

COMP 3111:

Source Code Documentation

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Group: 46

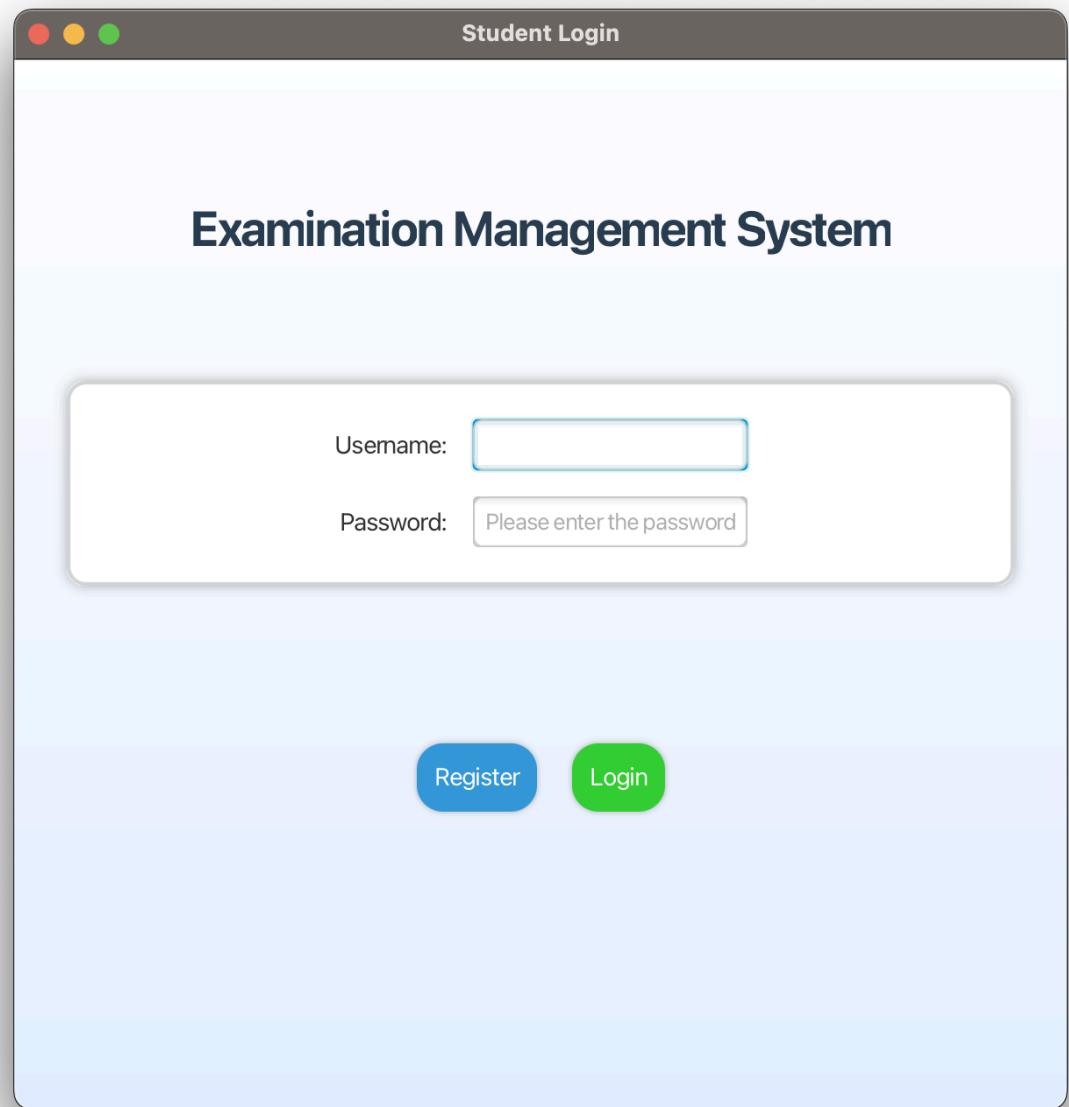
Date: 21-11-2024

Screenshots of the execution of the application showing sample inputs and outputs (Task 1):

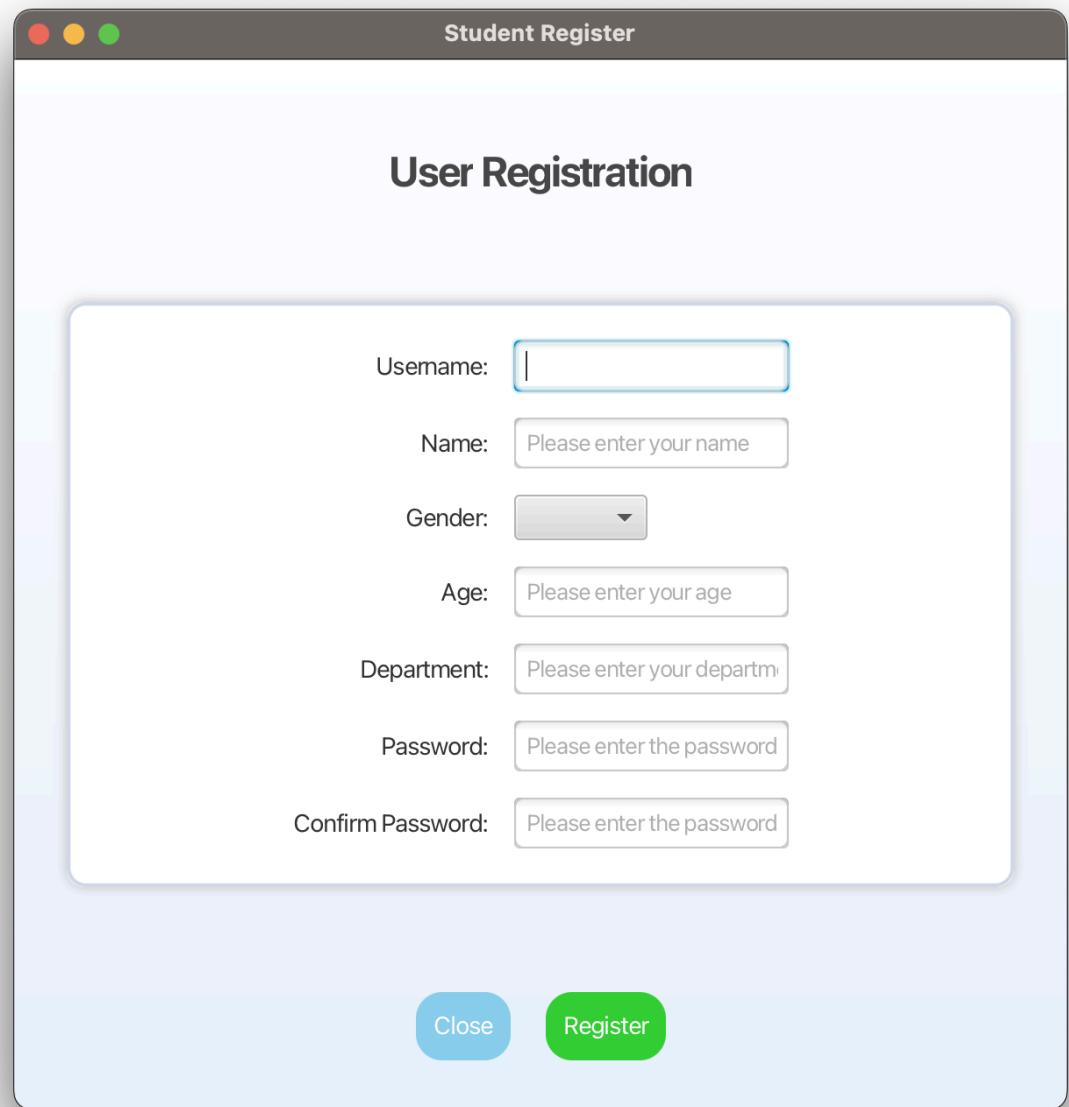
1. Open the app. **WOW Factor: Modern UI Interface that is intuitive to use.**



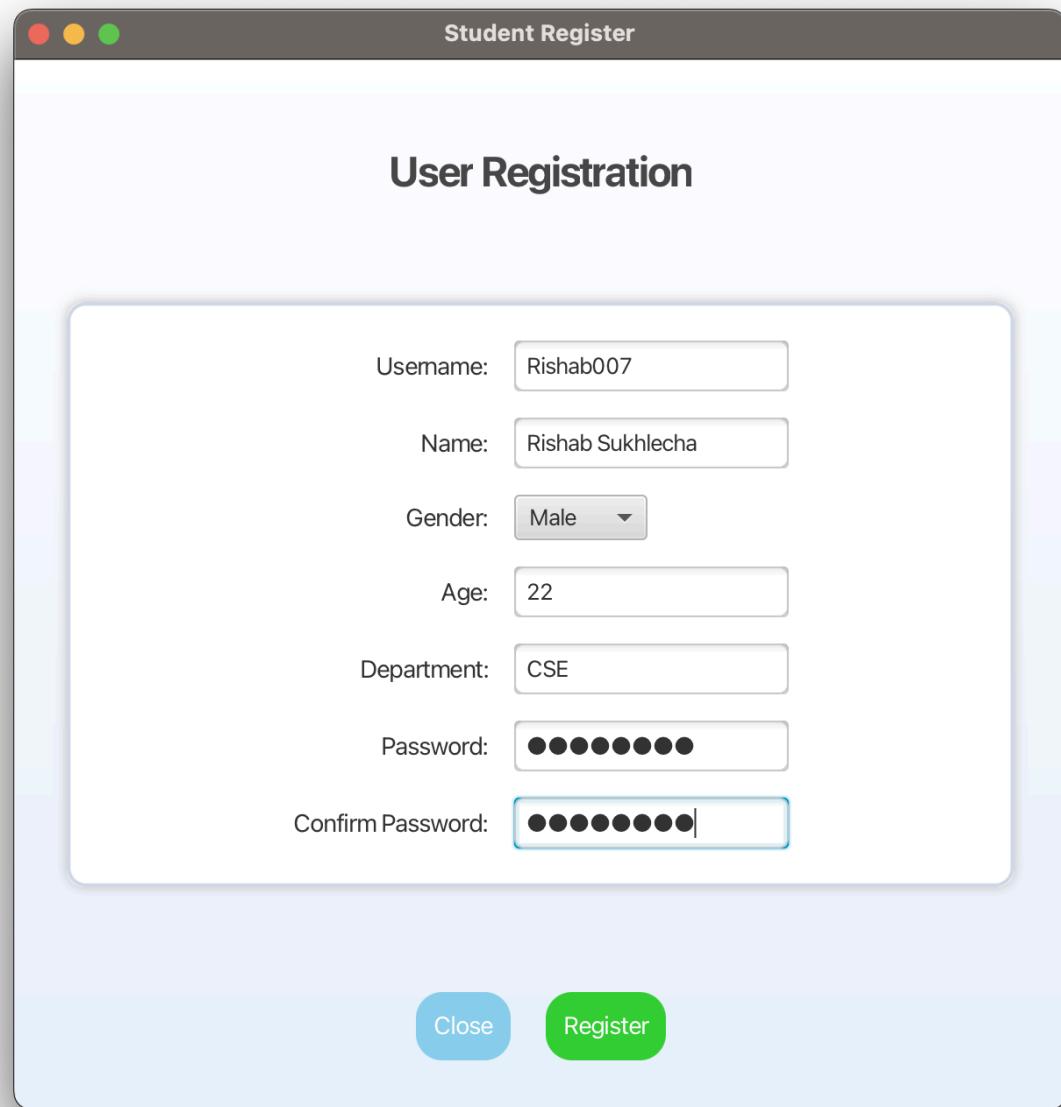
2. Click "Student Login"



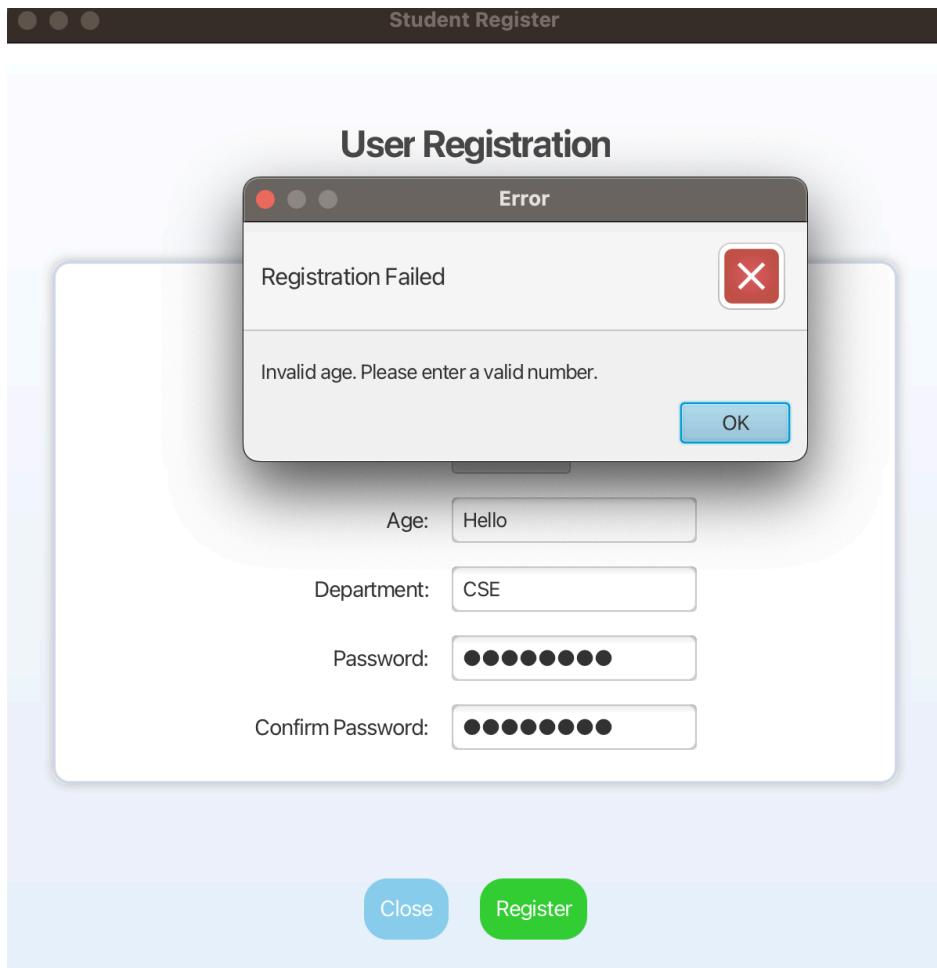
3. Click "Register"



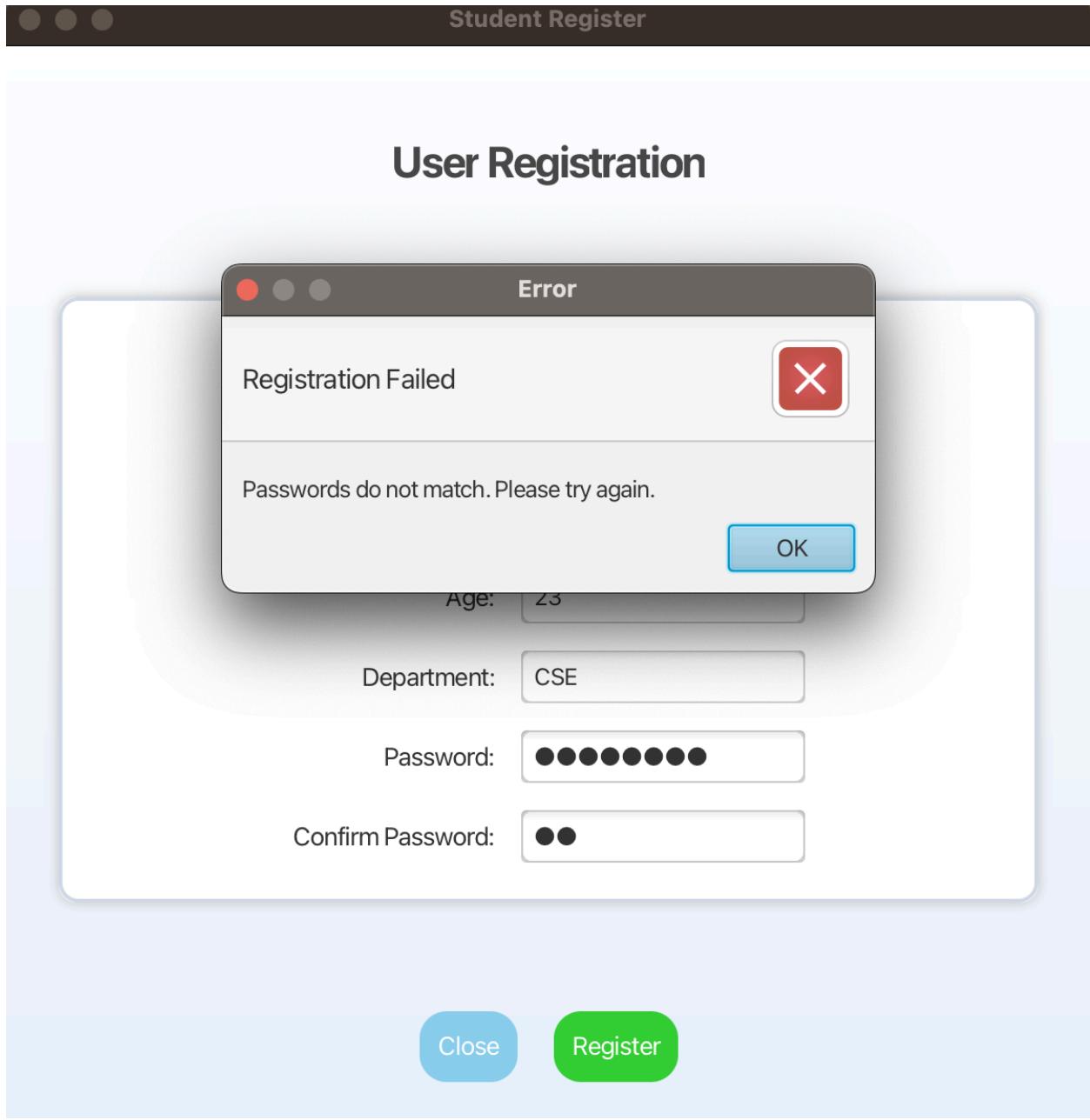
4. Enter Registration Information and click “Register”



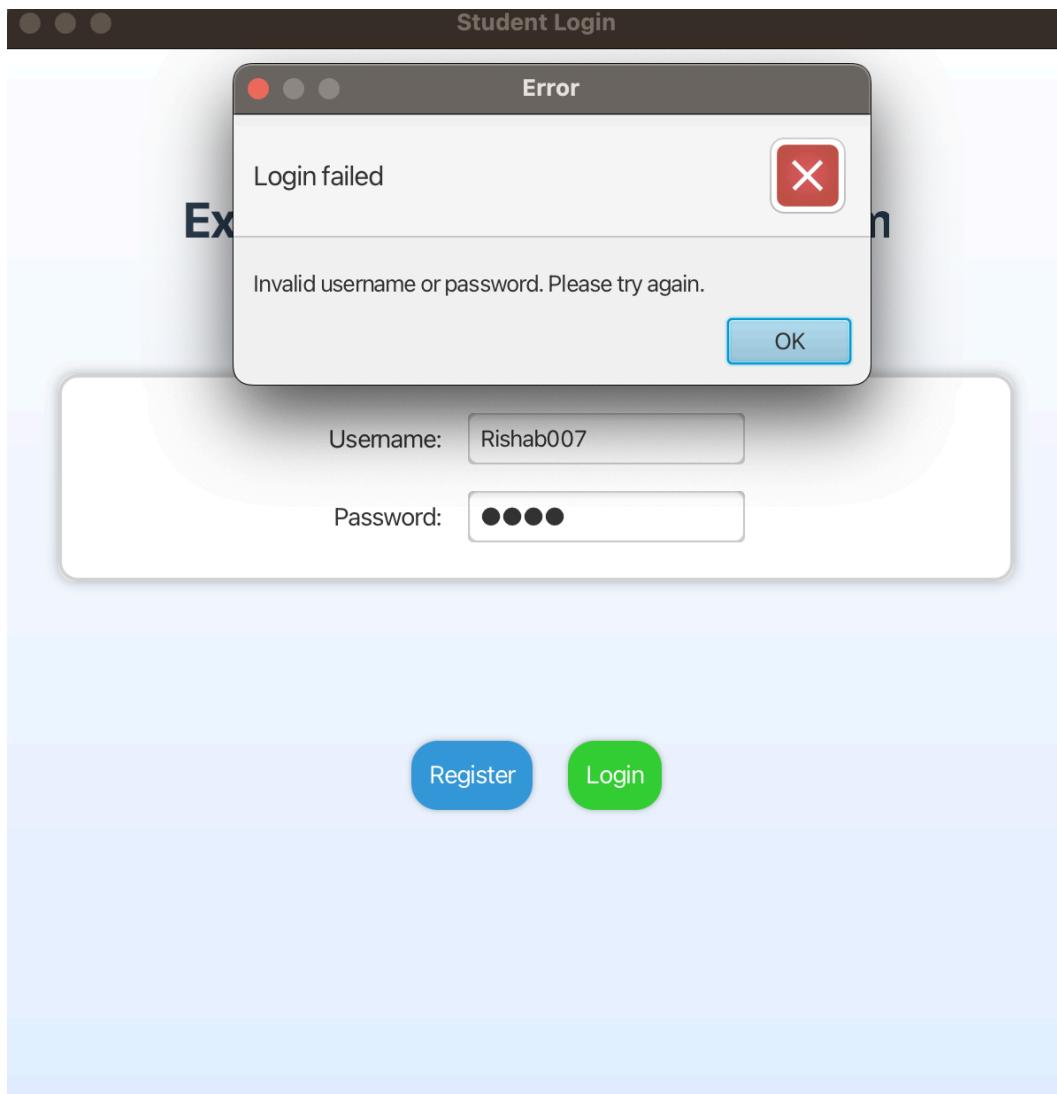
5. If there is incorrect user input, like have letters in the “Age” field, the system will alert the user



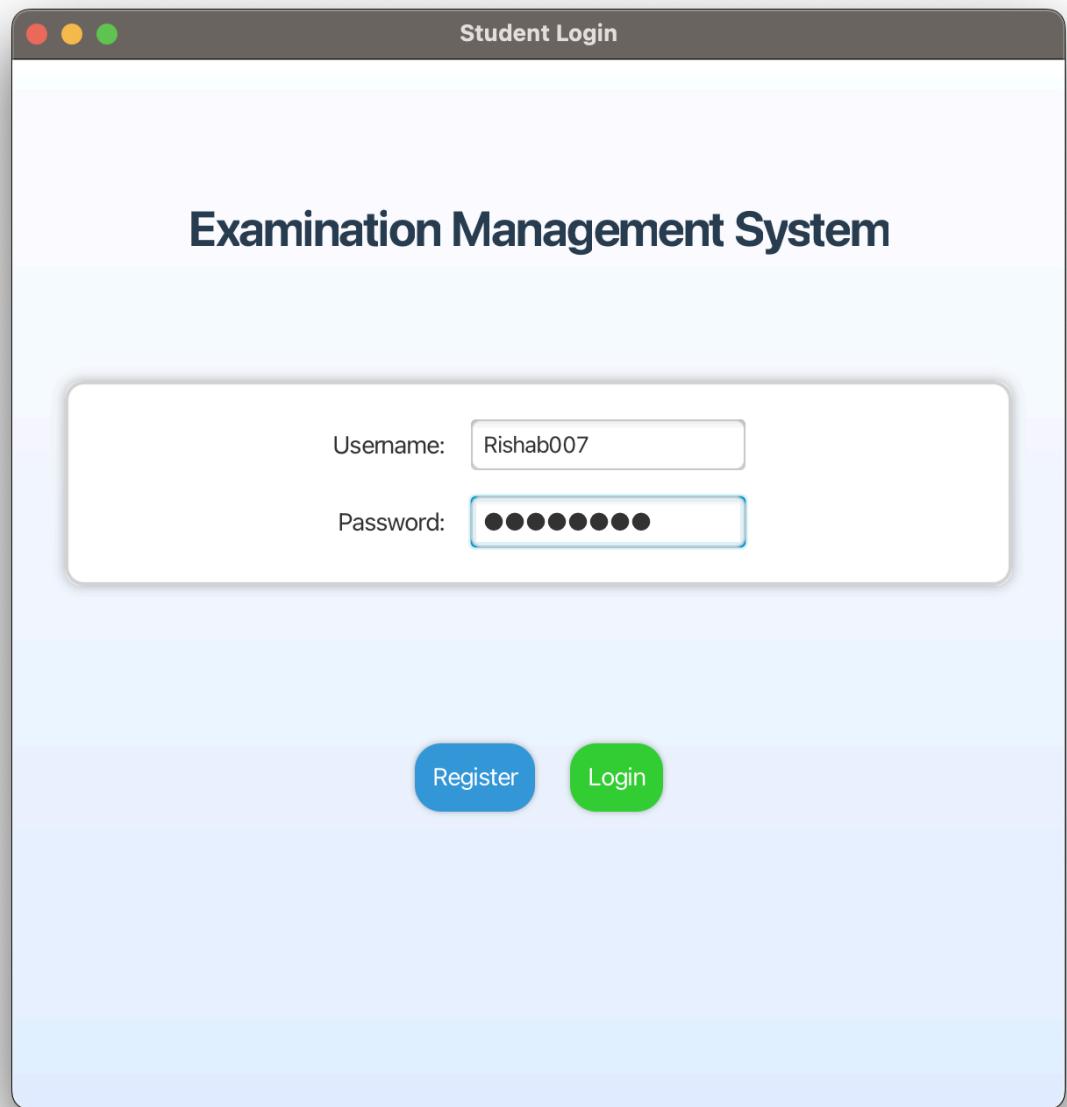
6. If the passwords do not match, the system will also alert the user



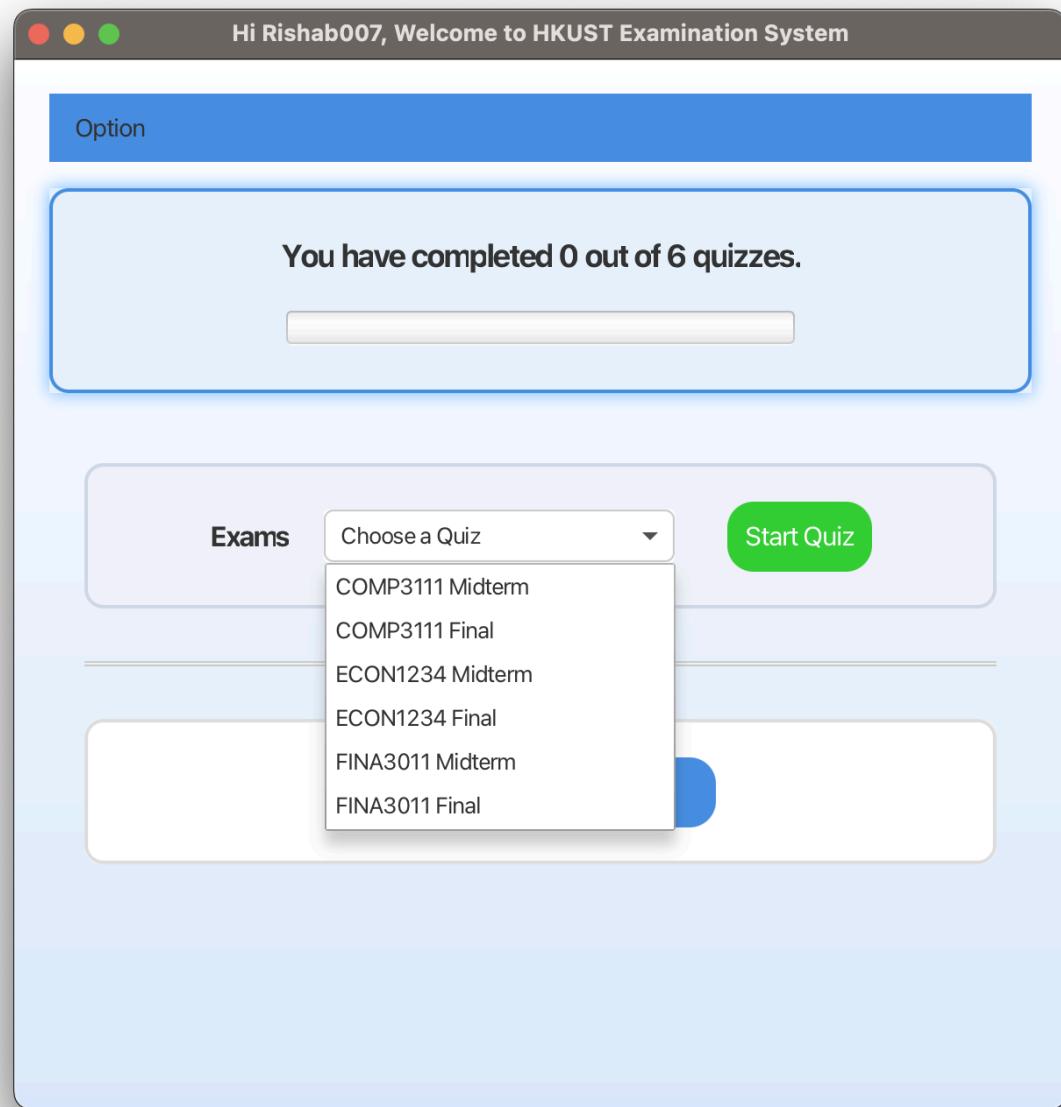
7. Enter Username and Password just created and click “Login” (username and password don’t match)



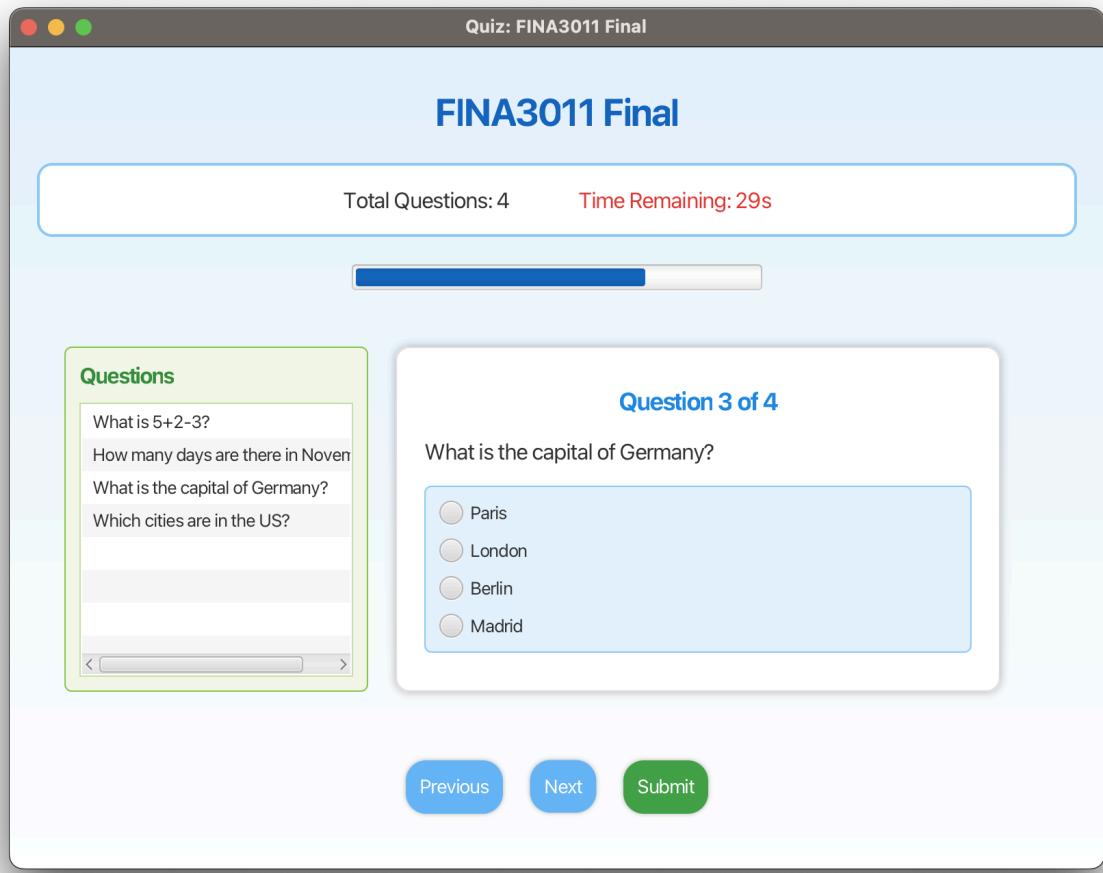
8. Enter Username and Password just created and click "Login" (username and password match)



9. Pick a exam to do and click “Start Quiz”. **WOW Factor: A progress bar has been implemented to show percentage of quizzes to be completed.**



10. Answer questions. **WOW Factor: Completely revamped question answering screen with time bar counting down. There are also “sound effects” which play whenever you click buttons and when the quiz submits.**



11. Click “Grade Statistics”. **WOW Factor: Each course is coded in a different colour and we even have an information insight bar at the top showing you how many exams you have completed and what your highest score has been so far. This bar is dynamic and changes continuously.**

Grade Statistics

Completed Exams: 6 | Highest Score: 40...

Pick Course ▾ Reset Filter

Course	Exam	Score	Full Score	Time
Software Engineering	COMP3111 Midterm	30	40	20
Software Engineering	COMP3111 Final	20	40	30
Economics	ECON1234 Midterm	40	40	45
Economics	ECON1234 Final	30	40	45
Quant Finance	FINA3011 Midterm	20	40	40

Score Chart

Grade Statistics

The chart displays the following data:

Exam Overview	Score
COMP3111 Midterm	30
COMP3111 Final	20
ECON1234 Midterm	40
ECON1234 Final	30
FINA3011 Midterm	20
FINA3011 Final	10

Refresh

12. Pick a course and click “Filter”

Grade Statistics

Completed Exams: 6 | Highest Score: 40...

Software Engineering ▾ Reset Filter

Course	Exam	Score	Full Score	Time
Software Engineering	COMP3111 Midterm	30	40	20
Software Engineering	COMP3111 Final	20	40	30

Score Chart

Grade Statistics

Score

COMP3111 Midterm

COMP3111 Final

Exam Overview

Refresh

13. Click “Reset”

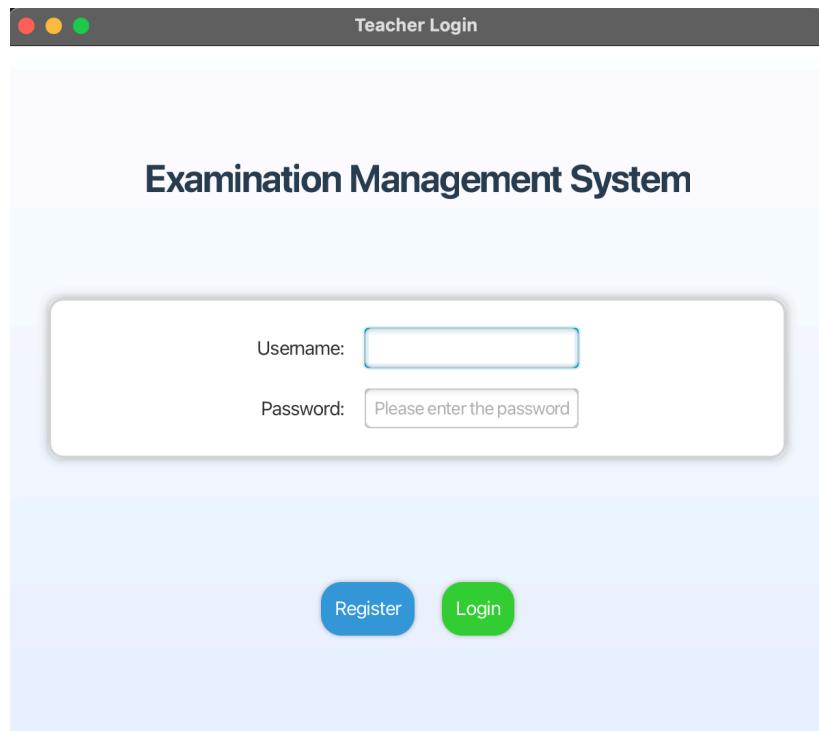


Screenshots of the execution of the application showing sample inputs and outputs (Task 2):

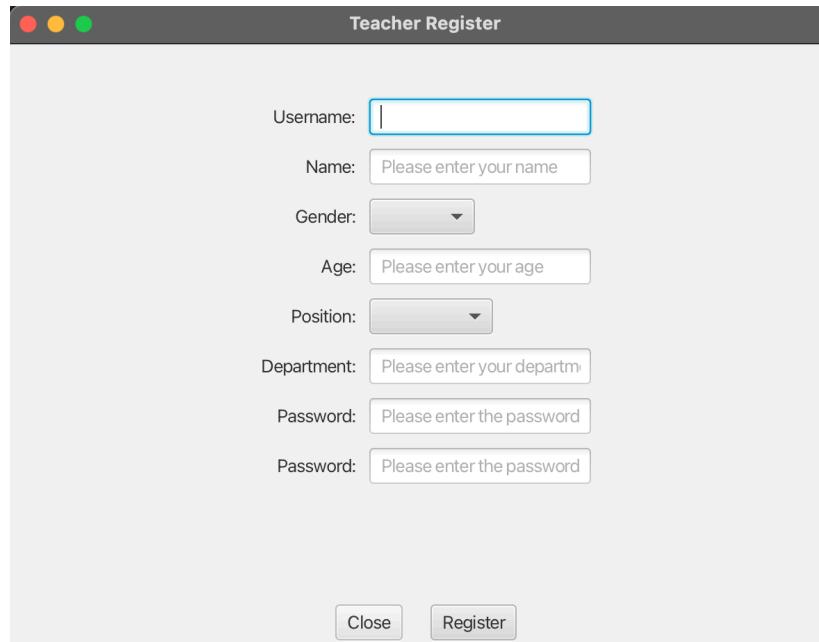
- Open the app:



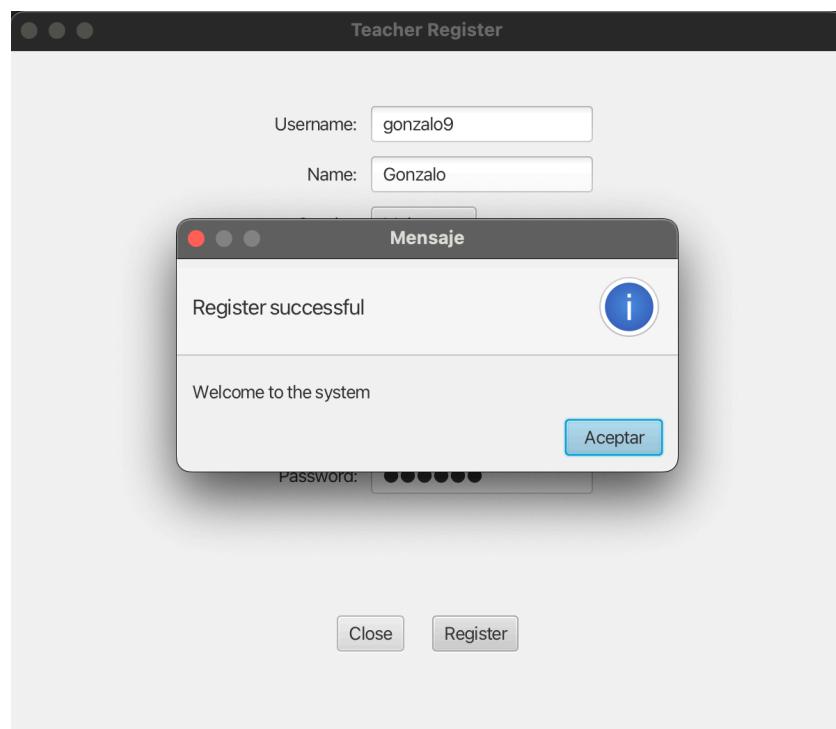
- Click on Teacher Login button:



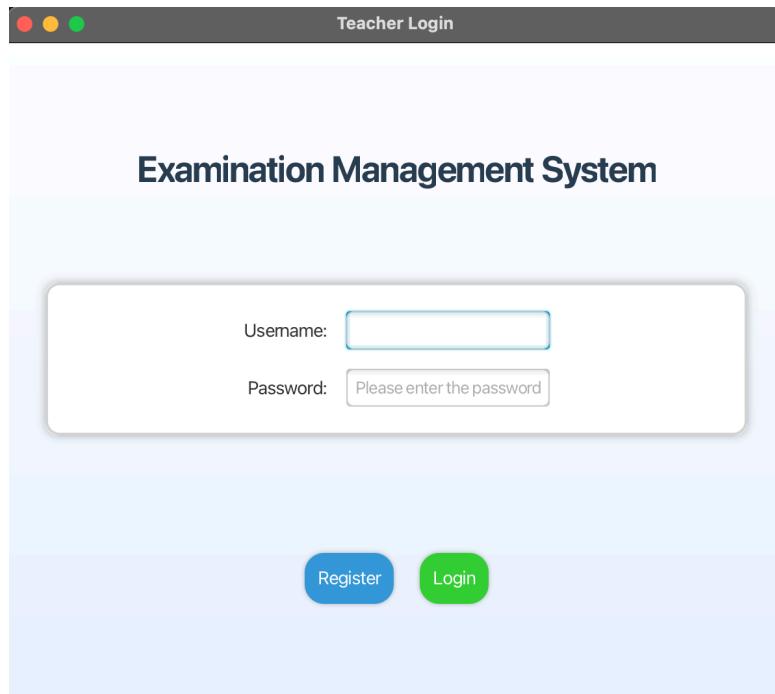
- Click Register button:



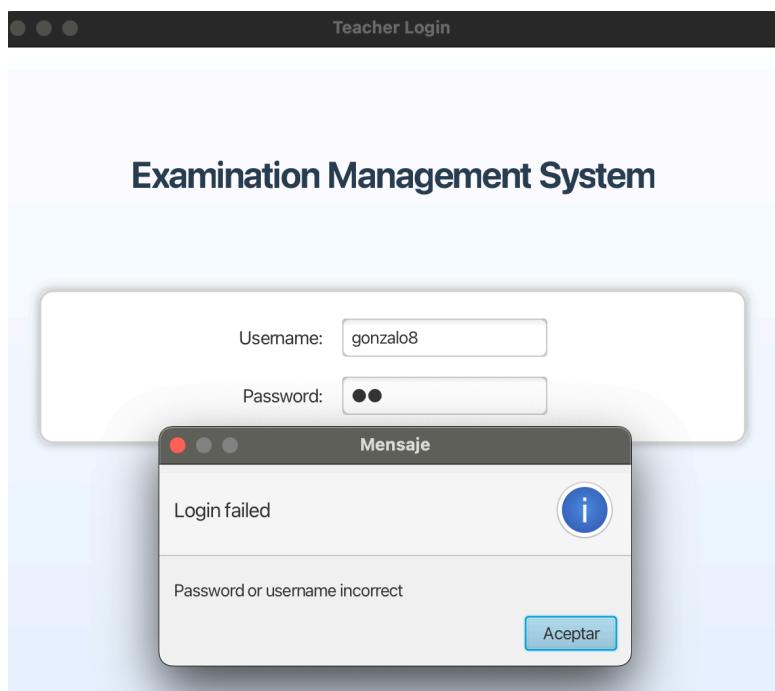
- After filing the inputs and clicking register:



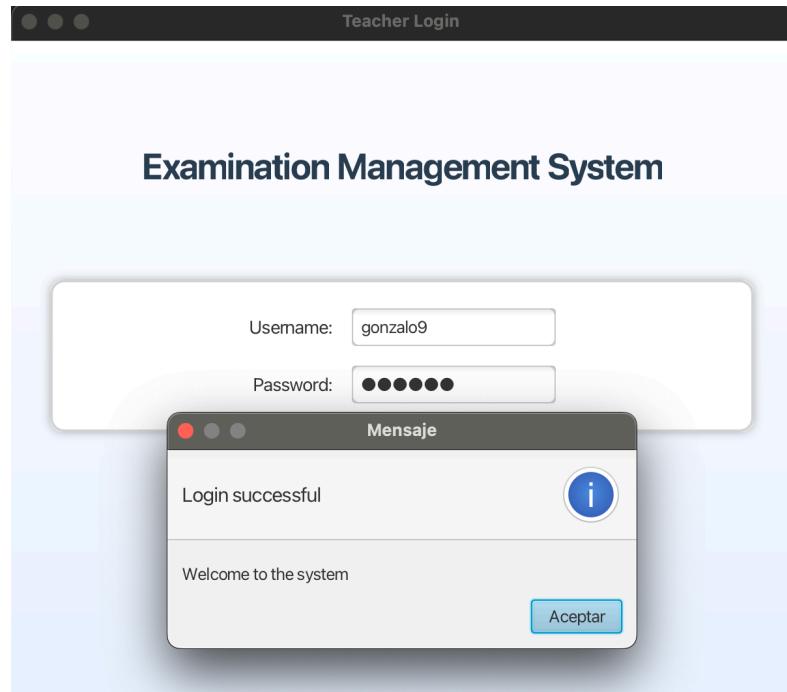
- After closing the pop up goes back to the login page. This same action happens when instead of clicking register button you click the close button:



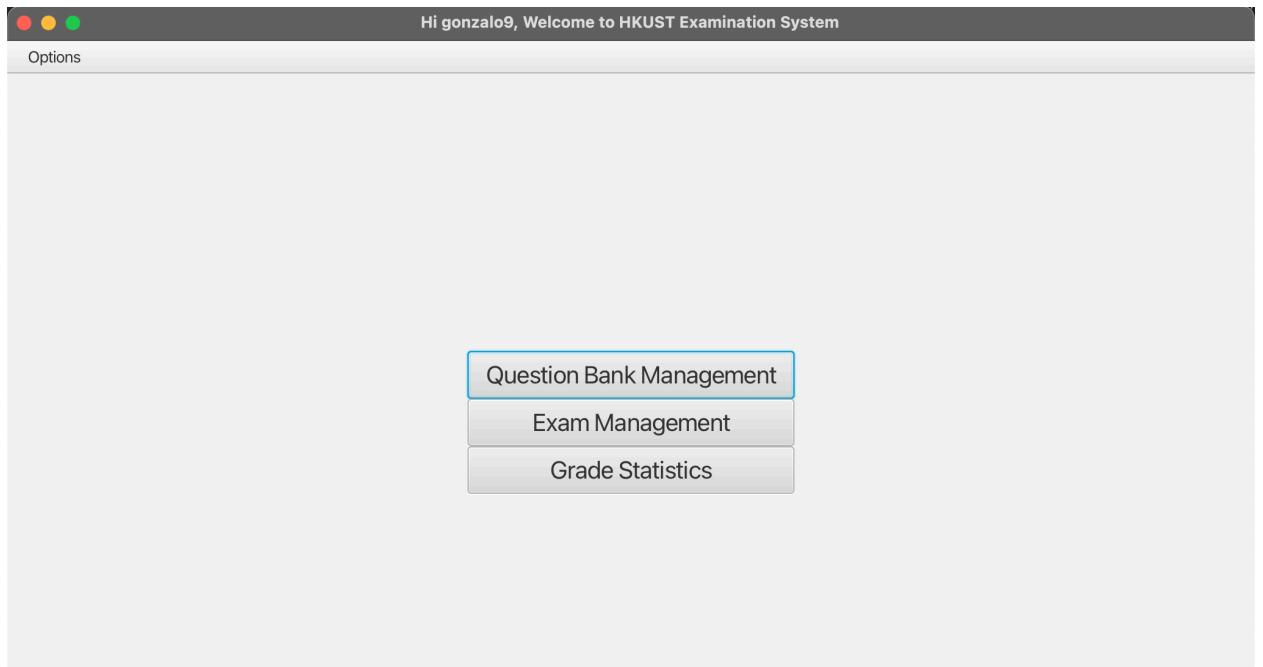
- If we enter an invalid username or password then an error message pops up:



- If a valid username and password are entered and click Login button:



- After closing the pop up:



1. After clicking the Question Bank Management button:

Question Bank Management				
Question	Type	Score	Reset	Filter
Question	Option A	Option B	...	
What does the "Big O" notation describe?	The exact time complexity of an algorithm	The worst-case time complexity of an algorithm	T1	Type
In a binary search tree, what is the maximum number of children a node can have?	One	Two	T2	Option A
Which of the following are examples of sorting algorithms with $O(n \log n)$ average time complexity? (Choose all that apply)	Merge Sort	Quick Sort	B1	
Which of the following are valid ways to handle a "divide by zero" error in programming? (Choose all that apply)	Use a try-catch block (or equivalent in the language)	Ignore the error and proceed with the division	C	Option B
				Option C
				Option D
				Answer
				Score
				Add Update

(The table is scrollable in order to see all the columns)

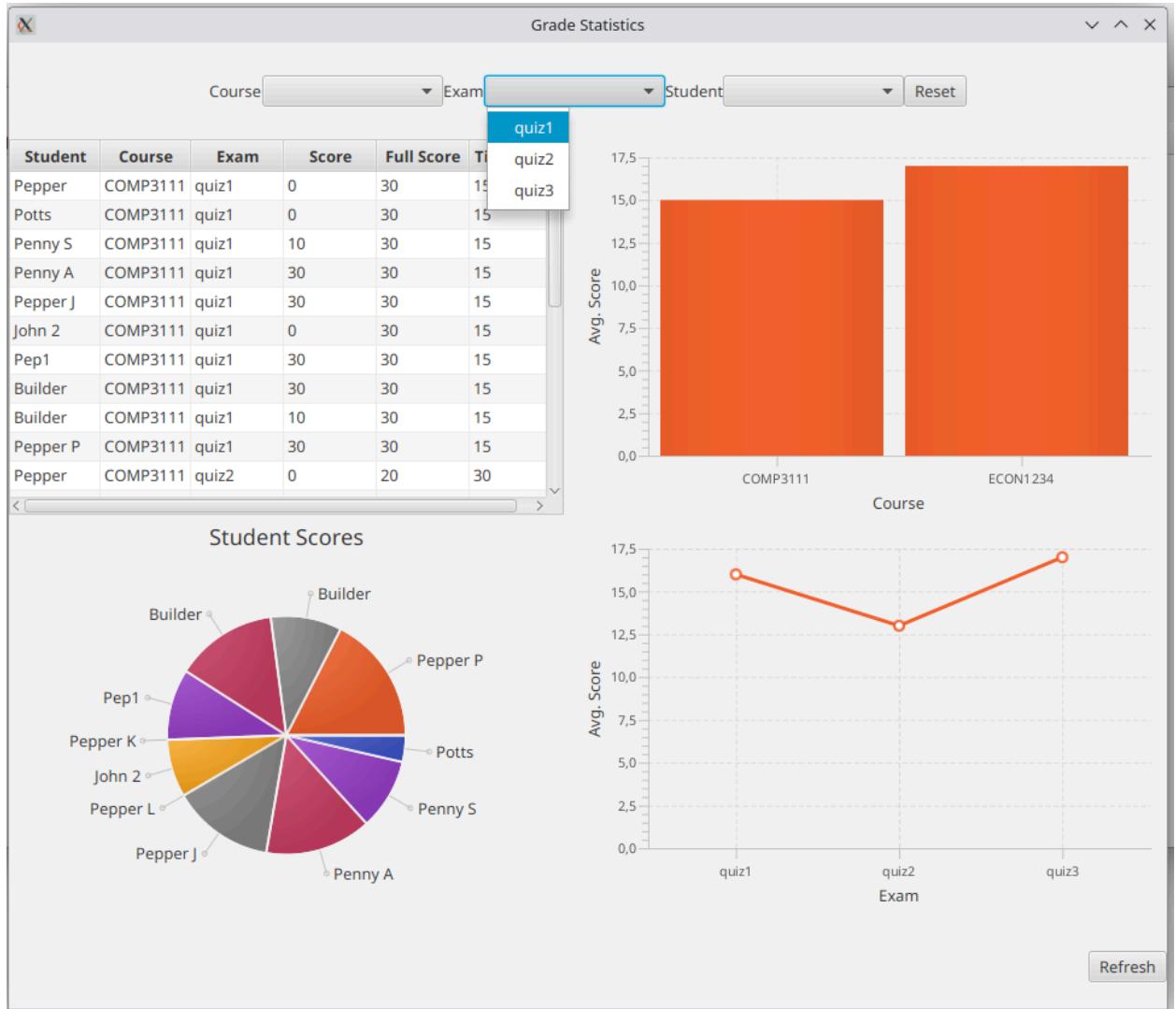
The overall functionality of this window and its buttons will be shown in the complementary video provided.

2. After clicking the Exam Management button:

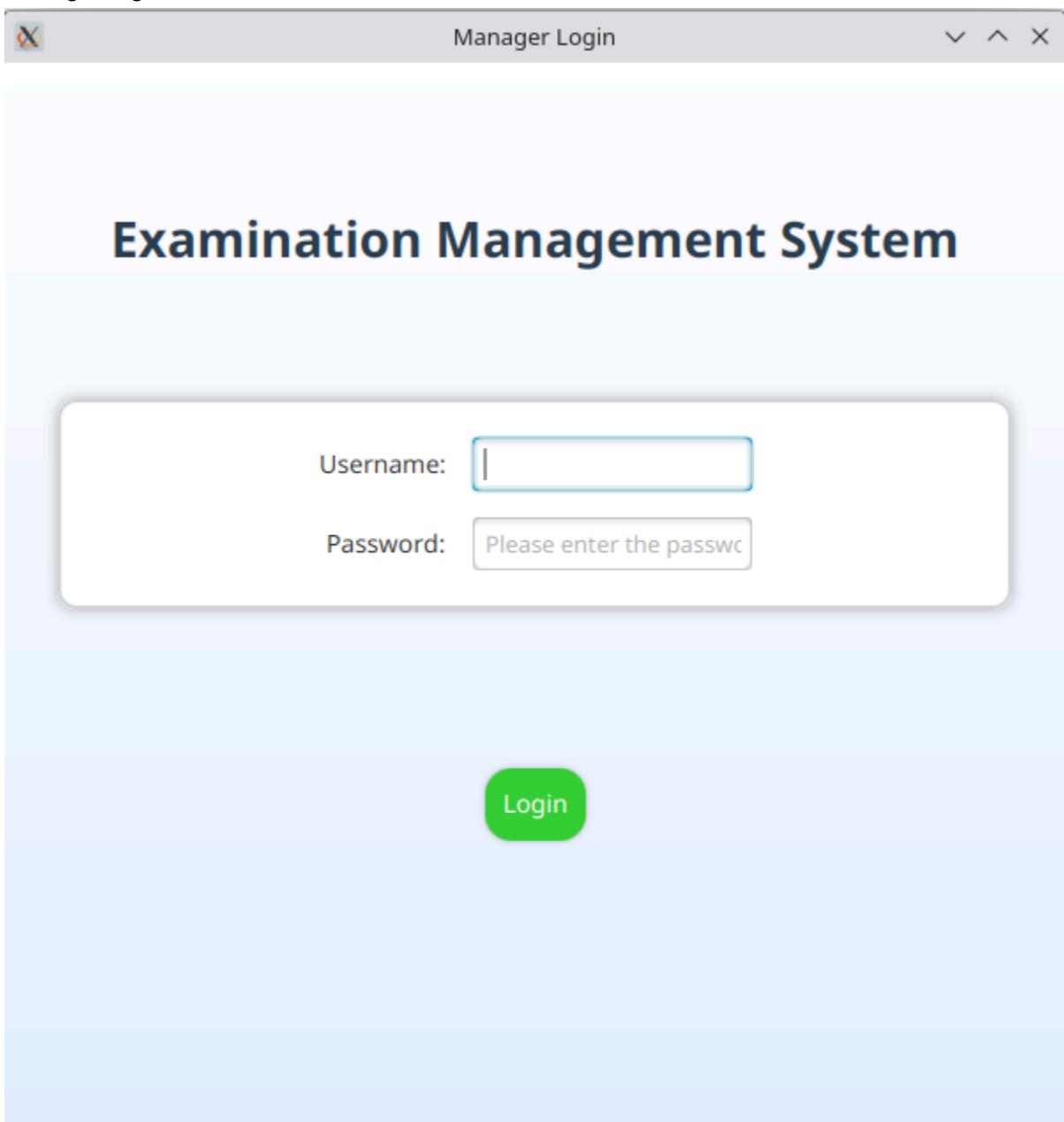
The overall functionality of this window and its buttons will be shown in the complementary video provided.

Screenshots of the execution of the application showing sample inputs and outputs (Task 3):

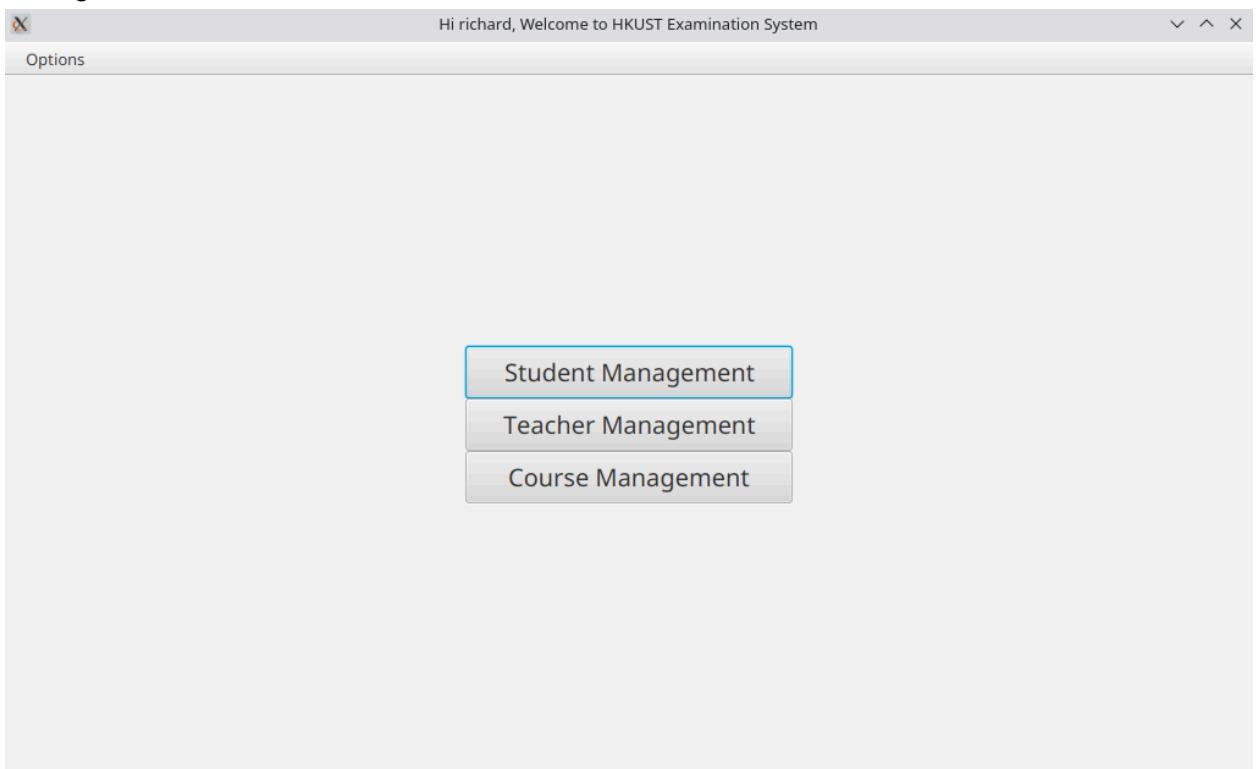
1. Teacher statistics:



2. Manager login:



3. Manager view:



4. Student management:

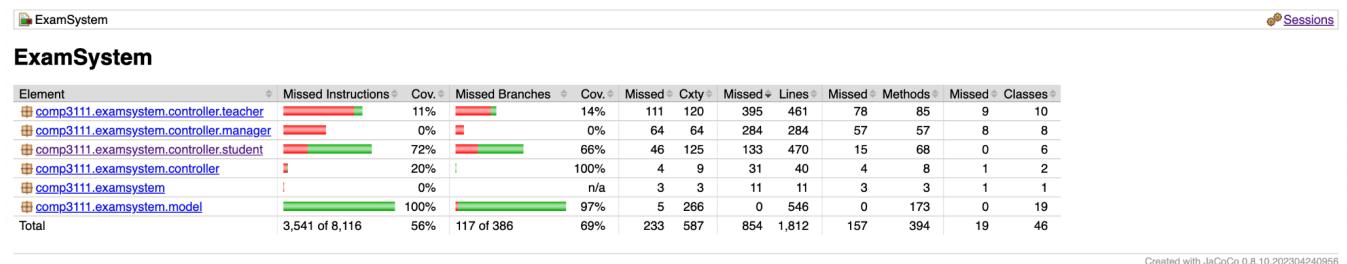
5. Teacher management:

6. Course management:

Report on Unit Testing:

The screenshot shows a unit testing interface with a toolbar at the top and a tree view of test results on the left. The tree view lists various test classes and their sub-tests, all marked with green checkmarks indicating they passed. The total time for the run is 119 ms. On the right side, there is a summary message: "Tests passed: 36 of 36 tests – 119 ms" and the command used to run the tests: "/home/richard/.jdks/corretto-21.0.5/bin/java ...". Below this, it says "Process finished with exit code 0".

With JACOCO:



Documentation on the implemented tasks using JavaDoc:

The .html files can be found in the team repo. You may find directions on how to open them inside the Readme file!

Supplementary Notes:

Video is in the GitHub Repo. There is one video for each task that we have prepared. Thank you!