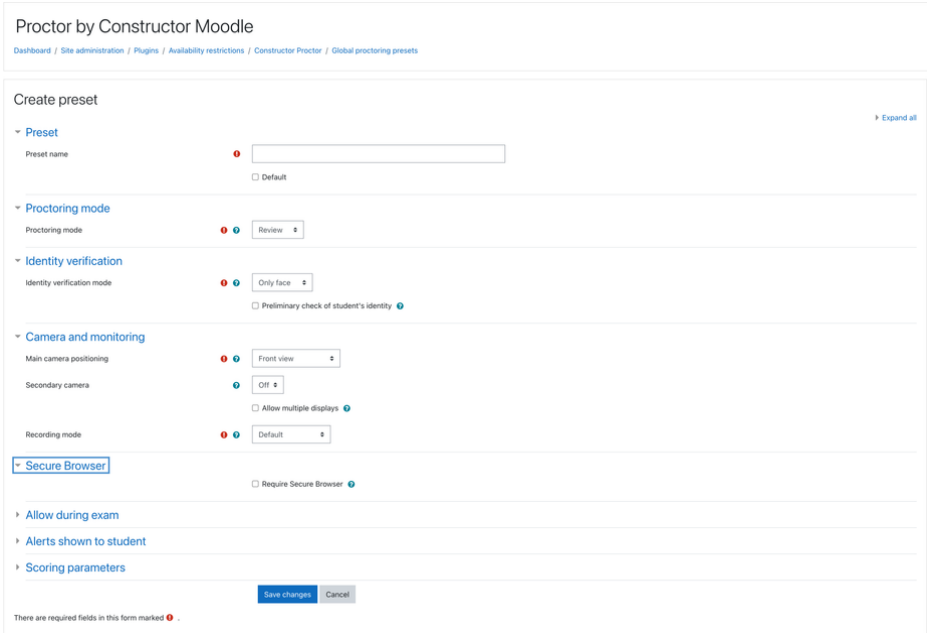
Preset	Recommended for
High-stakes exam	Final exams, certifications, or any exam requiring maximum integrity. Uses Live proctoring, Face and ID verification, and Secure Browser (Medium).
Low-stakes exam	Formative assessments, practice tests, or internal quizzes where lighter monitoring is sufficient. Uses Review mode and face-only verification.
Open-book exam	Exams where learners are permitted to use reference materials. Uses Review mode with relaxed violation rules.

Use **Duplicate** to create a new preset based on an existing one without modifying the original. Use **Set as default** to make a preset pre-selected for all new exam configurations.

Creating a preset

To create a global preset:

1. Click **Create preset**.
2. Enter a **Preset name**.
3. Select **Default** if this preset should be pre-selected for all new exam configurations.
4. Configure the preset sections described below.
5. Click **Save changes**.



Proctoring mode

The proctoring mode determines how the exam session is monitored:

- **Review** — the session is recorded and reviewed by a proctor after the exam ends. Learners take the exam at any time under AI supervision, and a human proctor reviews flagged sessions afterward. Suitable for most online exams.
- **Live** — a human proctor monitors the exam in real time, alongside AI monitoring. Recommended for high-stakes exams where immediate intervention may be required. Note that Live mode limits the number of learners that can be monitored simultaneously per proctor.
- **AI Review** — the session is monitored entirely by AI. No human proctor is involved during or after the exam unless the AI flags the session for review.

Identity verification

Identity verification controls how the system confirms that the right person is taking the exam.

- **Identity verification mode** — select how learners verify their identity:

  Note: Identity verification can be set differently for each exam. For example, a final exam may use Face and ID, while a weekly quiz uses Only face.

  - **Only face** — the system uses facial recognition to confirm the same person is present throughout the session. No ID document is required. Suitable for lower-stakes exams.
  - **Face and ID** — the learner must present a government-issued ID document at the start of the exam. The system also matches their face throughout the session. Recommended for high-stakes exams.
  - **Only ID** — the learner presents an ID document at the start of the exam. No continuous facial matching is performed.
  - **Skip** — no identity verification is performed.
- **Preliminary check of student's identity** — if a learner has a photo in their Moodle profile, the photo they take at the start of the exam is compared to their profile photo. The system indicates whether the check passed or failed. This requires **Only face** or **Face and ID** mode to be active. Profile photos are typically synchronized from the Student Information System (SIS) to ensure they are officially approved.

Camera and monitoring

- **Main camera positioning** — select which camera is used as the primary source:

  - **Front view** — uses the front-facing camera. This is the default for most setups, including laptops and desktop webcams.
  - **Side view** — uses a side-mounted auxiliary camera. Intended for specific room setups. Note that side view uses different AI models due to the camera angle.
- **Secondary camera** — enables an additional camera that learners access via a QR code scanned with their phone during the pre-exam process. When enabled, the phone is occupied by the proctoring session and cannot be used for other purposes during the exam. When the phone is positioned to the side of the desk, it can capture the keyboard and monitor area, providing additional monitoring coverage. Recommended for high-stakes and final exams. When the secondary camera is enabled, select how it captures data:
  - **Photo** — the system captures multiple snapshots throughout the session.
  - **Video** — the system records continuous video throughout the session.
- **Allow multiple displays** — if disabled, learners with more than one display connected will not be able to proceed past the pre-exam check. This setting works independently of Secure Browser and does not require it to function.
- **Recording mode** — select how the session is recorded:
  - **Default** — standard video and screen recording. Recommended for most online exams.
  - **No web camera** — records the desktop and optional secondary camera. Webcam and microphone recording, photo capture, and room scan steps are disabled.
  - **No video** — no video is recorded from any source. Recommended for exams that use Secure Browser without video recording.
  - **No AI Processing** — recording occurs but AI and automatic violation detection are disabled, except for technical issue detection. Active-window changes and browser-resize events are ignored.

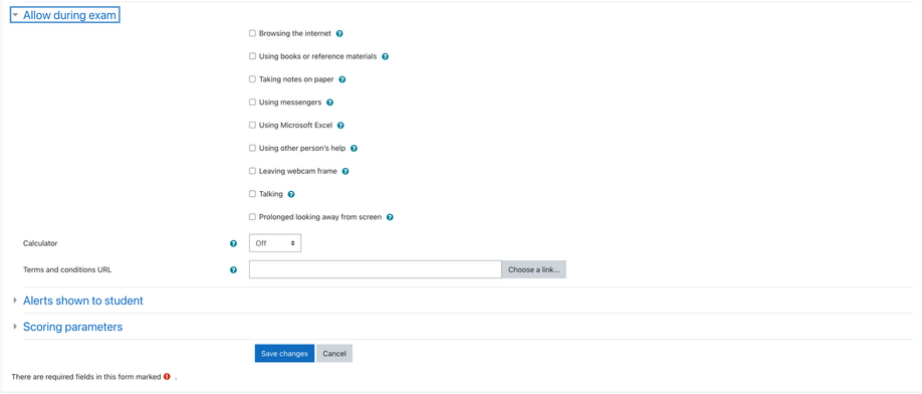
Secure Browser

Require Secure Browser forces learners to take the exam using Constructor Secure Browser, a dedicated desktop application that locks down the exam environment. When this option is enabled, learners must download and install the application before they can start the exam.

Three security levels are available:

- **Basic** — detects virtual machine launches and connected USB devices, and applies standard restrictions.
- **Medium** — includes all Basic features plus additional restrictions. Recommended when specific applications need to be permitted during the exam.
- **High** — enforces maximum security. Forces full-screen, always-on-top mode, blocks background applications, and prevents the exam window from being minimized. Use for on-campus exams or when the highest level of control is required.

On macOS, Secure Browser blocks Dictionary in the Medium and High modes. In the High mode, it also blocks the built-in Screenshot app.



Allow during exam

These settings define which behaviors are permitted during the session. They are shown to learners on the rules page during the pre-exam process, and they also directly affect violation detection.

- **Browsing the internet** — when allowed, the **Active Window Changed** warning is disabled. Note: if Secure Browser is set to High, no browser tabs are available regardless of this setting.
- **Using books or reference materials** — when allowed, learners can refer to physical materials without triggering a violation.
- **Taking notes on paper** — when allowed, learners can write notes by hand.
- **Using messengers** — when allowed, messaging applications are permitted during the exam.
- **Using Microsoft Excel** — when allowed, learners can open and use Excel during the exam.
- **Using other person's help** — when allowed, assistance from another person is permitted.
- **Leaving webcam frame** — when allowed, learners can move out of the camera frame without triggering an alert.
- **Talking** — when allowed, voice detection warnings are disabled.
- **Prolonged looking away from screen** — when allowed, related warnings are disabled. Useful for open-book exams where learners may look at reference materials.
- **Calculator** — select **Off**, **Basic**, or **Scientific**. When enabled, a calculator icon appears in the exam interface for learners to use.
- **Terms and conditions URL** — add a link to your institution's exam rules. This link is shown to learners before the exam begins.

Forbidden and allowed processes

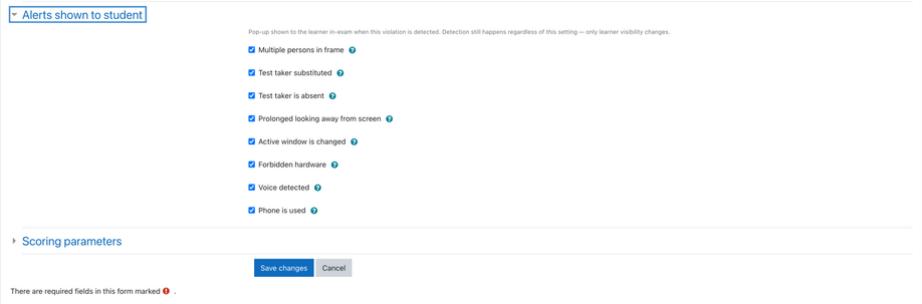
These settings require Secure Browser. Use them to control which applications are permitted during the exam at the operating system level.

- **Forbidden processes** — specify applications that must not be running during the exam. The plugin already blocks many common applications by default.
- **Allowed processes** — specify applications that should be permitted even though they appear on the default blocked list. For example, to allow Microsoft Excel, enter its process name here.

Note: Process names must be entered exactly as they appear in the operating system. Contact the Constructor support team if you need help identifying the correct process name. Medium Secure Browser mode is recommended when allowing specific processes, as High mode enforces full-screen restrictions that can interfere with those applications.

Alerts shown to student

This section controls which violation alerts learners see as pop-up notifications during the exam. Violation detection always occurs regardless of this setting — only the learner-facing visibility changes. Violations are always recorded and visible to proctors.



When deciding which alerts to enable, consider the following:

- **Disable all alerts** — learners do not see pop-up notifications during the exam. This reduces distraction and is useful when you do not want learners to be aware of what is being detected.
- **Enable all alerts** — learners are notified when a violation is detected, which allows them to self-correct. This is the most common setting.
- **Disable selected alerts** — useful for specific exam types. For example, in an oral exam where talking is expected, you may want to disable the **Voice detected** alert.

The available alert types are:

- **Multiple persons in frame** — an additional person has been detected in the camera frame.
- **Test taker substituted** — a different person has been detected; the original test taker is no longer present.
- **Test taker is absent** — no person has been detected in the camera frame.
- **Prolonged looking away from screen** — the learner has been looking away from the screen for an extended period.
- **Active window is changed** — the learner has switched to a different application or browser tab.
- **Forbidden hardware** — an unauthorized device has been detected.
- **Voice detected** — audio activity has been detected when talking is not permitted.

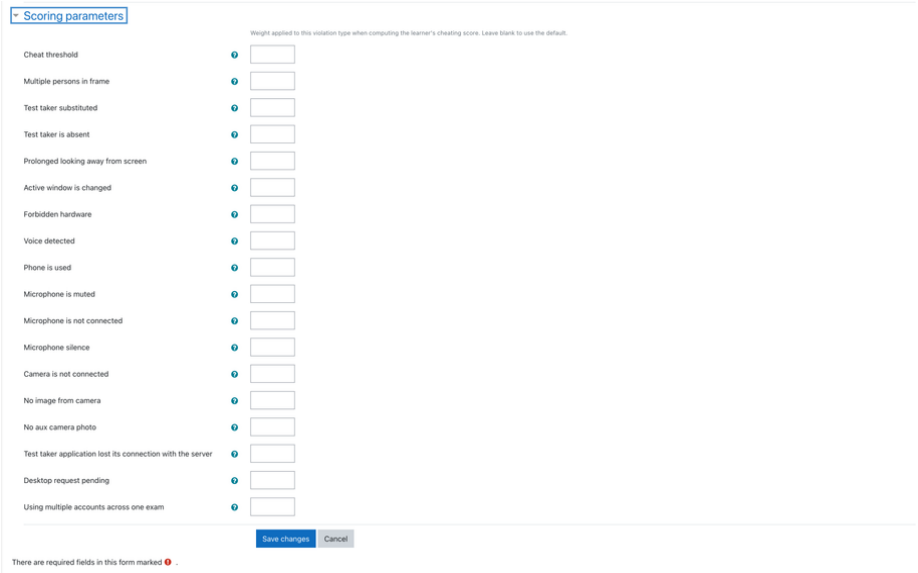
- **Phone is used** — a mobile phone has been detected in the camera frame.

Scoring parameters

Scoring parameters control how much each violation type contributes to the learner's overall cheating score. A higher weight means that violation has a greater impact on the final score.

How the score works:

- The default cheating threshold is **80 out of 100**. Sessions with a score above this threshold are automatically flagged for review.
- Each detected violation increases the score based on its configured weight, the duration of the violation, and AI analysis factors.
- If you leave a field blank, the system default weight is used.
- Custom thresholds and weights can be set per preset or adjusted for individual exams.



Parameter	What it detects
Cheat threshold	The score at which a session is automatically flagged as a potential violation.
Multiple persons in frame	An additional person has been detected in the camera frame.
Test taker substituted	A different person has been detected — the original test taker is no longer present.
Test taker is absent	No person has been detected in the camera frame.
Prolonged looking away from screen	The learner has been looking away from the screen for an extended period.
Active window is changed	The learner has switched to a different application or browser tab.
Forbidden hardware	An unauthorized device has been detected (for example, a second phone).
Voice detected	Audio activity has been detected when talking is not permitted.
Phone is used	A mobile phone has been detected in the camera frame.
Microphone is muted	The learner's microphone is muted during the session. This may indicate an attempt to conceal audio activity.
Microphone is not connected	No microphone device has been found. A microphone is required for audio monitoring.
Microphone silence	No audio signal has been detected despite a microphone being connected. This may indicate a muted or bypassed device.
Camera is not connected	No camera device has been found.
No image from camera	A camera is connected but is not providing a video feed.
No aux camera photo	The secondary camera is connected but is not providing images.
Test taker lost server connection	The learner's session has lost contact with the server due to a network issue.
Desktop request pending	The learner has not yet granted screen sharing permission.
Using multiple accounts across one exam	Multiple learner accounts have been detected within the same exam session.