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| Instrument of Assessment Internally Verified by: | Date: |

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| Assessor: | Date: | |
| IV Sampled by: | Date: | |
|  | Result |  |

**FORAP1.1.11: Assessment Material Cover Sheet**

Unit Number: J68V 47 (HN Next Gen)

Unit Title: Software Development

Verification Group: 357

Outcome(s): 1, 2, 3 & 4 Version: November 2024

Student Name:

**Where the assessment has not taken place under controlled conditions the student should sign and date to indicate agreement with the statement below.**

“I declare that this submission is entirely my own work, and any content by other authors has been clearly acknowledged and referenced. I understand that disciplinary action will be taken by the college if this is not the case.”

**Student Signature:**  **Date:**

**Assessment Instructions**

* You must submit this assignment no later than:

As stipulated by your lecturer.

* You may use the following equipment or resources during this assessment:

This is an open book assessment. There are no restrictions on the materials you may use.

* This assessment will be graded “Pass” or “Fail”.
* To achieve a “Pass” you must complete all the tasks in this assessment.

If your work is graded as “Fail” you will be given a re-sit. If your work is graded as “Fail” on your second attempt, you may be given a third and final assessment but only if discussed and agreed with the Academic Leader. For detailed information on the college’s assessment policy please refer to the college intranet policies area or ask your Lecturer.

If you are not satisfied with the grade awarded by your Lecturer, you should speak to your lecturer in the first instance. If you are not satisfied with this response then the Lecturer or Academic Leader will refer you to the college’s appeals procedure.

Impartial advice about the college appeals procedure is available from your studentadvisor.

**Assessment Task instructions**

In this task you are required to **analyse requirements,** **design, develop, test, and deploy** an app based on a given brief.

The application you develop must be of reasonable complexity and demonstrate competent use of code. Your app must contain graphical user interface elements such as forms and user controls.

You are encouraged to refer to study notes and previously completed code.

This assessment is open book and should be completed under the general supervision of your lecturer.

Upon completion of this assessment, you must submit the following:

1. **Requirements Specification**

* Overview of the project
* List of Functional and Non-Functional Requirements
* User Stories

1. **Design Specification**

* Pseudocode for the program algorithm
* Wireframes for the app showing how the interface components interact

1. **Completed Code Solution that includes a JAR file – zipped folder**
2. **Completed Test Log that includes:**

* Test Plan
* Test Cases
* Test Data (Normal, Boundary and Exceptional)

1. **Deployment Instructions**

* Platform requirements
* Instructions on installation

**All submitted documentation should be presented in a professional way with a front page detailing your name, date and assessment task.**

Code should contain comments and follow good-practice principles.  
  
Use the assessment checklist on the following page to ensure you have completed all tasks as required.

**Assessment Checklist** 

Name of Student: 

|  |  |
| --- | --- |
| **Skills** | **Completed Y / N** |
| **Analysis and Design** | |
| Perform requirements analysis. |  |
| Create requirements specification. |  |
| Software design including algorithms. |  |
| Create design documents. |  |
| Write code following a design. |  |
| **Code Implementation** | |
| Apply structured programming. |  |
| Implement algorithms. |  |
| Use modular code. |  |
| Use arithmetic, logic, and Boolean operators. |  |
| Use control constructs – selection and/or repetition |  |
| Use parameter passing to transfer data between functions/methods. |  |
| Use at standard libraries. |  |
| Use array data structures. |  |
| Input or output file operations (e.g., create error logs) |  |
| Use error handling techniques. |  |
| **Testing and Deployment** | |
| Create a test plan using a defined strategy |  |
| Perform software testing. |  |
| Create test logs. |  |
| Create error logs. |  |
| Write maintenance documentation - comments in code. |  |
| Write user documentation. |  |
| Software deployment process. |  |
| Deploy a software application. |  |
| Provide simple deployment instructions |  |
| **Knowledge Items** |  |
| Good programming practice - appropriate internal documentation (comments and naming conventions). |  |
| Software development tools and environments. |  |
| Syntax and semantics of a programming language. |  |
| Programming techniques including structured programming. |  |

Assessor:

Date: