**Diploma in Software Engineering and Design**

**Assignment Cover Sheet**

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| **Course name:**  Diploma in Software Engineering and Design | **Student’s name:**   Kyle Harvey |
| **Assignment title and/or number**:  Final Major Project | |
| **Assessment weighting** | *30 credits,* |
| **Due date**: | **Date submitted**:  (late submissions incur 10% penalty, after 7 days late, the assessment will not be marked) |
| **Assessment conditions:** | This is a resource-based assessment. This means that you may have access to any relevant resources to assist you. This could include, for example, your learning materials, information on the Internet, and so on. However, all work must be your own with no assistance from any other person. |
| **Submission requirements:** | You’re required to submit the following into your assignment submission directory:   * Required Documentation for the project * Visual Studio or Xamarin project files * Any database files     Also upload your assessment on Github and share your repository link |

These tasks are designed to produce evidence for the assessment of Unit Standard:

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| **Number** | **Title** | **Level** | **Credits** |
| **6760** | **Plan and manage a project in the computer field** | **7** | **30** |

***Objective:***

People credited with this unit standard can: produce a proposal for a project in the computer field; undertake and manage a project in the computer field; demonstrate a professional attitude while undertaking a project in the computer field; and review a project in the computer field.

This assessment is in three parts.

**Part 1: Project Proposal**

**Part 2: Project Execution**

**Part 3: Project Review**

**Part 1: Project Proposal**

***Step 1***: Determine a suitable mobile app or web app or a combination of both

The project should take you approximately 20 days effort to complete. You will need to discuss the scope of the project with your tutor before submitting your project proposal.

It is important that you undertake a project that is achievable in the time allowed, and this may result in you undertaking a reasonably self-contained working subset of the total requirements.

The project is expected to include:

* systems analysis - an investigation of the requirements of the target system with an emphasis on user needs
* systems design - an overall coverage of the way the requirements will be met by a computer-based system – it is expected to be a single-user system with **no** dependency on data-communication for the primary facility
* programming - the nominated functionality completed as a working system
* documentation – minimal reference for the user

Page Break

***Step 2:*** Produce a project proposal.  The project proposal must contain:

**Project Goal** – describe in a single sentence what you will have when you are finished.

**Project Objectives** – list the objectives of the project – what are the reasons for doing it, what is the intended product designed to achieve. For example, in designing a system that automates a manual process, objectives might include reducing time taken on the process, reducing human error, etc.  Also include what you intend to gain from the exercise.

**Project Scope** – define exactly what you are going to produce. This may be produced as a list, a diagram, storyboard or any other appropriate medium. This section is very important, as it will determine whether you have completed the project or not. If you can define exactly what you are producing at the beginning, it will make completing the project and communicating results much easier. Points to consider:

1. Context - e.g. a satellite monitoring facility to be used by Radio Amateurs
2. Target language platform
3. Stakeholders of the product (i.e. who will be the end users)
4. What you will **NOT** be doing (i.e. what is out of scope)

**Project Deliverables** – List exactly what you intend to include in the final package

For example:

1. Analysis documentation - what needs must be met by the system
2. Design documentation - how these needs are to be satisfied
3. Executable program - set of programs
4. User documentation
5. Quality plan - how you intend to ensure your user(s) approve of the quality of the result.
6. Executive Summary of the project - including host hardware and software requirements

* **no** investigation is expected of hardware alternatives, hardware costing, necessary accompanying software purchases, etc.
* any consideration of fees, project costing, etc. are excluded
* arrangements for ownership of the code may be included if relevant

1. Presentation of your project to the class
2. Constructive critical analysis of key learning from the exercise

**Resources**

List what you will require to complete the project. Show how the project requirements will be met, including allocation of class time and own time

Include details of hardware, software, user input, yourself, mentoring you hope to enlist.

**Project Milestones**

List the milestones of the project and the expected date that they will be achieved. You will need a milestone for the completion date of each deliverable, but there may also be others along the way that require measuring. For example, “Completion of user interviews”, which is part of the analysis documentation deliverable.

**Project Schedule**

List all the activities you will need to do to complete the deliverables, along with expected time needed to perform them and dates they are due by.

Examples of activities you may want to include are:

1. Completion of initial investigation
2. Design Drafted
3. Design signed-off
4. Prototype program completed
5. Stages of program refinement signed-off
6. Program completed
7. Program tested
8. System documentation completed
9. User acceptance completed
10. User report on system acceptability completed

**Project Assumptions**

List the assumptions you have made while producing the plan. For example, “that users are available during the project to provide information” or “that software is available at the client site”.

**Part 2 – Complete the project**

Undertake your project as per the plan.

Keep a project journal that shows how much time you have spent on the project, what you have achieved, any issues you found, major highs and lows, lessons learned etc. You will need to hand this in for Part 3, so the more you write now, the easier the last stage will be!

Arrange a weekly meeting with your tutor and the project sponsor (client).

Prepare an agenda for those meetings that includes checking progress, review of issues, possible issues (risks) and tasks coming up. Complete minutes and action items following those meetings.

Prepare a simple report for each meeting that shows how you are doing against the project plan, and whether the plan needs updating to reflect any changes you have agreed with your tutor and sponsor.

**Part 3: Review your project**

***Step 1:*** Produce a post project review report on your project. The report is to be written formally, and must include:

1. Final Product/Outcome - a description of what you produced

1. Product quality – what you delivered and what you expected to deliver, and the reasons for any variation.

1. How it measured against objectives and measures of success

1. An evaluation of how well you thought the project went – what were the major successes, weaknesses and lessons learned.

1. Future scope

1. Your project journal as an attachment

***Step 2:*** Prepare a 10-minute presentation based on your report and deliver to your class. You may quickly demonstrate your product if time allows, but it is not essential to do so. It is more important that you deliver the bulk of your report.

**Marking**

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| **Assessment** | **Marks** |
| Project Proposal | 10 |
| Project Execution | 70 |
| Project Review (Documentation and Presentation) | 20 |