

Assignment 4 - Cross-Platform Application

Important Information

This assignment is due on **Sunday 12th June @ 23:55 AEST**

This is an **individual** assignment.

This assignment is worth 20% of your final grade.

This assignment addresses ILOs 1, 3, and 4.



Marking Rubric

[Assignment 4 2022](#)

(Please ignore that this rubric has the title "Assignment 2", this is because the rubric is unchanged from assignment 2, and I cannot rename it)



A Note About Extensions

There will be *no* extensions granted for the reason of technical difficulties related to the use of LabShare or Android Studio. This assignment does **not* require* LabShare to be completed, and there are alternatives to Android Studio such as VSCode. Also, doing the majority of your testing in a Web Browser have been discussed throughout the course materials.

Due to the short turn-around to get these marked:

- Extensions will only be considered for those with medical certificate or a Learning Access Plan
- Late submissions outside of these extensions may not have their assignment marked in time, delaying the release of their overall mark for end of semester.

Background

In assignment 1, your task was to design, prototype, and evaluate a mobile application for stroke rehabilitation. Your task for this assignment 4 is to now implement a **Flutter application compatible with Android AND/OR iOS devices** *loosely* based upon that prototype which provides the required functionality from the [Assignment Theme](#).

The goal of this assignment is to assess your ability to implement Cross Platform Applications, and to demonstrate your understanding of the fundamentals of mobile device programming when applied to a practical context.

Specification

You must create a Flutter application (i.e. you cannot use any other Cross-Platform tool such as Cordova or Xamarin for this assignment) which can be run on an Android or iOS emulator/simulator.



ILO4? What happened to ILO2?

ILO2 was the ILO assessing your ability to produce and understand *native* applications. ILO4 is the one covering your ability to create and understand cross-platform applications.

For further information, please refer to the [Assignment 2 - Android Application](#) specification, which contains everything you need to complete this assignment.

Any further detail provided in this document takes precedence and overrides and requirements or statements in those other documents.

Camera CRA Item (Updated from Assignment 2)

Note that given the iOS simulator does not support using the Camera (and some of you may be targeting/developing for iOS), you are **ONLY** required to make the **Photo Gallery** picture selection mode work for this assignment. **Disregard** the parts of the CRA that indicate that you should make both Camera and Photo Gallery work.

Your marker will only test your application on a Simulator, so if you only provide Camera functionality and not Photo Gallery functionality, you will get *no marks* for this section.

Reusing your Firebase Database From Assignment 2 and 3

You *may* choose to use the same database for this assignment as you used for Assignment 2 and 3, OR you may choose to create a new database (either with a new structure or the same structure).

IF you choose to re-use your database, be mindful of the following points:

- If you begin work on your assignment straight away (you should), then there is a chance your Assignment 3 will be being marked while you are working on your database.
- If you change your structure of your database for this assignment, you may accidentally cause bugs to occur in your Assignment 3, or confuse your marker.

Use of Third-Party Code and the Tutorial Work (NOTE: this is different)

As with previous assignments you are allowed to build your assignment off the tutorial work. You do not need to reference this in your assignment.

You are expressly **prohibited** from using any other code online as a **template** for this assignment. Small snippets of code (such as stackoverflow answers) may be used with code comments showing the URL of where the code came from.

Third-party *plugins* for **UI-purposes** (for example, for things like date-pickers, sliders, selectors, etc) **may be used in this assignment, as long as they are official plugins that can be added via `pub_spec.yaml`. You must reference these third party plugins in a word document included in your submission.**

Third-party libraries or code that comprises the majority of your project (e.g. template projects, plugins which accomplish most of the functionality all-in-one, or plugins that simplify data persistence) still **must not be used**.

Assignment Submission

The following files must be submitted via MyLO before 23:55 on Sunday 12th June (Exam Period):

- One zip file, containing the project files.
 - In Android Studio, you can choose **File -> Export -> Export to ZIP**
- A word document, text file, or PDF containing a list of any third-party plugins you used, including
 - A link to the plugin
 - The author of the plugin's name
 - A single sentence explaining where this is used in your assignment
- Include in your submission instructions to your marker for which platform (Android/iOS) you have primarily targeted and want them to test on.



Assignment Submission Box

[Assignment 4 - Cross-Platform Application](#)

Plagiarism and Cheating

Practical assignments are used by the Discipline of ICT for students to both reinforce and demonstrate their understanding of material which has been presented in class. They have a role both for assessment and for learning. It is a requirement that work you hand in for assessment is your own.

Working with others

One effective way to grasp principles and concepts is to discuss the issues with your peers and/or friends. You are encouraged to do this especially on the class Discord. We also encourage you to discuss aspects of practical assignments with others. However, once you have clarified the principles of the problem, you must develop a solution entirely by yourself. In other words; you must develop the application *yourself*. You can discuss problems, but not share entire solutions (one or two line code-snippets on Discord are fine). Assistance with solutions should be provided by staff.

Cheating

- Cheating occurs if you claim work as your own when it is substantially the work of someone else.
 - This includes the use of third-party code from online resources.
- Cheating is an offence under the Ordinance of Student Discipline within the University. Furthermore, the ICT profession has ethical standards in which cheating has no place.
- Cheating involves two or more parties.
 - If you allow written work, computer listings, or electronic versions of your code to be viewed, borrowed or copied by another student you are an equal partner in the act of cheating.
 - You should be careful to ensure that your work is not left in a situation where it may be used/stolen by others.

Where there is a reasonable cause to believe that a case of cheating has occurred, this will be brought to the attention of the unit lecturer. If the lecturer considers that there is evidence of cheating, then no marks will be given to any of the students involved and the case will be referred to the Head of Discipline for consideration of further action.



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