4.0 SQA Plan Overview
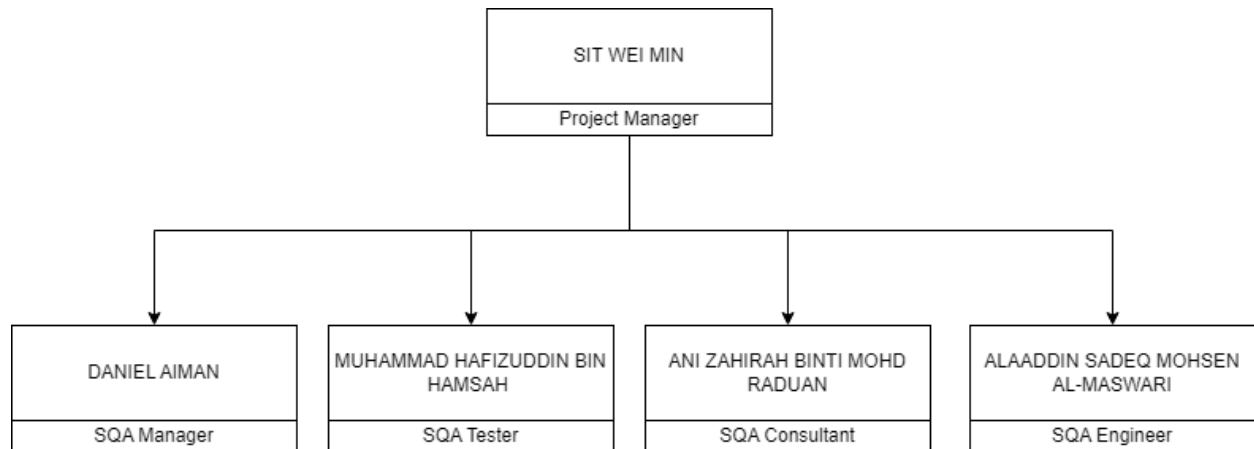
4.1 Organisation and Independence

Person In Charge	Roles
Daniel Aiman	● Developer for User Management module ● SQA Manager ● Planning and scheduling for QA process ● Overseeing process of quality assurance
Sit Wei Min	● Project Manager ● Developer for Book Catalogue module ● Ensuring project goals and objectives are met ● Ensuring that final product meets quality standards
Muhammad Hafizuddin bin Hamsah	● Developer for Booking System module ● SQA Tester ● Collaborating with the team to assess system quality ● Identify and record bugs found during testing processes
Ani Zahirah Binti Mohd Raduan	● Developer for Reservation History module ● SQA Consultant ● Defining quality standards and methodologies ● Set quality assurance metrics and monitor testing progresses
Alaadin Sadeq Mohsen Al-Maswari	● Developer for Reporting and Analytics module ● SQA Engineer ● Identifying tools and technologies used in quality assurance processes ● Define guidelines and control of quality assurance processes

4.2 Software Product Risks

Risk	Risk Description	Risk Mitigation
Incomplete or Inaccurate Catalogue Data	The catalogue may contain incomplete or inaccurate information about books, such as missing metadata, incorrect titles, or outdated availability statuses.	Regularly update and maintain the catalogue database to ensure accuracy.
User Interface Complexity	The user interface for browsing the catalogue may become cluttered or difficult to navigate, leading to frustration in users when using the system.	Design a clean and intuitive user interface to help users find books easily. Conduct usability testing with users to gather feedback and make improvements to the interface design.
Data Loss or Corruption	Data loss or corruption within the catalogue database due to hardware failures, software bugs, or human error.	Implement regular data backups to minimize the impact of potential data loss events.

4.3 Tools

Tools	Description
Google Doc	Collaboratively create and maintain project documentation, such as SRS, SDD, and meeting minutes, allowing the development team to contribute and review project details efficiently.
Google Drive	Store and share project-related files and documents, including design mockups and development resources, easing access and collaboration among team members.
GitHub	Host the project's source code repository, manage version control and facilitate collaboration among developers working on different modules of the BBMS.
SQL	Design and manage the database schema for storing information related to books, users, reservations, and transactions, ensuring efficient data storage, retrieval, and management within the system.
XAMPP	Set up a local development environment for developing, testing and debugging the BBMS, including web server configuration, database setup, and PHP scripting support.

4.4 Standard, Practices and Conventions

Steps of life cycle	Intermediary deliverable	Standards, Practices and Conventions
Planning	Project proposal	BBMS requirements
Planning	SQAP	IEEE730
Programming/Developing	Source code	HTML, CSS & PHP
Designing	Mockup/Prototype design	BBMS requirements
Post-Development	Technical documentation	Specific criteria

4.5 Effort, Resources and Schedule

4.5.1 Effort

- **SQAP Development:** Involves drafting of the SQAP document, which details quality assurance processes, standards, and procedures for assessing project quality.
- **Documentation:** Continuous documentation effort throughout development of project.
- **Book Catalogue Module:** Efforts involved in development and quality assurance processes of the module.
- **Quality Assurance:** Software testing, verification and validation methods used to gauge fulfilment of quality standards in place.

4.5.2 Resources

- **People:** The BBMS Development team
- **Tools:** Google Drive, Google Docs, GitHub, SQL and XAMPP.
- **Equipment:** Computers.

4.5.3 Schedule

Phase	Duration
SQAP Documentation	3 weeks
Documentation of project	Throughout the project
Module Development & System Integration	6-8 weeks
Quality Assurance	Throughout the project