QUALITY MANAGEMENT PLAN

SURVEIRAMS

ASIA PACIFIC COLLEGE
3 HUMABON PLACE, MAGALLANES
MAKATI CITY, 1232 METRO MANILA

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Introduction

Quality Management Plan for the SurveiRams System is essential to maintain the project's quality. With this guide, the team can evaluate the system for the betterment of it. Additionally, the plan has a framework for evaluating the quality.

Goals of the quality management plan:

- Make sure the project satisfies the expectations of the stakeholders.
- Indicate the quality standards that will be applied for evaluating the project.
- Clarify the roles and responsibilities of team members to meet quality standards.
- Identify and fix any potential quality issues.
- Make a plan for efficiently managing and upholding project quality over the length of the project.

The SurveiRams System will operate completely functionally, have a user-friendly interface, and be compatible with the organization's existing technology infrastructure. The Quality Management Plan will cover both the system and process quality standards. The plan will outline specific procedures, tools, and techniques for monitoring and reporting quality performance.

A quality management plan's tools include:

Definition of Done	A clear explanation of what makes a finished product increment.
Acceptance Criteria	Criteria must be met for it to be approved by the project manager.
Continuous Integration	Regularly updates the code to make sure it is good for releasing.
Test-Driven Development	A way that emphasizes creating tests prior to writing code to ensure that the resulting code meets the desired quality standards.

As a result, the quality management plan will establish a thorough framework for effectively managing project quality from start to finish. It will guarantee that the project satisfies and/or exceeds the expectations of stakeholders and offer a clear framework of processes, resources, and roles for identifying and resolving quality issues. It is necessary that everyone involved is aware of the plan and understands how they may contribute to its success.

Quality Management Approach

The Quality Management Plan for the SurveiRams project will utilize Hybrid Project Management which combines Scrum and Waterfall methodology to ensure that the project meets or exceeds all stakeholders' quality expectations. The approach will prioritize delivering high-quality products per work package and meeting customer requirements by following a step-by-step process.

The following are the roles and duties for the quality management plan:

Role	Description
Project Manager	The Project Manager oversees establishing the standards and making sure the final product satisfies all stakeholders.
Project Team Leader	The Project Team Leader is responsible for ensuring that the team is following the Scrum framework and works with the Product Owner, Product Manager and Development Team to enhance the final product.
Project Development Team	The Project Development Team's responsibilities include producing a high-caliber product and upholding the specified quality policies and standards.
Project Sponsor	Provides executive support and approval for the project.

Table 6.8—1: Quality Management Roles and Responsibilities

Every aspect of the project will integrate quality management, involving the entire team. The team will aim to create a Minimum Viable Product (MVP) so that they may receive early feedback from users and thus improve the product.

The approach will include the following steps:

Set Quality Standards	The project manager will define quality standards based on Agile and Scrum methodology, with a focus on delivering value to the client.
Quality Planning	The team will work closely with stakeholders to identify the requirements of the project and prioritize the most important features. To make sure that each version of the project complies with the set standards, the team will create a Product Backlog.
Quality Control	To identify issues or bugs, the team will conduct testing during each sprint to manage and control the quality of the project and meet its requirement or goal.
Quality Assurance	To avoid problems during the project, preventive measures will be implemented through quality assurance. The team will implement proper testing procedures to ensure that the project follows the set standards.

Continuous Improvement	To ensure continuous functionality of the project, the team will regularly monitor and assess its performance. They will gather feedback from stakeholders, identify areas that require improvement, and make necessary adjustments to enhance the overall quality of the project.
Communication	For the project to succeed, communication with the stakeholders is needed to give them awareness of the product's status and have their feedback on it.

A risk management strategy will be created to detect and mitigate any potential quality issues that may arise throughout the course of the project. Overall, the SurveiRams system's quality management approach will prioritize using Hybrid Project Management to provide a high-quality product that satisfies the intended client's criteria. To guarantee that the project meets or exceeds all quality requirements, the methodology will be adaptable and continually improved.

Quality Requirements / Standards

The SurveiRams System places an emphasis on high-quality requirements and standards; thus, the team will collaborate to develop and document them. The client's feedback, tests, and assessments will make sure that these criteria are followed. The following criteria and standards will be followed by the SurveiRams System project:

Requirements for Product Quality:

- Functionality: The SurveiRams System should fulfill its intended purpose and meet functional requirements specified by the Stakeholders and users. It should perform the task in an efficient manner.
- Reliability: The SurveiRams System should work consistently without issues, breakdowns or failures over sa specified period.
- Performance: The SurveiRams System should meet optimal performance and or exceed the expected standards.
- Design: The SurveiRams System should have an intuitive UI/UX where the users will have an easy time using the application.

- Compatibility: The SurveiRams System should be compatible with the existing devices of APC and its users. It should also be compatible with newer devices.
- Control: A control version of the system must always be available in case of issues.

Requirements for Ensuring Quality of Processes:

- Standardization: All processes must be well-defined and documented in a standardized manner to ensure consistency.
- Clear Roles and Responsibilities: Each individual should understand their roles and specific responsibilities.
- Continuous Improvement: Processes should be ongoing and always have room for improvement. The development team will apply feedback mechanisms and testing to figure out what parts of the project can be improved and what parts has issues.
- Monitoring: All proccesses must be monitored by the Project Manager, this will ensure the quality of the deliverables.

Compliance Demonstration:

- Before being delivered to the client, the SurveiRams System will go through extensive testing and evaluation to make sure it satisfies the necessary quality requirements.
- The development team will keep thorough records of all testing and quality assurance procedures, which the client can request.
- The customer will participate in a formal acceptance test to make sure the system satisfies their particular needs and expectations.
- To guarantee that the system continually complies with the defined quality requirements in the long run, the development team will offer ongoing support and maintenance services.

Continual Improvement:

The development team will set up a strategy for continuous improvement by routinely collecting and reviewing client feedback, monitoring system

performance, and conducting internal reviews to identify potential improvement opportunities. They will also create a procedure for identifying and addressing any issues that may arise throughout the project. This comprises locating the issue, figuring out why it exists, coming up with a solution, and then evaluating how well it worked. These procedures will be used in the project to ensure that the SurveiRams System actively adapts to meet shifting client needs while maintaining the required level of quality.

Quality Assurance

To ensure quality is achieved through collaboration and continuous improvement, the SurveiRams Ticketing System project will integrate the QA process into the Agile and Scrum methodology. The following steps will be taken:

- **Defining Quality Standards:** The project team, in collaboration with stakeholders, will establish and document the quality standards in the Quality Management Plan. These standards will be effectively communicated to all stakeholders involved.
- **Agile Quality Auditing:** The project team will conduct quality audits on a regular basis utilizing Agile techniques including peer reviews, test-driven development, and continuous integration. These procedures will be used to determine whether the quality criteria have been met and to pinpoint areas that need improvement.
- **Quality Metrics:** The project team will employ quality metrics to monitor and report on the project's adherence to the defined quality standards.

  To effectively monitor the quality process, the following metrics will be utilized:

  - Performance Metrics: Application Load time, Server Response time.
  - Usability Metrics: User Satisfaction, Task Completion Time, Error Rate.
  - Design Metrics: User feedback, UI/UX design feedback.
  - Scalability Metrics: Response Time under load, Resource Utilization (eg. RAM allocation, CPU Usage)
- **Continuous Improvement:** To promote continuous improvement in both the product and the quality process, the project team will make use of feedback from metrics and quality audits. Stakeholder participation will be used to identify areas for improvement, and the necessary adjustments will be made.
- **Compliance with Industry Standards:** The project team will ensure adherence to relevant industry standards, including accessibility, security, and data privacy regulations. Regular audits will be conducted to verify compliance with these standards.

- **Reviewing Customer Feedback:** Regular reviews of customer feedback will be conducted to identify any issues or areas requiring improvement. This feedback will play a crucial role in informing the continuous improvement efforts and ensuring that the product aligns with customer needs and expectations.

The project will implement rigorous monitoring, tracking, and reporting of quality assurance metrics to ensure the delivery of a high-quality outcome. Any deviations from the established standards will be promptly reviewed and fixed. The project team will receive regular reports from the software application, which will capture relevant data for these metrics. The quality assurance process will undergo frequent reviews to identify opportunities for enhancement and implement necessary improvements. The objective is to ensure that the SurveiRams System meets the best quality standards, with close monitoring of all quality assurance metrics to guarantee project success.

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Quality Control

In Hybrid project management which combines both Scrum and Waterfall methodology, the development process incorporates quality control measures to emphasize continuous testing and feedback. The Quality Control process for the SurveiRams Ticketing System project entails the following steps:

- **Continuous testing and feedback:** To find problems and make sure everything is in line with customer expectations, the project team will conduct regular testing and survey. Whenever possible, automation will be used such as online forms to collect feedback.
- **User Acceptance Testing (UAT):** At the end of each sprint, representative end users will undertake UAT to confirm that the system adheres to their requirements and expectations. Users' feedback will help determine what changes are required.
- **Compatibility Testing:** A variety of platforms, including mobile devices and personal computers, will be used to test the SurveiRams System in order to assure compatibility and identify any issues that may arise in various settings.
- **Continuous Monitoring:** The project team will carefully assess the success of the system after deployment, concentrating on key performance metrics including user happiness, response time, and system uptime. This information will help with system improvements, problem identification, and bottleneck removal.

The following quality metrics will be utilized to monitor and evaluate system performance:

- Defect Severity: Classification of defects based on their impact on the system.
- Test Coverage: Percentage of the system subjected to testing.
- Test Case Pass Rate: Percentage of test cases successfully executed.
- User Happiness: Measured through surveys and user feedback.
- Response Time: Duration for the system to respond to user requests.
- System Uptime: Percentage of time the system is available and functioning as expected.

- **Monitoring and Documenting Quality Assessments:** The project team will diligently track and record the results of the Quality Control process, enabling ongoing monitoring of the project's advancement and the impact of any corrective measures implemented. Thorough documentation will provide valuable insights into the project's quality status.
- **Continuous Improvement:** The Quality Control process will undergo regular reviews to identify areas for enhancement and embrace opportunities for improvement. The project team will proactively seek out avenues to refine the process and swiftly incorporate necessary adjustments. This commitment to continuous improvement ensures that the Quality Control process remains adaptable to evolving requirements and industry best practices.

In conclusion, the SurveiRams Ticketing System project's Quality Control process will be deeply integrated into the development cycle, encompassing continuous testing, user feedback, and performance monitoring. The project team will vigilantly evaluate and maintain product quality, ensuring alignment with established standards and customer expectations.

Quality Control Measurements

The SurveiRams Ticketing System project will leverage a Hybrid Project management methodology to foster continuous inspection and adaptation throughout its lifecycle, promoting a transparent and collaborative approach to quality control. Quality control measures will be implemented at each stage of the development process and documented on a shared, accessible platform, replacing static spreadsheets or tables.

The platform will include essential details such as the measurement date, type of measurement (e.g., defect density, error rate, performance metrics, usability metrics, design metrics and scalability metrics), team member responsible for measurement, team member assessing the results, corrective actions taken, completion date of remedial measures, and team member responsible for their implementation.

Real-time dashboards such as OpenProject and visual tools will be utilized to track quality control metrics, enabling all team members to access and understand the data easily. These dashboards will highlight patterns and areas of concern, facilitating prompt action and necessary adjustments.

Regular team reviews, including sprint reviews and retrospectives, will entail the review of quality control metrics and allow for adjustments to the process as needed. Collaboratively, the team will identify potential areas for improvement and implement necessary changes.

In summary, the SurveiRams Ticketing System project will adopt Hybrid Project Management to establish a collaborative and dynamic quality control strategy. Continuous assessment of the product's quality will be performed, with regular improvements implemented. All quality control measurements will be collected and tracked on a shared platform in real-time. The team will collaborate to address any issues and drive necessary enhancements.

AUTHORIZATION

Approved by the Project Sponsors:
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Mr. Jojo F. Castillo
Executive Director, Technical Services

Mr. Jose Manuel Garcia
Campus Architect