School of Computing, Edinburgh Napier University

1. Module number	SET08114
2. Module title	Mobile Applications Development
3. Module leader	Simon Wells
4. Tutor with responsibility for this Assessment	Your first point of contact is Simon Wells
5. Assessment	Please see attached.
6. Weighting	**60%**
7. Size and/or time limits for assessment	Please see attached.
8. Deadline of submission Your attention is drawn to the penalties for late submission	**5:00PM on Thursday 15th March 2018**
9. Arrangements for submission	Supply your Git clone URL to the module leader at least one week before the deadline. Push your final code to your Git repository before the deadline in section #8.
10. Assessment Regulations	This assessment is subject to the University Regulations**.**
11. The requirements for the assessment	Please see attached.
12. Special instructions	None
13. Return of work	Marks and feedback sheets will be emailed to you within three **working** weeks.
14. Assessment criteria	Please see attached. With reference to the module descriptor, this assessment covers LO1: Design, develop, test and demonstrate a working application for a mobile device. And to a lesser extent: LO2: Evaluate the technologies used in mobile application development and deployment LO3: Interpret human needs and expectations in the context of mobile applications

Coursework Assignment
Mobile Applications Development (SET08114)

Overview

The aim of this coursework is to design, implement, and evaluate a prototype for a mobile application for the Android platform using the Android SDK.

The choice of application that you decide to implement is up to you although it is recommended that you discuss your application with the teaching team to ensure that it is both achievable within the available timeframe, and is suitable for the level of work expected in the module. Spend some time doing some research before deciding on an application to implement. There are plenty of published essays, magazine articles, book chapters and applications in the various app stores that could give you inspiration. Clones or redesigns of existing apps can be a good place to start. Similarly, simple games such as story-telling or single-touch games can make compelling submissions.

Deliverables

The coursework has two separate parts; a **submission** and a **demonstration**.

1. Submission

You must submit a Git repository containing the following:

1. The source code for your app
2. A written report
3. An APK for your app

Your source code, report, & APK must all be committed to Git and pushed to your repository before the coursework deadline. Any late submissions that are not authorised by your Programme Leader will be capped at 40%. Any evidence of plagiarism will be submitted to the School misconduct officer for possible disciplinary proceedings.

1.1 Source code

- All source code and project files required to rebuild your application must be placed in your Git repository. However your Git repository should not include any debug or build artefacts because these will significantly increase the size of your repository without providing any advantage. If your project requires supplementary software (for example an external library) this must also be provided (unless this is forbidden by the license – in which case a URL for a download must be provided) along with instructions for setting it up. If you have used external libraries other than those included as part of the Android SDK then you must document this fact in your report and also include the associated licenses in a folder in your Git repository.

- You must provide the public git clone address for your repository by email to the module leader (s.wells@napier.ac.uk) at least one week before the deadline. Your submission will then be cloned once the deadline has passed. However your repository will not be accessed or inspected prior to the deadline.

- Your Git repository must be named according to the following pattern (all lowercase):

  lastname_firstname_set08114_coursework

- Your repository must be pushed to a hosting service, e.g. Bitbucket or Github, and it is recommended that you make your repository private (both services provide private repositories for educational purposes). If your repository is private then your must also add the user ***siwells*** as a collaborator so that your work can be retrieved for marking.

- Email the Git clone URL for your repository to s.wells@napier.ac.uk at least one week before the assignment deadline. This should be the SSH clone URL (the one that starts with either git@github or git@bitbucket).

1.2 Report

Your report must be no longer than 6 pages in length (excluding appendices) and written using the Napier LaTeX report template available here:

http://github.com/edinburgh-napier/aux_latex_cw_template

Appendices may be used to include supplemental data, for example test data, screenshots, designs, or documentation, but these must be referenced from within the main body of your report.

The format of the submitted report must be PDF and should include the following sections:

1. An introduction to your assignment stating its scope and content – this should include a brief overview of your application choice and the inspiration for your choice. Reference your reading.

2. Software design. You are expected to do some software modelling of your application choice.

3. Short description of your application implementation including screenshots.

4. Critical evaluation of your implementation. Points to consider discussing in this section are:

   - A comparison against the original concept as detailed in your introduction

- Comparison against other applications/games in the genre, particularly the ones that inspired your choice
- An evaluation of your app against user feedback or as compared with other apps/ games
- Possible improvements to your application

5. Personal evaluation - reflecting on what you learned, the challenges you faced, the methods you used to overcome challenges, and you feel you performed.
6. References (Optional) - If you have used additional resources then these must be cited. Otherwise this section may be omitted. You must provide a reference for every resource used that you have not created yourself & which is not part of the Android SDK – for example, additional image, sound, video, or software library resources.

1.3 APK

The APK for your application is built by Android Studio and should be located in the following folder (although this might vary depending upon your version of Android Studio):

YourApplication\app\build\outputs*projectname*.apk

2. Demonstration

Demos will be held during regular contact time on Friday mornings in the JKCC during weeks 10 & 11 (before the Easter break). Prior to these dates you will be able to arrange a demo time-slot. During this time slot a marker will expect you to show off your app. You should aim to be set up and ready to go **before** your demo slot time. You will then demonstrate your application to a member of the teaching team to highlight the features of the application and ensure that all the capabilities of your application are exhibited. It is your responsibility to ensure that you can demo the app that you have developed; this can be via a lab machine, an Android hardware device, or your own laptop, however without a demonstration your submission will not be marked.

Assessment Criteria & Marking Scheme

The marking scheme is devised so as to reward taking on a challenge. A reasonable attempt at a difficult application is likely to attract more marks than a complete implementation of a simple application. As a general rule, the more functionality, the better the mark, however your functionality should be consistent with a cohesive overall design.

70-100% A submission in this mark band will consist of an application which has extended the lab work covered in class to offer an excellent level of functionality and which has been evaluated effectively against apps available on, for example, Google Play. You will have implemented more advanced features or have used components, widgets and APIs that have not been specifically covered in the practical sessions and which you have investigated yourself. Your design and code will be excellent – making good use of classes & methods and well documented. Your report with the sections detailed above will be comprehensive, very well written and well presented and will correctly reference all the material you have used. This is likely to include textbooks, online forums and tutorials and some of the suggested reading for the module.

60-69% To achieve a mark in this band you will have developed an app with very good functionality, offering the user multiple activities to provide an engaging app. Your app should feature multiple activities and support appropriate user interaction. It should demonstrate basic I/O principles, such as the use of buttons, images, text input and/or spinners commensurate with your idea and design. Your report will address all the necessary sections effectively, be very well written and clearly presented and will reference material you have used.

50-59% A submission graded into this mark band will indicate that you have developed an app that is less ambitious in its functionality but will offer the user suitable ways of interacting. Your report will be well written and will reference the material you have used.

40-49% To achieve a mark in this band you must have developed your own working app with multiple activities allowing the user some interaction. The basic usability requirement is that other users (aside from yourself) must be able to use your prototype at least to a basic level.. It may be based on an extension of the practical work covered in class and your report must adequately describe your work.