

Assignment 1 – Extending ToDoList app

Total: 5 marks

Due date: submit all project files as one zipped file by 7pm Week 04 and demo in Week 04 lab

In this assignment, you need to design and extend a ToDoList app which contains at least two views.

1. The **Main** view should contain [0.5 mark]:

- A **ListView** which displays all the saved ToDoItems, each ToDoItem consists of ToDoItem title and the creation / last edited datetime. Clicking a ToDoItem will switch to the “**Edit/Add Item**” view.
- An “**ADD NEW**” button. Once this button is clicked, the app will switch to the “**Edit/Add Item**” view.

2. The “**Edit/Add Item**” view should contain [1 mark]:

- A **Text** field which allows user to type or edit the title of a ToDoItem to add or update the ListView.
- A “**Save**” button used for adding new, or updating the title and datetime of ToDoItem in the ListView:
 - If adding a new item, capture both the item and creation datetime of the ToDoItem. The creation datetime is the current system datetime.
 - If updating an existing item, display both the item and creation/last edited datetime of the ToDoItem. Upon saving, update the item and datetime with the current system datetime.
- A “**Cancel**” button next to the “**Save**” button, used to close the Activity without updating the ToDoItem. When this button is clicked, the app will pop up a dialog that asks user: “Are you sure to cancel this edit? Your unsaved edit will be discarded if you click YES”.

Hint: You should customise the ListView and the adapter. Read the following tutorial, and replace the current ArrayAdapter with your own defined Adapter class. Also replace the list item layout “android.R.layout.simple_list_item_1” with your own layout.

https://github.com/codepath/android_guides/wiki/Using-an-ArrayAdapter-with-ListView

3. Your app should also be able to handle the following data persistence tasks [1.5 marks]:

- Every time user launches this app, the app loads the ToDoList from the local Database.
- The ToDoList should be sorted and displayed based on the most recent created/last edited datetime i.e. the most recent ToDoItem is shown on top of the list.
- When clicking the **“Save”** button in the **“Edit/Add Item”** view, the app should add or update the ToDoItem in both the ListView and local Database.
- Add a long click event to delete a ToDoItem from the ListView. When user tries to delete the selected ToDoItem, the app will pop up a message that asks user: "Do you want to delete this item?" If the user clicks **“YES”**, this ToDoItem will be deleted from both the ListView and local Database.

4. App should be able to be built and run successfully on emulator. [0.5 mark]

5. Coding [1.5 marks]:

- [1 mark] Compliant with the official Android Java code style guidelines (<https://source.android.com/setup/contribute/code-style>), use proper indentation, stick within the 120 char line length, no trailing whitespaces and no unused imports.
- [0.5 mark] Documentation: use proper in-line code commenting, and Javadoc standard comments for new public classes, methods, variables and constants.