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| **New Zealand Diploma in Information Systems** | | |
| **Course No: 5607** | **IS Application Project** | **Level: 5**  **Credits: 30** |

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| **Student Name(s):** | **Student ID(s):** |
| **Assessment Type: Portfolio** | **Weighting: 100%** |
| **Due Dates: Please see page 4** | **Total Marks: 500 marks** |

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| **Student declaration**  I confirm that:  • This is an original assessment and is entirely my own work.  • The work I am submitting for this assessment is free of plagiarism. I have read and  understood the [Academic Integrity Procedure](https://thenest.unitec.ac.nz/TheNestWP/wp-content/uploads/2019/05/AC-2.8-Academic-Integrity-Procedure.pdf) here. I have also read and understood  the [Student Disciplinary Statue](https://thenest.unitec.ac.nz/TheNestWP/wp-content/uploads/2020/07/Student-Disciplinary-Statute-FINAL-Feb-2020.pdf) here.   * Where I have used ideas, tables, diagrams etc. of other writers, I have acknowledged the source in every case. | |
| **Student Signature:** | **Date:** |

**Assessment Mapping**

After completing this assessment, the student will have met the following learning outcomes related to the graduate profile outcome.

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| **Graduate Profile Outcome** | **Learning Outcome** | **Stage 1** | **Stage**  **2** | **Stage 3** | **Stage 4** | **Stage 5** | **Stage**  **6** |
| Apply core project planning management skills, including knowledge of project life cycles, to contribute to managing resources and producing relevant technical documentation for an information technology (IT) related project | 1. Apply project planning and management skills to design and monitor an information systems solution project. |  |  |  |  |  |  |
| 2.Apply documentation skills to produce technical report for the information systems project. |  |  |  |  |  |  |
| Apply core business modelling and analysis skills to information systems  development, and core skills in data modelling, database concepts, database  management and design, to implement and administer a database management  system that meets organisational requirements. | 3. Apply technical skills in database design and development, software development and human computer interaction (HCI) to an information systems project. |  |  |  |  |  |  |

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| Apply design principles and core skills in human computer interaction (HCI) to design and develop an accessible and responsive information systems  prototype, and test for usability, accessibility and user experience. | 3. Apply technical skills in database design and development, software development and human computer interaction (HCI) to an information systems project. |  |  |  |  |  |  |
| Apply development methodologies and the fundamental principles of software  development, including fundamental mathematical and logical concepts that  underpin computational and systems thinking, to plan, design, develop, test,  quality assure, secure, document and deploy a software system to meet  organisational requirements. | 3. Apply technical skills in database design and development, software development and human computer interaction (HCI) to an information systems project. |  |  |  |  |  |  |
| Apply communication, collaboration, teamwork, documentation and customer  service skills to enhance effectiveness in an IT role. | 4 Apply communication and problem- solving skills in a professional manner for information systems outcome. |  |  |  |  |  |  |
| Apply critical analysis and decision-making techniques to solve problems and  provide relevant and timely IT outcomes. |  |  |  |  |  |  |

**Assessment information:**

* This is an individual assessment.
* Your portfolio consists of 6 stages.
* You will apply project management and technical skills to develop an information systems (IS) project in Stages 2, 3, 4, and 5.

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| **Stages** | **Submission Dates** | **Marks** |
| Stage 1: Assigning problem | - | - |
| Stage 2: Project Plan | - | - |
| Stage 3: Project Development | - | - |
| Stage 4: Presentation | 1pm, 23nd & 24th November, 2021 | 20 |
| Stage 5: Technical Report and Product | 5pm, 24th November, 2021 | 430 |
| Stage 6: Evaluation | - | 50 |

* The portfolio must be presented professionally. Presentation style should follow professional guidelines with 1-inch margins. The font size 12, Arial or Calibri; 1.5 – line spacing for the body of the report.
* Acknowledge all the sources that you have used for gathering information by citing the source in the text and a reference list at the end using APA 7th edition guidelines. Link to the guidelines <https://guides.unitec.ac.nz/apareferencing/introduction>
* Submit your project status report onto Moodle every two weeks.
* Submit your timesheet (plus any supporting evidence) onto Moodle each week.

**Stage 1: Assigning Project**

* Your lecturers will assign you a project and provide you with a document consisting of a set of requirements for an IS application.

**Stage 2: Project Plan**

* Prepare a project plan based on the IS application project assigned by your lecturers.

**Stage 3: Project Development**

Develop the IS application project from analysis to conclusion.

* Your use case diagram should show all 32 use cases.
* Your overall class diagram should show all classes mentioned in the requirements.
* Your database should include all the tables (populated with sample data) mentioned in the requirements.
* Business use case descriptors (narratives), activity diagrams, design use case descriptors (narratives), sequence diagrams, annotated user interface designs, test plan, and code needs to be only done for the main menu and the eight high priority use cases.

**Stage 4: Presentation (Total = 20 marks)**

**Instructions:**

* You will deliver a presentation on your IS application project developed

in stage 3.

* The lecturers will decide the time of your presentation.
* Your presentation needs to be a maximum of 10 minutes.

* You need to develop a workable structure for your presentation by breaking

your timeframe and information into smaller pieces such as introduction,

demonstration and conclusion.

* You need to prepare a visual presentation using Microsoft PowerPoint.

* You need to submit a copy of your presentation slides after you have

presented.

* Your presentation may be recorded for marking and moderation purposes.
* Familiarise yourself with the attached observation checklist to ensure you meet the requirements.
* Your lecturers will complete the attached observation checklist.

**Presentation observation checklist**

Name of Student:

Name of Observer:

Date and time of Presentation:

Indicate if the student has met the criteria during the process of achieving the objective.  Use the space to add comment for feedback to the student and for moderation purposes.

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| **Observation** | **Comment** | **Max mark** | **Your mark** |
| Appropriate body language (includes movement and gestures) |  | 3 |  |
| Appropriate usage of voice, pronunciation and volume |  | 3 |  |
| Language used is suited to the audience (fits purpose, audience and context) |  | 3 |  |
| Student spoke for between 8 and 10 minutes |  | 1 |  |
| The application is demonstrated in a logical manner. |  | 10 |  |
| **TOTAL** |  | **20** |  |
| Extra Notes: | | |  |

Observer’s Signature:

**Stage 5: Technical Report and Product (Total = 430 marks)**

In this stage you need to complete and submit your technical report and product

**Project submission instructions:**

Your technical report and product (project web site and/or desktop application) are due by **5pm** **on Wednesday, 24th November, 2021.**

1. Upload your technical report to Moodle.
2. Upload all your product (project web site and/or desktop application) files to Dochyper/Moodle.

This submission is divided into two parts.

**Part 1: Technical report (330 marks)**

## **Instructions:**

1. Prepare a technical report that provides a narrative of the project process using the ‘Technical Report Template’ provided on Moodle.
2. While preparing the technical report follow the instructions given in Table 1.

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| --- | --- | --- | --- |
| **Table 1**: Technical Report required sections and elements | | | |
| Technical Report sections and elements | | | Marks |
|  | **Section** | **Element** |  |
|  | Cover page | * IS project title, project name, lecturers, date submitted | - |
|  | Table of contents | * Major headings and subheadings | - |
| 1 | Document Control | * Version history * Glossary | - |
| 2 | Executive summary | * An abstract providing a concise summary of the main sections of the report | 5 |
| 3 | Introduction | * State purpose clearly and gives background of the project including justification | 5 |
| 4 | Technology Review | * Review current technologies * Compare/contrast current technologies * Argue/justify the necessity of the project * Connect the findings to the project | 5  4  4  4 |
| 5 | IT Methodology | * Select systems development lifecycle * Mapping of project phases to selected SDLC | 2  3 |
| 6 | Project Management | * Project management narrative that details with evidence how the development of the project followed the selected systems development lifecycle and documents any changes that were made to the project plan. * Project plan with milestones and tasks that account for 300 hours work. * Project meeting type and frequency (i.e., with lecturers). * Project status reports. * Project risks and issues analysis. | 60 |
| 7 | Requirements Analysis | * Analysis of project requirements (use case diagram, overall class diagram, business use case descriptors (narratives), and use case activity diagrams) | 40 |
| 8 | Project Design | Design the model for the solutions(s) to the project based on the project requirements and methodology. This should include:   * Software list * Version control software * Design-level use case descriptors * Sequence diagrams * Deployment diagram with descriptions * Database design * Annotated interface designs * Test plan (place in appendices) | 2  2  10  40  4  6  40  36 |
| 9 | Project Training | * End user identification and training objectives * Training materials * Training deliverables (6 to 10 minutes training video) * Evaluation and improvements | 5  5  15  5 |
| 10 | Conclusion and Lessons Learned | * Reasonable conclusions, given the overview of the project. * Lessons learned whether the project is successful or a failure. * Recommendations for next steps as a result of this project. | 4  3  3 |
| 11 | References | * A minimum of 10 sources are required and a reference list that is formatted according to APA 7th edition guidelines. | 4 |
|  | Appendices | * Supplementary materials relevant to the project (project status reports and project meeting minutes) | - |
|  | Clarity & Format | * Professional presentation style and report writing. | 14 |
| **Total** | | | **330** |

**Part 2:** **Product (100 marks)**

## **Instructions:**

The final product, as described in your Technical Report, will include software elements given in Table 2.

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| **Table 2**: Final product required elements | | |
| Elements | | Marks |
| 1 Interface | Development of user interface designs | 20 |
| 2 Application | Implementation of functionality  Use Case 1 (10)  Use Case 2 (10)  Use Case 3 (10)  Use Case 4 (10)  Use Case 5 (10)  Use Case 6 (10)  Use Case 7 (10)  Use Case 8 (10) | 80 |
| **Total** | | **100** |

**Stage 6: Evaluation (Total = 50 marks)**

**Professional Behaviour**

This stage is marked by the lecturers based on your observed performance throughout the eight weeks.

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|  |  | **Marks** |
| Professional Behaviour | * Timesheets filled out accurately and correctly and submitted weekly on time. * Supporting evidence compiled correctly and submitted weekly on time. * Attendance and punctuality at meetings. * Attendance, punctuality, and professional behaviour in class. | 50 |