

**UNIVERSITI KUALA LUMPUR KAMPUS KOTA**

**MALAYSIAN INSTITUTE OF INFORMATION TECHNOLOGY**

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| Name of Course | **SOFTWARE QUALITY** |
| Course Code | **ISB 42703** |
| Lecturer | **Dr Juliana Jaafar**  **(jjuliana@unikl.edu.my)** |
| Semester / Year | **JAN 2021** |
| Due Date | **Deliverables**   1. Project group title and scope – Week 5 2. Project proposal presentation – Week 10 3. SQA Plan presentation – Week 15/16 4. SQA Plan report – End of Week 16 – 30th MAY 2021 11:59PM |

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| Assessment | **Group Project** |
| Weightage | 40% |
| Course Outcome to achieve:  **CLO2:** To evaluate software quality techniques and approaches in software project. (C5, PLO6)  **CLO 3:** To construct software quality techniques and approaches in software project which are applied to various business domains. (A5, PLO5) | |

# Group Project

Objective: To develop a **comprehensive Software Quality Plan** for the selected project.

This is a reverse engineering task where you need to evaluate the available software project and develop a comprehensive Software Quality Plan for the project.

# Project Proposal Presentation

1. Introduction of the project
   1. Company background
   2. Business Process
   3. Problem statement
2. Project product i.e. Deliverables
3. Aims, Scope (Assumption and Limitations), Objectives of the project
4. Revisit the requirements and specify the quality requirements for the system
5. Identify a set of quality attributes for the selected system and the metrics for the specified quality attributes
6. Project detail timeline and milestones including the SQA activities
7. Project methodology and tools (development and SQA).
8. Software development standards / procedure standards to be adhered
9. In each phases, specify the SQA activity (e.g. document review, code inspection, unit testing, UAT, etc.) to be executed and for each SQA activity, define the following: -
   1. The objective(s) of the SQA activity
   2. The team members (including the leader) of SQA activity
   3. The procedure/strategy of the SQA activity
   4. The tools and techniques of the SQA activity
   5. The input
   6. The outcome
10. Define and analysis of project risks which includes the definition of risk, implication of the risk, mitigation and contingency plan for the risk.
11. Summary.

# SQA Plan Report

1. **Introduction**
   1. Purpose – *Describe the purpose of SQA plan*
   2. Scope
2. **Project Overview**
   1. Introduction – *Introduction on the project*
      1. Aims, Scope (Assumption and Limitations), Objectives
   2. Problem statement
   3. Project requirements
      1. Functional requirements
      2. Non-functional requirements
   4. Software development methodology
   5. Project Tools and Techniques (Development and SQA)
   6. Product deliverable
   7. Project timeline and milestones - *including the SQA activities*
3. **Reference Documents** – *List and describe the standard or guideline documents used to develop the SQA plan*
4. **Minimum Requirements Documents** – *Describe the documents should be produced during the development to the end of the deliverables of the product that need to be reviewed, verified or validated.*
   1. Project Management Plan
   2. Software Requirement Specification
   3. …
   4. ..
5. **Quality attributes requirements** – *Quality attribute requirements of the product. List the quality attributes identify for the product and define the metrics and tools/techniques (if any), strategies or procedures to assure the system possess the quality attributes when delivering the system*
6. **SQA Activities –** *For each SQA activity of each phase, state the objective/purpose of the SQA activity, the SQA members to execute the SQA activity, the procedure/strategy or tools used of the SQA activity*
   1. Software requirement phase
   2. Software design phase
   3. Software development phase
   4. Software process improvement

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1. **Testing Strategy**
   1. The purpose of testing for the project
   2. Testing levels (Unit, integration, System Testing) – *For each testing level, describe the purpose of the testing, the strategy/the procedure how to execute the testing and the completion criteria. Also, define the techniques and/or tools applied for each of the testing level.*
      1. Unit testing
      2. Integration testing
      3. System testing
2. **Risk Control and Management** – *Identify the risks of the project based on the strategy to control and manage the risk.*
3. **Summary**

# Evaluation Criteria

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|  | **Items** | **Marks** |
| **Project Presentation**  **(Proposal & Final) – 60%** | Project and product introduction | 10 |
| Product Requirements and Specification (Quality) | 20 |
| Methodologies and Tools (Development & SQA) | 10 |
| Quality Attributes and Quality Metrics | 30 |
| Project timeline and milestones (including SQA activities) | 30 |
| SQA Activities and Strategy | 40 |
| Risk Analysis | 20 |
| Summary | 10 |
| Content Presentation and Layout | 10 |
| Presentation | 10 |
| Teamwork & QA | 10 |
| **Total Marks** | **200 Marks** |
| **Project Report – SQA Plan – 40%** | Project and product introduction | 10 |
| Project Overview | 20 |
| Reference Documents | 10 |
| Minimum Requirements Documents | 10 |
| Quality attributes requirements | 30 |
| SQA Activities and Strategy | 40 |
| Testing Strategy | 30 |
| Risk control and management | 20 |
| Structure of the report | 10 |
| Formatting | 10 |
| Language, Grammar and References | 10 |
| **Total Marks** | **200 Marks** |