UNIVERSITY OF EXETER

FACULTY OF ENVIRONMENT, SCIENCE
AND ECONOMY

ECM2425

Mobile and Ubiquitous Computing CA

Continuous Assessment

Hand-out date: 2 Feb 2023
Hand-in date: 09 March 2023

This CA comprises 40% of the overall module assessment.

This is an **individual** exercise, and your attention is drawn to the guidelines on collaboration and plagiarism in the College handbook (https://intranet.exeter.ac.uk/emps/).

The objective of this CA is to test your understanding and practical programming in Android. Please ensure you read the entire document before you begin the assessment.

1. Task Specification

You will develop an Android app at your discretion in this task (e.g., weather app, news app, notes app, photo viewer app, music player app). Your app needs to meet the following specifications.

- There are multiple screens, and users can navigate between screens
- Use both explicit and implicit intents
- Has Menus
- Use RecyclerView
- Use Data storage (e.g., SharedPreference, database, files)
- Use Internet (e.g., fetch images from Internet to update views)
- The app opens and the screens display properly when the device has no connection to the Internet

2. Deliverable

The deliverable is a **complete implementation of your app**, which will consist of an Android project with EVERYTHING necessary to build the app supplied in a ZIP file, including all Java and XML source files plus any additional resources (images, texts, etc).

Under the root directory of your project, include a README file (up to 2 pages) that is required to be structured as follows.

1. Introduction (what your app does)
2. Design rationale (discuss about different design options that could meet the needs and explain why you choose your option, e.g., Fragments or not, the choice of layouts, Content provider or not, data storage options)
3. Novel features of the app (if there are not any novel features, this section is not needed)
4. Challenges faced and how to improve the app in future

3. Submission

Submit your complete implementation (in a ZIP file) using E-BART, by 12 noon on the 9th of March 2023.

4. Marking Criteria

Marking Scheme	Description	Mark
Structure and content of README	The README is well structured and presented. The app purpose and design rationale are clearly explained, matching the specification provided and the implemented code. There is a useful discussion on the challenges faced and how to improve the app in future.	20%
Code comments and implementation	Code comments are useful and informative, and at the appropriate level. The code is clean, easily readable and properly formatted with a coherent design, e.g., design reusable functions, classes are organized into meaningfully named packages. Code comments and implementation conform to the standards set out by Google.	15%
	Networking operations are offloaded from the UI thread.	5%
	The app starts successfully, screen is rendered properly, no start-up crashes, compiles out of the box.	10%
	App works properly irrespective of screen size and under configuration changes such as device rotation.	10%
	Overall project quality, including the complete UI (operation, interaction, cosmetics, design), stability, responsiveness, security (if applicable), app idea, all the features and components as specified in the task specification.	40%