

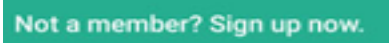
CMPS 312 Mobile Application Development

HOMework 3 DATA MANAGEMENT

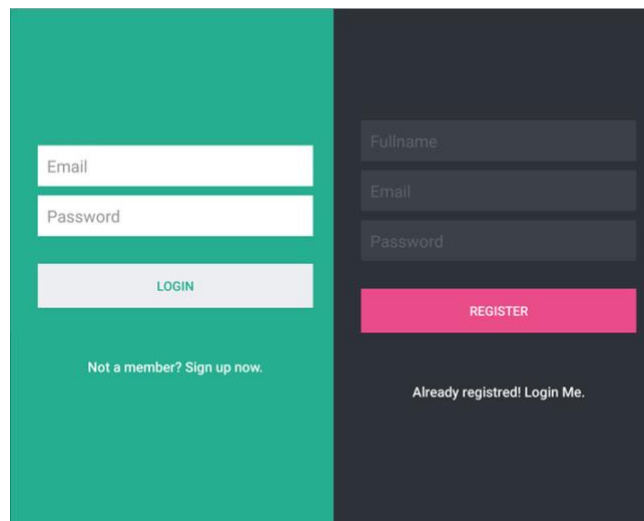
In this homework, you will modify the todo list application and make the application use shared preferences and an SQLite database to persist the login information and the todo list data respectively.

PART A LOGIN AND REGISTRATION SCREEN

Using **shared preferences** create a Login for the **ToDo List application**. The Data of the Login should be saved inside **shared preferences** and not in the Database.

1. Download the skeleton code and add **two more activities**
 - a. The first activity should allow the user to log in as shown in the image below and
 - b. The Second activity should allow the user to register for the first time
2. When the user clicks  You should open the **registration activity**
3. When the user clicks on the **Register button** inside the registration activity, then save the data inside a **shared preferences file**
4. If the user is on the **login screen** and click on the login button, then you should check the shared preferences file if the user exists or not and if the password they provided is correct or not. If they exit and the password is correct then log them into the application. Otherwise, display a toast message saying "**Wrong username or password.**"

Below are sample Screens.

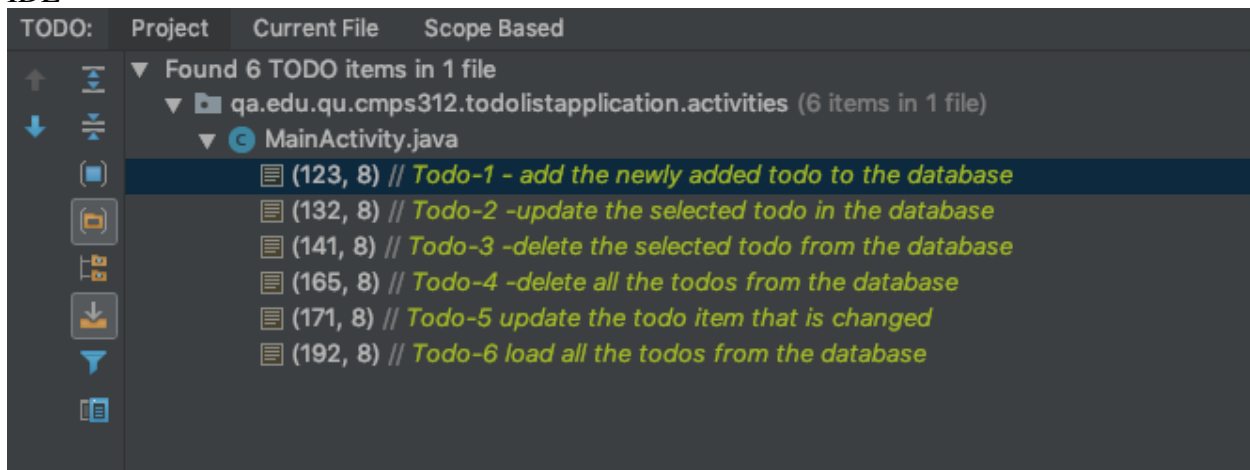


PART B

THE TODOList APP

After the user logs in, they will see the TODO List application that you created in Homework 2. Now you will be required to implement all the functionalities of the application such as the Add, Update, Delete, Delete All using an SQLite database. The Skeleton code of Homework 2-Fragments is provided for you in github as a baseline for this homework. Here is a demo of that homework <https://youtu.be/VAoIVOAX9P4>

Once you open the skeleton code, you will find all the requirements inside the TODO tab in your IDE



→ Inside the skeleton code's **MainActivity** you will see the following methods. You should make the methods use the SQLite database instead of an ArrayList to save the todo data. Just connect it to the **DAO** class.

```
// Todo - add the newly added todo to the database
@Override
public void addTodo(Todo todo) {...}

// Todo -update the selected todo in the database
@Override
public void updateTodo(Todo todo) {...}

// Todo -delete the selected todo from the database
@Override
public void deleteTodo(final int position) {...}

// Todo -delete all the todos from the database
private void deleteAllTodos() {...}

// Todo update the todo item that is changed
@Override
public void editToDoList(int position, Todo todo) {...}

// Todo - load all the todos from the database
public ArrayList<Todo> getAllTodo() {...}
```

Note: When implementing the database classes and methods, please make sure you follow a similar structure as **Lab 8 DBMS Tutorial**. You can refer the posted video tutorials. It is crucial that you have DBHelper class, Contract class, DAO class and so on.

Deliverables:

Submit your project via the submit **GitHub**. Your submission should include: the source code Android Studio project named **Homework 3 and a Testing Sheet** containing the screenshot evidence of your application.