

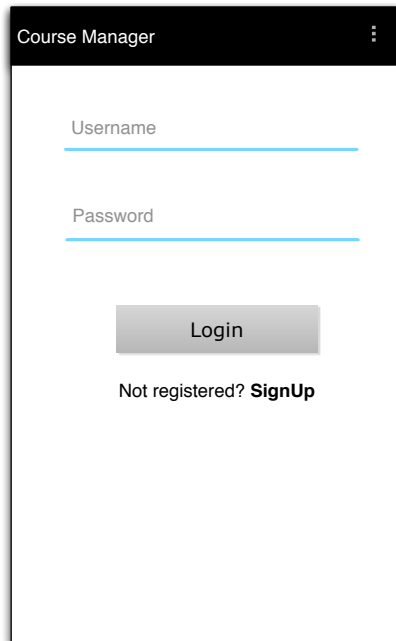
ITIS/ITCS 5180 Mobile Application Development
Homework 06

Basic Instructions:

1. In every file submitted you **MUST** place the following comments:
 - a. Assignment #.
 - b. File Name.
 - c. Full name of all students in your group.
2. Each group should submit only one assignment. Only the group leader is supposed to submit the assignment on behalf of all the other group members.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will loose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Export your Android project and create a zip file which includes all the project folder and any required libraries.
6. Submission details:
 - a. Only a single group member is required to submit on Canvas for each group.
 - b. The file name is very important and should follow the following format:
Group#_HW06.zip
 - c. You should submit the assignment through Canvas: Submit the zip file.
- 7. Failure to follow the above instructions will result in point deductions.**
- 8. The required Android Virtual Device (AVD) should have minimum SDK version set to 20 and target SDK at 25.**

Homework 06 (100 Points)

In this assignment you will be developing a course manager app to create and display courses. You will learn to use Fragments instead of multiple activities.



Course Manager

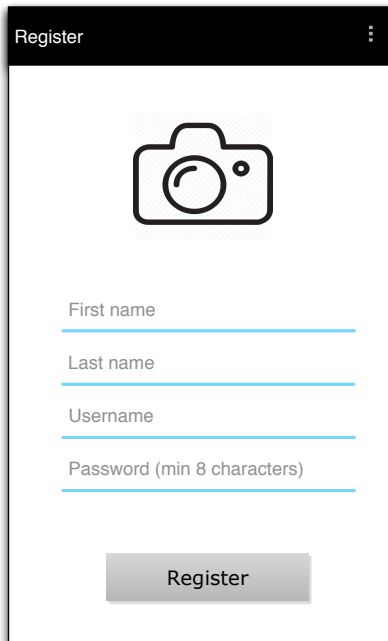
Username

Password


Login

Not registered? **SignUp**

(a) Login screen



Register



First name

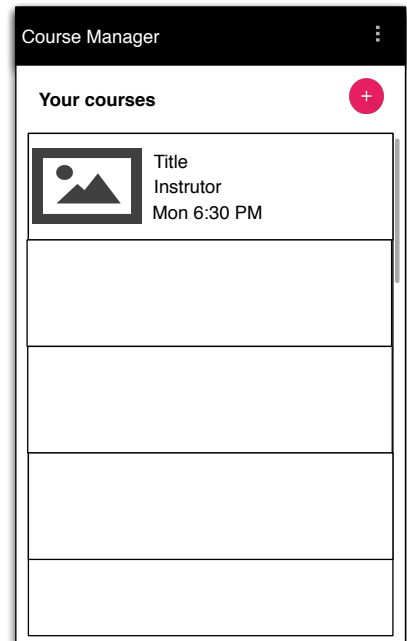
Last name

Username

Password (min 8 characters)


Register

(b) Sign Up screen

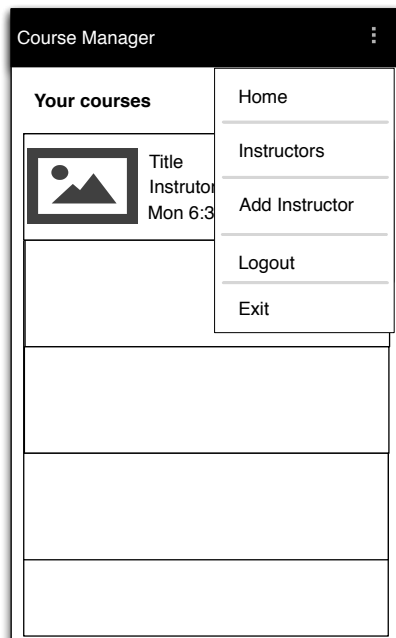


Course Manager

Your courses


 Title
Instructor
Mon 6:30 PM

(c) Course Manager screen



Course Manager

Your courses

 Title
Instructor
Mon 6:30 PM

Home

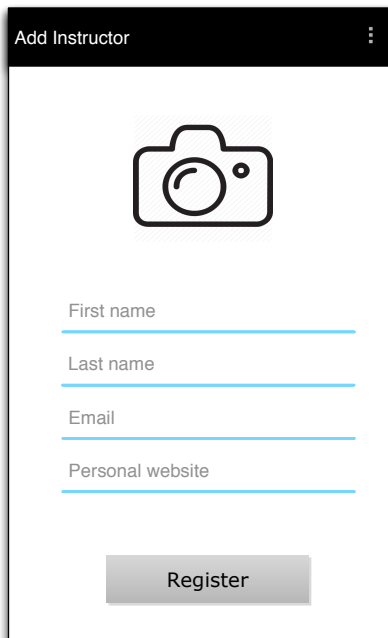
Instructors

Add Instructor


Logout

Exit

(d) Menu items



Add Instructor



First name

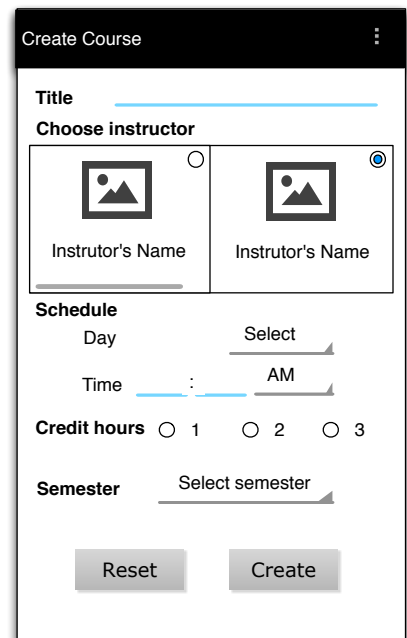
Last name

Email

Personal website

Register


(e) Add instructor screen




Create Course

Title

Choose instructor

 Instructor's Name

 Instructor's Name

Schedule

Day

Time

Credit hours

Semester

Reset

Create

(f) Create course screen

Figure 1: App screens

Part 1: Login and Sign Up Screens (15 Points)

The first screen of the app is a user authentication screen. Please follow the instructions:

1. You need to have a username-password map in the database.
2. You cannot allow more than one users having the same username.
3. The app should ask you to login.
4. If you are not registered, you can register. Clicking on Sign Up should get you to Sign Up screen.
5. All the inputs are mandatory for sign up. Clicking on Register button should add a new user and register them to the database.
6. After you click on Register, it automatically signs you in to the application, and opens the Course Manager screen.

Part 2: Course Manager Screen (22 Points)

In this screen you should display the list of courses already created, see figure 1(a). Please follow the instructions:

1. There should be an add action floating button to add new courses. Clicking on the add button should take you to the Create Course fragment.
2. Below that there should be a list of created courses. Use either RecyclerView, or CardView to implement that. Do not use ListView.
3. Clicking on any of the courses should take you to Display Course fragment.
4. Long clicking on any of the course should **prompt you for deleting the course**. Use alert dialog to implement the prompt.
5. For all screens, four menu options should be there:
 1. Home
 2. Instructors
 3. Add Instructor
 4. Logout
 5. Exit
6. Clicking on Home should take you to the main screen.
7. Clicking on Instructors should take you to the Instructors screen.
8. Clicking on Add Instructor should take you to Create Instructor Profile screen.
9. Clicking on Logout should log you out and take you to the Login Screen.
10. Clicking on Exit should close the app.

Part 3: Instructors Screen (15 points)

You have to design a usable GUI for this screen. The requirements are:

1. This screen displays a list of instructors.
2. Use RecyclerView/CardView to implement the list.
3. Each element should include name, profile photo, and email of the instructor.
4. You should replicate Main Screen actions to manage instructors in this screen.

Part 4: Add Instructor Screen (20 points)

You are responsible for a usable GUI for this screen.

1. The elements of each instructor profile must include: name, profile photo, email, and personal website.

2. To select a profile photo, use Gallery, and Camera apps.
3. There should be two buttons: Save, and Reset.
4. Clicking on Reset button should prompt you for resetting all the input fields. Use alert dialog to implement the prompt.

Part 5: Create Course Screen (28 points)

Clicking on the Add action button from the main screen should take you to the Create course fragment, see Figure 1(b). Please follow the instructions below:

1. If you haven't created any instructor yet, you should display a text in the place of the Instructor list stating, "You haven't added any instructor yet, please add at least one instructor to continue." The Create button should be disabled.
2. There should be a InputText for Title.
3. Next, there should be a horizontal RecyclerView to select from a list already created instructors.
4. Then, you should be able to select a day from Monday to Friday using a spinner.
5. You need to put the time using two InputTexts with a Colon in between them. The first InputText should only allow you to put a number between 1 to 12. For the second InputText you should only be allowed to put a number between 0 to 59.
6. There should be a spinner to select between AM, and PM.
7. There should be two buttons: Reset, and Create.
8. Clicking on the Reset button should prompt you to reset all the fields.
9. Clicking on the Create button should save the course.

Notes:

1. **Use SQLite for local database.**
2. **You can also use Realm database for extra 10 points!**
 1. Please visit <https://realm.io/docs/java/latest/>