ITIS/ITCS 4180/5180 Mobile Application Development
Homework 3
Date Posted: 09/09/2014 at 13:00
Due Date: 09/14/2014 at 23:55

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**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. Please download the support files provided with this assignment and use them when implementing your project.
4. Export your project as follows:
   a. From eclipse, choose *"Export…"* from the File menu.
   b. From the Export window, choose *General* then *File System*. Click *Next*.
   c. Make sure that your project for this assignment is selected. Make sure that all of its subfolders are also selected.
   d. Choose the location you want to save the exported project directory to. For example, your *Desktop* or *Documents* folder.
   e. When exporting make sure you select *Create directory structure for files*.
   f. Click Finish, and then go to the directory you exported the project to. Make sure the exported directory contains all necessary files, such as the .java and resource files.
5. Submission details:
   a. When you submit the assignment, compress your exported project into a single zip file. The format of compressed file name is HW#.zip
   b. You should submit the assignment through Moodle: Submit the zip file.
6. **Failure to follow the above instructions will result in point deductions.**

# Homework 3 (100 Points)

In this assignment you will get familiar with Android intents (Explicit/Implicit), data passing between activities, starting activity for result and alert dialogs. This is a To-Do List App, where user gets to enter a task title, the time and date, along with other task details. User should be able edit, display and delete tasks. This is a multi screen application, the Main Activity is displayed in Figure 1.

**Important App Requirements:**

1. The required Android Virtual Device (AVD) should have **minimum SDK version set to 14 and target SDK at least 17**. The app should display correctly on 3.2” QVGA (ADP2) (320x480: mdpi). **Your assignment will not be graded if it does not meet these requirements, and you will not be granted any points on your submission.**
2. All strings should be read from your strings.xml.The string values used for the text labels, and button labels should be read from the strings.xml file and should not be hardwired in the layout file.

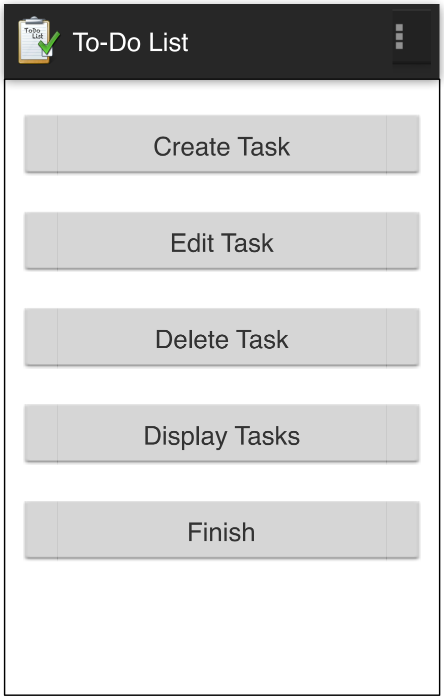


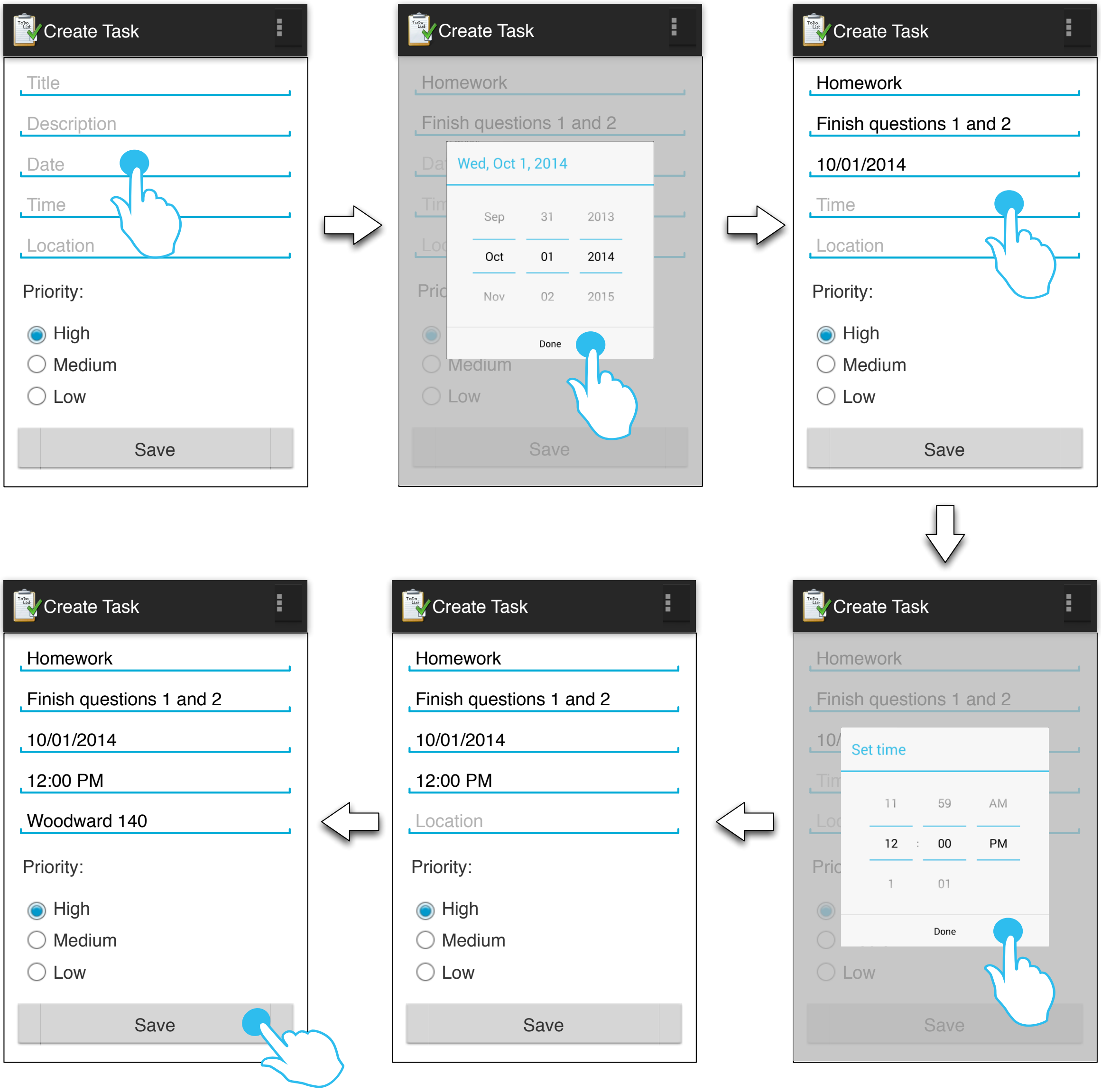
**Figure 1, Main Activity Wireframe**

## Main Activity (10 Points)

The Main Activity contains the 5 buttons arranged as displayed in Figure 1. The Main Activity should maintain a LinkedList of the current Task Objects, the LinkedList should be shared with the other activities through intents when needed. The activity requirements are as follows:

- The task list should be stored in the Main Activity.

- The Create Task, Edit Task, Delete Task, Display Tasks, and Finish buttons, should start the Create Task Activity, Edit Task Activity, Delete Task Activity, Display Tasks Activity and finish the activity respectively.



Homework

Finish questions 1 and 2

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Priority: ● High ○ Medium ○ Low

### Figure 2, Create Task Activity

## Create Task Activity (20 Points )

The create task activity is displayed in Figure 2. Implement the following requirements:

- When the user selects “Create Task” button in the Main Activity, the Create Task Activity should be started as shown in Figure 2.
- The task title, and location should not exceed 20 characters, and the task description should not exceed 30 characters.
- The date and time EditTexts should not be editable, you should set their key listeners to null, (setKeyListener(null)). When the date and time EditTexts are the corresponding date picker or time picker dialog boxes should be displayed to enable the user to pick

the date or time respectively. Figure 2, shows the date and time picker displayed when the date and time edit text is clicked. The selected time and date should be displayed in their corresponding edit text as shown in Figure 2.

- Clicking the Save button should save the fields as a Task object and send it back as a result to the Main Activity so that it can be stored in the task list.

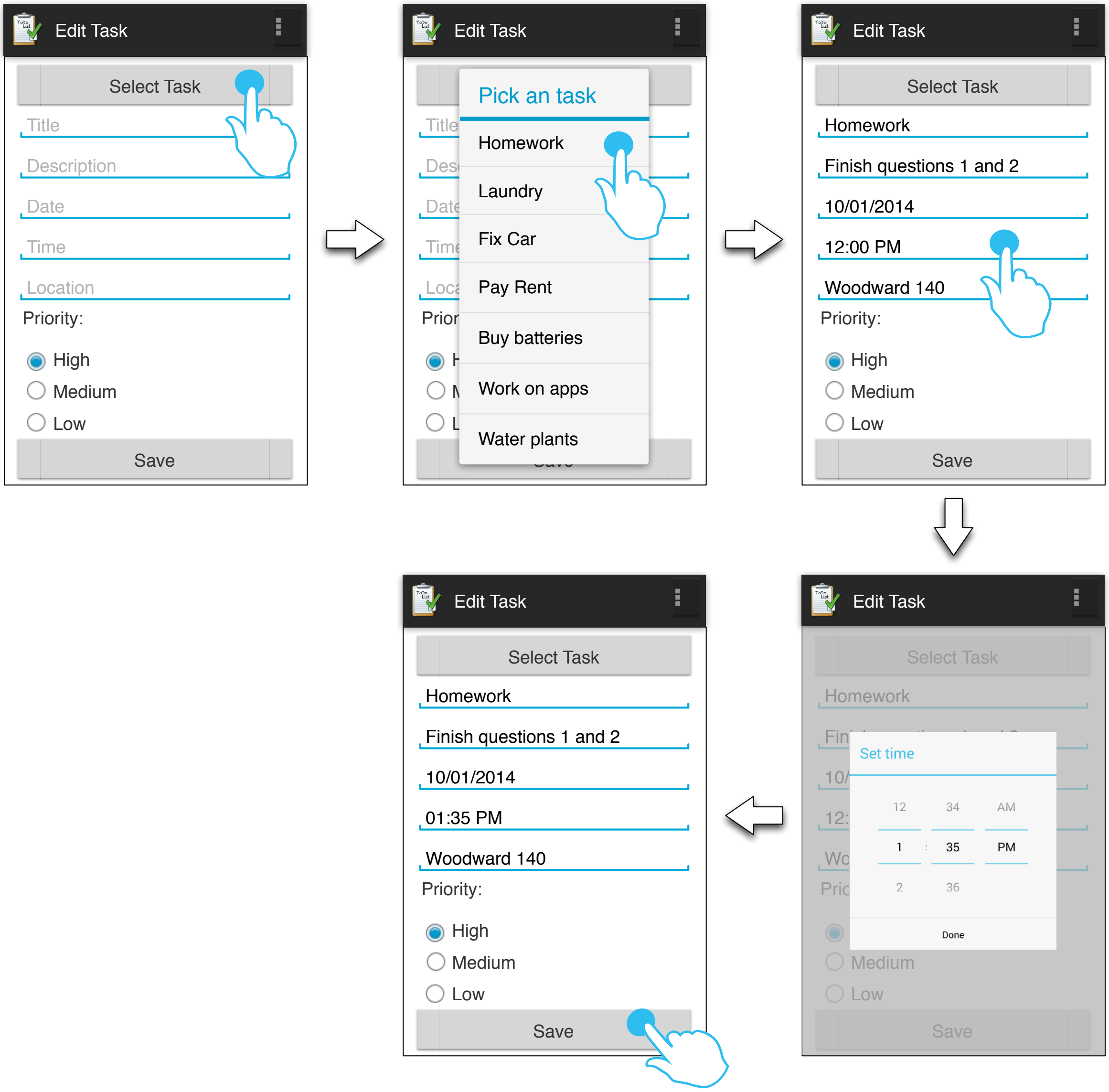


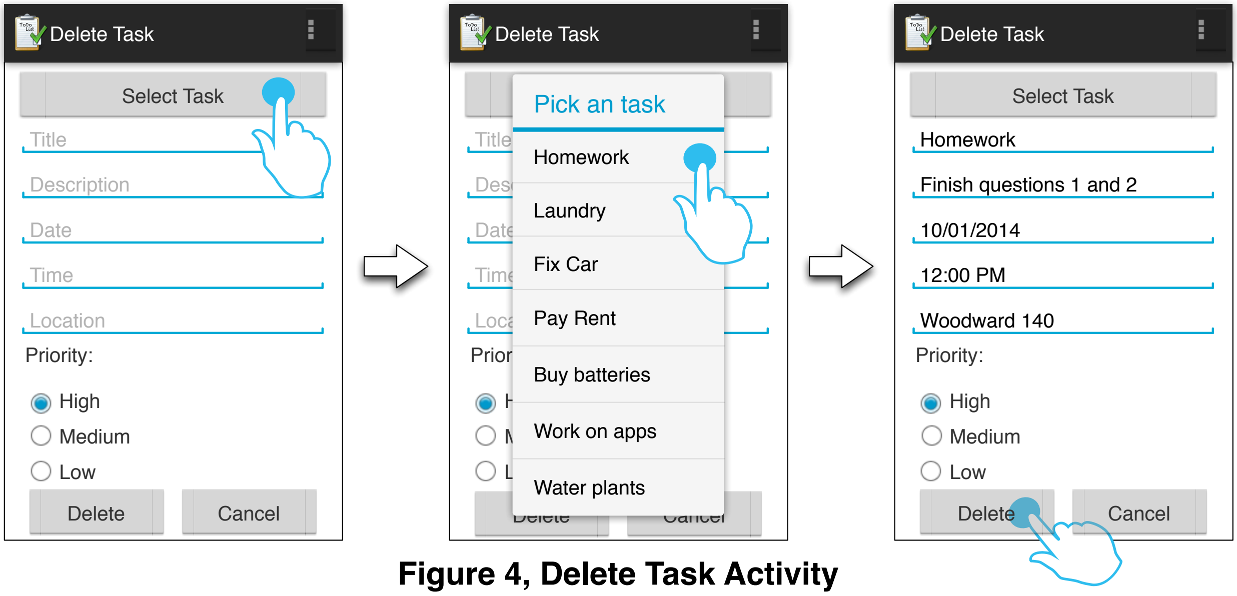
**Figure 3, Edit Task Activity**

## <u>Edit Task Activity (25 Points )</u>

The edit task activity is displayed in Figure 3. Implement the following requirements:

- When the user selects “Edit Task” button in the Main Activity, the Edit Task Activity should be started as shown in Figure 3.

- Clicking the Select Task button should show an alert dialog displaying the task titles, which enables the user to pick which task to edit. Upon selecting a task title, the task information should be populated in the Edit task activity as shown in Figure 3.
- The UI for this activity is similar to the Create Task Activity and should follow the same text size, and time/date picker implementation and restrictions.
- Clicking the Save button should save the fields as a Task object and send it back as a result to the Main Activity so that it can be updated and stored in the task list.



Homework

Finish questions 1 and 2

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Woodward 140

Priority:

● High
○ Medium
○ Low

**Figure 4, Delete Task Activity**

## Delete Task Activity (25 Points )

The delete task activity is displayed in Figure 4. Implement the following requirements:

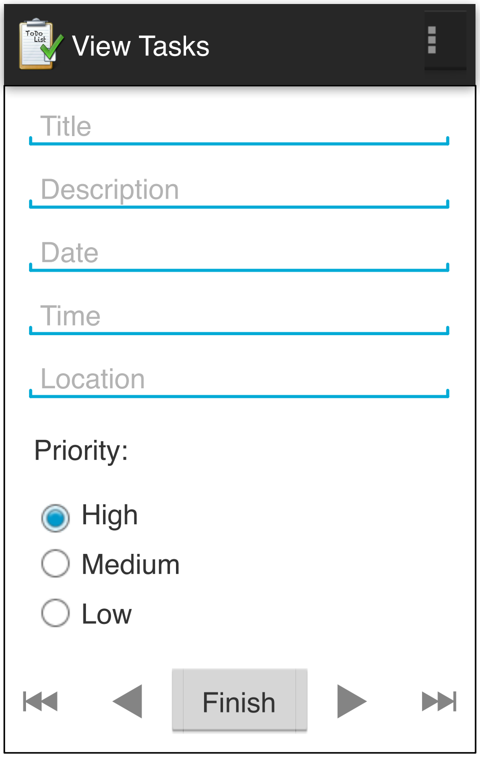
- When the user selects “Delete Task” button in the Main Activity, the Delete Task Activity should be started as shown in Figure 4.
- Clicking the Select Task button should show an alert dialog displaying the task titles, which enables the user to pick which task to delete. Upon selecting a task title, the task information should be populated in the Delete task activity as shown in Figure 4.
- All the Edittexts and radio buttons should not be clickable, and should only be used to present the current task’s information.
- Clicking the Delete button should delete the current task and send the Main activity the required information in order to delete this task from the task list. Clicking the Cancel button should finish the Delete Task activity and should not delta the task.

## Display Tasks Activity (20 Points )

The display tasks activity is displayed in Figure 5. Implement the following requirements:

- When the user selects “Display Tasks” button in the Main Activity, the Display Tasks Activity should be started as shown in Figure 5.
- This activity enables the user to view all the currently stored tasks.
- All the Edittexts and radio buttons should not be clickable, and should only be used to present the current task’s information.

- The actions required from the each of the GUI images are listed in Table 1. Upon clicking finish the activity should be finished.



Priority:

● High
○ Medium
○ Low

**Figure 5, Display Tasks Activity**

| Button | Action |
|---|---|
| ⏮ | Show the first task |
| ◀ | Show previous task |
| ▶ | Show next task |
| ⏭ | Show last task |

**Table 1, GUI Actions**