

On the user login screen, you must enter a valid username and password in order to log in to the system



The login screen is divided into two main sections. The left section has a dark blue background and contains the CEMS logo, which features a stylized orange bar chart with a white line graph overlaying it. Below the logo, the text "CEMS" is written in white, and "Secure Login" is written in a larger white font. At the bottom of this section is an orange rounded button with the word "Exit" in white. The right section has a light pink background. At the top of this section is a circular icon with a dark blue background, containing an orange person silhouette and a yellow padlock. Below the icon are two input fields. The first is labeled "Username:" and contains the placeholder text "username". The second is labeled "Password:" and contains the placeholder text "password". At the bottom of this section is a dark blue rounded button with the word "Login" in white.

CEMS
Secure Login

Exit

Username:

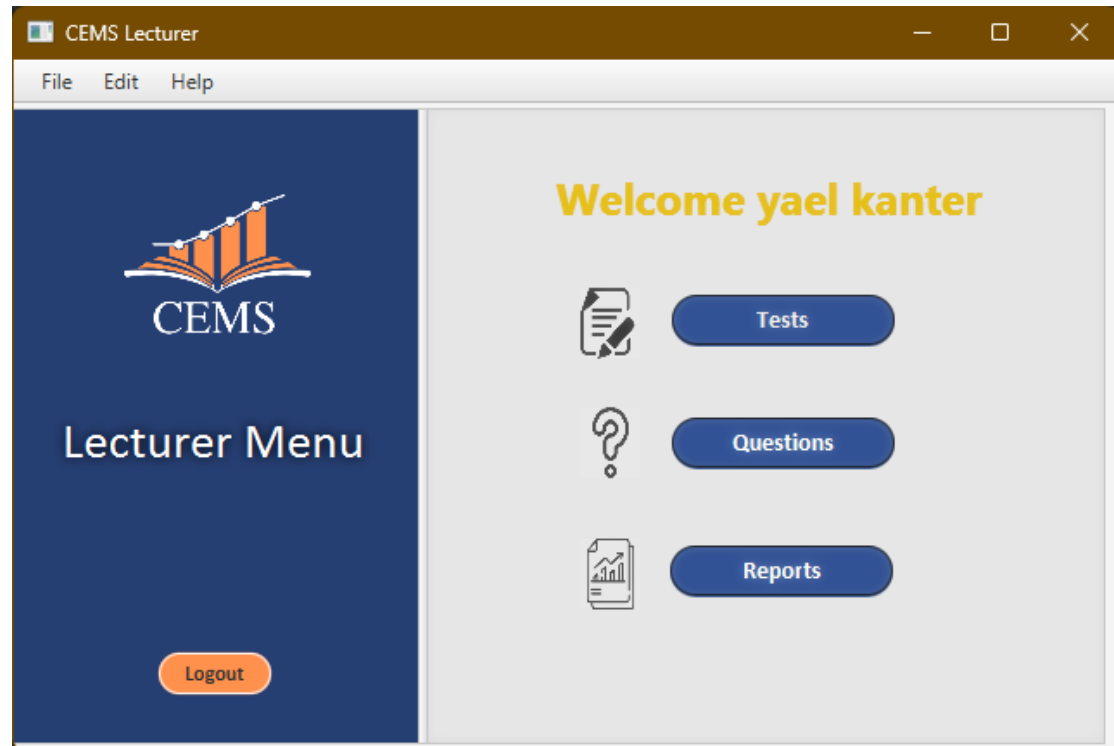
Password:

Login

Interaction 1 – process of creating a question:

After a lecturer logs in, he reaches the screen - main menu of a lecturer

In order to start the process of creating a test, you must press a button Questions



After clicking, the question management screen will appear, inside which the question creation window and a button will appear View questions to view existing questions.

On this screen, the lecturer enters (from top to bottom): subject and course name from lists available in the system, the text of the question and the text of four answers.

The correct question is selected by clicking on the circle in the row with the appropriate answer and clicked Submit.

CEMS

Create Question

Subject :

Course name :

Question

☐ 1.

☐ 2.

☐ 3.

☐ 4.

CEMS

Create Question

Subject :

Course name :

Question

☒ 1.

☐ 2.

☐ 3.

☐ 4.

After clicking, a pop-up window will appear (pop-up) asking for permission to send the question. The lecturer can click OK to send the question or Cancel to go back and edit it

The screenshot shows a web application window titled "CEMS". On the left is a dark blue sidebar with the CEMS logo (a bar chart with an upward arrow) and the text "CEMS Questions management". Below the logo are two orange buttons: "View questions" and "Back". The main content area is titled "Create Question" in orange. It contains a "Confirmation" pop-up window with a question mark icon and the text "Are you sure you want to submit?". The pop-up has "OK" and "Cancel" buttons. Below the pop-up is a list of four radio buttons, each followed by a text input field containing a unit of measurement: "1. Light year", "2. Stellar mile", "3. Cosmic kilometer", and "4. Galactic unit". A "Submit" button is located at the bottom right of the main content area.

CEMS

CEMS

Questions management

View questions

Back

Create Question

Confirmation

Are you sure you want to submit?

OK Cancel

1. Light year

2. Stellar mile

3. Cosmic kilometer

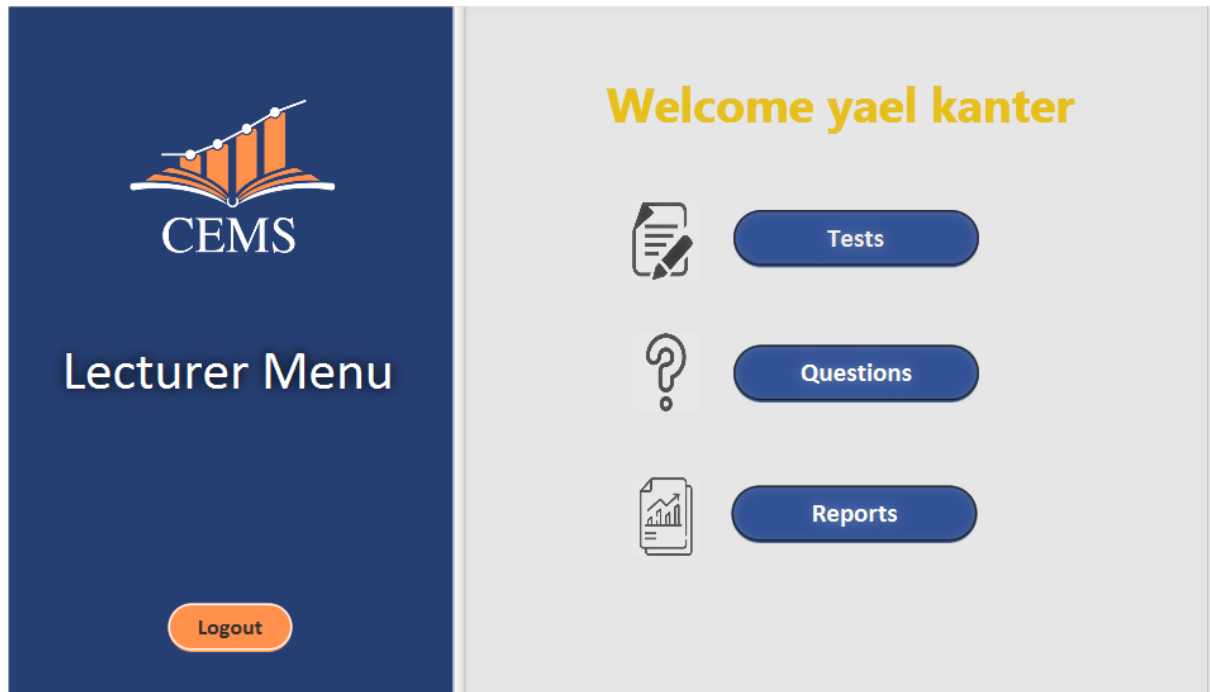
4. Galactic unit

Submit

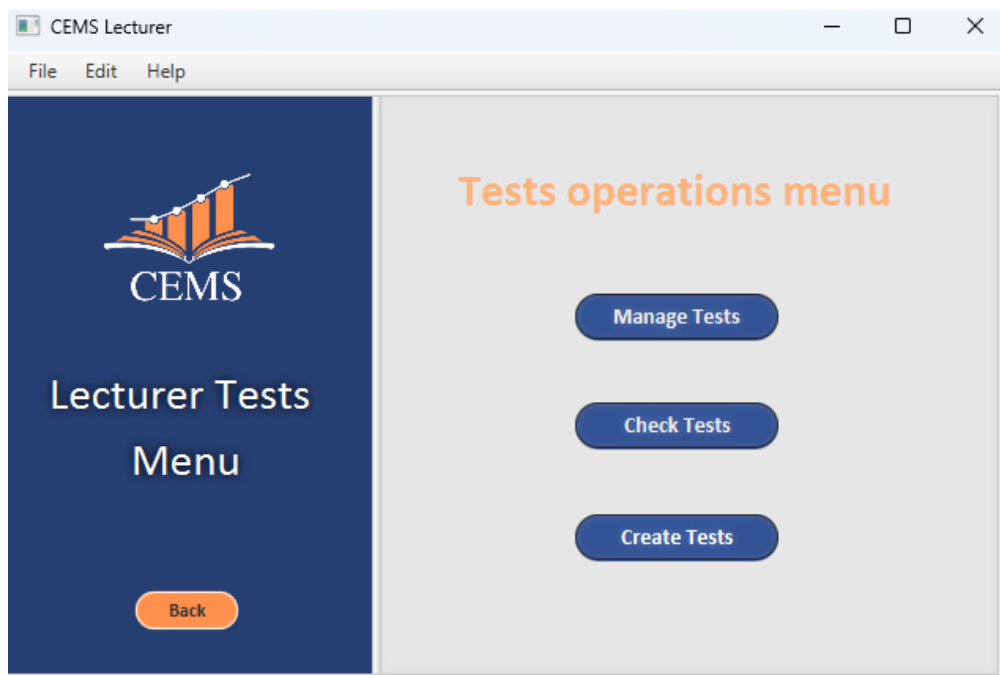
Interaction 2 – test creation process

After a lecturer logs in, he reaches the screen - main menu of a lecturer

In order to start the process of creating a test, you must press a button "Tests"



After clicking, you reach the test options page, where you can manage existing tests, edit test results, and create tests. In order to create a test, click on the button "Create Tests"



After clicking, you reach the exam creation screen, on this screen you can see questions from a lecturer in a certain subject by selecting a subject, then selecting a subject and finally clicking on "Show questions"

CEMS

Create Test Step 1/2

subject

course

Show question

Back

select	id	questionText	op1	op2	op3	op4	correctop
No content in table							

Proceed to questions scoring and free text: Next

Choosing a topic:

CEMS

Create Test Step 1/2

subject

- Math
- Programming languages
- Physics

show question

Back

select	id	questionText	op1	op2	op3	op4	correctop
No content in table							

Proceed to questions scoring and free text: Next

Choosing a course:

CEMS

Create Test

Step 1/2

subject

Programmi...

course

Java

Show question

Back

select

id

questionText

op1

op2

op3

op4

correctop


No content in table

Proceed to questions scoring and free text:

Next

After clicking on "Show question" the next screen will appear containing the lecturer's questions, based on this you can select the questions you want for the test by checking the box in the question line.

The columns (from left to right): question marking, identification number, question text, answer 1,2,3,4 respectively and the correct answer.



CEMS

Create Test

Step 1/2

subject

Math ▼

course

Algebra ▼

Show question

Back

select	id	questionText	op1	op2	op3	op4	correctop
<input type="checkbox"/>	01124	12+34	24	46	48	1234	46
<input type="checkbox"/>	01126	3*4	4	8	12	16	12
<input type="checkbox"/>	01127	9-9+2	0	2	1	-2	2
<input type="checkbox"/>	01128	X=3,Y=2 X+Y=?	5	1	6	4	5
<input type="checkbox"/>	01129	6-3-6=?	-3	-6	-9	0	-3

Proceed to questions scoring and free text:
Next


After clicking on Next the lecturer will reach the second stage where he has to give a score to the questions and add free text for the lecturer and the student if necessary, the points column can be changed.

A test code (to be entered by the student at the beginning of the test) and test duration must be determined in the appropriate boxes.

You can return to the previous page and add/remove questions.

After the actions click a button Add Test will finish the process and give a notification accordingly.

The columns (from left to right): identification number, subject, course, question text, score.



Create Test
Step 2/2

Back

ID	Subject	Course	Text question	Points
01124	Math	Algebra	12+34	<div style="border: 1px solid #ccc; padding: 2px 10px;">▼</div>
01127	Math	Algebra	9-9+2	<div style="border: 1px solid #ccc; padding: 2px 10px;">▼</div>
01129	Math	Algebra	6-3-6=?	<div style="border: 1px solid #ccc; padding: 2px 10px;">▼</div>

Insert Lecturer Text:

Insert Student Text:

Test code:


▼

Duration Test:

▼

Add Test

Scoring, adding free text and setting a test code and test duration:



Create Test
Step 2/2

Back

ID	Subject	Course	Text question	Points
01131	Math	Calculus	1+4 = ?	<div style="border: 1px solid #ccc; padding: 2px 10px;">10 ▼</div>
01132	Math	Calculus	2*7 = ?	<div style="border: 1px solid #ccc; padding: 2px 10px;">20 ▼</div>
01133	Math	Calculus	4-3 = ?	<div style="border: 1px solid #ccc; padding: 2px 10px;">30 ▼</div>
01137	Math	Calculus	What is the derivative of sin(x)?	<div style="border: 1px solid #ccc; padding: 2px 10px;">40 ▼</div>

Insert Lecturer Text:

you are the best

Insert Student Text:

not you

Test code:

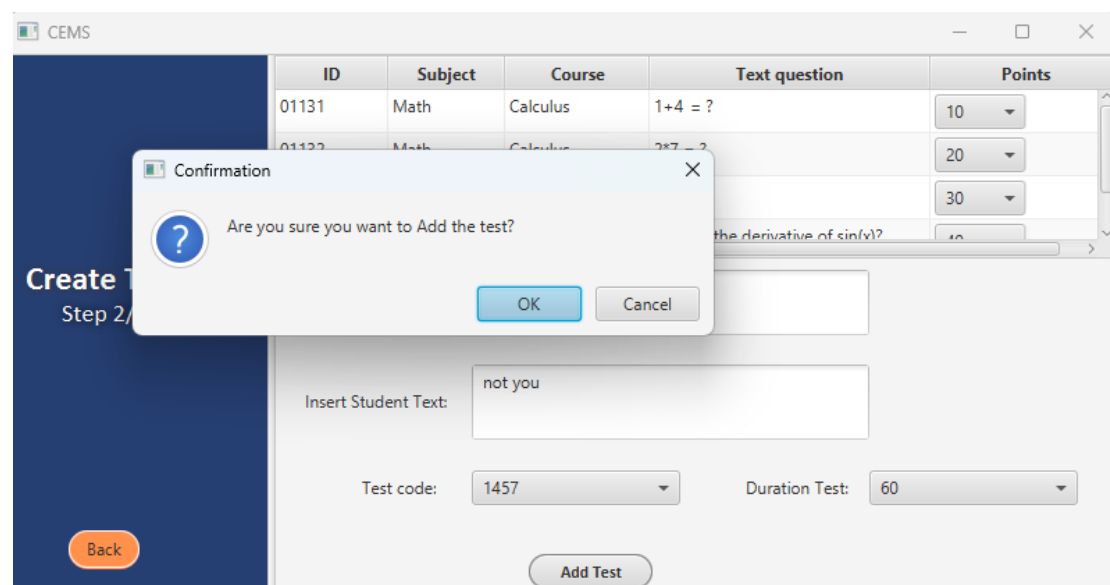
1457 ▼

Duration Test:

60 ▼

Add Test

In order to add the test, click on Add Test and confirm the addition in the window that pops up

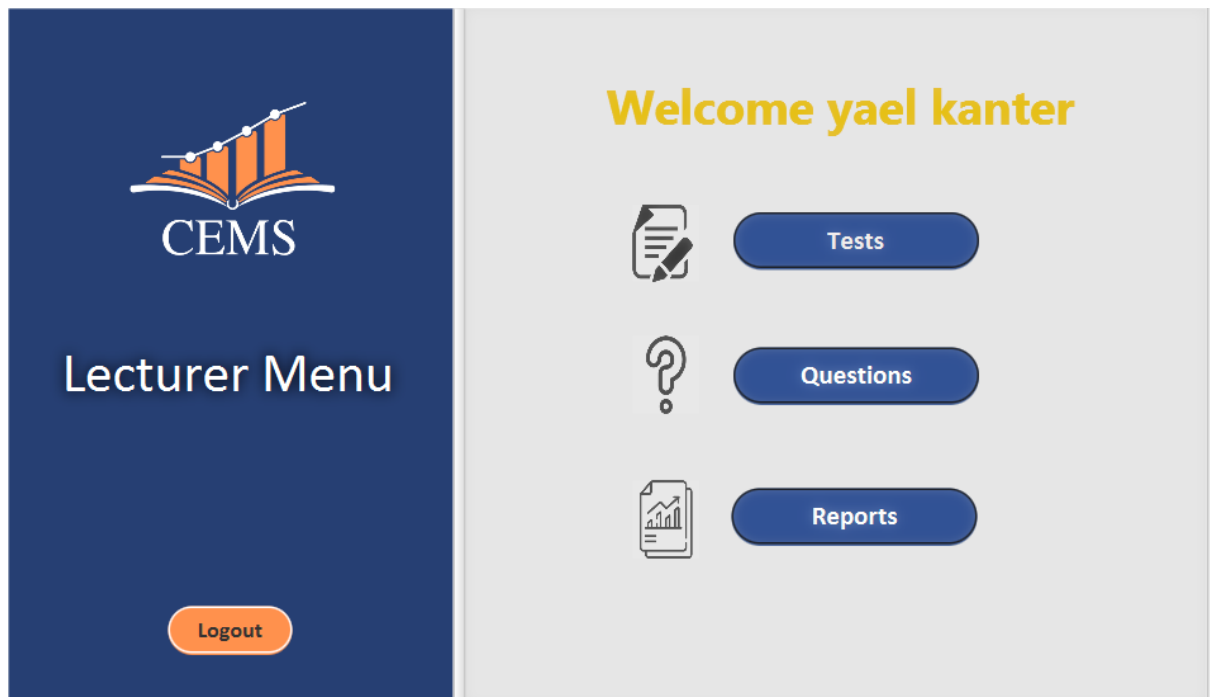


After clicking on OK the test will be added to the system. After clicking on Cancel, the pop-up screen will disappear and it will be possible to make changes to the screen.

Interaction 3 - Viewing statistical information about an exam by a teacher

After a lecturer logs in, he reaches the screen - main menu of a lecturer

In order to see statistical information concerning the tests on the lecturer press on a button "reports"



After clicking on "Reports" the following screen will open:

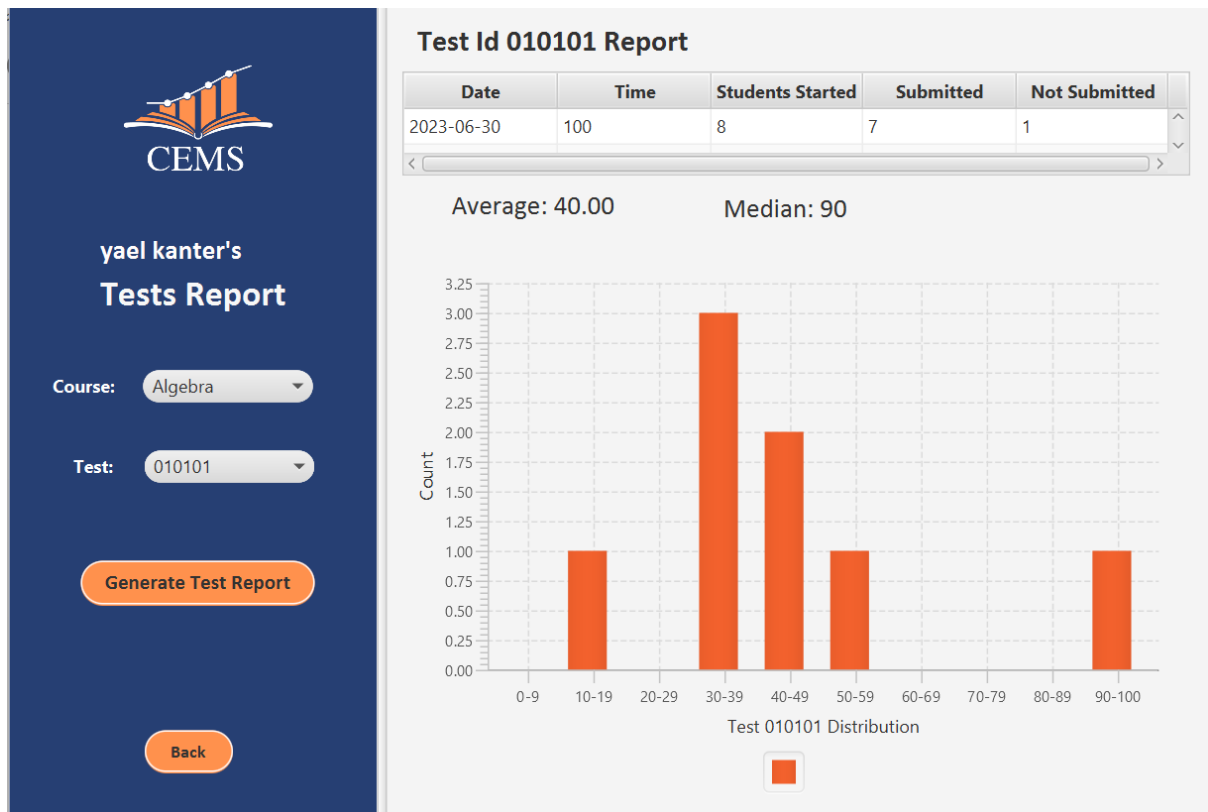
The lecturer has to choose a course from the list of courses and then choose a test.



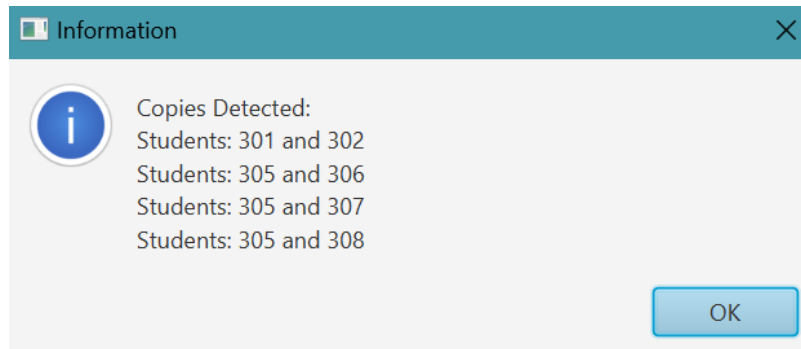
After clicking on "Generate Report" the relevant report will be displayed on the screen according to the lecturer's request in the following form.

The columns (from left to right): Date of execution, duration of the exam, number of students who started the test, number of students who submitted the test, number of students who did not submit the test.

In addition, you can see average, median and distribution of scores using a column table.



In addition, when clicked, it will open pop up that contains information about copying in the selected test. The copies as copies between a pair of students. In the example: new for copying between students 301 and 302 and between students 305,306,307,308



After clicking on OK the window will close.