A202SGI Android Development Skills

Assignment

Issue Date: 3rd October 2016
Deadline: 11:55pm 13th December 2016

1 INTRODUCTION

This is a single assignment that contributes 100% to the total module grade.

2 REQUIREMENTS

You need to write a reflective report (max 1,500 words) on an Android app you have developed targeting at recent versions of Android platform. You are free to choose your own ideas to design the app.

1. Your app should solve a practical problem e.g. module enrolment, library item booking etc.
2. Your app should offer novel solutions compared to existing apps. In order to achieve this, you'll need to survey Google Play for similar apps.
3. Your app should use only Java language and Android SDK. 3rd party SDKs and libraries are not allowed.
4. Your report should demonstrate programming/design skills you have learnt and developed during the module.
5. Your report should contain illustrative examples such as screencasts and code snippets.

3 SUBMISSION

Report

You must submit your report through Turnitin on Moodle. On the cover page of your report, you must clearly mark a link to your BitBucket repository where the source codes of the app can be accessed. Failing to submit the Bitbucket link will result in a zero mark for the module.

BitBucket Repository

You should create a repository that contains all source codes for the app you created. You should also invite your tutors (BitBucket username *jianhuayang* and *marktyers*) to the repository to allow access to your codes.

4 MARKING

Your report will be marked against the following four criteria:

1. **App design and report writing (25%)** – Does your app solve a practical problem? Does it offer distinct solutions to existing apps? Does it document well?
2. **Interface (25%)** – is the user interface of a professional standard, including the use of custom colours and graphics? How close does the app adhere to the official Android Design Principles?
3. **Data (25%)** – how is the app storing and manipulating data?
4. **Coding (25%)** – Is the code easy to follow with sensible variable names, correct data types and clear comments to explain how the app works? Is the code modular? Have you used functional programming paradigms? This will be checked on the Bitbucket repository.

A detailed rubric is as follows:

	≤ 4 points	≤ 8 points	≤ 12 points	≤ 16 points	≤ 20 points
App design	The app offers similar functions to existing apps.	The app shows an effort in solving a practical problem.	The app shows a genuine and novel idea.	The app offers novel solutions to practical problems.	The app excels most existing apps in the market.
Interface	Basic UI. App lacks some functionality.	App is functionally complete. Basic UI controls with no customisation.	App is fully functional. Some elements of the UI have been customised.	The app contains additional functionality not taught during the module. The UI has been fully customised.	The custom UI has been created to a professional standard. It compares favourably with apps receiving 4 or 5 star ratings.
Data	Data is displayed with errors.	The correct data is displayed in the app but nothing is persisted if the app is fully closed and opened.	Data is persisted locally when the app is closed fully.	Data includes complex relationships and is persisted locally	Data is both persisted locally and shared between users via a custom API
Coding	There is limited functionality using existing code. The student does not fully understand the code used.	The application is fully functional and the explanation of the code is clear.	The application makes full use of the range of structures and APIs covered in the worksheets.	The app makes use of additional APIs and techniques not explicitly covered in the worksheets.	The app makes appropriate use of advanced, cutting-edge APIs and techniques not mentioned during the course.
Report writing	The report contains lots of grammar mistakes and errors.	The report contains some grammar mistakes.	The report makes proper use of screenshots and illustrations.	The report is clear with proper use of references.	The report is clearly structured and well written.