COMP1833 – Coursework Detailed Specification

The coursework is to be completed **by a group of Four (4) to Five Students (5)** based on the **Case Study** provided in the **Appendix**.

Part 1: Project planning based on the **Case Study (see Appendix) - worth 20% (Group work)**

You should write a project description document to describe the project and create a meeting policy document to organise the meetings for the project.

Deliverables from Part 1:

1.1: Project description document (10 marks)
1.2: Meeting policy document (10 marks)

Part 2: Software Quality Assurance (SQA) in your project - worth 20% (Individual and Peer review)

You should **individually** list two product functionalities and write a quality assurance document to illustrate the architectural blocks such as data structures of the project. The architectural blocks should be related to the product functionalities.

Please note that:

- Each team member must the two functionalities different from everybody else.
- Each team member must have the architectural blocks **reviewed** by other team members.

Deliverables from Part 2:

2.1: Architectural blocks (10 marks) – Individual
2.2: Peer review report (10 marks) – Peer review

Part 3: Software Quality Plan (SQP) for your project - worth 20% (Group work)

Using the IEEE 730-2014 standard as a guide, you should write a no less than three-page document on the following topics based on your project: Management (Organisation, Tasks, Roles and responsibilities, and Quality assurance estimated resources).

Deliverables from Part 3:

3.1: Management-based SQP for Organisation and Tasks (10 marks)
3.2: Management-based SQP for Roles and responsibilities, and Quality assurance estimated resources (10 marks)

Part 4: Software Requirements Specification (SRS) and Use Cases for your project - worth 20% (Individual work)

Each team member selects a sub-topic of the SRS: performance, security, reliability, usability, and maintainability. You should **individually** write a brief document containing the description of two requirements as part of the SRS in your selected sub-topic. Furthermore, describe two use cases for your product based on the selected sub-topic.

Deliverables from Part 4:

4.1: SRS (10 marks)
4.2: Use cases (10 marks)

Part 5: Black Box Testing in your project - worth 20% (Individual work)

You should **individually** conduct a black box testing of your listed functionalities (in Part 2 above) and write a brief document containing your testing and its results.

Deliverables from part 5:

5.1: Black box testing for functionalities I and II (20 marks)

Appendix: Case Study

The Brief

Your company has been hired to improve the management of stores for a small chain of specialised supermarkets, called "MAST-Local". The brief is to provide an information system for the store manager to monitor sales to optimise stock levels and place orders to the central office. Using sales information from the Electronic Point of Sales (EPoS) checkout tills, the system should be able to provide reports of the daily sales, to be used for optimising stock levels and product ordering.

The first contact your sales team had with the company has identified the following information:

- The MAST-Local stores use first generation tills that are not integrated and not linked to a stock control system. Store managers currently use spreadsheets to manage their stock control and pricing. Head office provides a web page for the store managers that lists products, prices and special offers or promotions. To order more products from head office the store manager normally fills in a paper form which they give to the weekly delivery driver who returns it to Head Office. Head office provide a web page for the store managers listing products, prices and special offers or promotions. Accounts and personnel systems are managed separately and there is a lot of manual re-typing of data from system to system.
- Although the technical director is keen to develop the new system in-house, Mast does not currently have the resources to support this. They tried to implement an integrated EPoS system before. Unfortunately, the contracted firm grossly overshot the budgets and timescale. The project was therefore abandoned. The contractor folded and Mast was left with an unusable prototype system with no documentation.
- All shops are run in a similar way, although it seems that there is very little communication between departments.
- The company is very interested in loyalty schemes and the possibility of customer ordering/purchasing online.

YOUR ATTENTION IS ONCE AGAIN DRAWN TO THE UNIVERSITY RULES ON PLAGIARISM

Definitions

This is a level seven Degree coursework and therefore, as well as a demonstrating that you have learnt some facts or skills, you are being assessed on your ability to research, think, and reason and then articulate your findings and conclusions.

You will be assessed on the following points:

Knowledge & Comprehension:

- A clear demonstration of background reading and research into the issues discussed.
- A demonstration of your understanding of the field, i.e., clearly identifying and enumerating the fundamental issues, use of correct terminology and facts including knowledge of the existence and names of methods, classifications, abstractions, generalizations, and theories.
- Discussion summarizing the topic area and ability to extrapolate beyond the given situation.
- Can explain or summarize information giving a good account of work done by others and reporting ideas intelligibly with accuracy and thoroughness and without introducing gross distortions

Analysis, Application & Synthesis

- Able to apply abstractions and concrete situations, e.g., use of examples to illustrate and support your argument.
- General organizational structures can be identified
- Assumptions can be recognized.
- Can produce sensible, reasoned, and substantiated criticism and suggest alternatives
- Does not indulge in pointless and unsubstantiated criticism
- Able to combine elements or parts in such a way as to produce a pattern or structure that was not clearly there before

Evaluation / critique

- Demonstration of insight
- A strong argument supporting or rejecting the technique with a sound conclusion given your stated premises.
- Can make qualitative and quantitative judgments about the value of methods, processes, or artefacts.

ASSESSMENT MARKING RUBRIC

	0-29% Fail	**30-49% Fail**	**50-59% Good**	**60-69% Very Good**	**70-79% Excellent**	**80-100% Exceptional**
D1 Knowledge. Knowledge of underlying concepts and principles associated with Software Quality Management.	No evidence or lacking understanding of underlying concepts and principles associated with Software Quality Management.	Little evidence of knowledge of underlying concepts and principles associated with Software Quality Management.	A sound understanding of the subject and underlying concepts and principles associated with Software Quality Management.	A clear understanding of the subject and underlying concepts and principles associated with Software Quality Management.	Excellent and thorough understanding of the subject and underlying concepts and principles associated with Software Quality Management.	Demonstrates exceptional knowledge and critical understanding of the subject and underlying concepts and principles associated with Software Quality Management.
D4 Communication. Produce a well-structured assessment written in coherent, standard English, presented in an appropriate academic style.	Unacceptable quality of presentation, structure, and standard of English.	Poor quality of presentation, structure, and standard of English.	Good quality of presentation, structure, and standard of English.	Very good quality of presentation, structure, and standard of English.	Excellent quality of presentation, structure, and standard of English.	Professional quality of presentation, structure, and standard of English.
D5 Referencing. Determining appropriate resources. Sources used are acknowledged in the text and reference list using correct academic citation.	No evidence of determining appropriate resources. Sources used are not acknowledged.	Poor evidence of determining appropriate resources. Most sources used are not acknowledged.	Good evidence of determining appropriate resources. All sources used are acknowledged.	Evidence of determining very good resources. All sources used are acknowledged.	Evidence of determining excellent resources. All sources used are acknowledged.	Evidence of determining extensive list of outstanding resources. All sources used are acknowledged.