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| **Qualification** | | | **Module Number and Title** | |
| HD in Computing and Software Engineering | | | CSE5011 - Mobile Application Development | |
| **Student Name & No.** | | | **Assessor** | |
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| **Hand out date** | | | | **Submission Date** |
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| **Assessment type**  WRIT1-Coursework | | **Duration/Length of**  **Assessment Type**  3000 wordsequivalent | | **Weighting of Assessment**  100% |
| **Learner declaration** | | | | | | |
| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged. | | | | | | |
| |  |  |  |  | | --- | --- | --- | --- | | **Marks Awarded** | | | | | First assessor | |  | | | IV marks | |  | | | Agreed grade | |  | | | Signature of the assessor |  | Date |  | | | | | |

**Feedback Form**

**International College of Business & Technology**

**Module:**

**Student:**

**Assessor:**

**Assignment:**

**Strong features of your work:**

**Areas for improvement:**

**Marks Awarded:**

Coursework – A mobile application for **The Cupcake Factory**– 100 Marks

Learving outcomes covred

1. To Understand mobile operating systems, development tools and technologies for the mobile application development
2. Be able to design mobile application solutions
3. Be able to implement mobile application solutions
4. Be able to test and document mobile application solutions

Scenario and the Tasks

The Cupcake Factory’s management has decided to implement a mobile application for their small bakery situated in Colombo. They have **cupcakes** for all occasions and ranges (Classic cupcakes, Themed cupcakes, Birthday cupcakes, Anniversary, New Baby, Valentine’s Day, Graduation, and Mother’s Day etc.). And also they have special offers on the different seasons.

The Cupcake Factory management wants to develop the mobile application for different user levels (Admin user and Member user).

Admin user can login, create new categories, create new cupcakes, manage categories, and manage cupcakes, view orders and process orders.

Member user can create user accounts, login, view cupcakes based on categories, order cupcakes and view order.

**Tasks**

1. Critically compare mobile operating systems, development tools and technologies for the above mention application. (Word count 1000) (LO 1) **(10 Marks)**
2. Provide the UML diagrams for the given problem with clear explanations on the design decisions. (Use case/Class/Activity). (LO 1) **(10 Marks)**
3. Design attractive user interfaces for the given scenario. (LO 2) **(20 Marks)**
4. Develop an interactive mobile application. Make sure to implement proper validation mechanisms in order to restrict invalid entries to the system. (LO 3) **(40 Marks)**
5. Include test plan, test data and proper application of the test plan. Test your mobile application according to the test plan. (LO 4) **(10 Marks)**
6. Create user and technical documentation for the developed solution. (LO 4) **(10 Marks)**

**Guidelines for the report format**

* + Paper: A4
  + Margins: 1.5” left, 1” right, top and bottom
  + Page numbers: bottom, right
  + Line spacing 1.5
  + Font style: Times New Roman
  + Headings size: 14pt, Bold
  + Normal size: 12pt
  + Referencing and in-text citation should be done strictly using **Harvard Referencing System.**

**Submission Details**

Please see Moodle for confirmation of the Assessment submission date.

**Any assessments submitted after the deadline will not be marked and will be recorded as a Non-Attempt.**

Report must be submitted to the as a MS word file to the Turnitin.

**SMIS submission: Must submit a .zip file throw the SMIS. Zip file must contain Turnitin** report with project files (contain all the project elements)

Your .zip should be titled with your Student ID Number, module code and assessment id, **e.g. st12345678\_** **CSE5011WRIT1.zip**

**Assessment Criteria**

**Task (a) contain 10 marks.**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 10** |
| **Poor**  Limited understanding of related tools and poor comparison. Limited reading, lack of depth and breadth of study | **0-4** |  |
| **Pass**   * Reasonable level of understanding of related tools and technologies for the given scenario, satisfactory level of depth and breadth of study. | **4-6** |  |
| **Good**  Reasonable level of understanding of mobile platforms and critical comparison technically, Good level of depth and breadth of study. | **6-7** |  |
| **Excellent**   * Excellent level of understanding of mobile platforms, development tools, technologies and critical comparison and proper justification for the answer, Higher level of depth and breadth of study with extensive reading and integration of information from a wide range of sources. | **7-10** |  |

**Task (b) contain 10 marks.**

**Diagrams should be evaluated according to the following criteria.**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 10** |
| **Poor**  Poor use of Design Methodology  Poor diagrams, notations and relationships | **0-4** |  |
| **Pass**  Proper use of Design Methodology  Use case Diagram   * Identification of correct use cases * Identification of correct Actors and associations   Class Diagram   * Identification of associated methods, with correct signatures and attributes in each class * Correct identification of relationships | **4-6** |  |
| **Good**  Average Design   * Clear identification of private, public access modifiers & it is visible in the class diagram * Accurate use of <<include> <<extend>> stereo types in use case diagram * Correct use of UML notations with minor mistakes   Evaluation   * Student has given basic description about the design and given a reasonable justification * Effective judgments have been made about the content and levels of information to be included | **6-7** |  |
| **Excellent**  Excellent Design   * Highly detailed diagram * Backed by relevant assumptions * Multiplicity, navigability aggregation & compositions visible in class diagrams * Excellent use of UML notation   Evaluation   * Good justification of the design * Judge validity of results * Use critical reflection to evaluate the work and justify with valid explanations   Fluency (Of design)   * Evidence of critical analysis on different perspectives covering how, use case & class diagrams support in designing. | **7-10** |  |

**Task (c) contains 20 marks**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 20** |
| **Poor**   * Poor database design/ data storing mechanism * Poor interface design | **0-8** |  |
| **Pass**   * Use a database (simple design)/data storing mechanism * Have simple user interface | **8-12** |  |
| **Good**   * More sophisticated database design and queries * Good user interface design with proper alignments. | **12-14** |  |
| **Excellent**   * More sophisticated UI, * Control alignments, Color themes, appropriate icons, images. * More sophisticated database design and queries | **14-20** |  |

**Task (d) contains 40 marks**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 40** |
| **Poor**   * Poor system implementation * Functions not working properly | **0-16** |  |
| **Pass**   * Basic data management system features. | **16-24** |  |
| **Good**   * More sophisticated data representation (e.g. several classes at business logic level) * Standard coding structure. | **24-28** |  |
| **Excellent**   * Complex functionality (Innovative aspects) * Reports being proposed to facilitate decision making. * Effective use of database operations. * Naming convention (Controls and Variables) * Proper authentication system (user login and Security concerns) | **28-40** |  |

**Task (e) contains 10 marks**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 10** |
| **Poor**   * Poor test plan and test cases. * No conclusion | **0-4** |  |
| **Pass**   * Simple test plan and test cases. * Conclusion of each test case. | **4-6** |  |
| **Good**   * Good test plan and test cases with average explanations * Suitable test data used in testing. | **6-7** |  |
| **Excellent**   * Good test plan and test cases with screen shots & average explanations. * Suitable test data used in testing. | **7-10** |  |

**Task (f) contains 10 marks**

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| **Criteria** | **Marks** | **Marks obtained by the student for the answer provided** |
| **Out of 10** |
| **Poor**  Poor standard of documentation with poor explanations.  Poor user and technical documentation for the developed solution | **0-4** |  |
| **Pass**  Acceptable standard of documentation with poor explanations.  Acceptable standard of user and technical documentation for the developed solution. | **4-6** |  |
| **Good**  High standard of documentation with screen shots & average explanations.  High standard of user and technical documentation for the developed solution. | **6-7** |  |
| **Excellent**  Professional standard of documentation with screen shots & good explanation.  Professional standard of user and technical documentation for the developed solution. | **7-10** |  |

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| **Total Marks** | **Out of 100** |  |

**Final Grading criteria:**

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| Marks | Final Grade |
| >=70 | Distinction |
| 69-55 | Merit |
| 54-40 | Pass |
| <40 | Fail |