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| ASSIGNMENT BRIEF | |
| Qualification Title | Unit Number/Title |
| BTEC Higher National  Diploma (HND) | Mobile Platforms (MPL) |
| Unit Leader Name | Gayathri Karthick |
| Internal Verifier Name | Md Nuruzzaman |
| Date of Issue | 30 Sep 2019 |
| Date of Submission |  |

**Assignment  
Brief - General**

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| **Coursework Rules and Regulations** |
| **Plagiarism –** the College takes plagiarism and academic misconduct seriously and therefore, suspected plagiarism will be investigated and if found to have occurred will be dealt with according to the procedures set down by the College. Please see your Student Handbook for further details of course of action for plagiarism issue.  **‘Plagiarism’** is presenting somebody else’s work as your own. It includes copying information directly from the Web or books without referencing the material; submitting joint coursework as an individual effort; copying another student’s coursework; stealing coursework from another student and submitting it as your own work.  **Student Declaration –** all coursework submission will need to bear a declaration signed by you.  **Submission Regulations**   1. You are required to submit your coursework on-line through the College’s Virtual Learning Environment (VLE) which can be accessed through <http://stpmoodle.net>. Detailed information about this is available in the Student Handbook. 2. Details of submission procedures and related course of actions can be obtained from the Academic Administration Department or the Student Handbook. 3. If you are unable to submit your coursework on time due to extenuating circumstances, you are required to make an application to your respective Schools for it to be considered, using an ‘Extenuating Circumstances Form’ available from the Academic Admin Office. **Do not ask the lecturers responsible for the course - they are not authorised to award an extension**. The completed form must be accompanied by evidence such as a medical certificate in the event of you being sick. 4. Specific requirement or subject specific requirement for coursework submission will be stated further in the assignment brief or will be advised by your lecturer. |

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| **Learning Outcomes (LOs)** | | **Assessment criteria (AC)** | |
| 1. | Be able to analyse the significance of mobile applications | 1.1 | Analyse the concepts of mobile platforms |
| 1.2 | Compare mobile operating systems and their associated development platforms |
| 1.3 | Evaluate current and future trends in the development of mobile applications |
| 2. | Be able to design a mobile application in accordance with a user specification | 2.1 | Justify the choice of a development platform for the design of a mobile application |
| 2.2 | Design a mobile application to meet the requirements of a user specification |
| 3. | Be able to evaluate the design of a mobile application | 3.1 | Evaluate the design of a mobile application in terms of functionality, usability and reliability |
| 3.2 | Analyse the impact of cyber security on mobile platforms and applications |
| 4. | Be able to analyse the mobile application environment | 4.1 | Analyse the growth and development of the Internet of Things (IoT) |
| 4.2 | Investigate the relationship between the IoT and cloud based services |
| 4.3 | Produce a brief report on the future role of mobile applications in ubiquitous computing |

A **Pass** is awarded when the learner meets all the above mentioned Assessment Criteria.

The **Merit (M1 – M3)** and **Distinction (D1 – D3)** criteria are set out in the following two pages.

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| **In addition to the PASS criteria, this assignment gives you the opportunity to submit evidence in order to achieve the following MERIT and DISTINCTION grades** | | |
| **Grade Descriptors** | **Indicative characteristic(s)** | **Contextualisation** |
| **M1** Identify and apply strategies to find appropriate solutions | **Effective judgment has been made**  **Effective approach to study has been applied.** | To achieve **M1**, students must demonstrate effective judgment in analysing various mobile platforms **(AC 1.1)**.  **AND**  **Submit their work by the set due date** |
| **M2** Select / design and apply appropriate methods / techniques | **Relevant theories, methods and techniques have been applied** | To achieve **M2**, students must use appropriate resources for the assignment; including the use of books, journals, publications, texts and the Internet sources throughout their assignment. Additionally, they must cite all references and sources of material used for in-text citation and present the references (using Harvard referencing style) in the Reference section within the assignment **(AC 1.2, 1.3 & 2.1)**. |
| **M3** Present and communicate appropriate findings | **The appropriate structure, approach and range of sources of information** **have been used** | To achieve **M3**, students must use appropriate structure and sequence throughout the assignment. The work must be concise and succinct, developing their academic arguments in an orderly manner. |
| **D1** Use critical reflection to evaluate own work and justify valid conclusions | **Conclusions made through the synthesis of ideas and design against set criteria** | To achieve **D1**, students must justify the design of a mobile application (app) and critically evaluate the app in terms of functionality, usability and reliability **(AC 2.2 & 3.1)**. In addition, they must discuss the security issues relating to mobile platforms/applications **(AC 3.2)**. |
| **D2** Critically analyse the mobile application environment | **Findings of investigation has been presented** | To achieve **D2**, students must critically investigate and record the growth and relationship between IoT and Cloud based services. |
| **D3** Demonstrate convergent/lateral/creative thinking | **Innovation and creative thought have been applied.** | To achieve **D3**, students must apply creative and critical thinking while analysing the future role of mobile apps in pervasive/ubiquitous computing **(AC 4.3)**. |

**TASKS TO BE COMPLETED**

**Task 1: Be able to analyse the significance of mobile applications**

**1.1 Analyse the concepts of mobile platforms (AC 1.1)**

*- Discuss the concept and history of the leading mobile platforms.*

**1.2 Compare Mobile Operating Systems and their associated development platforms (AC 1.2)**

*- Compare 3 Mobile Operating Systems highlighting their strengths and weaknesses.*

**1.3 Evaluate current and future trends in the development of mobile applications (AC 1.3)**

*- How did Mobile Applications evolve? What were the types of Apps in the past? What are the main trends in Mobile Apps now and what will be the future trend in Apps development?*

**Task 2: Be able to design a mobile application in accordance with a user specification**

**2.1 Justify the choice of a development platform for the design of a mobile application (AC 2.1)**

*- Which development platform and tool did you choose and why?*

**2.2 Design a mobile application to meet the requirements of a user specification based on the brief provided on the following page (AC 2.2).**

*- Detail the development of a mobile application. Your discussion must include all the SDLC stages.*

Design and develop a mobile application for any leading mobile platform (iOS, Android, Windows, Blackberry etc.) and any development tool (Xcode, Android SDK, Eclipse, Visual Studio (Xamarin), online tools, etc.) of your choice.

However, as demonstrated in the class, you are advised and encouraged to go to the MIT App Inventor site (<http://appinventor.mit.edu/explore/>), navigate to the Tutorial page (<http://appinventor.mit.edu/explore/ai2/tutorials.html>), choose one of the projects from the Intermediate to Advanced range and make improvements to it by modifying the layout, adding features etc.

You are free to make creative choices and decisions as long as you justify them in your documentation. You need to also include a user manual or “how to” guide for the app in the appendix.

**Task 3: Be able to evaluate the design of a mobile application**

**3.1 Evaluate the design of a mobile application in terms of functionality, usability and reliability (AC 3.1)**

*- Justify the design of your app in terms of its functionality, usability and reliability.*

**3.2 Analyse the impact of cyber security on mobile platforms and applications (AC 3.2)**

*- What is the current threats and impact of cyber security on Mobile Apps? How have you addressed these in your App?*

**Presentation (week 7- week 10) – L03 (3.1)**

The Aim of the Presentation is for you to demonstrate how you have developed a mobile application. You are expected to *justify the design of your app in terms of its functionality, usability and reliability.*

*General Rules:*

Students chose their topic in WEEK 2.

Presentations

Sessions will take place each week starting from Week 7 and students will be presenting an agreed piece of work. It will be a presentation of 20 minutes together with 5 minutes for questions and answers.

You are required to deliver 1 presentation during the 11 weeks of this unit; if you do not give a presentation on the expected session, your grade on that component of the assignment will be “referred”.

You are expected to research your topic using an appropriate selection of sources; the St Patrick’s library, a good selection of on-line academic articles and e-books on line.

On the day of your presentation you are expected to;

• Be on time, ready for a prompt exposition

• Explain, contrast and discuss your topic

The presentation will form part of the portfolio which you are building during the duration of this unit and will contribute towards the final grade. Your slides and/or supporting material are to be submitted within the same folder as the other assessed components.

**Task 4: Be able to analyse the mobile application environment**

**4.1 Analyse the growth and development of the Internet of Things (IoT) (AC 4.1)**

*-Discuss the current and future applications of IoT in mobile devices.*

**4.2 Investigate the relationship between the Internet of Things (IoT) and cloud based services (AC 4.2)**

*- How does the collaboration between IoT and the cloud services in mobile devices impact on our day to day life?*

**Grading**

Each Unit will be graded as a Pass, Merit, or Distinction when all learning outcomes and assessment criteria have been met.

A **Pass (P)** is awarded for the achievement of all Learning Outcomes against the specified *Assessment Criteria.*

A **Merit (M)** or **Distinction (D)** is awarded for higher level achievement upon achieving the **M** and **D** criteria set out in pages 3 and 4.

If all required assessment criteria have not been achieved, the work is graded as **Referred (RF)**.

If the work illustrates more than the similarity percentage cap or concern over originality of part or all content of the work, it is graded as **Withheld (WH)**. The student may then be interviewed to ascertain originality.

In the case of incomplete work or partial submission (*such as blank template, no evidence of real attempt etc.)*, the work is graded as **Unreasonable Submission (US)**.

When a Unit has been assessed, Grades are reported on the College’s VLE. You can obtain the grade awarded by viewing the **Submission Inbox**, navigating different tabs to see the status of your submission. By viewing the Report, the Originality can be obtained. Clicking on the ***GradeMark tab*** will reveal the QuickMark comments. Clicking on the ***General Comment tab*** will reveal the comments made by the Assessor and the Internal Verifier.

Please note that numeric value (for example, 75% for Distinction) is used to classify the different grades awarded to support the system requirement on the College’s VLE, Grades are reported on the VLE as follows:

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| **%** | **GRADES** |
| 75% | **Distinction** |
| 65% | **Merit** |
| 50% | **Pass** |
| 35% | **Referred** |
| 10% | **Withheld**  **W1 –** direct copy from various sources  **W2 –** collusion  (Note: detailed feedback on **W1** and **W2** will be provided by the Assessor in the *General feedback section*.) |
| 5% | **Unreasonable Submission** |

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| **Additional Information** |

* For any late submission without approved Extenuating Circumstances prior to the set deadline, the grade is capped at a PASS.
* It is expected that the guided word count are adhered to when writing your coursework.