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| Submission Deadline | Marks and Feedback |
| Before 10am on:  24/01/2020 | **20 working days after deadline (L4, 5 and 7) 15 working days after deadline (L6) 10 working days after deadline (block delivery)**  Click or tap to enter a date. |





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| Unit title & code | CIS099-2 Mobile Applications Development |
| Assignment number and title | Assessment 2 – Group Mobile Application Development E-Portfolio |
| Assessment type | Group E-Portfolio |
| Weighting of assessment | 70% |
| Unit learning outcomes | 1. Identify and critically review related mobile applications, methods and technologies used for the design, development and evaluation of the relevant mobile applications.  2. Design, develop and evaluate a cross platform mobile application using the suitable methods and technologies. |





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| What am I required to do in this assignment? |
| This is a Group E-portfolio-based assignment (70%). Every student must build a mobile application. The practical part of the assignment must be implemented using hybrid mobile application development technologies such as PhoneGap/Cordova/Ionic and its relevant developer tools. The requirements are further explained in the following Deliverable section.  1. You need to form a group of 3-4 people by 15 Nov 2019. If you are not in a group by then, you will be assigned to a group by the tutors.  2. Your group needs to decide a mobile application to design and develop, which could be the extension of the mobile app that you designed for your assessment 1.  3. Your group needs to work together on designing and developing the selected mobile app using PhoneGap/Cordova/Ionic and provide the documents required for the E-portfolio.  The report must be submitted online ONLY on BREO by one person (group leader) of the group and by the deadline specified. Two submission attempts are allowed and ONLY the final attempt will be marked. The report file should be named in the following format: 12345678-CIS099-2 where 12345678 should be replaced with your own Student ID number. |
| Is there a size limit? |
| Max 5 mins Video demonstration for the E-portfolio |
| What do I need to do to pass? (Threshold Expectations from UIF) |
| 1. Assessment 2 is a collaborative assignment and consists of the development of a mobile application (design, programming and evaluation) and business strategy along with a demonstration of the submitted E-portfolio with Q&A. The portfolio includes development folder with all of the code, a “.apk” file to run the mobile application and a demo video to show how students operate the application. A team member contribution list will need to be submitted to indicate clearly what each team member has contributed to the overall work. The work therefore will be marked individually based on the contribution of each of the individual members. 2. Assessment load for Assessment 2: Students are expected to spend 42 hours for preparation and 10 hours for the completion of the assessment. |
| How do I produce high quality work that merits a good grade? |
| Deliverables  One of the group representative will need to submit the E-Portfolio of assessment 2 in a .zip file, which contains:  a. Development folder (all code and assets).  b. A compiled Android build (.apk file).  c. Max 5 mins Video demonstration of how the application works. This must show an Android emulation.  d. A development report detailed below.  e. A team member contribution list will need to be submitted to indicate clearly what each team member has contributed to the overall work. A table is recommended for the list.  The requirements on the mobile app development and what to put in the app development report are detailed as follows:   1. For students who will choose to design and develop a mobile application:     The following features are mandatory for your app, you must implement them:  - User interface and navigation  - Ability to take a user input  - Ability to display results/output  - Use of multimedia (e.g. audio, photo and/or graphics)  - You must comment your code appropriately  Additionally, your app must include at least one of the following:  - Interacting with other apps  - GPS  - Animations  - Google API  - Network (e.g. download data)  - Advanced maths  - An advanced solution for the saving and loading of data  It is critical to design an app that is complete (not a demo). Therefore you are strongly advised to choose something achievable.    What goes in the development report:  1 User Evaluation report (suggested 4 pages max.)  1.1 Report the user evaluation set ups  1.2 Report your user evaluation results  2 Critical Analysis and reflection of the project (suggested 2pages max.)  2.1 What went well and what went wrong?  2.2 What would you have done differently?  2.3 How you would improve it in the future?  3 Detailed contributions list for each group member (suggested 2pages max.)  Please list: Who are in the group (please indicate the group leader); What contribution each members made to the group work; How was each group member’s conduct during the group work (such as attending meeting on time, meet deadline for the task assigned, good communication throughout, etc.). You could write this section in table format.  Additionally, your report need to include the following to achieve high tier of the grade:  4 Mobile app search engine optimization (SEO) and marketing strategy (suggested 2 pages max.)  4.1 Your plan to market the mobile app  4.2 Your plan to achieve a good SEO.  4.3 How do you protect and develop your IP?  \* The subsections above are a guide not an exhaustive list.     1. For students who will choose to make a Mobile Game:     The following features are mandatory for your GAME project; you must implement them:  - Rules or intro screen that describes the rules your game uses for computing points (or, have these tips built into the game).  - Player inputs  - There must be a timer that controls how long the game lasts  - Once the game is over, the player’s score must be displayed along with buttons that allow them to either start over of exit the game  - Use of Texture Atlases.  - Use of Animated Sprites  - Use of Multi Scene Layers  - Use of multimedia (e.g. audio, 2D or 3D graphics)  - You must comment your code appropriately  Additionally, your app must include at least one of the following:    - Artificial Intelligence  - Different difficulty levels  - Multiplayer  - Interacting with other apps  - GPS  - Google API  - Network (e.g. download data)  - Advanced maths and physics  It is critical to design an app that is complete (not a demo). Therefore, you are strongly advised to choose something achievable.    What goes in the development report:  1 User Evaluation report (suggested 4 pages max.)  1.1 Report the user evaluation set ups  1.2 Report your user evaluation results  2 Critical Analysis and reflection of the project (suggested 2pages max.)  2.1 What went well and what went wrong?  2.2 What would you have done differently?  2.3 How you would improve it in the future?  3 Detailed contributions list for each group member (suggested 2pages max.)  Please list: Who are in the group (please indicate the group leader); What contribution each members made to the group work; How was each group member’s conduct during the group work (such as attending meeting on time, meet deadline for the task assigned, good communication throughout, etc.). You could write this section in table format.  Additionally, your report need to include the following to achieve high tier grade:  4 Mobile app search engine optimization (SEO) and marketing strategy (suggested 2 pages max.)  4.1 Your plan to market the mobile app  4.2 Your plan to achieve a good SEO.  4.3 How do you protect and develop your IP?  \* The subsections above are a guide not an exhaustive list.  The student group will be invited to a demonstration and Q&A session during the contact sessions in Week 15.  Each group will give 10 minutes to summarize the project and demonstrate the App. There will be 15-20minutes Q&A session after each group demonstration.  All deliverables are mandatory; you cannot pass this assignment if you do not submit them |
| How does assignment relate to what we are doing in scheduled sessions? |
| You will learn the knowledge and skills that are required in the assessment 2 from the mobile application development sessions. You will be working collaborate with your peers to practice and apply the knowledge and skills learnt. |



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| How will my assignment be marked? |
| Your assignment be marked according to the threshold expectations and the criteria on the following page.  You can use them to evaluate your own work and estimate your grade before you submit. |

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|  | **Lower 2nd – 50-59%** | **Upper 2nd – 60-69%** | **1st Class – 70%+** |
| **1** | Satisfactory Software, which caters for most of all the tasks required in the coursework. The program demonstrates good understanding of all of these functions. The program is structured and organised quite well, with some use of comments.  Satisfactory design and usability. Some commercial viability. Some originality present. | Good Software, which caters for almost all of the tasks required in the coursework. The program demonstrates a very good understanding of all of these functions. The program is structured and organised well, with appropriate use of comments.  Good design and enjoyable to use. Good commercial potential. Some originality shown. | Excellent Software, which caters for all of the tasks required in the coursework. The program demonstrates an authoritative and complete understanding of all of these functions. The program is structured and organised extremely well, with appropriate use of comments.  Very well designed and very enjoyable to use and excellent commercial potential.. |
| **2** | Satisfactory information and structure. Some discussion with good ideas, but rather brief. Covers all of the requirements In deliverables. | Content & structure of report are good. Clear understanding of material with good reasoning. Covers all of the requirements  In deliverables. | Well written report, carefully structured with excellent understanding of material. Clear, effectively produced. Original ideas well documented. Covers all of the requirements in deliverables. |
| **3** | Reasonable summary of the mobile app design; Reasonable app demonstration and explanation; Reasonable presentation in planning, content and delivery; reasonable Q&A to defend the project. | Good summary of the mobile app design; Good app demonstration and explanation; Good presentation in planning, content and delivery; Good Q&A to defend the project. | Excellent summary of the mobile app design; Excellent app demonstration and explanation; Excellent presentation in planning, content and delivery; Excellent Q&A to defend the project. |