

Mobile Applications Development

Assignment 1

MyPantry

Due: 13th September 2019

Assignment Details

For this assignment, you are required to create a simple shopping aid as an Android App. There should be a shopping list and an inventory of the existing pantry. The app includes a home screen that includes one or more decorative images and options (e.g. button, menu items, tabs etc.) The App has four main functions aside from the home screen:

1. Allow user to view and manipulate pantry items
2. Allow user to view and manipulate shopping list items
3. Allow user to 'tick off' shopping list items and update the pantry
4. Allow user to view and manipulate images that are associated with items

For the purposes of this assignment the details of the items in the pantry and shopping list should be stored in some kind of 'database'. For high marks this should be an SQLite database. For a basic pass some kind of array, list or file structure is acceptable. Where the word 'database' appears below it can refer to any of these types of structures, however refer to the marking guide to see what will attract high marks.

In particular, the App should:

Pass level (up to 64%):

- Provide the main interface and corresponding actions where user can select an option from buttons or other controls including
 - o Add a new pantry record. The pantry information includes *Id* (unique number for each item), *name*, *price*, *quantity*, *location* (eg. *supermarket*), *image*.
 - o Edit a pantry record: the user can select an item from the list. The program will display all details of the item in the corresponding fields where the information can be edited. The page should also include an option to delete the current record in addition to the edit option.
 - o View pantry records as a list
- Provide the main interface and implemented actions where the user can select an option from the buttons/menus for manipulating the shopping list including
 - o Add a new item. The item record includes similar details to those in the pantry records. You may wish to include a status field to indicate whether the item was actually bought.
 - o Edit a shopping list item. The program will display full detail information in the corresponding fields where they can be changed.
 - o View the shopping list. You may choose to use checkboxes or colours to indicate an item has been bought or alternatively simply remove it from the list.
- Be able to return to the home page or the previous page.

- Provide an acceptable quality user interface - Are the screens easy to use? Are they laid out neatly? Do they look good?
- For a pass it is **not necessary** to store data in an SQLite database.
- It is not required to have scrolling or restoring of states such as list positions.
- Images of shopping items are not required.
- Code may not be well commented, named or well laid out.

Higher grades eg. Credit level (up to 74%), Distinction (up to 84%), High Distinction:

- Include all required functions of the pass level, plus
- Store pantry data using an SQLite database. 5%
- Use of multiple tables in SQLite & update the pantry when shopping 4%
- Good display of shopping lists plus scrolling and rotating. 5%
- Adding shopping outings to Google Calendar. 3%
- Tabbed app using fragments. 5%
- Associate hardcoded images with pantry items 3% OR
- Taking of photos (Gallery)& associating them with shopping items 6%
- Good documentation, comments, naming, etc. 5%
- Any other creative additional functions 3%

Deliverables

You are only allowed to use Android Studio to code your solution. Your program must be executable to pass. You are strongly advised to keep multiple versions in case of unforeseen problems. Last minute changes to programs often result in serious problems. You might modify the code from related source(s) with a proper citation(s) and you must be able to explain clearly your code. The external code should contribute less than 30% of the total program. No part of the code can be written by any other persons except as specified above.

Declaration

There is no requirement for documentation. However, you are required to submit a declaration with the following claim (in a text file or MS Word file).

DECLARATION

I hold a copy of this assignment that I can produce if the original is lost or damaged.

I hereby certify that no part of this assignment/product has been copied from any other student's work or from any other source except where due acknowledgement is made in the assignment.

No part of this assignment/product has been written/produced for me by another person except where such collaboration has been authorised by the subject lecturer/tutor concerned.

Submission

Both the declaration and source code should be submitted via vUWS before the deadline for documentation/checking purposes. **Source code only** should be zipped into one file with your student id as the zipped file name. Use WinZip or WinRAR only. Submission that does not follow these formats is not acceptable. No hard copy of source code or email submission is acceptable unless by special arrangement with your tutor.

Demonstration

You are required to demonstrate your program during your scheduled practical session at the specified teaching week (or based on the advice of the lecturer/tutor). Your tutor will check your app and your understanding of the code. Make sure that you are fully familiar with the operation of your app and draw the tutor's attention to any special or advanced features you have incorporated. You must have sample data in the app at the beginning of the demonstration. You will receive no marks if you miss the demonstration time without an application for special consideration. To prove that the program is written by yourself, the tutor might require you to make some minor modifications. In this case, you must complete what is required in order to prove that the code is only written by yourself. You are allowed to run your program from your laptop or Android device at the demonstration time. The majority of feedback to your work will be delivered orally during the demonstration. Final marks will be posted on vUWS after code checking of your on-line submission.

The program you demonstrate should be the same as the one you submit. If you fail this assignment at your first demonstration, you are allowed to improve your work within one week (maximal grade is pass i.e. 50% in this case). Note that passing the assignment is not a requirement to pass the unit.