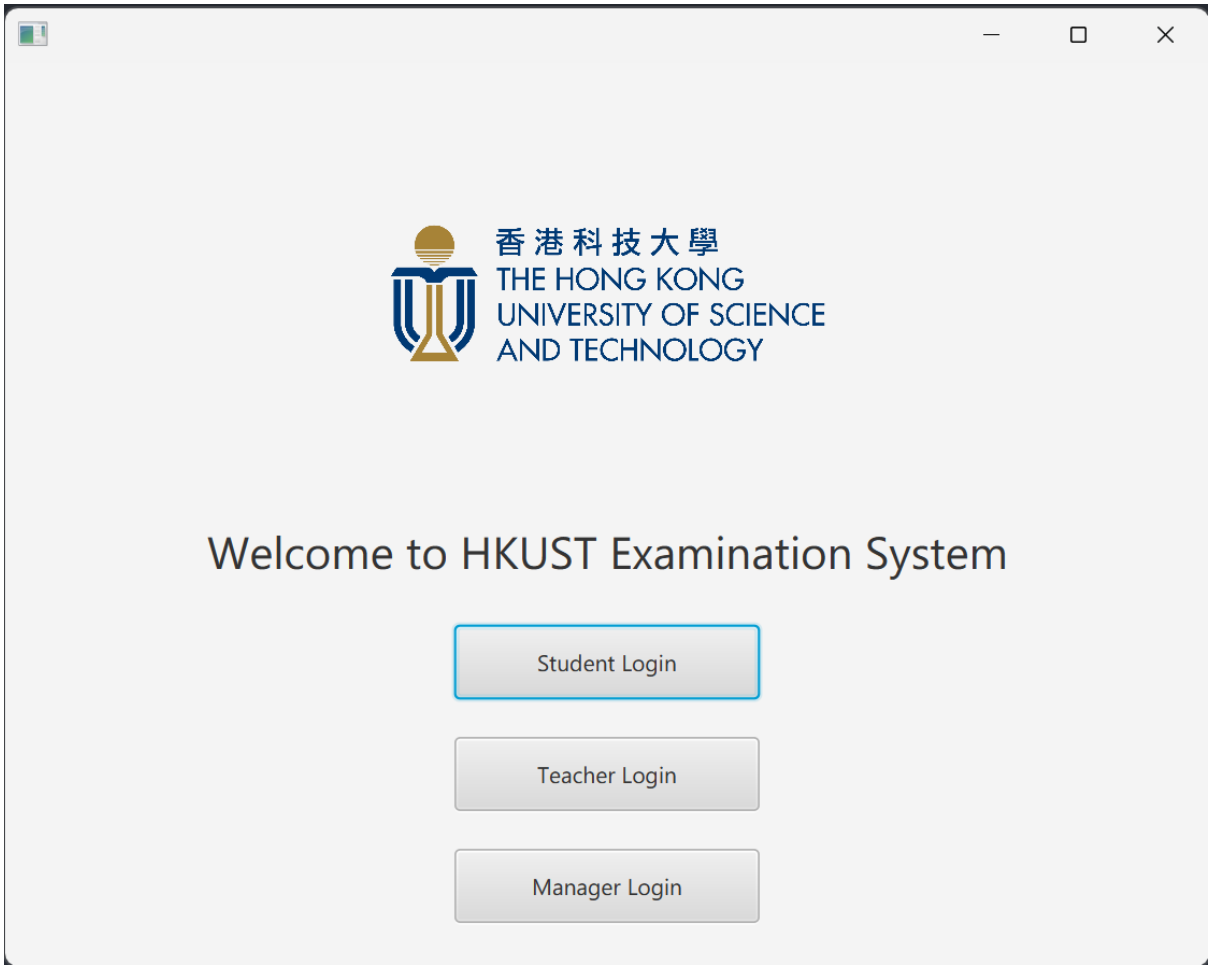
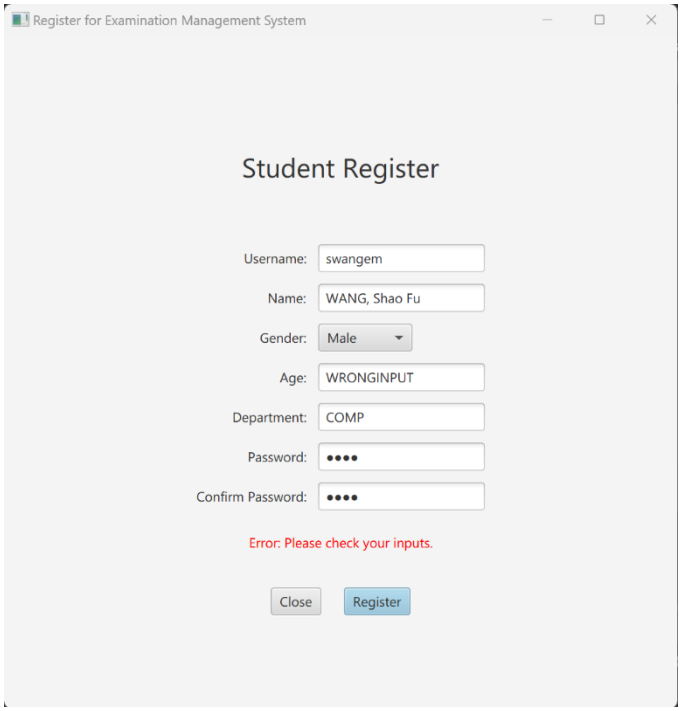
This file would be used for showcasing the main functions of the program. And a short tutorial on how to use it. We will show it from three different aspects of the program.

The main page you will see after launching the application. It will enable three different types of users to select his own login portal.

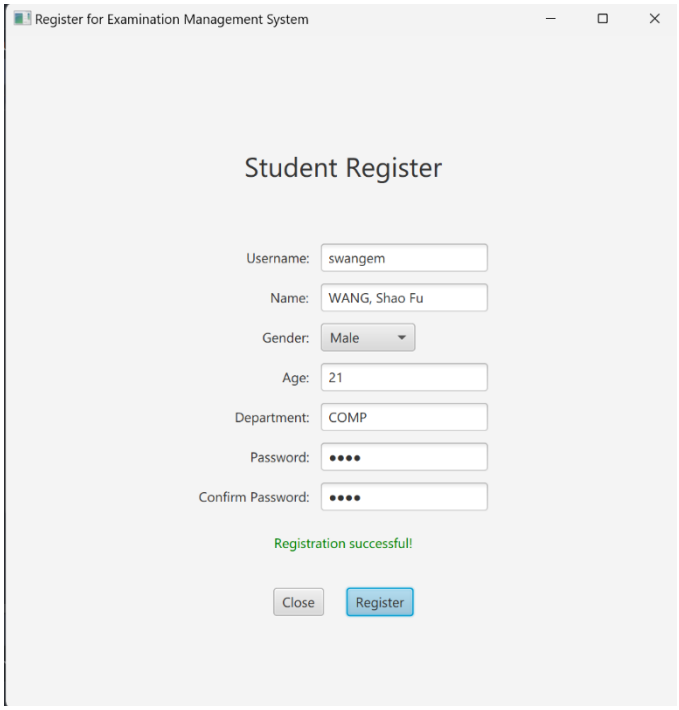


Student Case Demonstration

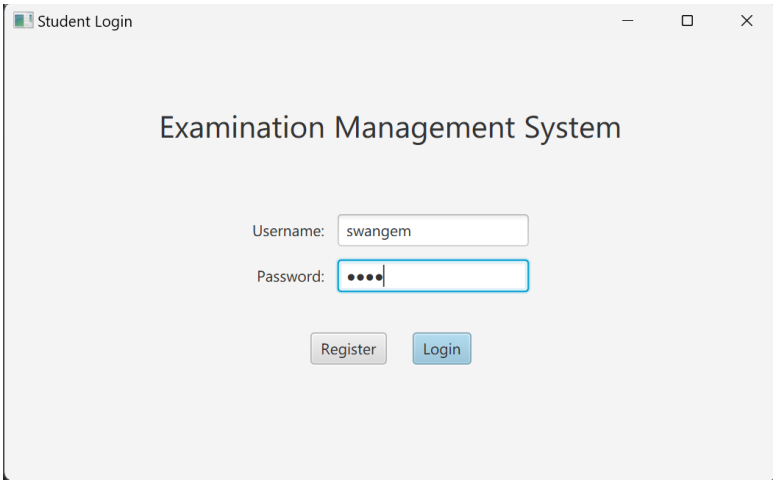
1. When the student has not registered yet, they could register for themselves. The registration form checks if the password and confirm password are the same. Also checks if all the fields are legal.



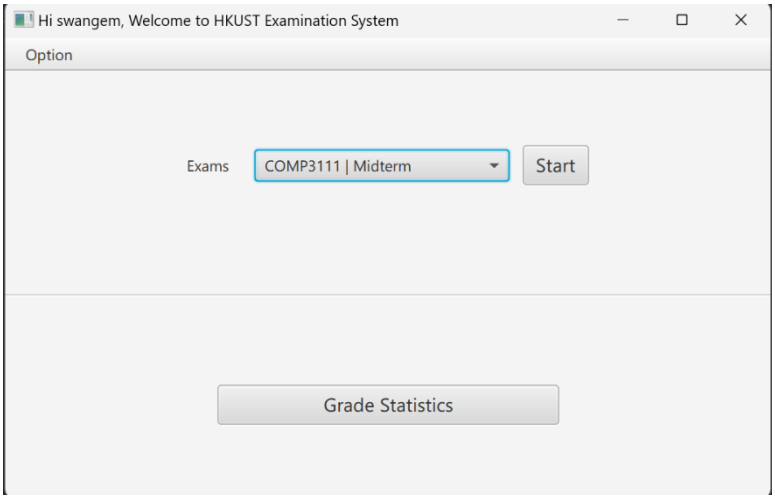
2. When the student has successfully registered, a green label would appear indicating registration successful.



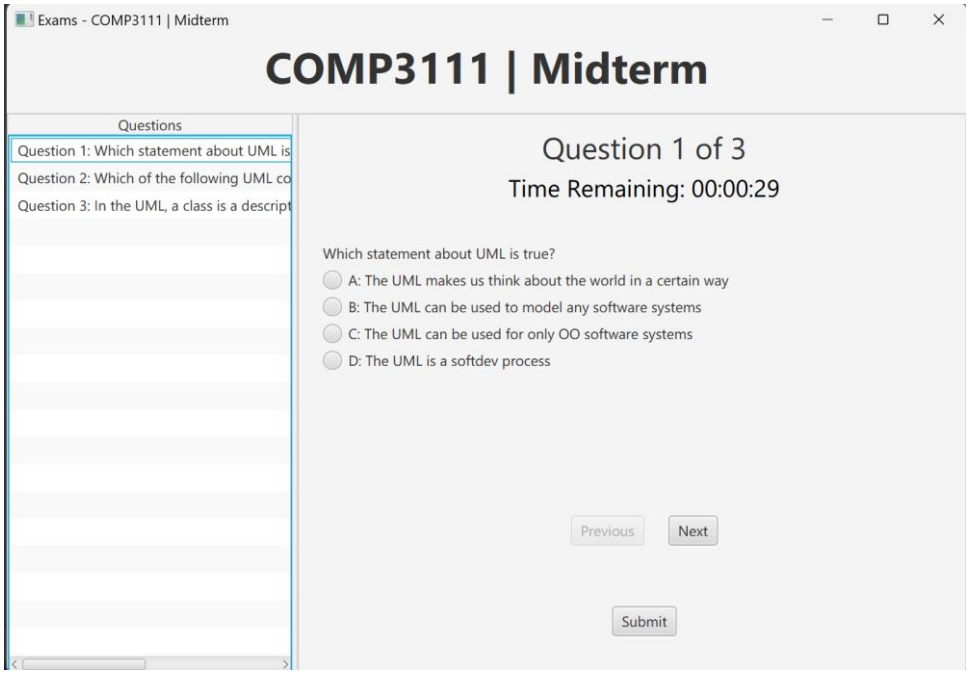
3. Now the student can login using the previous credentials



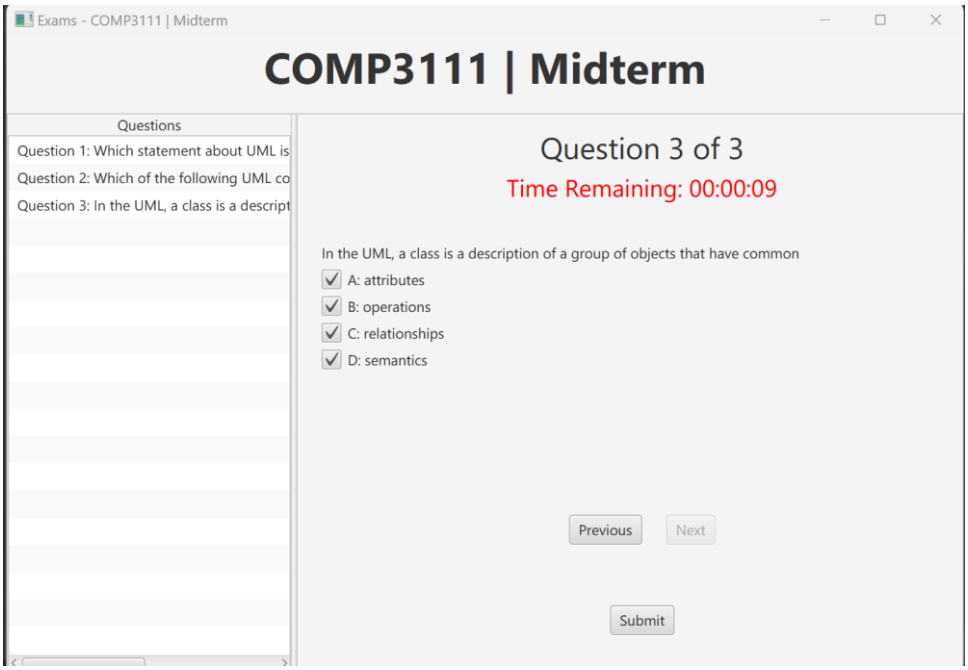
4. After logging into the system, the window will show Hi {username}, enabling selection panel or looking into grade statistics



5. Now, after entering the exam page, the student will see the layout as shown below.

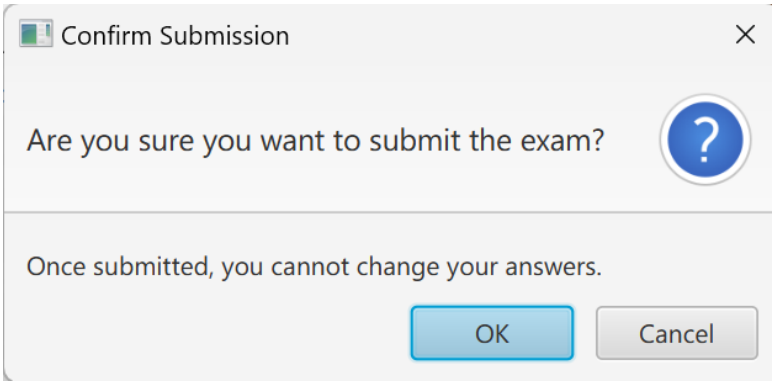


6. The multiple choice utilizes a checkbox for each selection. Note that when time is less than 10 seconds, the Time Remaining label turns red, indicating time is almost up.

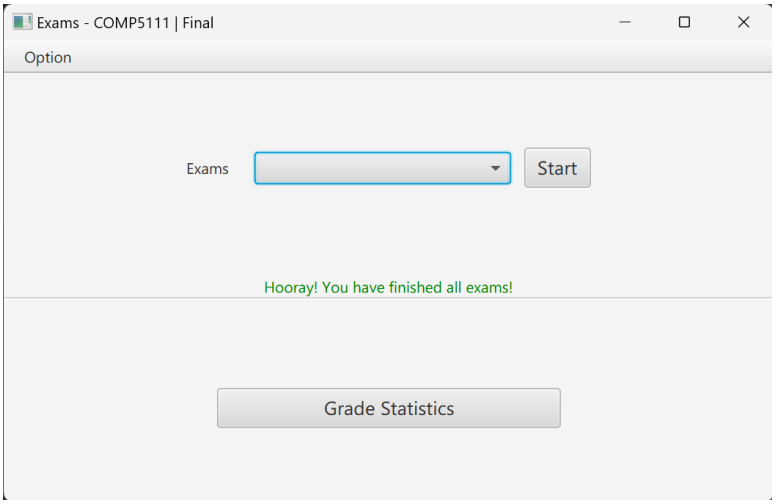


7. When time is up, the exam will be automatically submitted, showing this dialog including time spent, correctness, precision, and score.

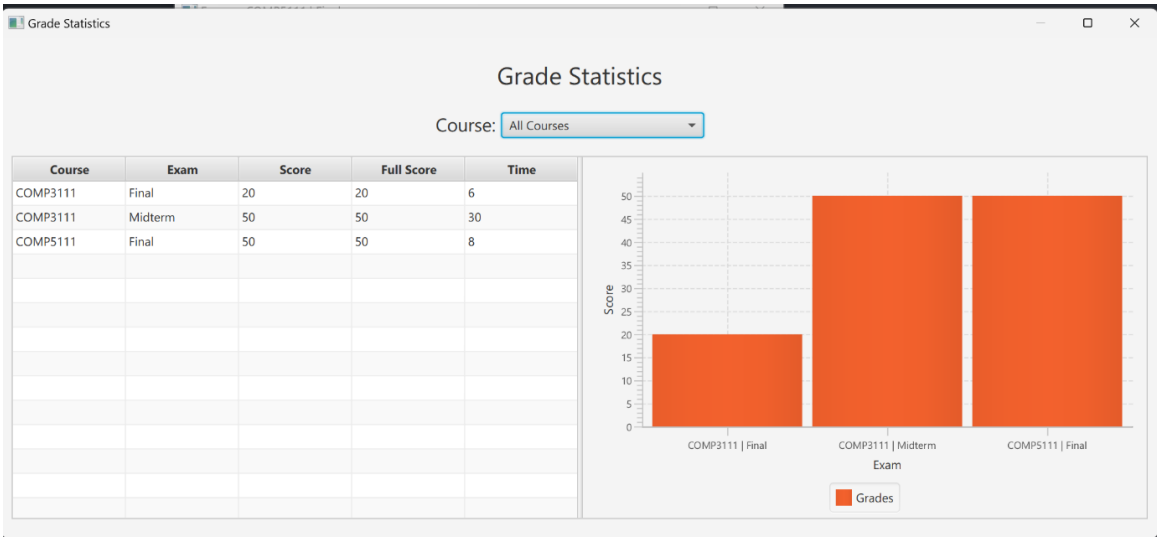
8. Note that, if the time is not up, but the student wants to submit, a prompt will show, asking whether he really wants to submit. Note that in this case, the time will not stop.



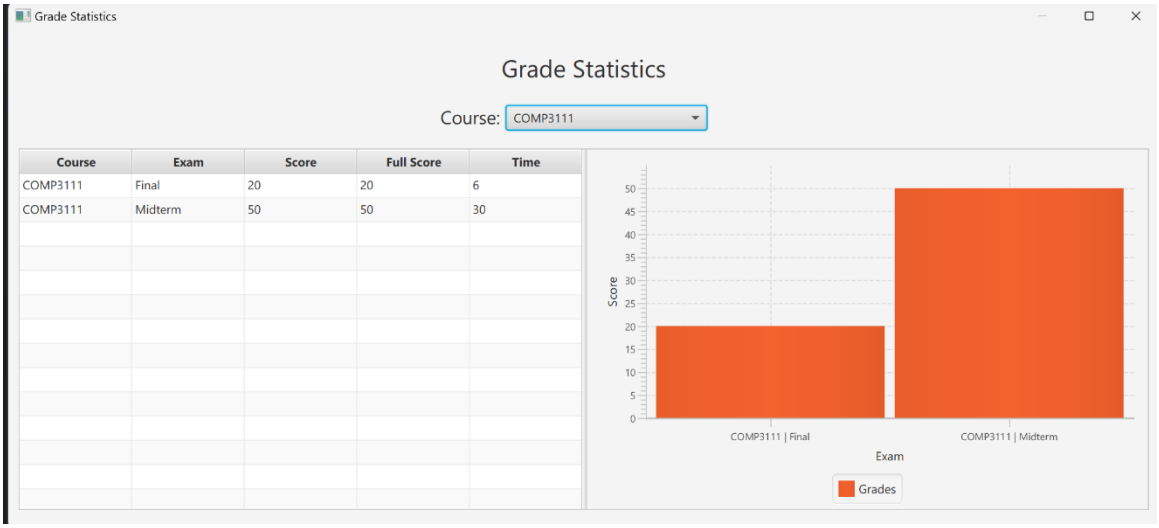
9. When there is no test left, a green cheerful text will be shown in the bottom.



10. If the student clicks into the grade statistics page, they will see the panel as shown.

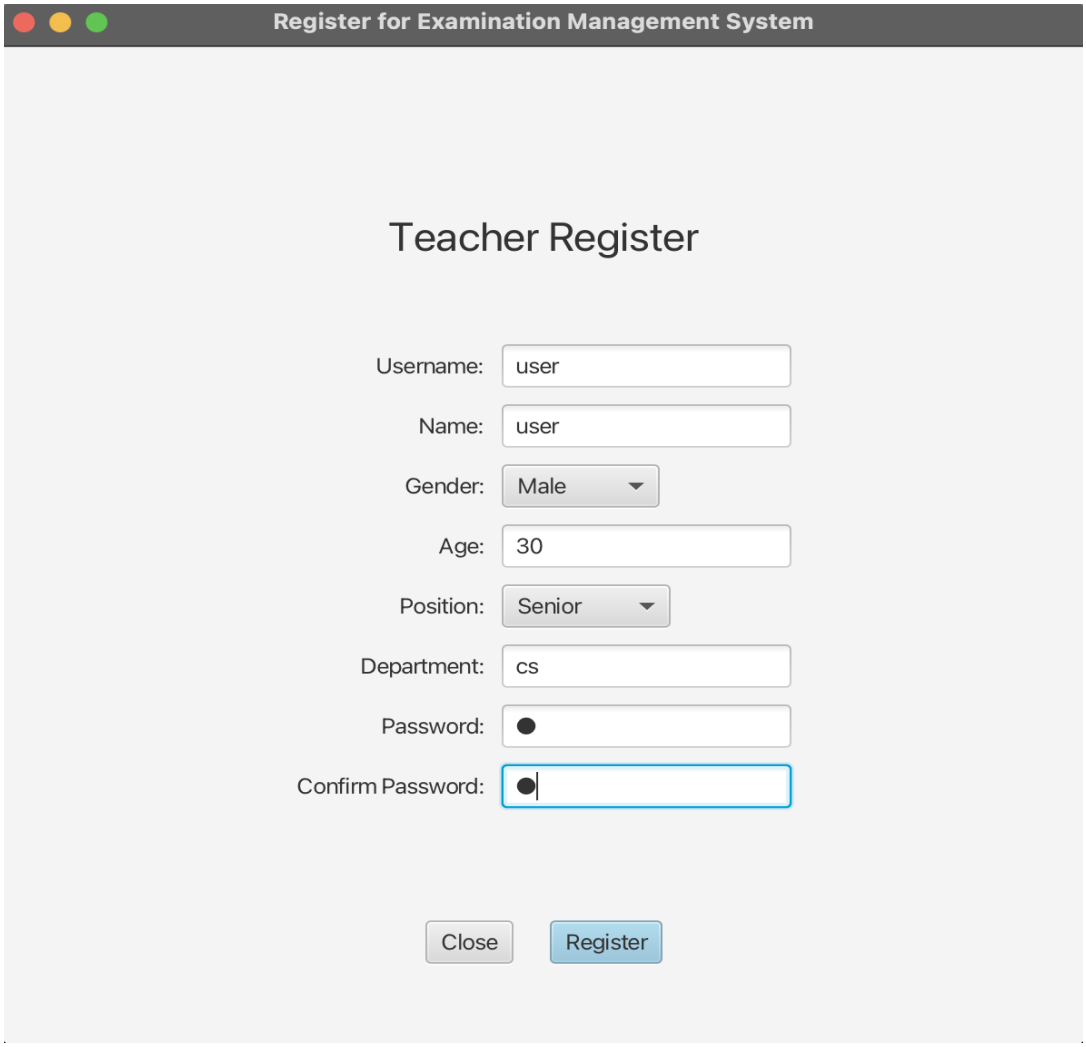


11. Students can filter out the course they would like to see, and it is dynamic, once a new course is clicked, it refreshes the whole panel.



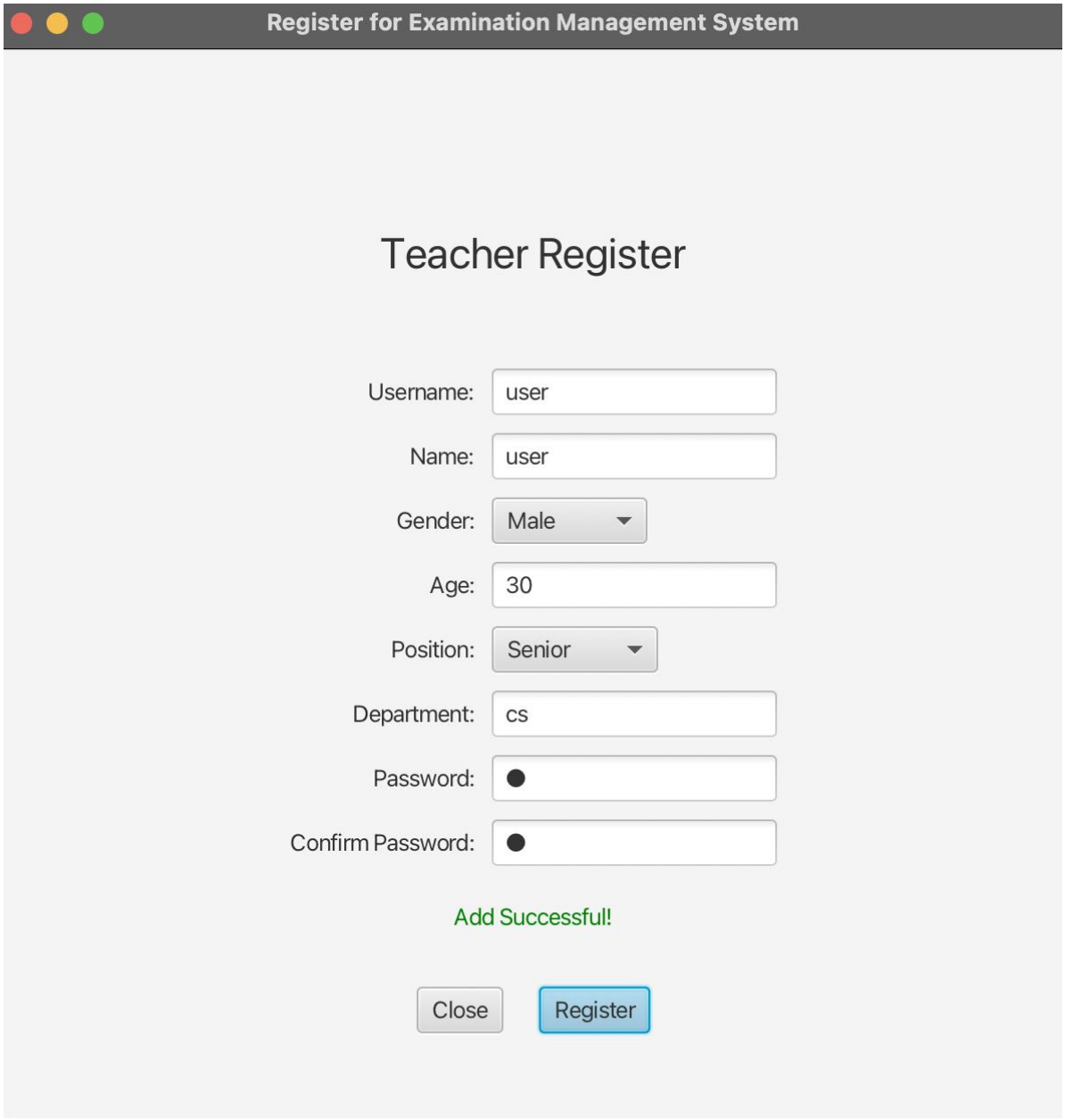
Teacher Case Demonstration

1. When the Teacher has not registered yet, they can register for themselves by clicking the register button on TeacherLoginUI. Then a registration form shows up, after the teacher fills in the registration information, the system will check if the password and confirm password are the same, also check if the user has already registered, and all fields are legal.

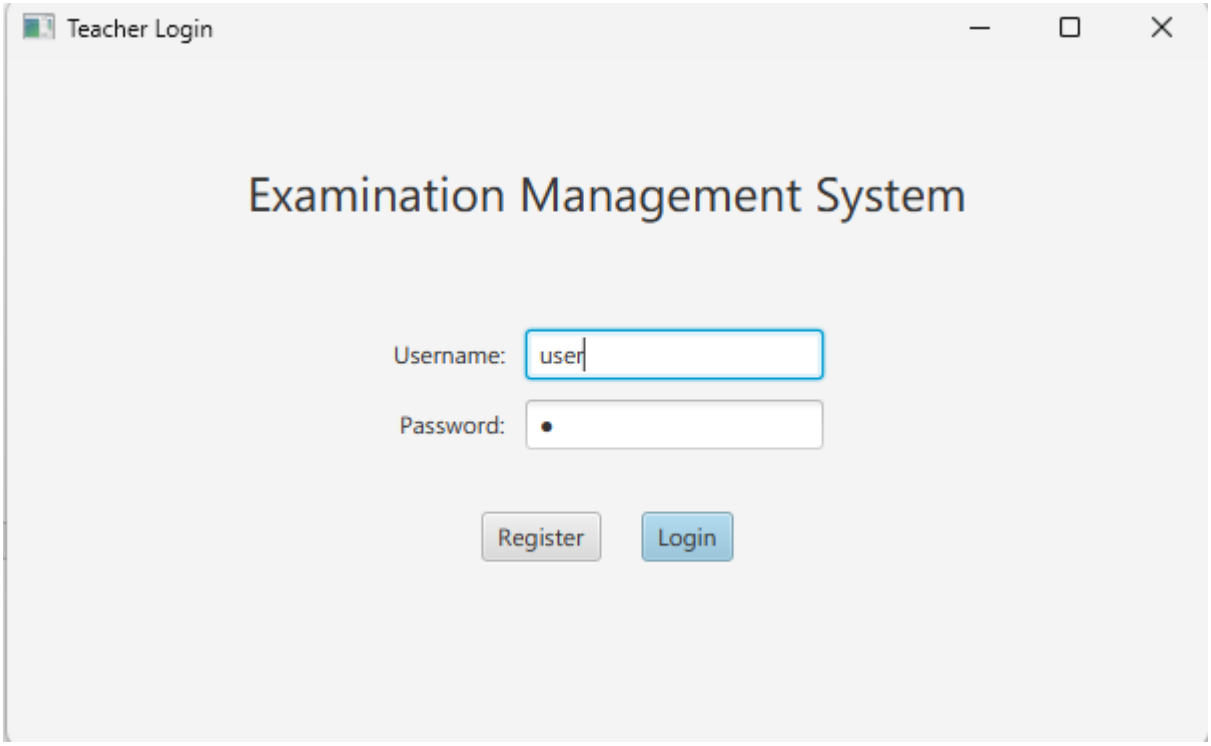


2. When the teacher registers successfully, a green label of “Add Successful!” will show up on the screen to indicate the teacher information

has been added to the system.

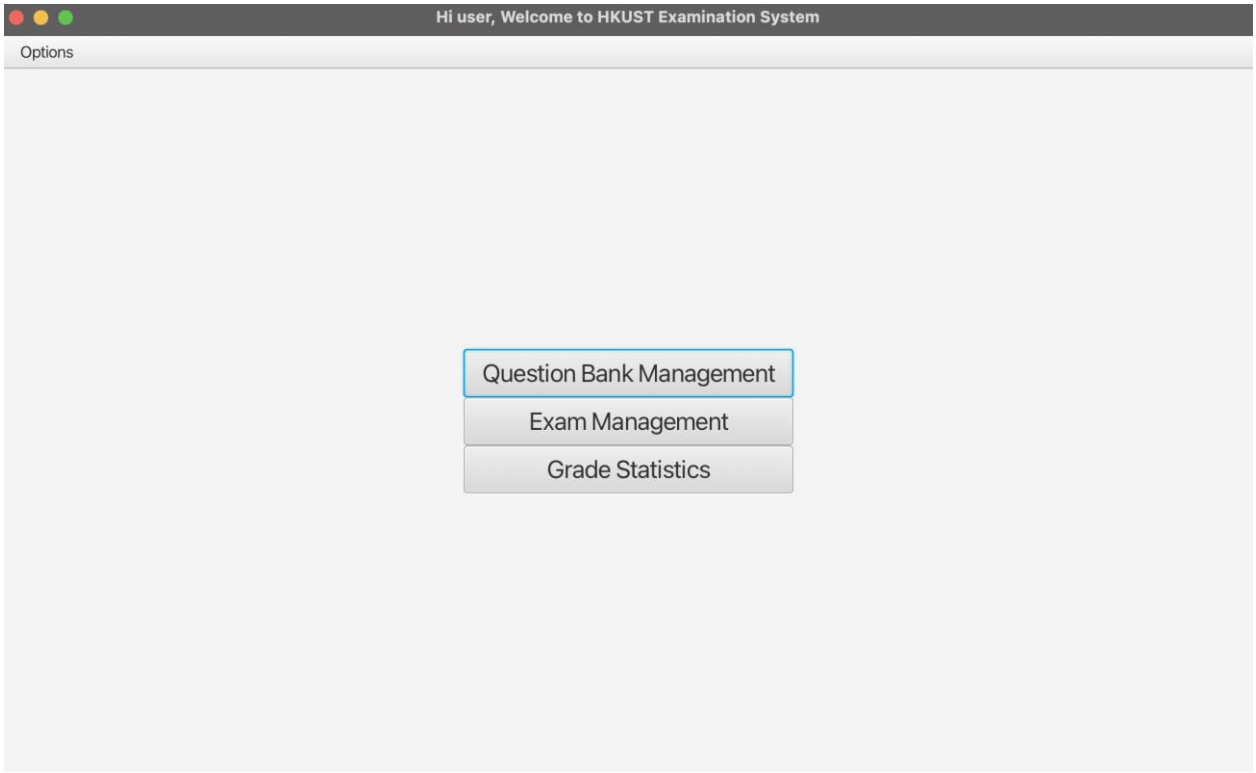


3. The Teacher can then fill in the information that they provided on the registration form to log in to the Teacher part of the system.



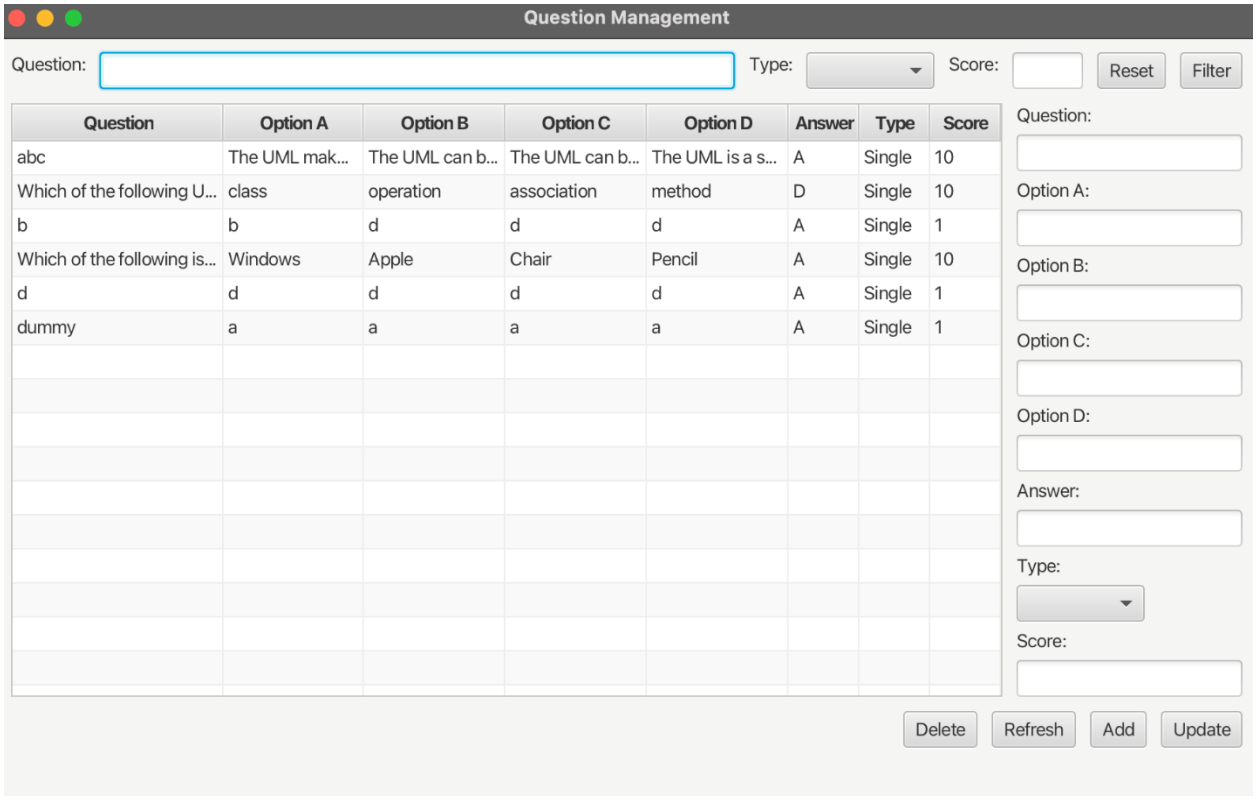
4.After logging into the system successfully, a message Hi {username}, Welcome to HKUST Examination System will show up on the top of this

page.

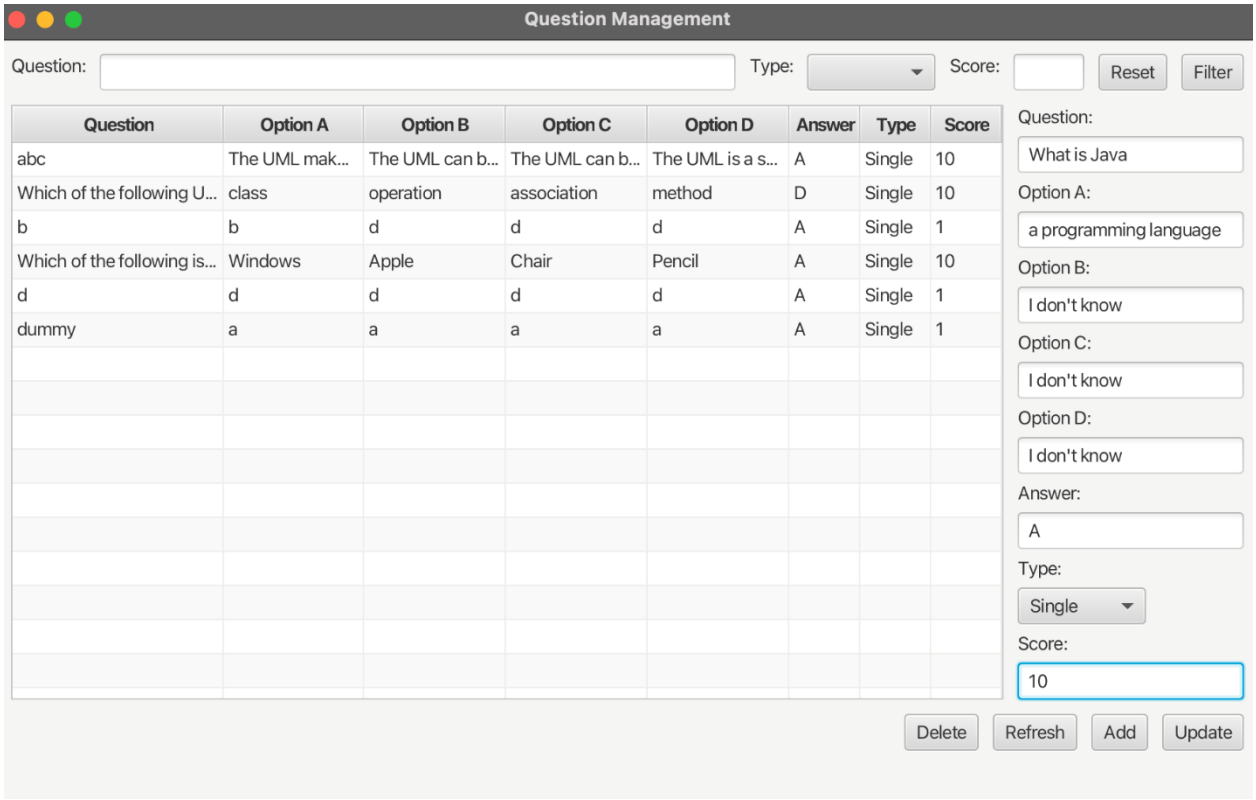


5. Teacher can manage the Question Bank content by clicking the Question Bank Management button at point number 4. Then the teacher can see a

Question Management page like this with a list of existing questions.

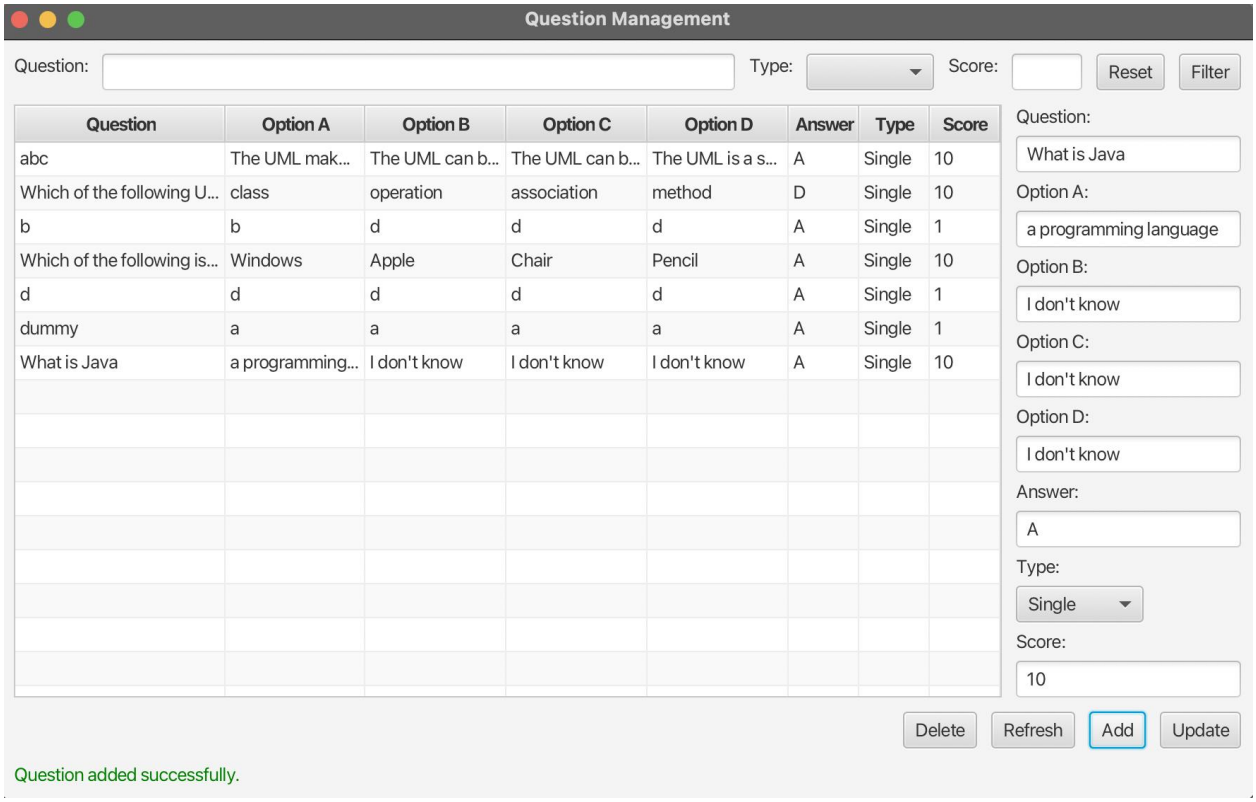


6.Teacher can add a question to the question bank by filling in the information of the question in the input fields on the right-hand side.



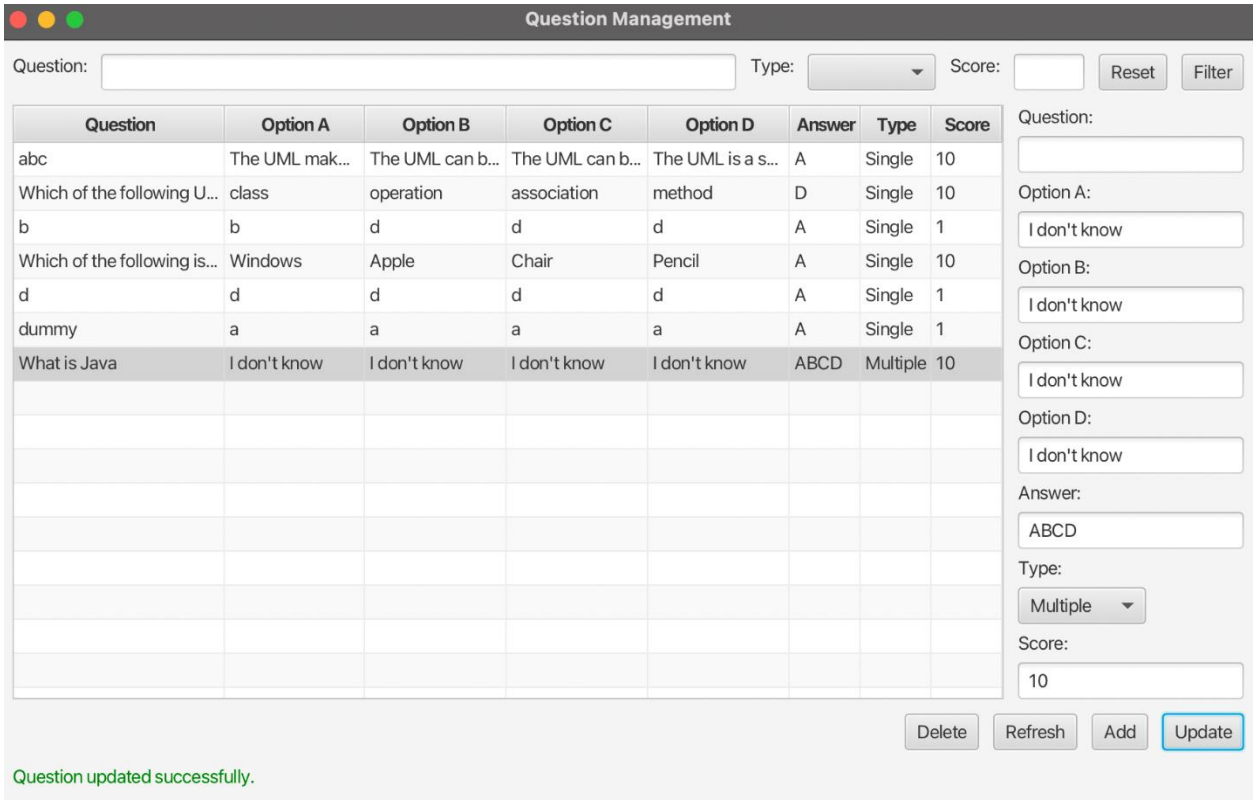
7. The system confirms adding the question by clicking on the Add button. Then the system will check if all fields are legal then the question will be added to the question bank and show it on the list of questions on the left-hand side with a label “Question Added successfully” on the left corner of

the page indicating the add question was successful.

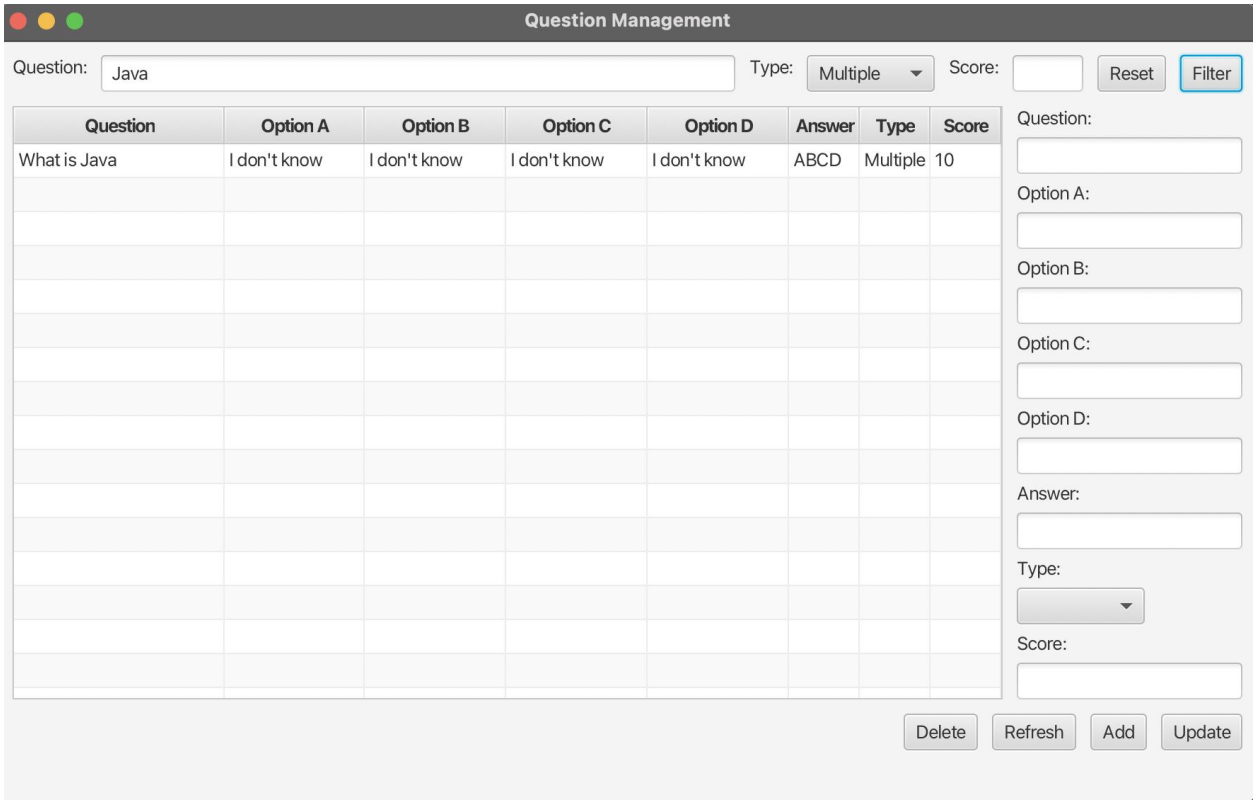


8. If the teacher wants to update a question, then he can click on the question and fill in the information in the input fields which he wants to update then click Update button. The system will verify if the update is legal then the question will be updated in the system and the teacher can see the changes of the content of the question with a label “Question updated

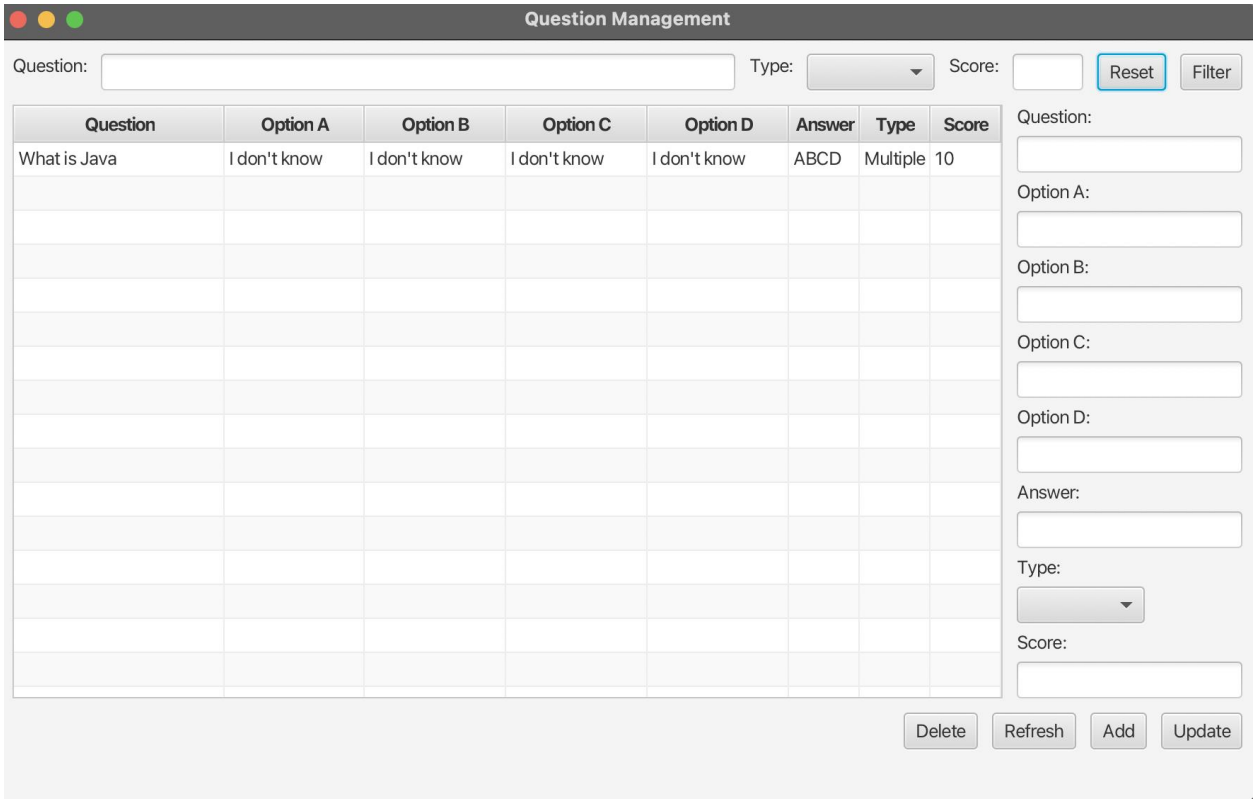
successfully” show on the left corner of the page.



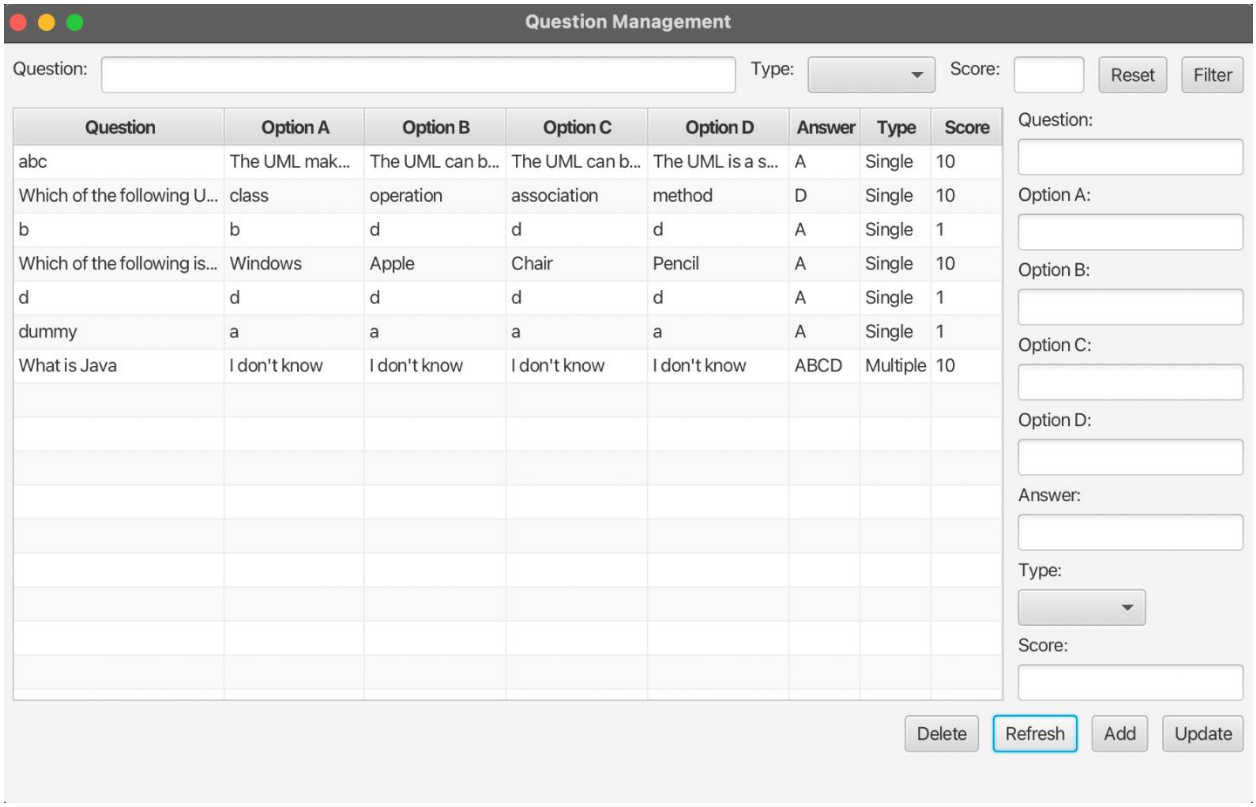
9.The teacher can apply filter on the question list, and the system will only show the list of questions that match the filter option on the screen.



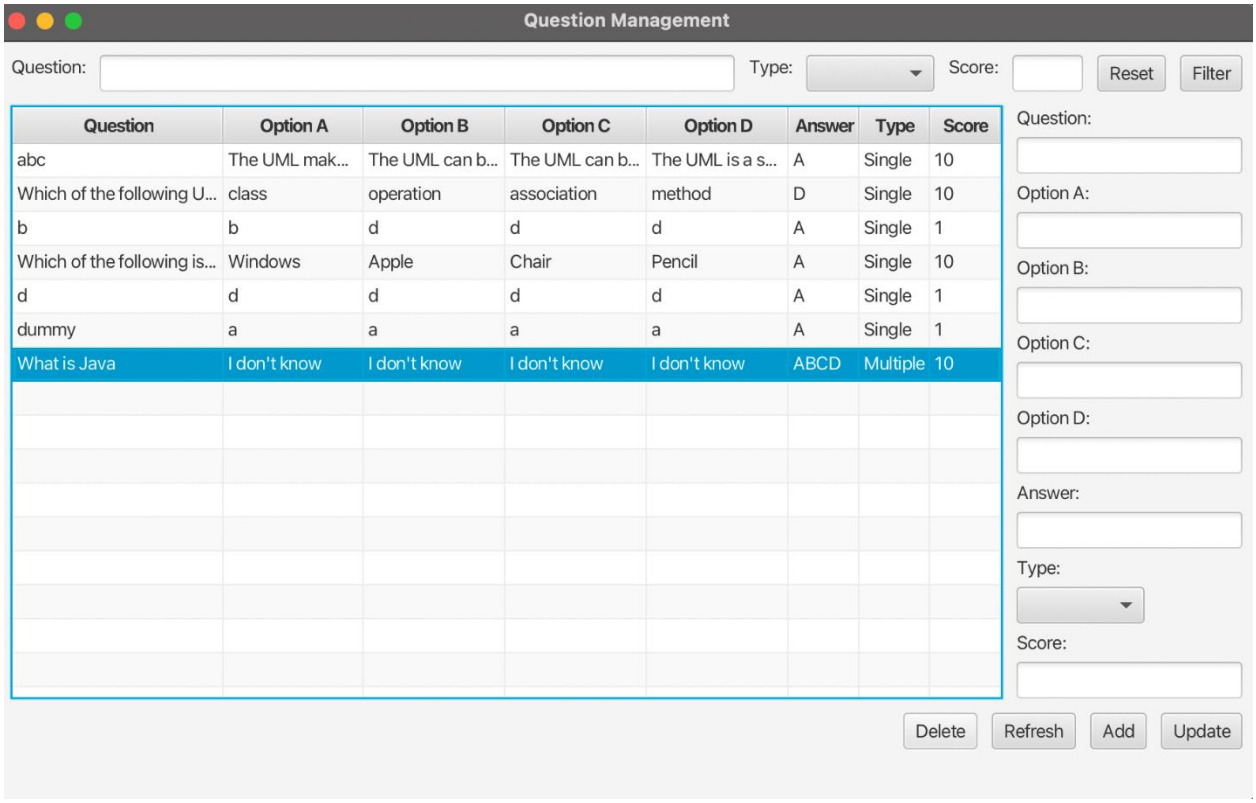
10.By clicking the Reset button, the input fields for the filter options will be reset and cleared.



11.The teacher can click on the Refresh button to refresh the list of questions, then the filter effect will be canceled, and the original list of questions will be shown.

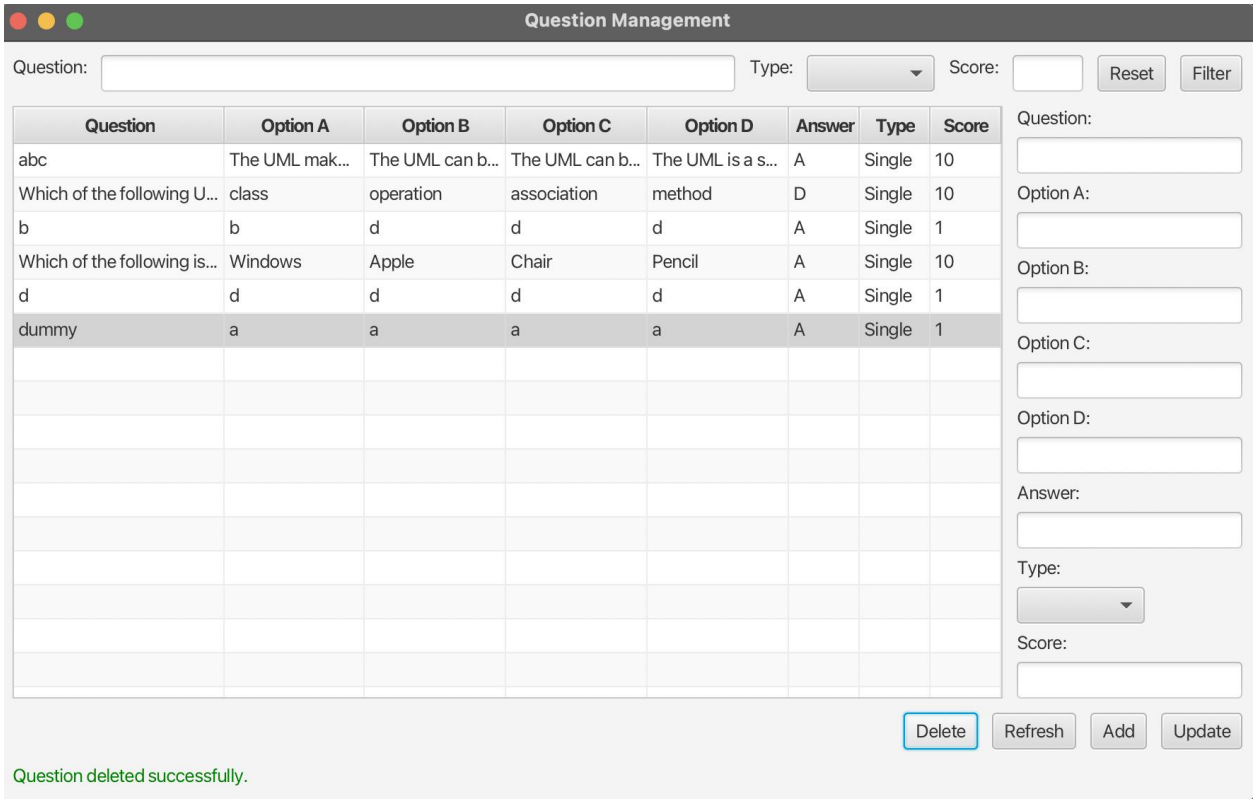


12.If a teacher wants to delete a question, he first clicks on the question.

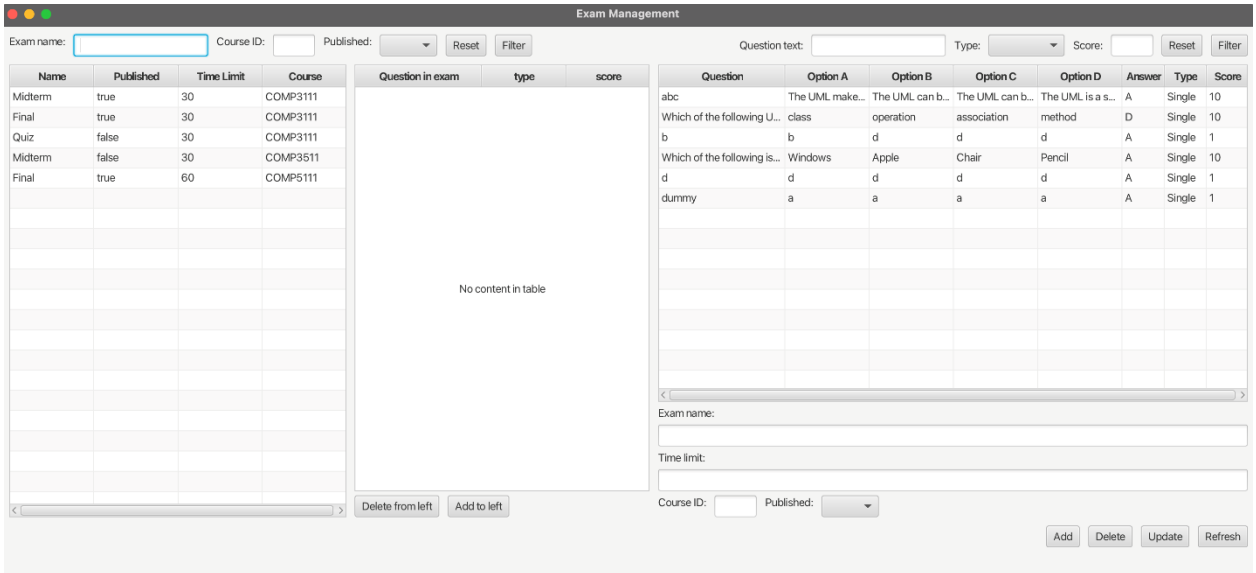


13.The teacher confirms deleting the question by clicking on the Delete button. The system then verifies if the deletion is legal, it will remove the question from the question bank, and a message “Question deleted successfully” on the left corner indicates that

the question successfully being removed from the question bank.

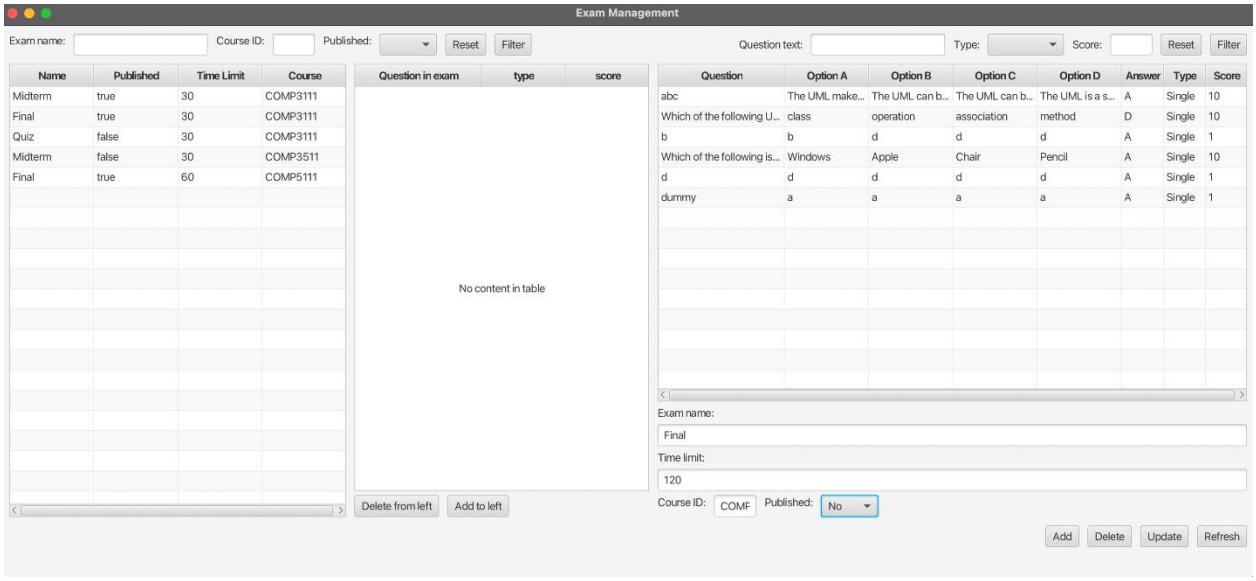


14.If the teacher wants to manage exams, then he can click on the Exam Management button on the page at point number 4. Then he will see a page of Exam Management like this.

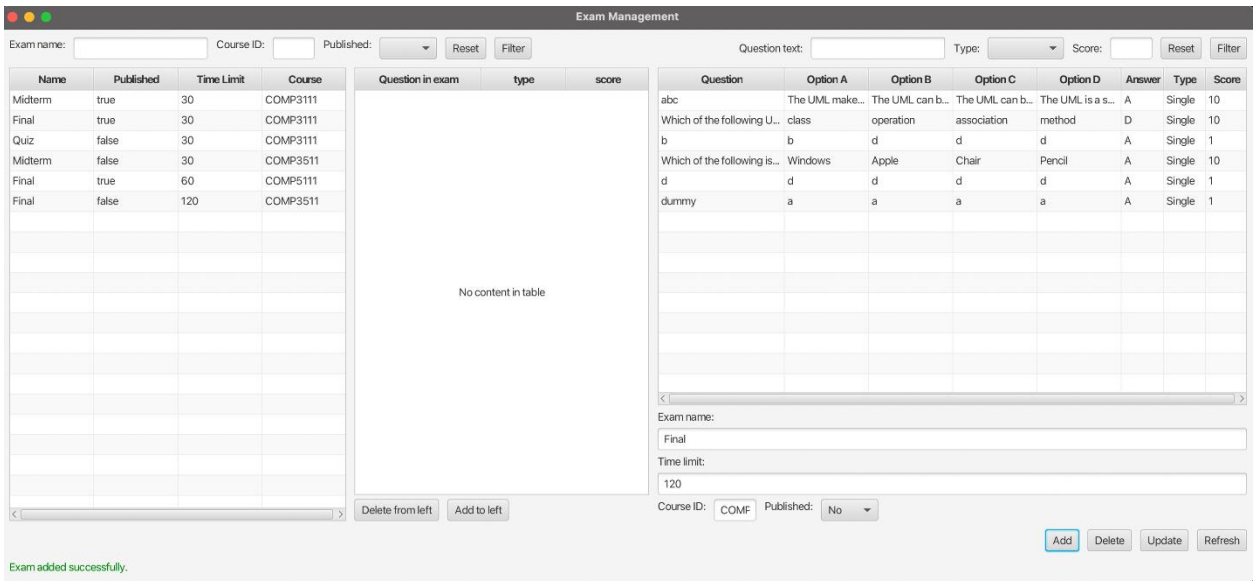


15. The Teacher can add an exam by filling in Examname, Time limit, Course ID, and published input fields (the teacher can first add an empty exam and add the question he

wants later).

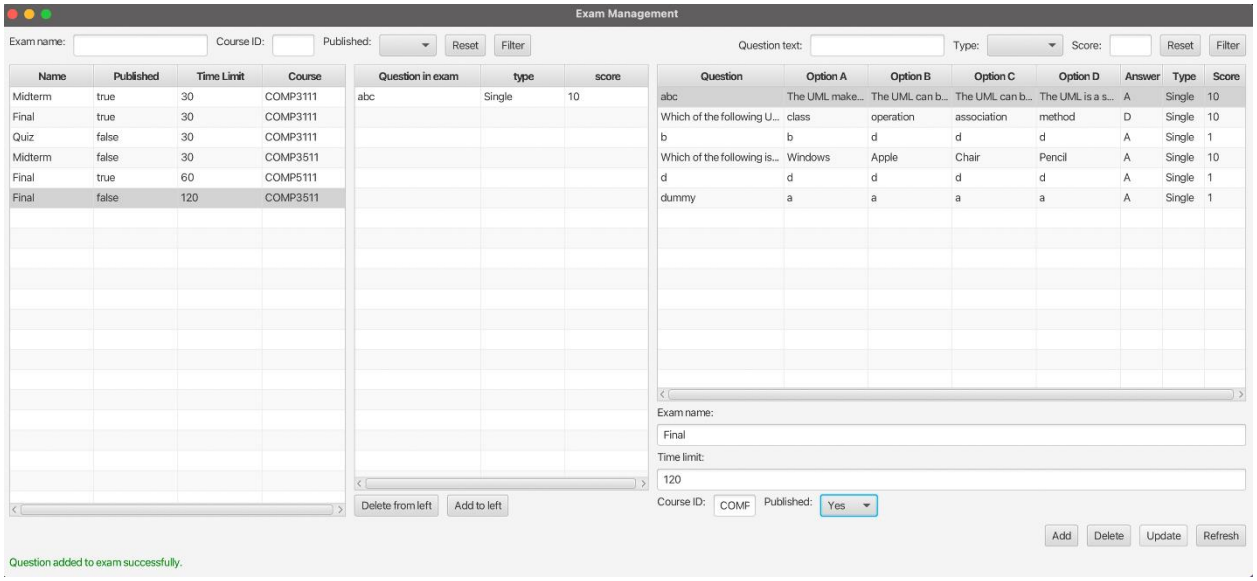


16.The teacher confirms adding the exam by clicking on Add button. The system then verifies if the exam adding is legal, it will add the exam to the exam bank and the added exam will be shown on the exam table on the screen with a label “Exam added successfully” to indicate the adding was successful.

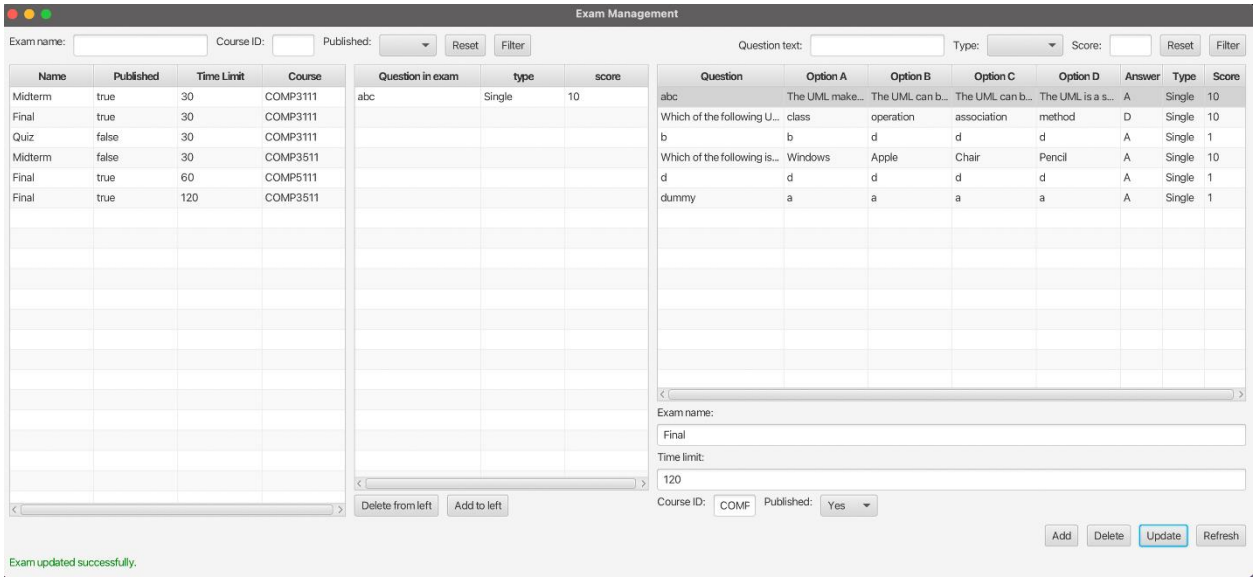


17. The teacher can update the exam Name, published, Time Limit, and Course information by clicking on the question and then fill in the information that they want to

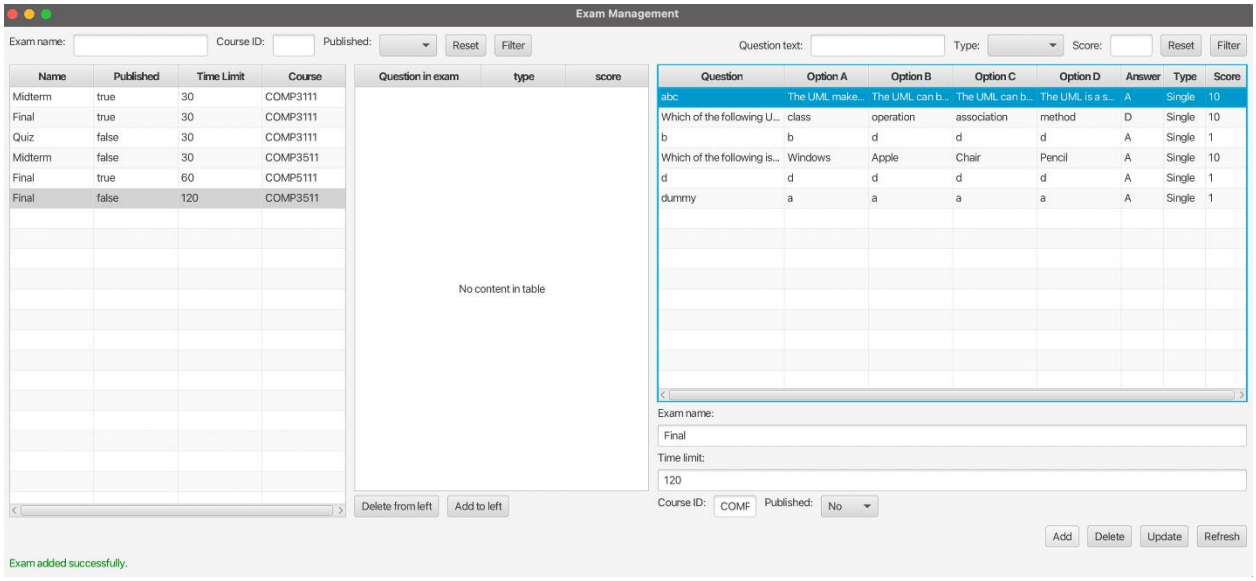
update in the input field.



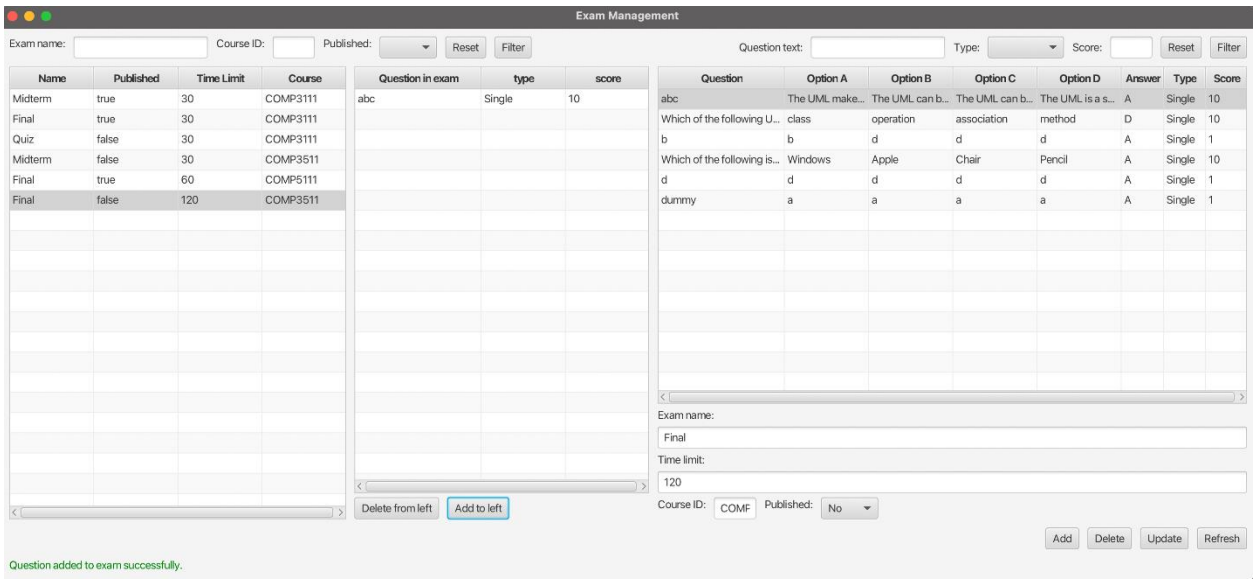
18. The teacher confirms the update by clicking on the Update button. The system then verifies if the update is legal, it will update the current exam in the question bank and show the updated version of the exam on the screen with a label “Exam updated successfully”.



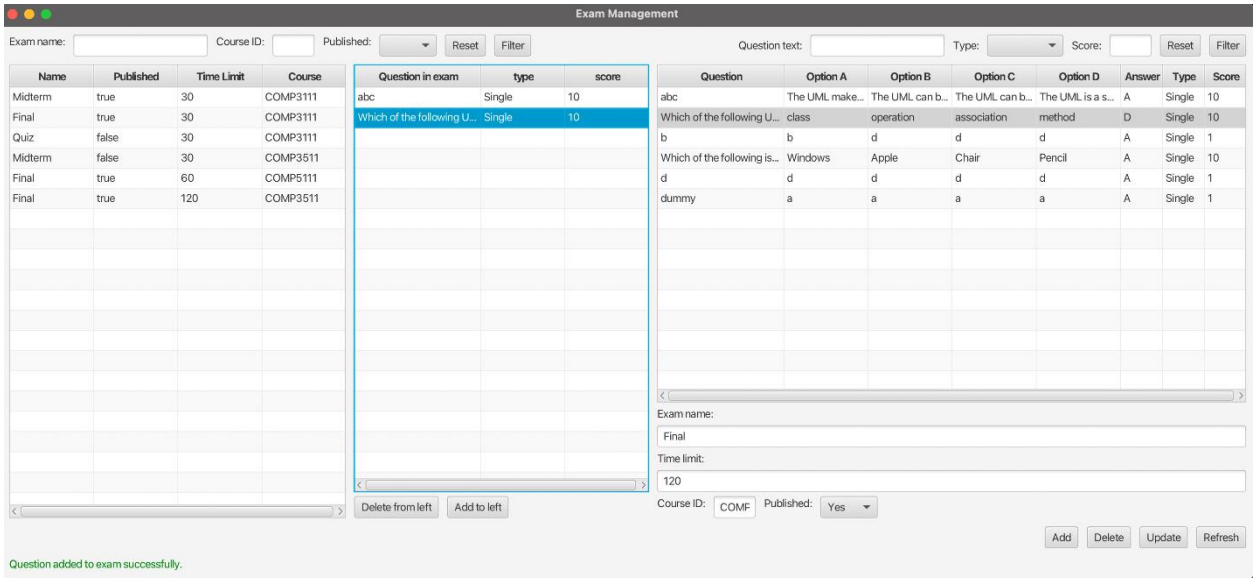
19. The teacher can add a question to an exam by clicking on the exam and the question.



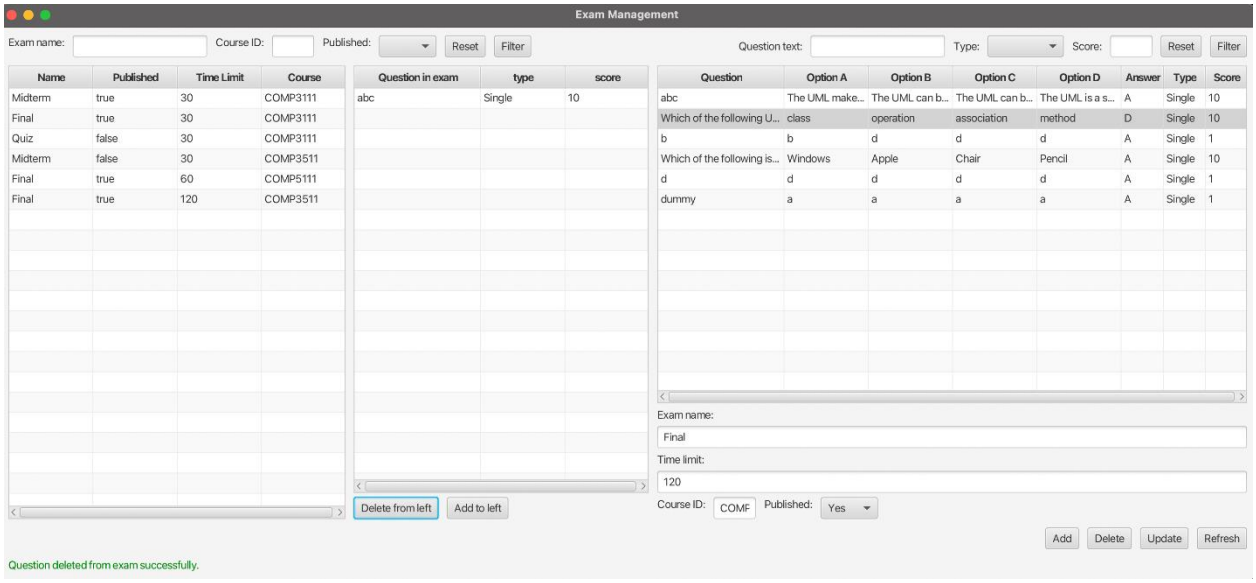
20.The Teacher confirms the adding by clicking on the Add to left button. If the system verifies the adding is legal, it will add the question to the exam, and the middle of the table that shows the list of questions of the exam will be updated with the label “Question added to exam successfully” to indicate the adding was successfully.



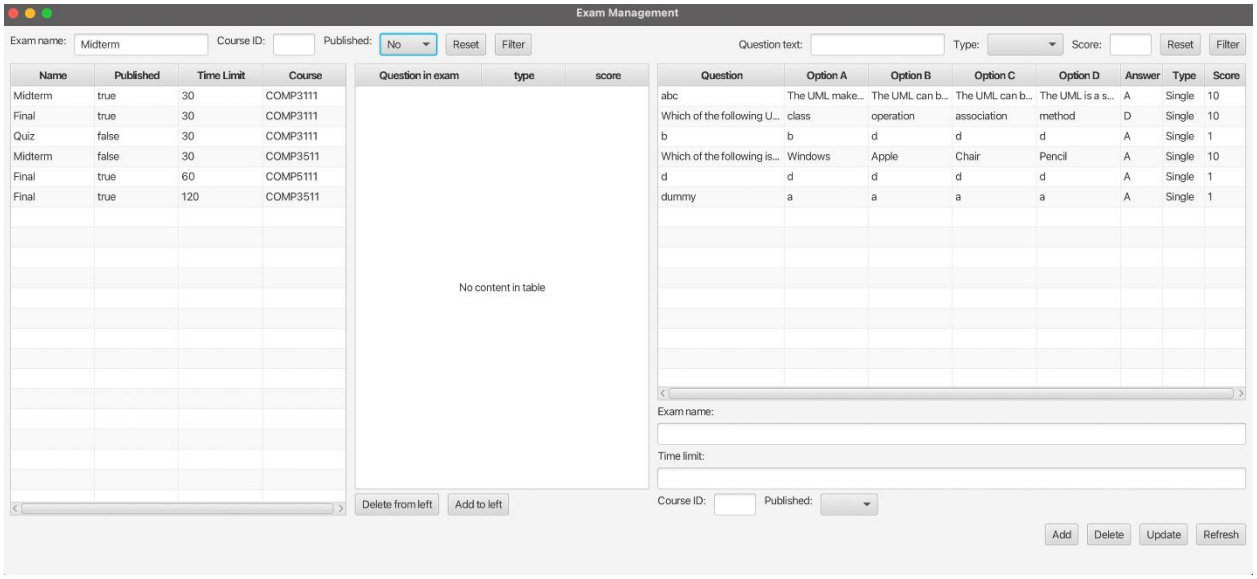
21. The Teacher can delete a question from an exam by clicking on the exam. Then the list of questions for the exam will be shown on the middle table, and then the teacher can click on the question that he wants to delete.



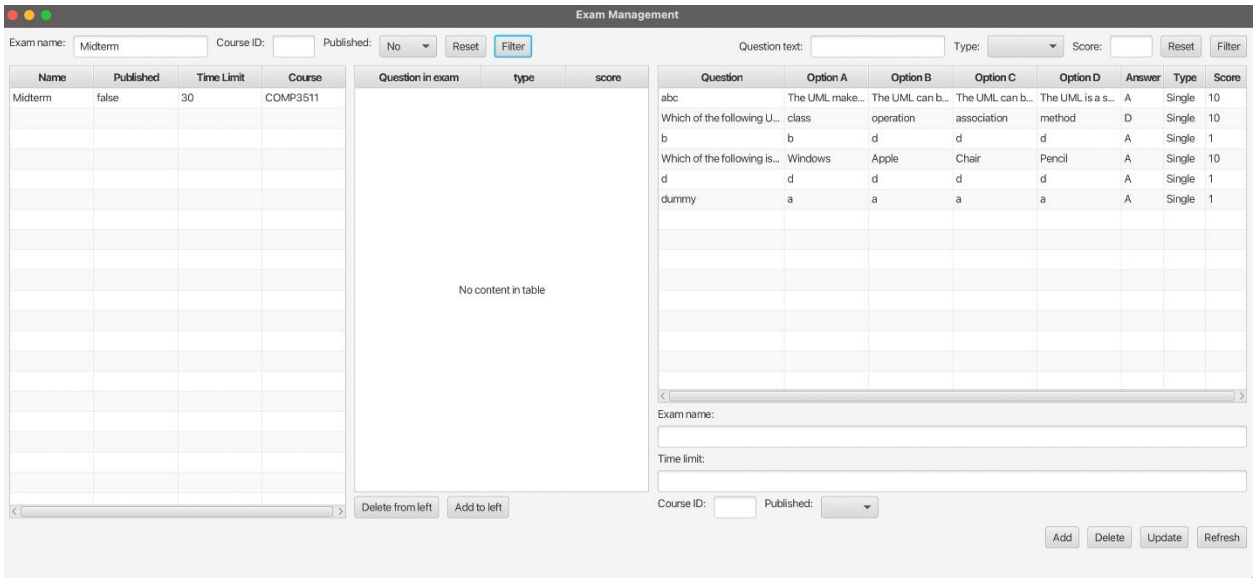
22. The teacher confirms the delete by clicking on Delete from left button. If the system verifies the deletion is legal, it then will remove the question from the exam, and the updated list of questions of the exam will be shown on the middle table will a label ""Question deleted from exam successfully" to indicate the removal of the question was successful.



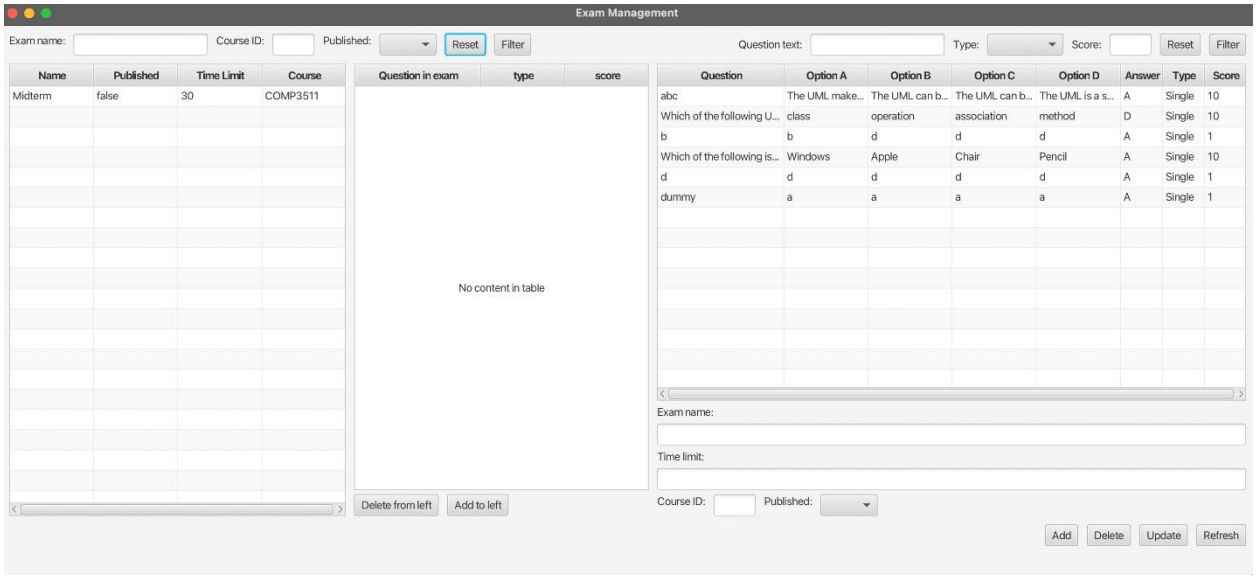
23. The teacher can filter the list of exams by filling in the input fields for exam filtering.



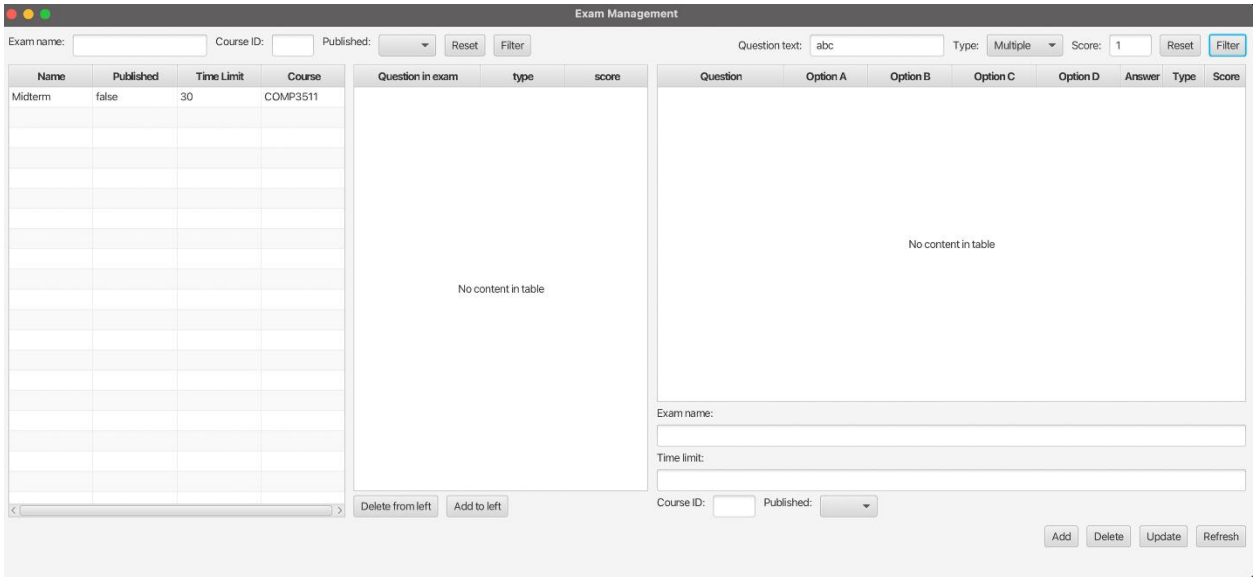
24.The teacher confirms the filtering by clicking on Filter button. The system then only shows the list of questions that match the filter option.



25. The Teacher can reset the filter options for exams filtering by clicking on the reset button for the exam filter.

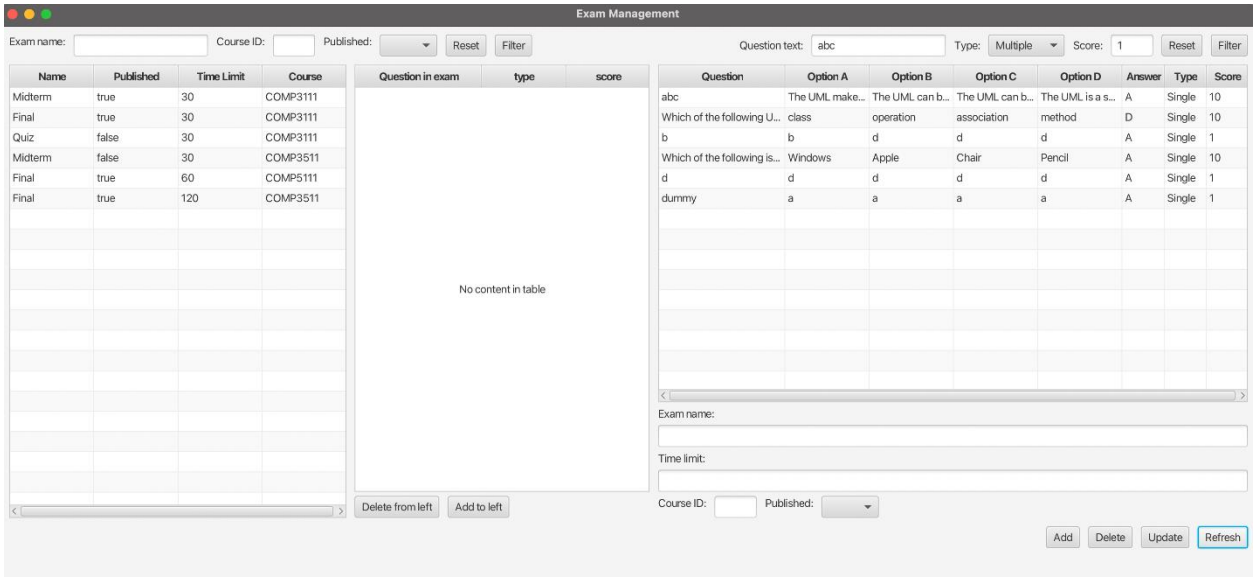


25. The filter function for the list of questions is the same as the one in Question Management.

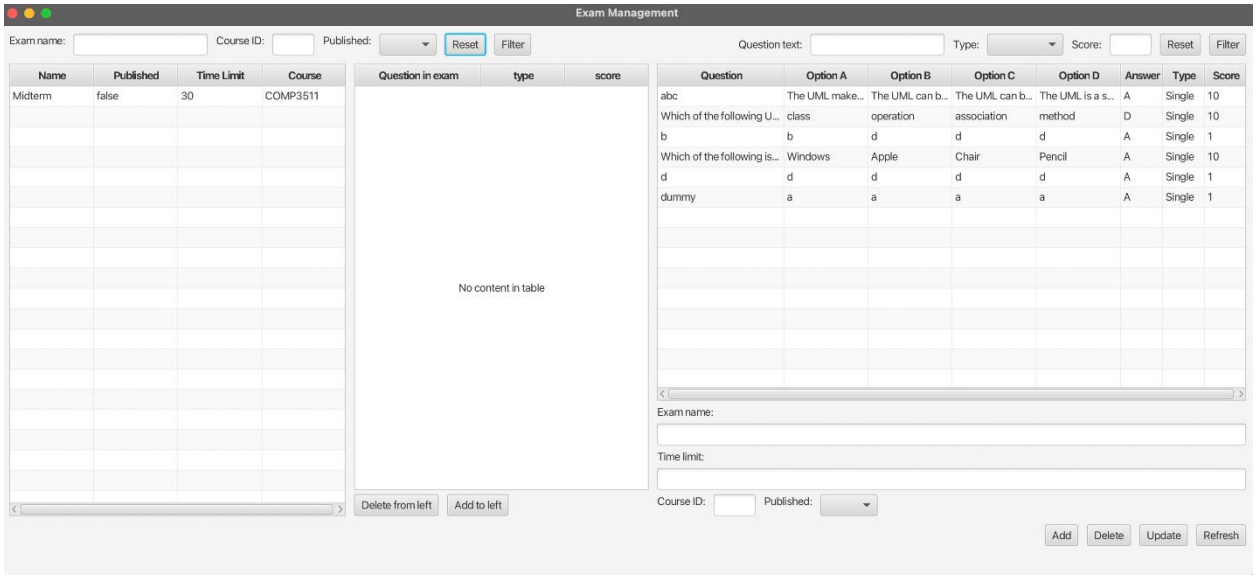


26. The teacher can refresh the page to clear the filtering effect for both the exams list and questions list by clicking on the refresh button. The system will then show the

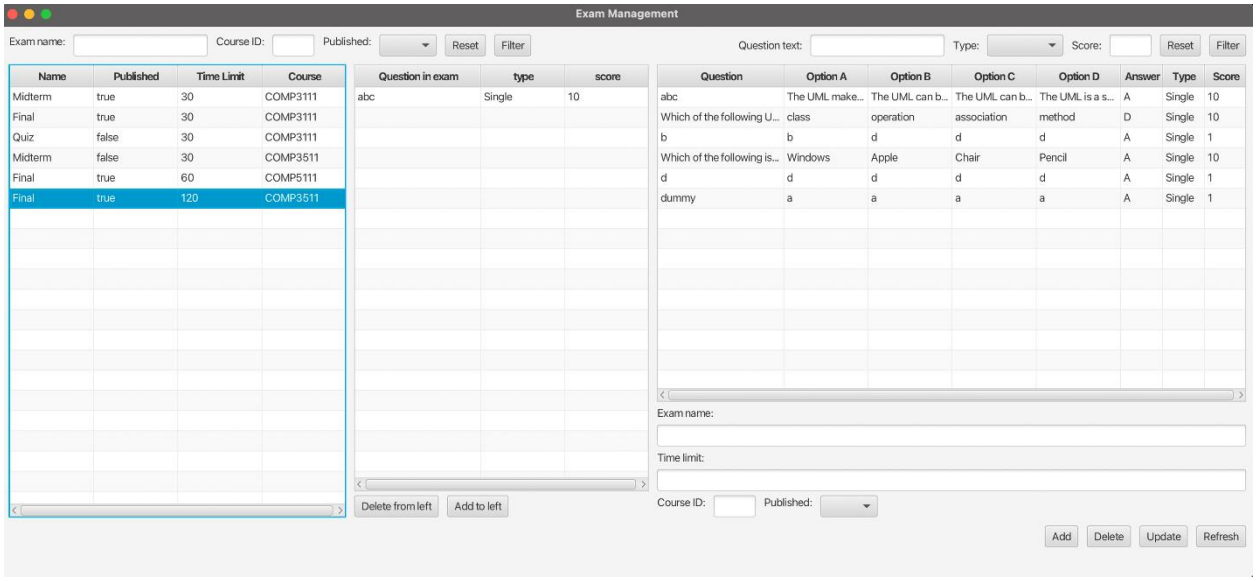
original list of exams and questions without filtering effect.



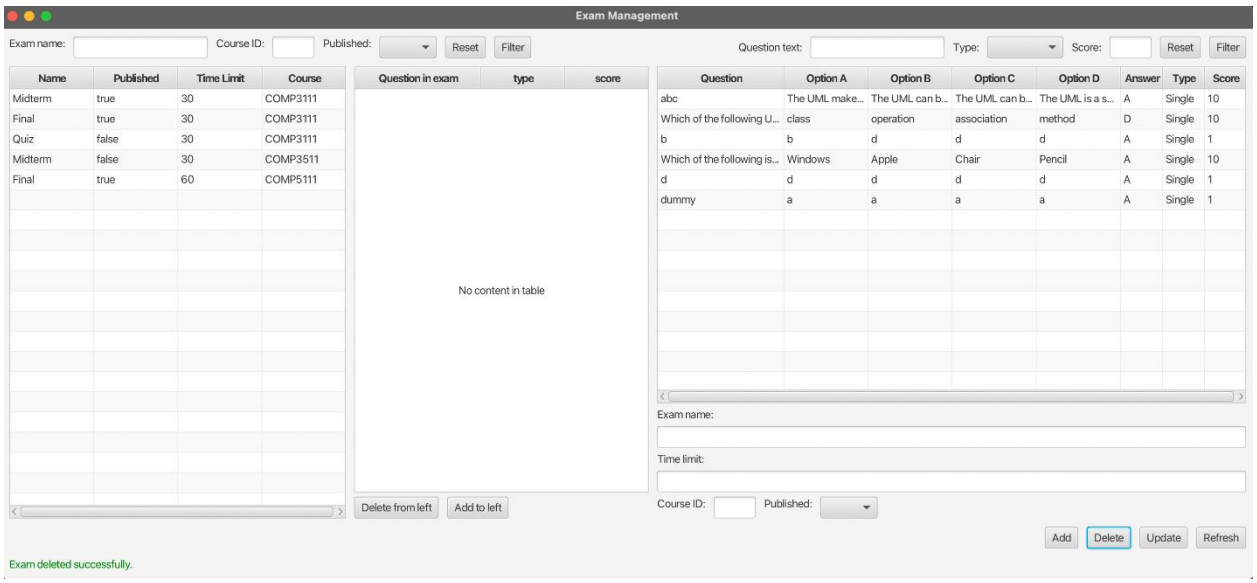
27. The reset for the question filter options is the same as the one in Question Management.



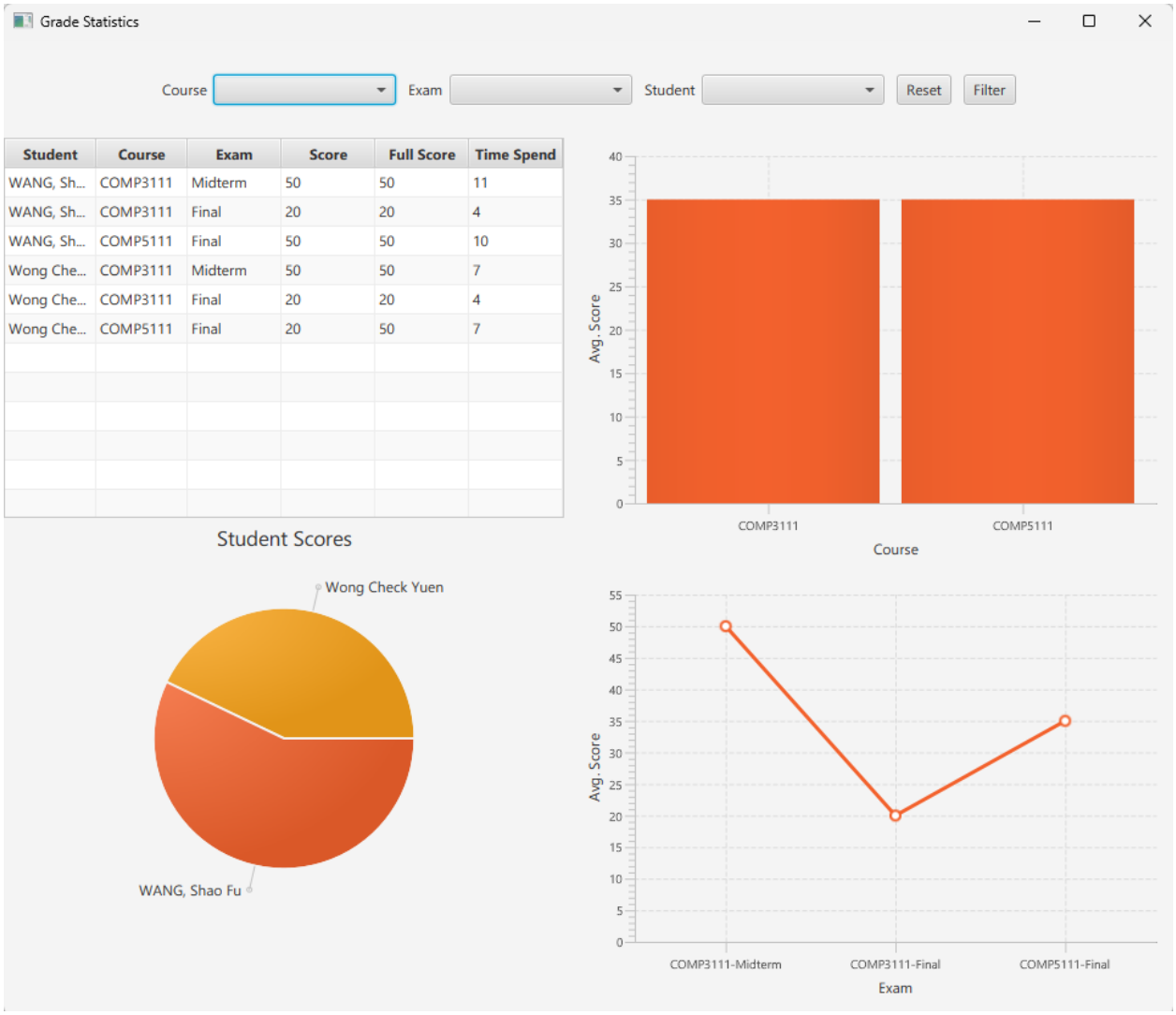
28. The teacher can delete an exam by clicking on the exam that he wants to delete.



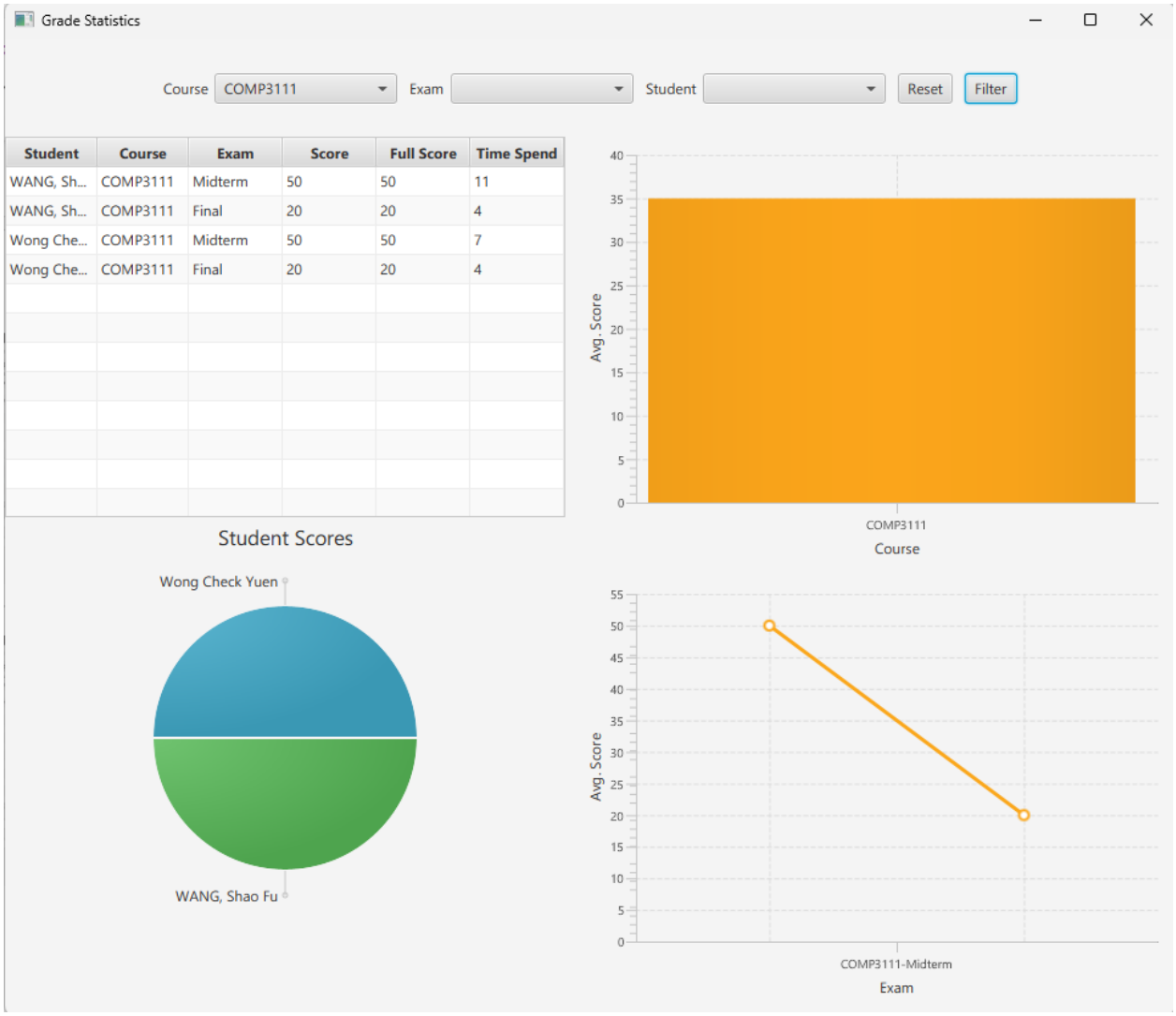
29. The teacher confirms the delete by clicking on the Delete button. If the system verifies that the delete is legal, then it will remove the exam from the exam bank (exam list), and update the list of exams on the screen with a label “Exam deleted successfully” to indicate the deletion was successful.



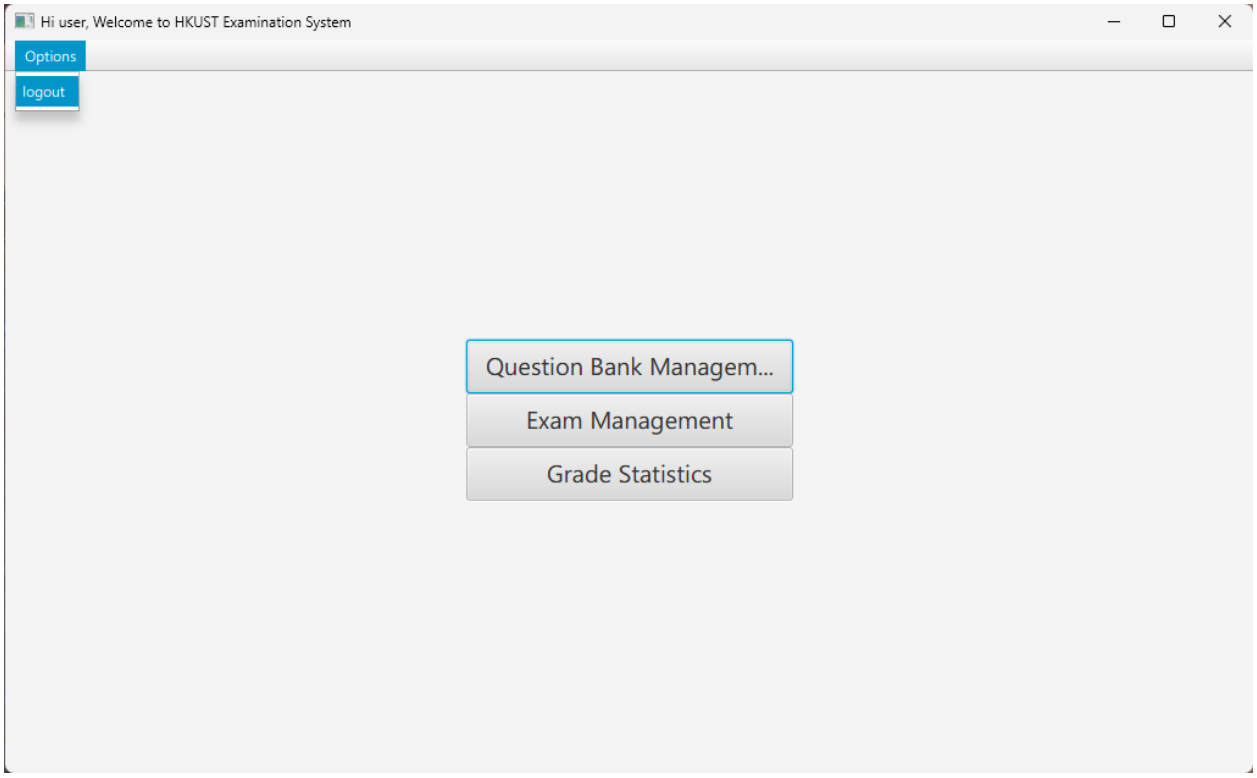
30. The teacher can view the grade statistics(performance) of students.



31. The teacher can then filter out wanted items to see, in this case, the teacher checks the grade for the course COMP3111.

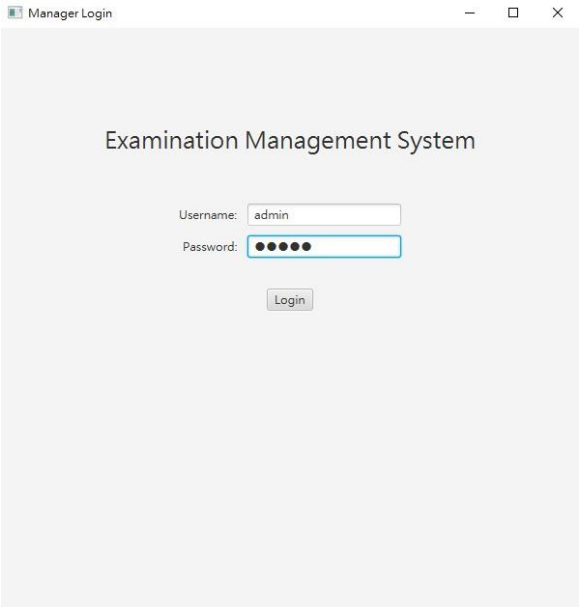


32. The teacher can log out on the main page at last.

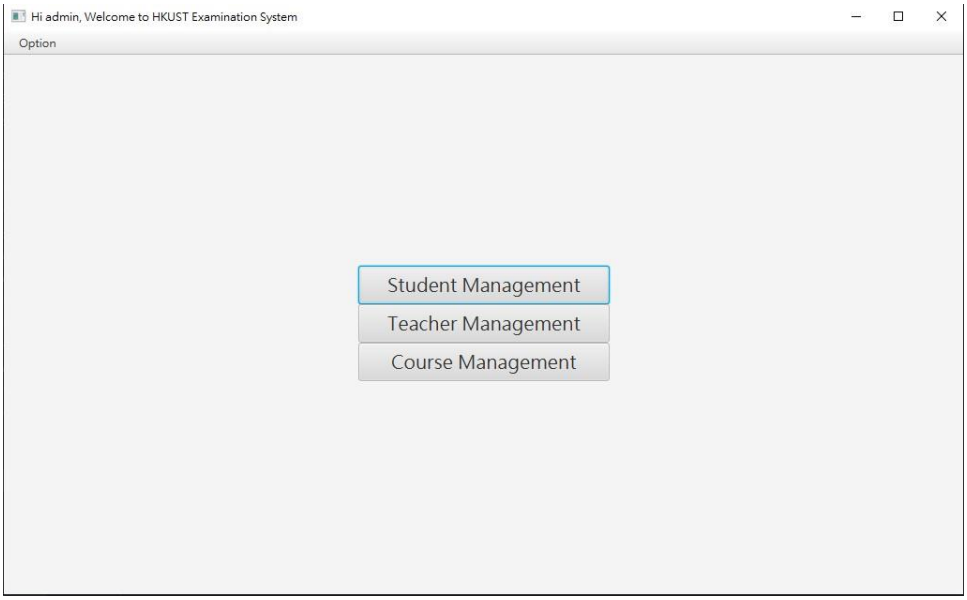


Manager Case Demonstration

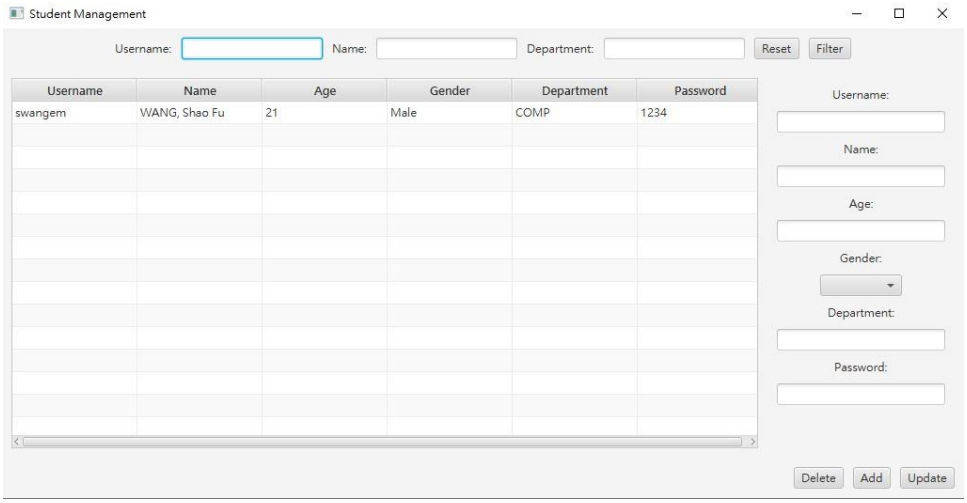
1. The admin account is preset to username:admin, password:admin



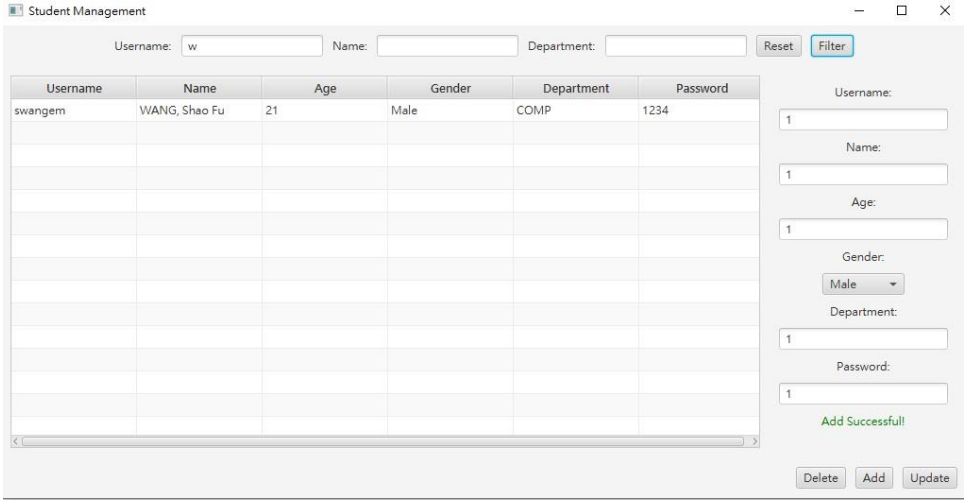
2. After Logging in, the manager would then see a panel showing the three management models: student, teacher, and course



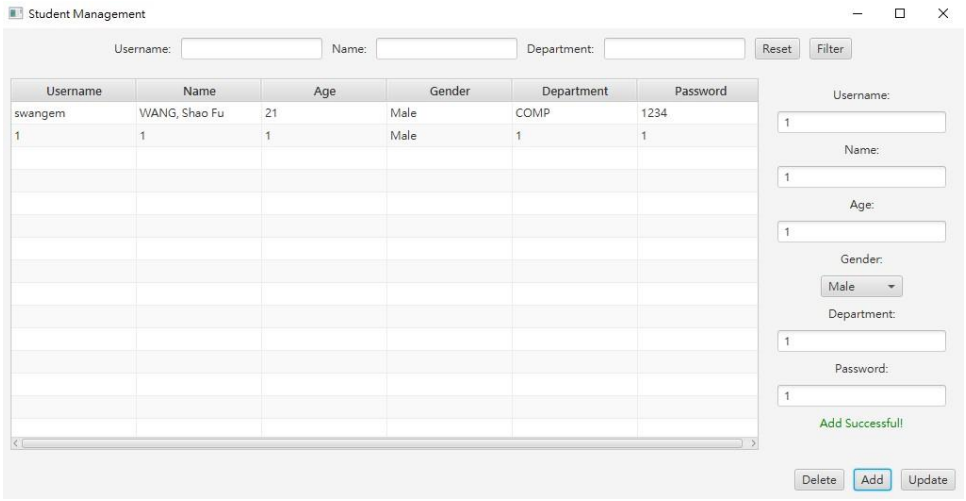
3. Now we first demonstrate the student management part. As shown, the manager will see a panel like below, with a variety of features.



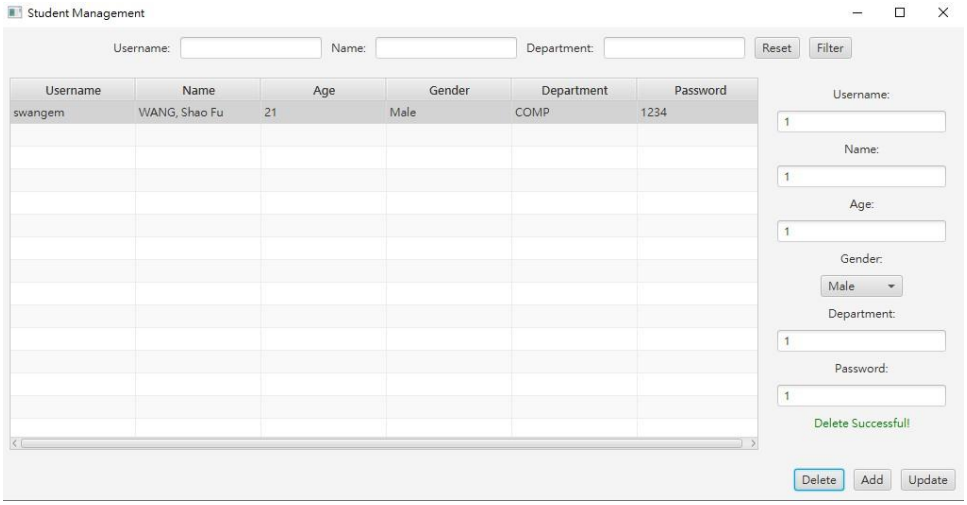
4. The manager can key in the fields to add a new student, in this case, 1 as an example.



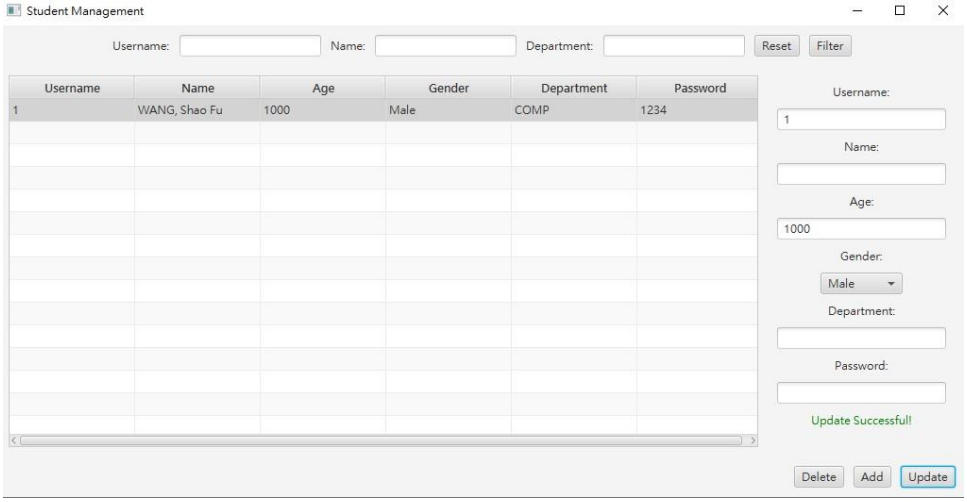
5. After clicking on add, a new student will be added to the system



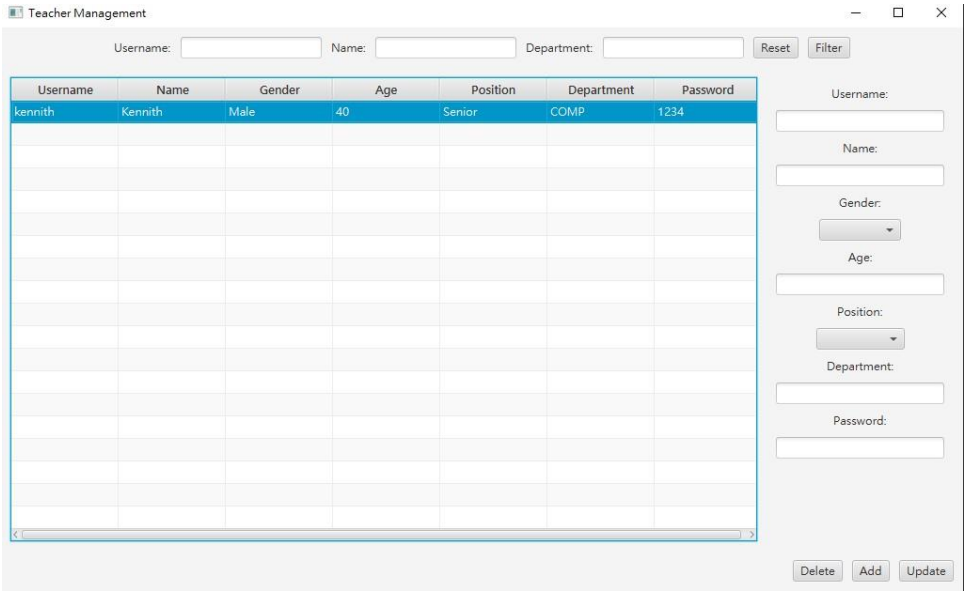
6. If the manager would like to delete, click on the entry, then click delete.



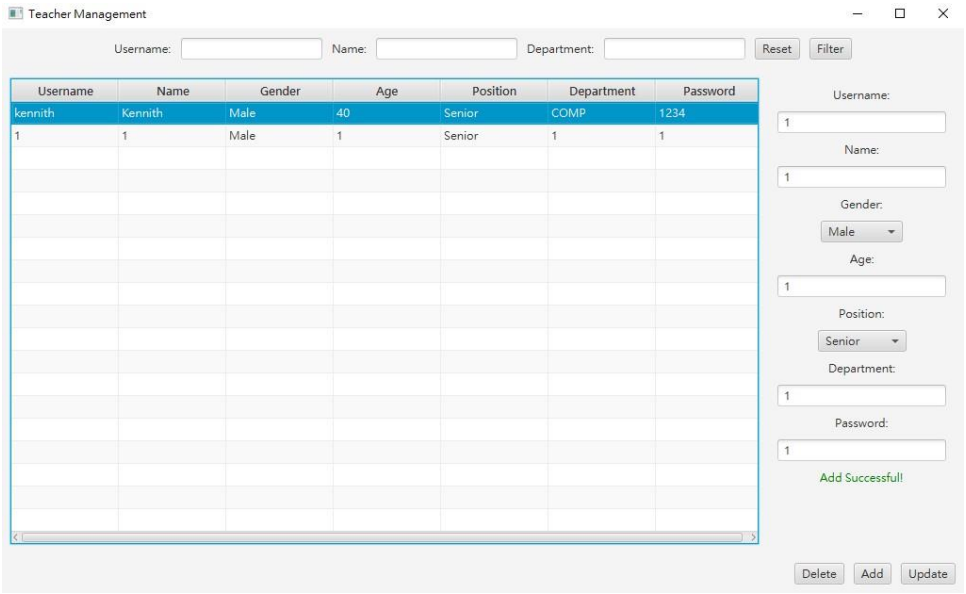
7. If the manager would like to modify the student info, click on the entry then modify it by filling in the right fields, then click update. Successful as shown.



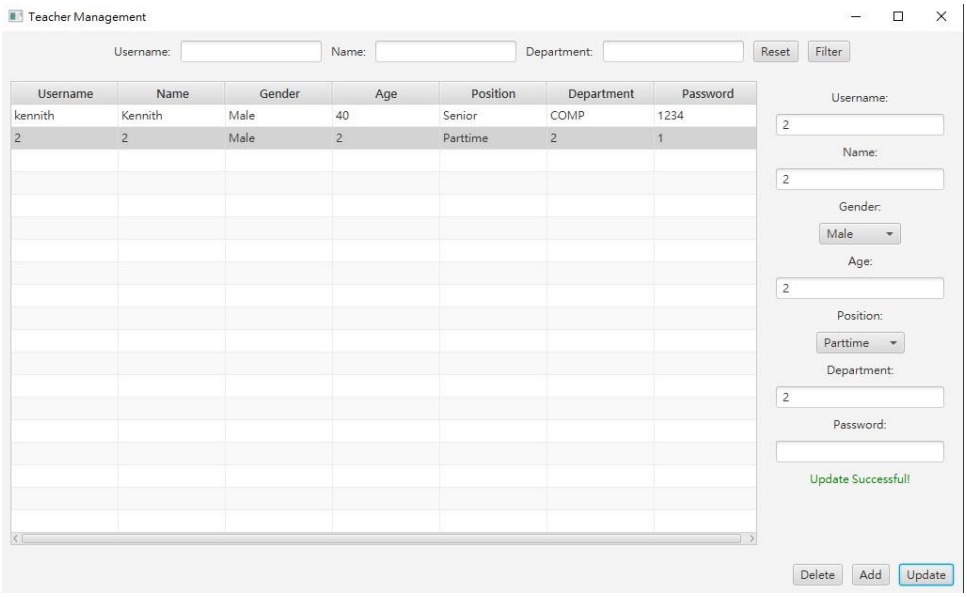
8. Now, moving on the teacher managing. The panel of the teacher management is as shown below.



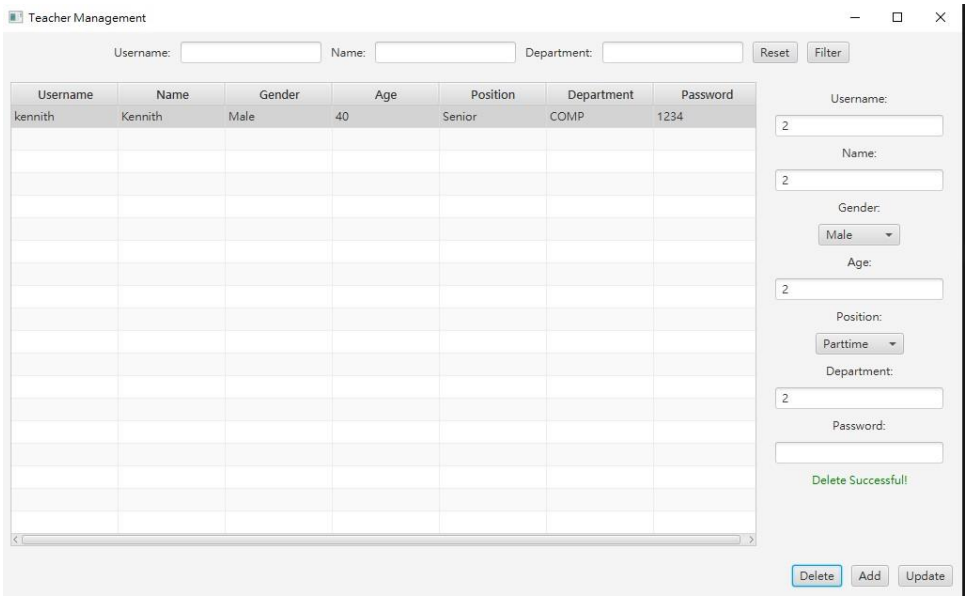
9. Just like how to manage students, the manager can add new teacher with the same way.



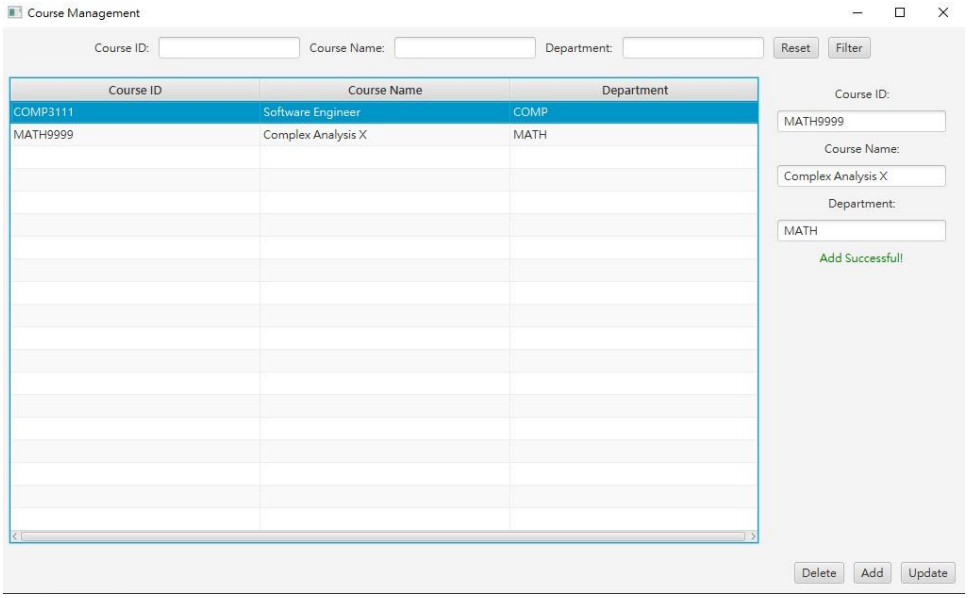
10. Update the teacher info with the same way.



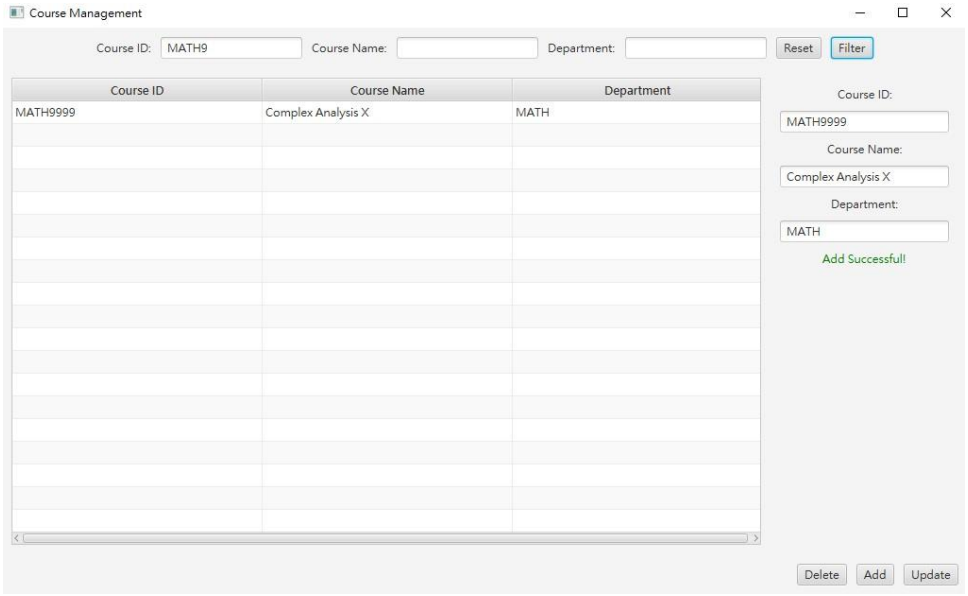
11. Delete the same way.



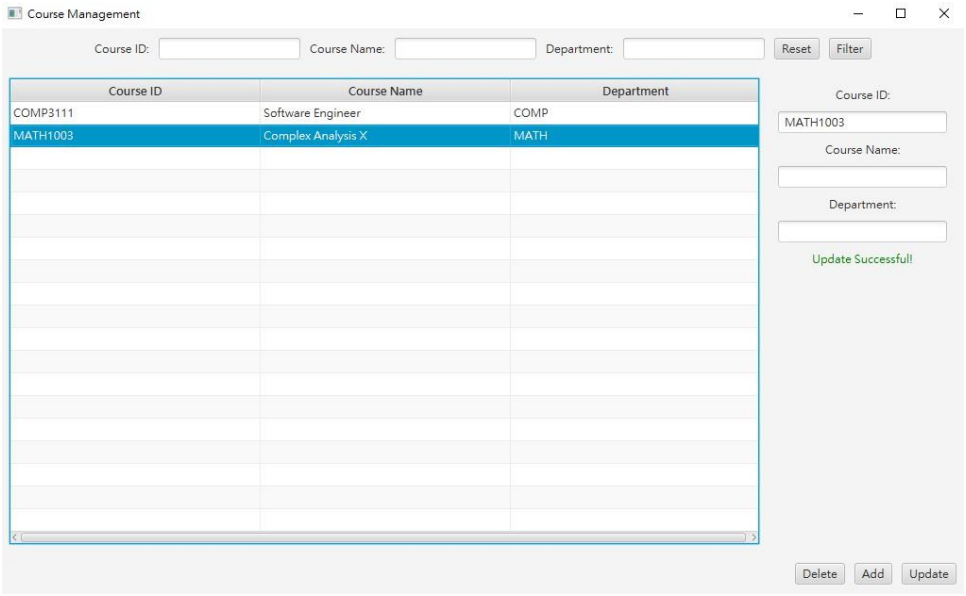
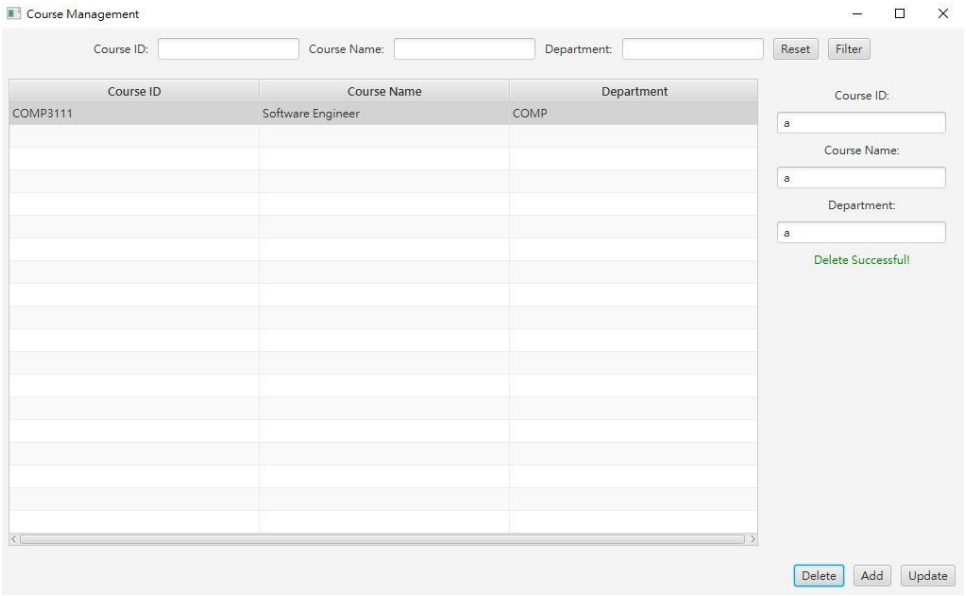
12. Now, moving on to the course management, it is operated just like the student and teacher. Shown is the adding of new course.



13. Adding a new course with the same way.



14. Update a course info with the same way.



15. And finally, deleting a course with the same way.