SCHOOL OF ENGINEERING AND TECHNOLOGY

FINAL ASSESSMENT FOR THE BSC (HONS) INFORMATION TECHNOLOGY; BSC (HONS) COMPUTER SCIENCE; YEAR 2

ACADEMIC SESSION 2022; SEMESTER 3

PRG2104: OBJECT ORIENTED PROGRAMMING

Project **DEADLINE: Week 14**

INSTRUCTIONS TO CANDIDATES

- This assignment will contribute 50% to your final grade.
- This is an individual assignment.

IMPORTANT

The University requires students to adhere to submission deadlines for any form of assessment. Penalties are applied in relation to unauthorized late submission of work.

- Coursework submitted after the deadline will be awarded 0 marks
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Lecturer's Remark (Use additional sheet if required)

I Lee Jia Qian (Name) 19117613 std. ID received the assignment and read the comments

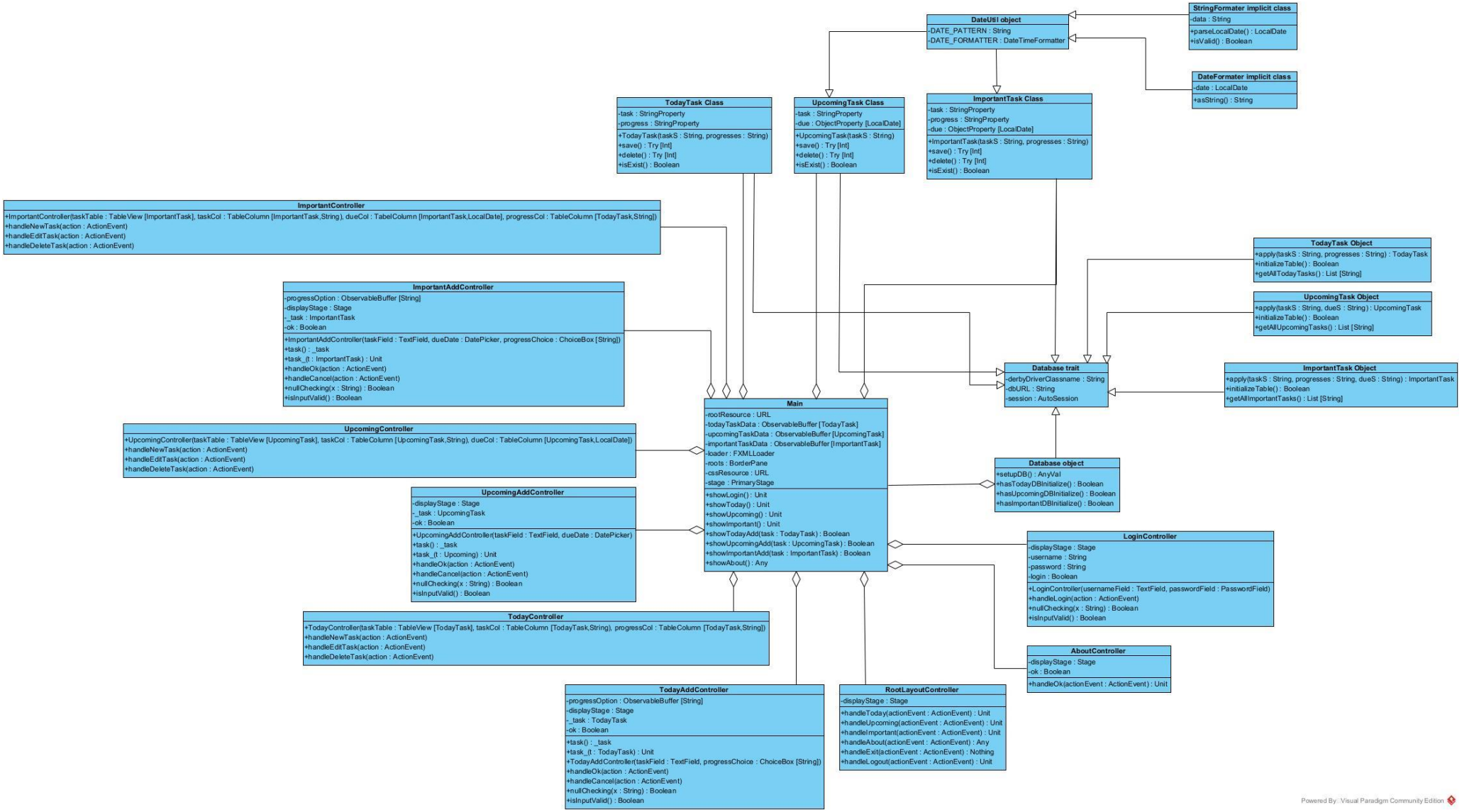
20/7/2022 (Signature/date)

Academic Honesty Acknowledgement

"I Lee Jia Qian (student name). verify that this paper contains entirely my own work. I have not consulted with any outside person or materials other than what was specified (an interviewee, for example) in the assignment or the syllabus requirements. Further, I have not copied or inadvertently copied ideas, sentences, or paragraphs from another student. I realize the penalties *(refer to page 16, 5.5, Appendix 2, page 44 of the student handbook diploma and undergraduate programme)* for any kind of copying or collaboration on any assignment."

20/7/2022 (Student's signature / Date)

UML Class Diagram



ToDo List

This is a todo list application for user. A login page is first displayed to the user

Demo video link: https://youtu.be/oZheFPlTvlQ

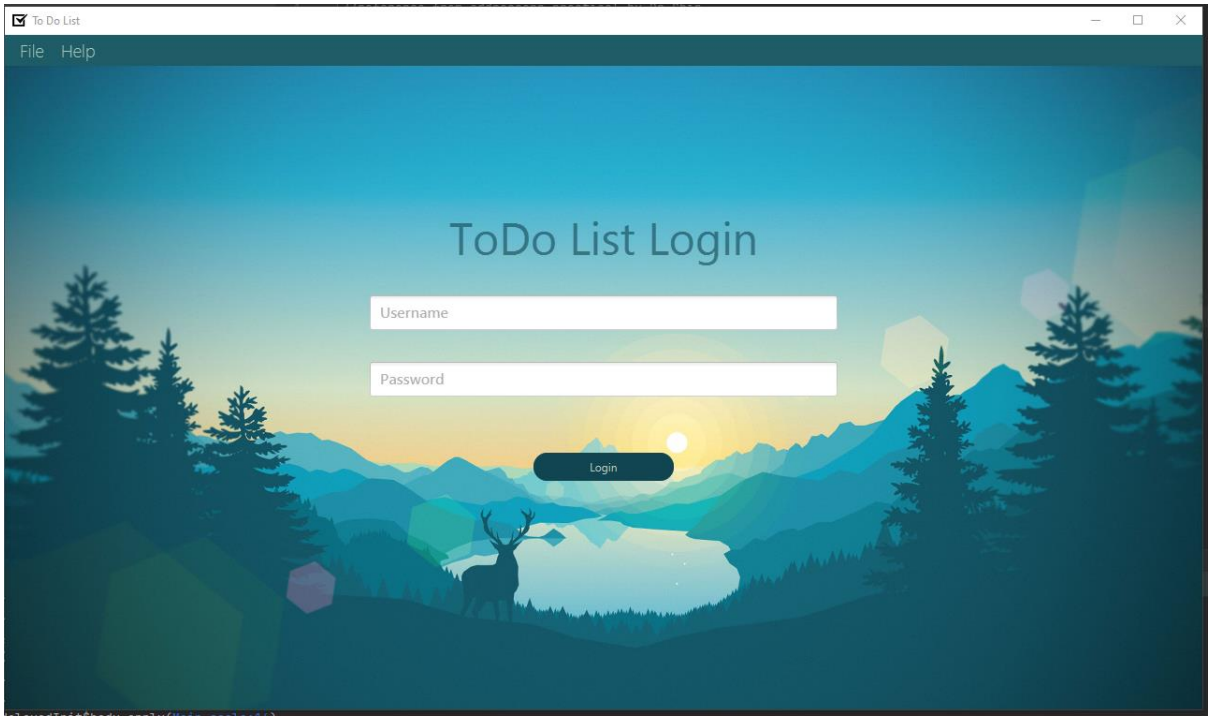


Figure 1 Login Page

Username: admin Password: admin

With a set of username and password, users can login into the application from the login page.

Figure 2 Today Tasks Page

Users are greeted with a page listing table view of today's tasks and progress after logging in. Users can add new tasks, update existing tasks, or delete existing tasks using the three buttons below. The menu bar on the left also has three more buttons that provide quick access to each individual page.

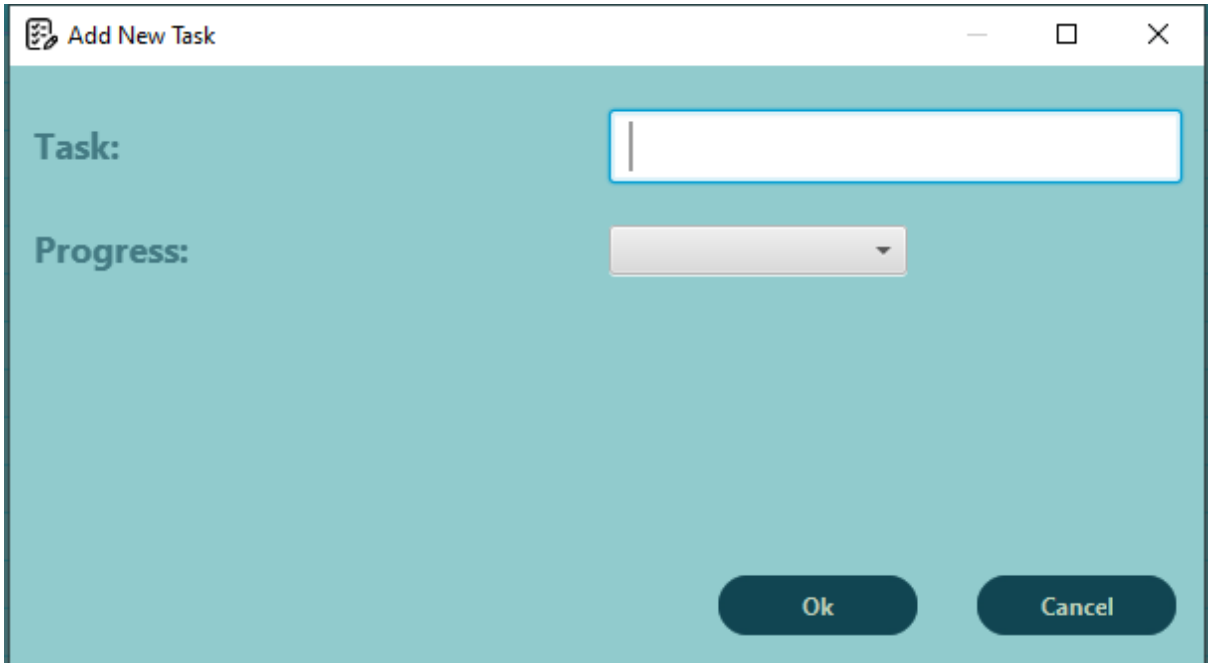


Figure 3 Add/ Edit Today Task Page

Users can enter their task information and select the progress status on this page that appears after they click the "new task" button. If users choose the "edit task" button, the same page will appear with the details filled in so they can make adjustments. Users can save by selecting "Save" or "Cancel" buttons, which will save any changes and cancel changes and close the window, respectively.

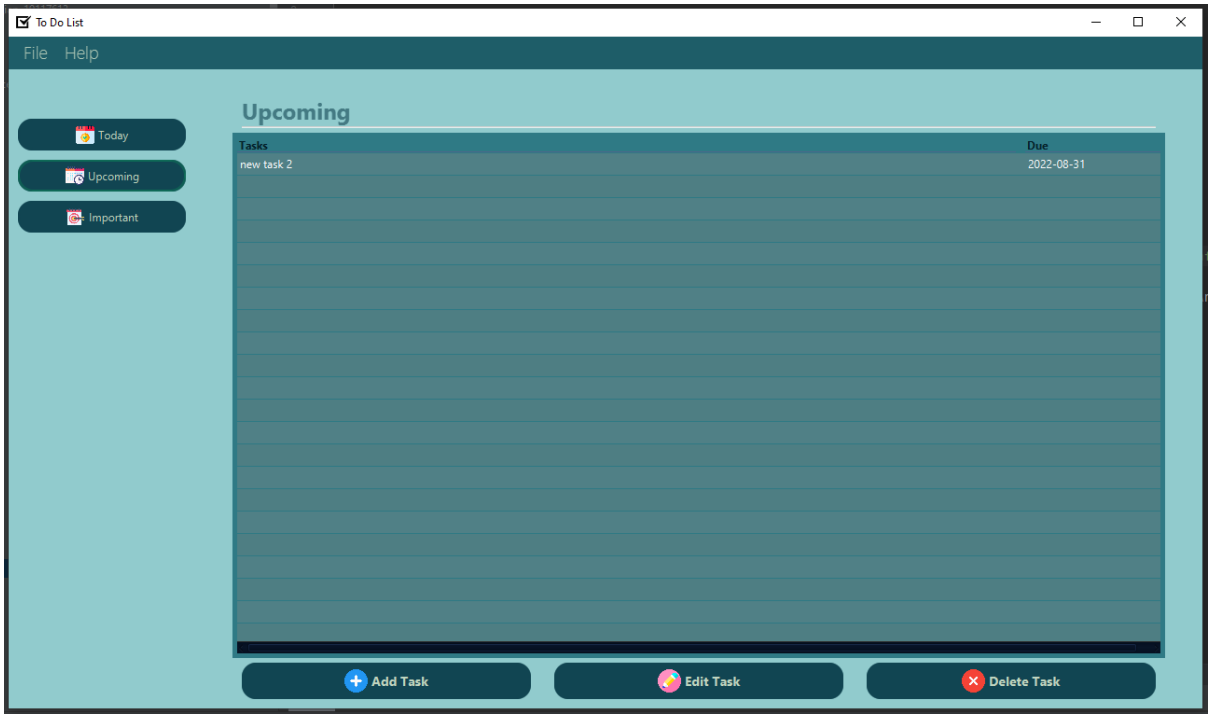


Figure 4 Upcoming Tasks Page

Similar to the page for today's tasks, this one has three buttons that users can use to add new tasks, update existing ones, or delete existing ones. The distinction is that the due date is changed from progress.

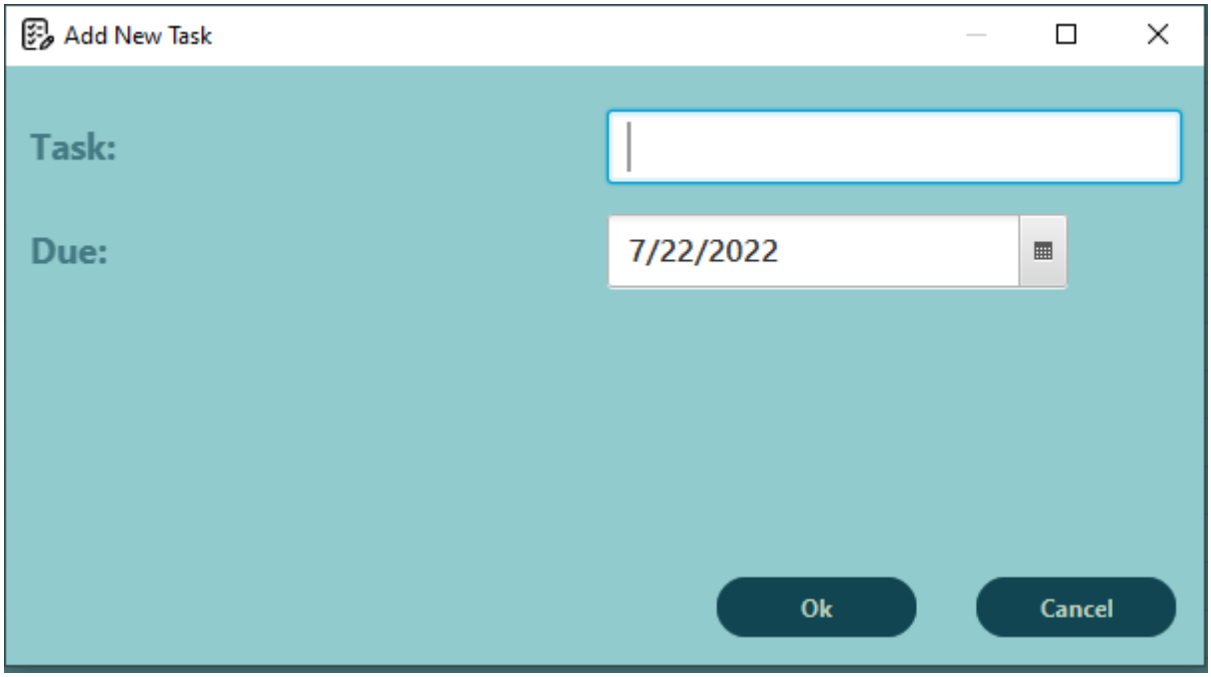


Figure 5 Add/ Edit Upcoming Task Page

This page resembles the page in figure 3 as well. The due date picker has replaced the progress choice box. Both buttons are similarly programmed to do what they are instructed in figure 3.

Figure 6 Important Tasks Page

This page shares similarities with pages 2 and 4. The table view on this page, which combines both pages, displays tasks, due dates, and progress. Along with 3 same function buttons at the bottom.

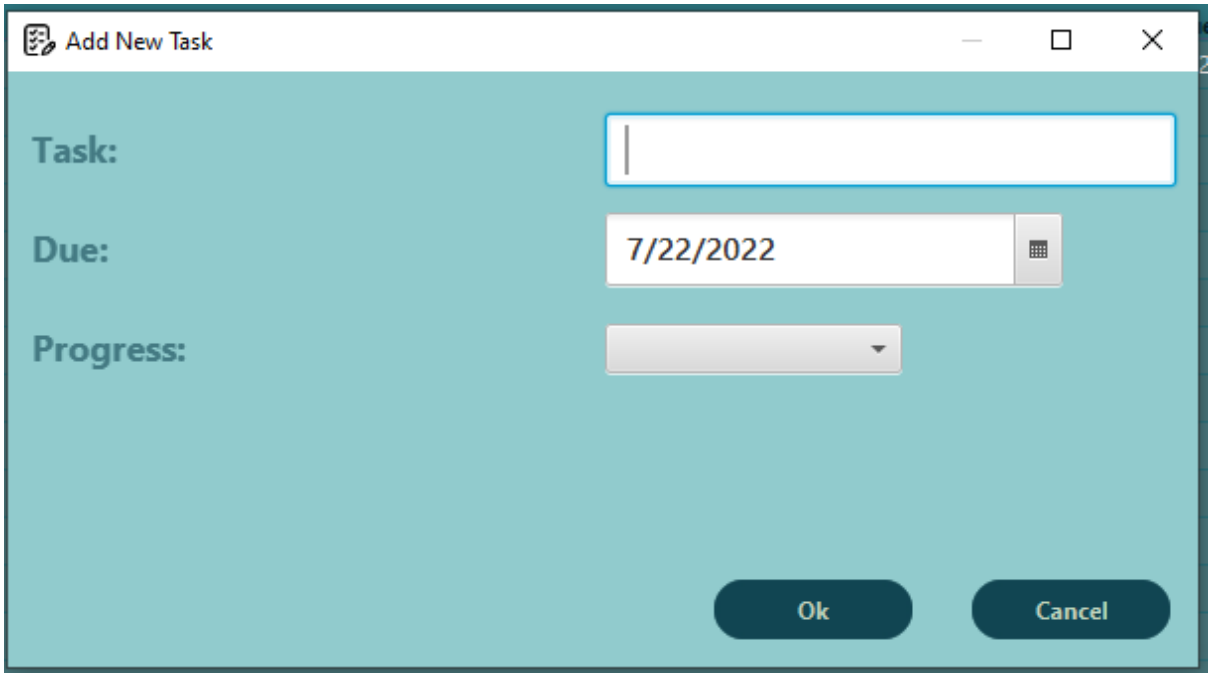


Figure 7 Add/ Edit Important

The trends continue with figure 7, which includes figures 3 and 5, with the same two function buttons.

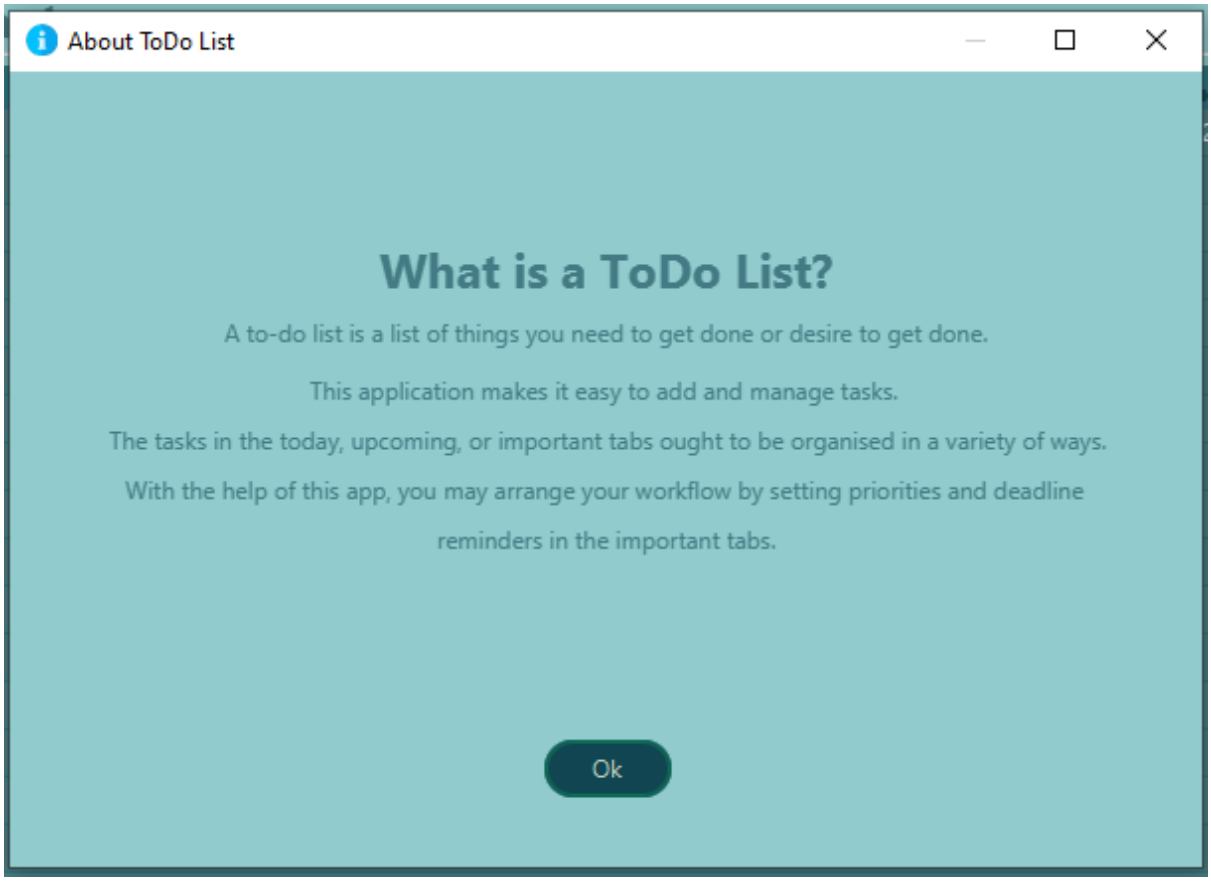


Figure 8 About Page

This page which explains what this program does to users, is seen by simply clicking the help tab on the top menu bar. The file tab on the menu bar allows users to log out of the program or exit it.

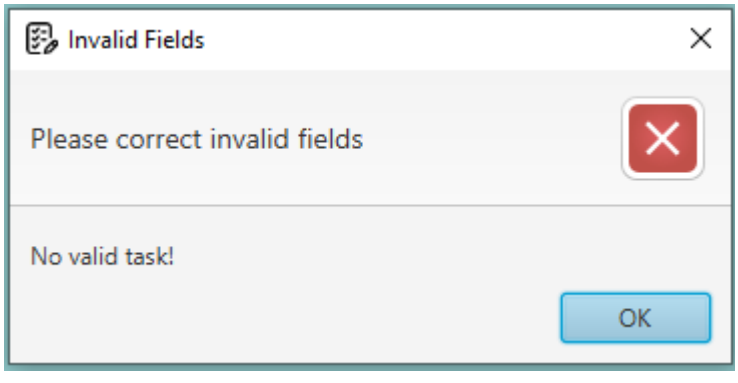


Figure 9 Alert Page

The program will alert users when they enter an invalid username, password, or other input.

Personal Reflection

I used a variety of object-oriented principles I had learned throughout the semester, like inheritance, in this final assessment. I have also used what I learned in practical sessions such as set up a database, create fxml files and use scene builder. First of all, it can be challenging to find internet resources for programming in Scala because many examples and articles are in Java. With the use of the lecture notes on the slides and the lab exercises from practical classes significantly assisted in the making of this software. Due to other assignments from other subjects that are due the same week as this assignment, time management is another issue I must overcome. I must use my time properly in order to finish all assignments, including this assessment, on time. In addition, I encounter a difficulty while developing this software. Initially, it was intended to use a table view on another page to display deleted tasks. Unfortunately, I must remove the deleted data because it is simple to store it in the database, but due to a lack of online resources for Scala, I am unable to discover a way to display it to the user by fetching it from the database. Other than that, I find it challenging to apply date and time such that upcoming tasks are automatically moved to today's tasks based on their due dates same with the system date. Because it is difficult to discover resources online that address my concern, this feature is also removed from the program. In conclusion, if I could implement the features, the application would be more polished. A user's old and deleted tasks are visible in another page. If the due date is set to today, users can traverse simply without having to delete a task from the upcoming task table view and add it to the today task table view.