UNIVERSITY OF EXETER

COLLEGE OF ENGINEERING, MATHEMATICS
AND PHYSICAL SCIENCE

ECM2425

Mobile and Ubiquitous Computing CA

Continuous Assessment

Hand out date: 23 February 2018
Hand in date: 28 March 2018

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 a weather forecast app in this task. The design of the app is as follows.
- On the main screen, display the forecast information for today's weather, and a list of forecast information for next few days, such as Saturday (tomorrow), Sunday, Monday and so on. You only need to display the forecast information for up to 5 days (including today).
- Click on one of the forecast, it brings up a detailed view of the weather information on that specific day, e.g., wind, humidity.
- There are settings to change the location.
- Create a database to store the latest weather information and display that when there is no Internet connection.
- Use the free API service from www.openweathermap.org to get the weather data.

2. Deliverables

The deliverables are a **report** and a **complete implementation**.

The **report** is a maximum 4-page report in PDF format with minimum 2.5cm margins and 11-point text. It should include a UML class diagram and a description of the design and rationale for your app outlining how you implement it.

The **complete implementation** is the implementation of a working app, and should consist of an Android Studio project with EVERYTHING necessary to build the app supplied in ZIP file, including all Java and XML source files plus any additional resources (graphics, text, etc.).

3. Submission

1. The submission of **report**
   - You should hand in a paper report, using BART, to the Education Office (Student Service Desk) of the Harrison Building by 12 noon on the 28th of March 2018;

2. The submission of **complete implementation**
   - You should submit a copy of your finished program electronically, using electronic submission at empslocal.ex.ac.uk/submit, to the folder 2018-03-28~ECM2425~Jia Hu, in a ZIP file, no later than 12 noon on the 28th of March 2018.

4. Marking Criteria

Marking Scheme	Description	Mark
Structure and contents of the report	The report is well structured and presented. The design is well explained, matches the specification provided and the implemented code.	20%
Code comments	Code comments are useful and informative, and at the appropriate level.	5%

Code implementation	The code is well structured and written, with a coherent design, e.g., design reusable functions, classes are organised into meaningfully named packages, computation is offloaded from the UI thread.	20%
	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 and interaction, cosmetics, overall design), features and components as specified in the task specification, and successful implementation of additional useful features at your discretion.	35%