COM668 Project Handbook

2022-2023

School of Computing

Contents

1 Introduction

Welcome to the Project Module COM668, this handbook is designed to be the main guidance document for the conception, execution and submission of your final year project.

Please note that this handbook is complemented by a series of lectures where some aspects of the handbook and the project, in general, will be discussed with the Module Coordinator.

Lecture slides, assessment criteria, forms and submission areas are available in the module area of Blackboard Learn and Microsoft Teams, which you can access through the portal.

At the beginning of the semester, you will be allocated a Mentor, your Mentor will guide you and also provide feedback through the execution of your project. Mentor allocation is published in Blackboard and Teams, please arrange a first meeting with your Mentor as soon as possible to discuss your project proposal.

Note that the preferred form of direct communication between your Mentor, Project Coordinator and yourself is Teams and email, so please check both daily for important notifications regarding your project.

Please read this handbook carefully before you start your project. If you have any queries, please raise them with your Project Mentor in the first instance or with the Project Coordinator.

Best of Luck with your project

George Moore
COM668 - Project Coordinator

2 Roles and Responsibilities

Your Final Year Project is led by you, there are several deadlines that have been already set for you but the planning, implementation and management of your project is your responsibility.

There are various academic members of staff that will provide support along the way:

- **Project Mentor:** At the beginning of Semester 1, you are assigned a Project Mentor, their role is to guide your work in the project. They are responsible for specifying directed reading material, advising on the technical direction of the project and for monitoring your progress with respect to the overall project schedule. It is expected that you will meet with your Mentor regularly to review progress, however, it isyour responsibility to arrange these meetings.
- **Project Coordinator:** The Project Coordinator will provide lectures and tutorials on generic project-related topics. The Project Coordinator is also responsible for the module and as such oversees the deadlines, deliverables, schedule of presentations and demonstrations, etc.
- **Markers:** Your project will be assessed by 2 members of academic staff, one of which will be your Mentor. They are responsible for marking and providing feedback as appropriate to each of your submissions.

As a student taking this module and as the leader of your project, you are expected to:

- Integrate and apply knowledge and skills acquired from other modules in the course to the project;
- undertake project specific study and investigation;
- follow strictly any safety or ethical regime agreed with your Mentor;
- cooperate in ensuring the security of your project work, and to maintain the security of any relevant backups or electronic data of any kind;
- meet all deadlines specified, ensuring timely submission of correctly prepared deliverables.

3 Proposing a Project

Every student needs to propose and execute their own project, this is a 2-step process.

Step 1: The Proposal Ideas Using the *Project Proposal form* provided (see Blackboard and Teams), each student drafts and submits, via email, a maximum of TWO project proposals to their assigned Project Mentor. [Maximum length of each proposal is TWO sides of A4] and arranges a meeting, to take place early in week 2 at the latest. (proposals and request for meetings should be made before the semester starts).

Each project proposal must include material under each of the following section headings:

1. A draft title of the project.
   Create a succinct, yet clear, non-ambiguous title for your project.

2. Project Description (300 Words).
   Provide a brief background to the origin of the project proposal. Indicate clearly why the project outputs are needed (what is the specific "problem" which the project will address) and the intended user audience (how widely will your software solution be adopted) and what is expected to be produced.

3. Project Aim
   State the aim of the project (approximately 50 words)

4. Copyright, Intellectual Property Rights or Commercial Sensitivity.
   If appropriate, provide evidence that any issues of commercial sensitivity, intellectual property rights or data protection associated with the project which may be of concern to stakeholders have been noted and resolved to the satisfaction of all parties. If these matters do notneed to be considered simply state that the project does not raise is- sues relating to copyright, intellectual property rights or commercial sensitivity.

5. Indicative hardware and software resources to be utilised within the project.
   Indicate the resources required (both hardware and software). There is a need here for you to ensure that there are no restrictions or similar on acquiring or accessing these resources and ensuring appropriate support for these is in place for the duration of the project.

6. References
   Where appropriate provide references to published works which support your framing of the project background and/or demand for the project deliverables. If you have none, simply state "None".

Step Two. The Project Proposal Review Process:

The acceptability of each project proposal is assessed by the Project Mentor in relation to the following criteria:

1. Does the proposed project title make sense?
2. Does the proposed project meet a real need in a wider context?
3. Does the proposed project provide an opportunity for the student to self-manage a significant piece of work?
4. Does the proposed project provide an opportunity to synthesise information, ideas and practices, to identify a significant "problem", produce a significant "solution" together with an evaluation of that solution?
5. Does the proposed project afford an opportunity for the student to demonstrate innovation and creativity?
6. Are the indicated resources required available to enable the project to be completed?
7. Is the proposed project achievable within the project timescale of 400 hours of student effort?
8. Does the proposed project satisfy the BCS requirements for "General project requirements" and "Undergraduate individual project requirements"?

Once a project topic is agreed with your Mentor, the project needs to be formalised by completing a *Project Proposal form*. Once completed, the selected Project Proposal form must be agreed with the supervisor during a meeting that should be held before the submission deadline. Once agreed, the final proposal document should be uploaded to Blackboard on the appropriate submission area.

Note: Failure to upload the document by the deadline will result in the project not being allowed to proceed until this submission is completed.

4 Project Deliverables and Deadlines

The following table outlines the key dates, actions and responsibilities with respect to the project deliverables for the academic year. The Project has two assessment points, one at the end of semester 1 and the other at the end of semester 2. These are referred to as Assessment Point 1 (AP1) and Assessment Point 2 (AP2) respectively. All deadlines within an assessment point relate to the associated semester.

Assessment Point 1 (AP1)

Deliverable	Deadline	Action	Responsible
Agreed Project Proposal	Monday 10 October 2022 at noon	Proposal uploaded to Blackboard	Student
Ethics application	Friday 28 October 2022 at noon	Ethics application form completed online	Mentor
Health and Safety application	Friday 28 October 2022 at noon	Health and Safety form submitted to Blackboard	Student (signs) and Mentor (signs and uploads)
BCS Guidelines assessment	Friday 28 October 2022 at noon	Review of project proposal against BCS project guidelines on Blackboard	Mentor
AP1 Project Report	Thursday 5 January 2023 at noon	AP1 Project Report uploaded to Blackboard (TurnitIn)	Student
AP1 Source Code Manifest	Thursday 5 January 2023 at noon	A table, as an appendix to the AP1 Report	Student
AP1 Source code	Thursday 5January 2023 at noon	AP1 source code and assets uploaded to Blackboard	Student
AP1 Video Demonstration	Thursday 5 January 2023 at noon	AP1 Video Demonstration submitted to Blackboard (Panopto)	Student

Assessment Point 2 (AP2)

Deliverable	Deadline	Action	Responsible
AP2 Project Report	*Monday 8 May 2023 at noon*	AP2 Project Report uploaded to Blackboard (TurnitIn)	Student
AP2 Source Code Manifest	*Monday 8 May 2023 at noon*	A table, as an appendix to the AP1 Report	Student
AP2 Source code	*Monday 8 May 2023 at noon*	AP2 source code and assets uploaded to Blackboard	Student
AP2 Video Demonstration	*Monday 8 May 2023 at noon*	AP2 Video Demonstration submitted to Blackboard (Panopto)	Student
AP2 Oral Examination	Week commencing Monday 29 May 2023 *(keep entire week available)*	Oral examination of the AP2 deliverables	Student, Mentor and Marker

Note: Failure to submit any of the AP1 and AP2 deliverables by the appropriate deadline or attend any of the assessment sessions will result in a non-submission being recorded against the full assessment point.

5 Peer Support Groups (PSG)

At the beginning of Semester 1, all the students sharing a Mentor are considered to be part of a "Peer-Support Group" (PSG).

The intention of the groups is to:

- Provide an informal, 'safe' and 'non-threatening' forum wherein project related topics can be brought forward, explored and developed among peers.
- Facilitate free discussion and exchange on matters relating to the project.
- Permit members to offer constructive criticism and support to peers.
- Collectively identify the strengths, weaknesses, risks and opportunities of an individual's approach to, and progress through the project development life cycle.

During both semesters, each group should meet weekly in the PSG's private MS-Teams channel and maintain a written record of the outcomes of the meeting and any issues that require the attention of the project coordinator. The meeting should be chaired by a different student each week and that student is responsible for completing any minutes from the meeting.

Each week, the Project Mentor can help the chair organise the video meeting. These meetings will take place remotely via a video meeting inside the PSG's private MS-Teams channel. It is recommended that students have a headset with microphone for attending the meetings as well as a web camera installed on the computer they plan to use for the meeting.

Meeting Format:
Beginning with the Chairperson, each member, in turn, briefs the group on their individual project. Considering specifically the past week, each speaker will detail progress made, difficulties encountered and workarounds. Each speaker will end by stating as simply as possible their objectives for the week ahead (and will begin future briefing updates by referring to the progress made in achieving these objectives).

Led by the Chairperson, the group will discuss any group topic that may have been set by the Project Coordinator. (Group topics will occasionally be set such as, 'What characterises a good project?')

At the end of the meeting, the Chairperson will agree with the group a record of the meeting under each of the following headings:

- PSG Group Name, Week Number.
- members of the group present/not present.
- issues discussed.
- any issues for the attention of the Mentor or project coordinator.

After every meeting takes place, any minutes of the meeting should be recorded in the file Area of the PSG's private MS-Teams channel, for the Mentor to review. The file should be named "PSG Group x Week y Minutes". If there is an issue that needs immediate action by the Mentor then the chairperson should email the issue to the Project Coordinator, attaching a copy of the minutes where the issue to be addressed was raised. Please use email Subject: "PSG Group x week y " and state the issue clearly within the body of the email message, not as an attachment. Likewise if there is an issue for the attention of the Project Coordinator then the chairperson should email the issue to the Project Coordinator, following the same guidelines.

Please have your first PSG meeting organised and carried out by the end of week 2 of Semester 1.

6 Timetabled Mentor meetings (Semester 1)

During semesters 1, there will be some time set in the timetable for group meetings with the Mentors. In these meetings the PSG can meet with the Mentor and discuss issues that are relevant to every member of the group. These sessions will start in week 2 and take place every 2 weeks until week 12. These meetings will take place as video meetings within the PSG's private MS-Teams channel, just like regular PSG meetings.

In addition to these timetabled sessions, you can also schedule one-to-one meetings with your Mentor so that you can get individual feedback on your progress from your Mentor and demonstrate project management skills. These meetings can also be conducted using MS-Teams or in-person. The Mentor will issue an appropriate invitation once the date, time and have been agreed. It is recommended that you enable the screen sharing capabilities of your computer before attending these meetings online.

Note: It is your responsibility to request meetings with your Mentor. When doing this, be mindful of your Mentor's academic load as well as yours. Your Mentor should be able to provide you with a time slot that suits both of you.

7 Group Mentoring Sessions (Semester 2)

Group meetings with the Mentors should continue during semester 2 (every 2 weeks starting in week 2), however, due to timetable constraints, these meetings should be arranged with the Mentor as a group. In order to organise this, the PSG should get in touch with the Mentor early in week 1 and agree with the mentor on a date and time.

As in semester 1, you can also schedule some one-to-one meetings with your Mentor so that you can get individual feedback on your progress from your Mentor and demonstrate project management skills. These should be arranged in the same manner as during semester 1.

8 Execution of the Project - The Live Document

Assessment for the module takes place in both semester 1 and semester 2. You are required to design, develop, report and defend a solution to your chosen topic. This work must show a strong design, technical and management ability.

As you design and implement your solution, you will generate a number of artefacts and attain associated learning through practice. You are expected to report on these artefacts, the associated learning, and the surrounding practice by maintaining a **live document** that will eventually become the final report for the module.

All of this work should evidence a well structured and managed approach that shows steady and timely progress being made throughout the module.

Assessment of student progress takes place at the end of each semester and takes the form of an evaluation of the documentation, technical work, practice and learning evidenced up to the point of assessment.

Good management of the project is considered important, including the timeliness of progress and the level of engagement in activities throughout the module.

Your Mentor will agree with you a method of sharing the live document, on an on-going basis. Typically this will be a shared OneDrive folder that they have shared, into which you can place updates to the live document and other material that might help to inform mentoring meetings.

9 AP1 Deliverables

The AP1 Report, Video Demonstration, source code and Code Manifest should be submitted for assessment in keeping with the deliverable schedule detailed in section 3 of this handbook. These deliverable account for 25% of the available project module marks.

Note: Failure to upload any deliverable by their stated deadline will result in a non-submission being recorded against the full Assessment Point.

The AP1 report should contain the following sections and should follow the presentation guidelines established below:

9.1 AP1 Report Structure

It is recommended that the report should be presented using the following guidelines:

- Page Size: A4
- Margins: 1.27cm on every side
- Font: Calibri size 12 - Size 14 for headings
- Arrangement: Single Column
- Spacing: 1.0

The report consist of 6 interwoven sections:

1. Context and Definition of the project.
2. Clear Statement of Project Aim and Objectives
3. Initial investigation of the context and literature, including, other similar products/solutions.
4. Initial Project Plan
5. Risk Assessment
6. Details of Initial Functional Prototype Software Targeting an identified risk.

The AP1 Report has limitations in the number of words and/or pages you can write and should be structured as follows:

1. **Title Page:** Title of the project, author details and course details. (1 page)
2. **Chapter 1 - Introduction**
   - Problem Elucidation and Statement (approximately 1000 words)
   - Project Aim (100 words)
   - Project Objectives (Bulleted list of objectives to be achieved)
3. **Chapter 2 - Literature Review**
   - Literature Review Part 1: Initial investigation on the project/problem context area (5 pages max)
   - Literature Review Part 2: Similar solution investigation and analysis (5 pages max)
4. **Chapter 3 - Project Plan & Requirement Specification**
   (a) Stakeholder identification.
   (b) Justification of Requirement Gathering Methodology to be used for the construction of the system requirements and summary of the results obtained from the use of such methodology.
   (c) Justification of requirements prioritisation strategy used.
   (d) System Requirements Specification (tables for requirements as neededwith explanations)
   (e) Justification for selected Software Lifecycle Methodology to be followed.

(f) Implementation Plan

- Work Breakdown Structure: Figure/table & effort estimation
- Gantt Chart: Figure (1-2 pages)
- Resources identification

(g) Verification Plan

(h) Validation Plan

5. **Chapter 4 - Project Risk Assessment**

   (a) Risk Assessment (table & mitigation strategy (approximately 500 words) - focus should be on technical risks).

6. **Chapter 5 - Initial Functional Prototype**

   (a) Rationale for selection of the risk to be addressed by the Initial Prototype

   (b) Design Artefacts for the Initial Prototype (with individual explanations, each approximately 300 words).

7. **References & Bibliography**

   - no limit in length but need to use the Harvard Style
   - More Information on the Harvard Referencing Style can be foundon the Library Referencing Guide

8. **Appendix A: Code Manifest**

   - A table listing the submitted source code files that you have contributed to. Each entry should include: the purpose the file plays within the project, whether you created or modified the file, a brief statement of your contribution to the file.

9.2 AP1 Source Code

The source code and all associate assets required to deploy the project software should be uploaded to the relevant Blackboard assessment as a Zip file. Please note the requirement to provide a separate Source Code Manifest as an appendix to the AP1 Report.

9.3 AP1 Video Demonstration

In order to complete this part of the assessment, you should produce a functional prototype and present a demonstration of the prototype and its

underlying code in the form of a video walkthrough, of 10 minutes in duration. You can use Panopto to help you to produce the video screencast.

Please take the advice of your Mentor when selecting an identified project risks that can be mitigated by carrying out an initial implementation of the software solution of your project,

Note that the related design artefacts should be created and included in the AP1 Report being submitted under the appropriate chapter (see Design Sectionof Final Report for guidance on which artefacts could be produced). Additionally, the source code and source code manifest for the prototype should be provided as detailed separately.

During the video demonstration of your prototype you should address the following items:

- State the risk being mitigated
- Demonstrate the functionality of the prototype (approx. 5 minutes in duration)
- Walkthrough the underlying source code to explain how it works (approx. 5 minutes in duration)
- State how successful the prototype work was at addressing the identified risk

Feedback and Actions resulting from Feedback: Feedback on the submission will be provided by your Mentor & Marker in keeping with University policies of feedback. You should arrange a meeting with your Mentor to discuss the feedback of your initial assessment before the beginningof the Semester 2. This feedback should be acted upon by you and be reflected in the next stage of assessment.

10 AP2 Deliverables

The AP2 Report, Video Demonstration, source code and Code Manifest should be submitted for assessment in keeping with the deliverable schedule detailed in section 3 of this handbook. These deliverable account for 75% of the available project module marks.

Note: Failure to upload any deliverable by their stated deadline or failure to attend the oral examination will result in a non-submission being recorded against the full Assessment Point.

The AP2 report should contain the following sections and should follow the presentation guidelines established below. Please note that the structure of the report is fixed and the structure/guidance provided below **MUST** be followed.

10.1 AP2 Report Structure

It is recommended that the report should be presented using the following guidelines:

- Page Size: A4
- Margins: 1.27cm on every side
- Font: Calibri size 12 - Size 14 for headings
- Arrangement: Single Column
- Spacing: 1.0
- **Note:** The number of words in each of the sections is indicative of the appropriate number of words that need to be used to provide an appropriate narrative/justification . If required (in consultation with your Mentor) you can exceed this number. When specified, the limit in number of pages is a strict one and must be adhered to.

1. **Title Page**
   Project Title, student name, student number, course, date (e.g. April 2021)
2. **Abstract (500 Words)**
   The purpose of the abstract is to give a summary of the overall project, enabling the reader to gain an impression of the origins, aims, nature and final results of the work, without having to read the detail of later chapters. The abstract should not exceed 500 words.
3. **Acknowledgements/Dedication - (Optional)** This section is your opportunity to acknowledge the help and advice given by staff, fellow students and other where appropriate.
4. **Index of Contents**
5. **Chapter 1 - Requirement Control Document & Modification of the Project Plan**
   - Provide a table with the Final List of Requirements (appropriately

labelled and organised, include prioritization, along with a risk assessment in a separate table)

- Provide a Narrative of Requirements Evolution
- Provide a Narrative for Modifications done to the project plan (include new Figures/tables as needed)

6. **Chapter 2 - System Design**

- Provide a narrative of the approach to design.

2.1 System Design
Provide the System Architecture Diagram and its explanation (approximately 300 words).

2.2 Interface Design

- Provide your interface storyboards and wireframes, explain each figure (5 Pages Maximum)
- Provide a narrative establishing your consideration for HCI and Usability/Accessibility of the User Interface.

2.3 Data Support Design

- Provide a narrative for the consideration of Security and Data Validation
- Provide a Database or Data Structure Design (project specific) for example:
  - ER Diagram or Data Structure with an appropriate explanation (approximately 300 words)
  - Any other relevant data design consideration artefact (with approximately 300-word explanation per artefact provided)

2.4 User Interaction Design

- System Flow Diagram and/or Use Case Diagram with appropriate explanation and justification (approximately 300 words each)

2.5 Additional Design Artefacts (topic Specific)
Each artefact provided should be supported by an appropriate explanation (approximately 300 words each).
Examples of artefacts that could be provided:

- Activity Diagrams
- Algorithms

- Decision Trees
- UML diagrams, etc.

7. **Chapter 3 - System Implementation**

- Reflection on the Implementation Plan and execution of the plan.
- Provide a summary and rationale for tools, languages, databases, APIs, frameworks, etc. used in the implementation of the project. (approximately 1000 words)
- Provide evidence of the use of version control (Git Commit screen-shot or rail-track) and development narrative. (approximately 300 words)
- Provide a summary of the volume of code produced (by you) using meaningful units of measurement. (i.e. X web-pages, Y server-side scripts, Z queries, W classes, S procedures, T functions, etc. as appropriate for your project)
- Provide a System Walkthrough using screenshots of the interface and code (or pseudo-code as appropriate) with brief explanations. (5 pages maximum)
- Provide a Narrative for consideration of security implementation.

8. **Chapter 4 - System Verification**

- Reflection on the Verification Plan and execution of the plan
- System Verification Results (Work-Product Meets its Requirements): Provide a table specifying test cases matched to system requirements. Use the sample table below for the headings and adapt it to your project.
- Provide any other evidence artefact that demonstrates that system verification has taken place through the project (Figures + 300-word explanation each.)
- Provide a confirmation Statement that the system meets/does not meet the requirements (100 words)

Test#	Desc. of test	Data	Req. tested	Expected Result	Actual Result	Pass/ Accept/ Fail Indication

9. **Chapter 5 - System Validation**
   - Reflection on the Validation plan and execution of the plan.
   - Provide the System Validation Results (Product Meets User Expectation in their Environment).
   - Provide Other Work Products Resulting from Validation (Figure
   - + 300 words explanation each)
   - Consideration for Future Work
10. **Chapter 6 - Conclusion and Reflection**
   - Critical appraisal of the project (approximately 500 words)
   - Reflection on Project Plan (approximately 500 words)
   - Reflection on appropriateness of initial time/effort estimation (approximately 500 words)
   - Reflection on appropriateness of Software methodology used (approximately 500 words)
11. **References & Bibliography**
   - There is no limit in length to this section but need to use either Harvard Style.
   - More Information on the Harvard Referencing Style can be found on the Library Referencing Guide
12. **Appendices**

13.1 **Appendix A: Final Requirement Formal Format**
   - This appendix should contain all the project final set of requirements presented using VOLERE or IEEE template as appropriate

13.2 **Appendix B: Additional Artefacts required for the Project**
   - This appendix should only be constructed in consultationwith your Mentor. Essential artefacts for the design, implementation, verification and validation of your project should be presented on the text of the report (there is no actual limit to the number of artefacts presented in the text. In exceptional circumstances, there might be some artefacts that might need to go into this appendix but your Mentor should provide guidance and approval.

13.3 **Appendix C: Code Manifest**
   - A table listing the submitted source code files that you have

contributed to. Each entry should include: the purpose the file plays within the project, whether you created or modified the file, a brief statement of your contribution to the file.

10.2 AP2 Source Code

The source code and all associate assets required to deploy the project software should be uploaded to the relevant Blackboard assessment as a Zip file. Please note the requirement to provide a separate Source Code Manifest as an appendix to the AP2 Report.

10.3 AP2 Video Demonstration

In order to complete this part of the assessment, you should completed the development of your project software and present a demonstration of the software and its underlying code in the form of a video walkthrough, of 15 minutes in duration. You can use Panopto to help you to produce the video screencast.

Note that the related design artefacts should be created and included in the AP1 Report being submitted under the appropriate chapter (see Design Section of Final Report for guidance on which artefacts could be produced). Additionally, the source code and source code manifest for the prototype should be provided as detailed separately.

During the video demonstration of your prototype you should address the following items:

- State the aim of the project
- Demonstrate the functionality of the prototype (approx. 5 minutes in duration)
- Walkthrough the underlying source code to explain how it works (approx. 5 minutes in duration)
- State how successful the software is at addressing the project aim

Feedback and Actions resulting from Feedback: Feedback on the submission will be provided by your Mentor & Marker in keeping with University policies of feedback.

10.4 AP2 Oral Examination

You are required to attend an oral examination, with your Mentor and Marker, in order to explore and defend your project work. This activity will take place as scheduled in section 3 of this handbook. The oral examination should be an open and constructive exploration of all your project work to-date and is intended to address any queries the assessment panel might still have before completing their assessment and feedback.

While you will eventually be given a specific oral examination date and time, you must keep the surrounding week free until after your oral examination, to facilitate rescheduling by the Project Coordinator if needed.

The oral examination will generally last 30 minutes, with you in attendance for about 20 minutes. The general structure of the oral examination is as follows:

- Welcome by the session chair, typically your Mentor (1 minute)
- Brief overview of your project by you, e.g. project title, aim, methodology, challenges, outcomes etc. (2 minutes)
- Questions from your marker and Mentor (15 minutes)
- Brief Closing comments by you, e.g. anything you feel the panel missed or misunderstood. (2 minutes)
- You leave the session
- The assessment panel agree an assessment (10 minutes)

Note: Failure to attend your oral examination on time will result in a non-submission being recorded against the full Assessment Point.

11 Project Forms, Assessment and Feedback

11.1 Project Proposal Form

The Project Proposal form can be found in the module area of Blackboard Learn.

11.2 Assessment and Feedback

In order to pass the project module, you will need to submit every project deliverable and attend the oral examination. Feedback for each elementwill be given in different ways as outlined in the following table

Deliverable	Value	Feedback Detail
Project Proposal	Formative Feedback	Mentor will provide verbal formative feedback.
Semester 1 AP1 Deliverables	25%	Summative feedback following assessment of all deliverables. Which should be discussed with your Mentor at the beginning of semester 2. Made available on Blackboard.
Semester 2 AP2 Deliverables (inc. oral examination)	75%	Summative feedback following assessment of all deliverables and activities. Made available on Blackboard.

The marking criteria for the 2 summative assessment elements of the project in respect to the 4 broad areas that compromise the project submission are as follows:

Semester 1 Assessment Point

Key Area	Mark
Project Management Skills	35%
Software Design and Development Skills	20%
Critical Evaluation Skills	35%
Communication Skills	10%

Semester 2 Assessment Point

Key Area	Mark
Project Management Skills	10%
Software Design and Development Skills	40%
Critical Evaluation Skills	35%
Communication Skills	15%

Note: Individual Assessment Marking Scheme Aide Memoir will be made available on Blackboard.

11.3 Assessment of Project Management Skills

The Project Management Skills aspect of the project will be assessed taking the following points for consideration:

- Interaction with Mentor during Mentoring meetings.
- Plans produced during the execution of the project (reflected on the report).
- Realization & reflection on the Plans produced.

During your meetings with your Mentor, it is suggested that a record of the meetings is maintained by you.

The following aide memoir is meant to be an indication of the factors that influence the project management mark:

- Have you taken the appropriate initiative to schedule meetings and attended them providing appropriate evidence that enables you to discuss the progress of the project?
- Have you been able to demonstrate appropriate reflection and progress through the agreed project plan and when necessary created and executed appropriate corrective actions?
- Have you been able to demonstrate your capability to achieve functionality at different points during the execution of the project plan and construction of the project?

The Following Artefacts could be used by the Mentor and marker to measure project management (Some of them could be included as appendices on the Live Document for the Final Submission as required):

- Student should be able to discuss progress and milestone reviews at every Mentor meeting
- Student should be able to discuss the monitoring of the project risks identified.
- Student should be able to demonstrate that goals and milestones set as part of the project plan, have been achieved.
- When corrective actions on the project plan are required, the student should be able to create, execute a corrective action plan.

12 Notes on Plagiarism

Please note that all of the submissions for each Assessment Point will be subject for Plagiarism Check as established on the University Plagiarism Framework and Penalties for work that are deemed to be plagiarised will be penalised according to the Framework of Penalties

The University's definition of plagiarism makes explicit that copying from texts or web or other sources and copying work from other students constitutes plagiarism. It reads:

> *Plagiarism is the act of taking or copying someone else's work, including another student's, and presenting it as if it were one's own. Plagiarism is said to occur when ideas, texts, theories, data, created artistic artefacts or other material are presented without acknowledgement so that the person considering this work is given the impression that what they have before them is the student's own original work when it is not. Plagiarism also occurs where a student's own work is represented without being properly referenced. Plagiarism is a form of cheating and is a disciplinary offence.*

Important note, by submitting a report, associated code document and video demonstration as part of the project assessment points you are declaring the following:

> *I declare that this is my own work and that any material I have referred to has been accurately and consistently referenced. I have read the University's policy on plagiarism and understand the definition of plagiarism as given in the [course/subject] hand-book. If it is shown that material has been plagiarised, or I haveotherwise attempted to obtain an unfair advantage for myself or others, I understand that I may face sanctions in accordance with the policies and procedures of the University. A mark of zero maybe awarded and the reason for that mark will be recorded on my file.*

More Information on Plagiarism:

- The Plagiarism Policy can be found here: https://www.ulster.ac.uk/__data/assets/word_doc/0004/251455/PlagiarismPolicy.docx
- The Plagiarism Policy, Procedures and Guidance can be found here: https://www.ulster.ac.uk/__data/assets/word_doc/0005/251456/PlagiarismPolicy-and-Procedures.docx