**Quality Management Plan**

**Introduction**

The purpose of this quality management plan document is to establish an approach to quality management, encompassing all the stages of the E-Cliniq system’s lifecycle from designing, development, to implementation of the system and maintenance. By following this plan, the APC Clinic can minimize the time needed in maximizing the workload needed to finish.

**Quality objectives**

* Quality assurance: Implement quality assurance processes and procedures to validate the functions, performance, and usability of the system.
* Testing: Validating and verification of all the functions must be done to ensure that the system adheres to the expectations of the relevant stakeholders.
* Risk Management: Identify potential risks and vulnerabilities of the E-Cliniq system both internal and external.
* Training and competence: Ensure that the roles and responsibilities of relevant stakeholders are established and have proper training on how to use the E-Cliniq system.

**Quality management plan**

* **Test-driven development** – the system will be continuously evaluated by relevant stakeholders throughout its development stage to ensure that it lives up to the expectations of the users.
* **Project completion** – when the system has achieved its objectives, risk management will be managed, and maintenance will be provided upon request.
* **Acceptance criteria** – the acceptance criteria are once all the objectives of the system has been completed.
* **Continuous integration** – maintenance and updates will be held for the system by the developers.

This Quality Management Plan provides a structured and systematic approach to ensure the highest level of quality in the design, implementation, and operation of the E-Cliniq system. By adhering to this plan, the APC Clinic can improve data accuracy, and optimize the overall efficiency of their management processes.

**Quality Management Approach**

E-Cliniq uses an Agile and Scrum method continuous testing processes to make sure that the system meets or exceeds the expectations of all relevant stakeholders.

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

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| Role | Description |
| Project manager | In charge of quality assurance, setting up the acceptance standards and ensure that the final system satisfies the relevant stakeholders. |
| Project team leader | Facilitates the team overall, cooperates with the product sponsor and development team to enhance the final product. |
| Project Development Team | Responsible for the development of the system and adhere to the established acceptance standards |
| Project Sponsor | Has the final decision on everything regarding the project. |

The approach will include the following steps:

1. **Define quality standards** – The Project Manager and Sponsor would define and follow quality standards based on Agile and Scrum method and requests of the client with the focus of delivering the objectives.
2. **Quality planning** – The team closely collaborates with the stakeholders to identify and ensure the project requirements are met alongside prioritizing the most notable features. The development team will create a product backlog to view the changes made and set the quality goals to ensure that each version of the system has significant changes approaching the objectives of the quality standard.
3. **Quality control** – This measures sprint implementations to ensure that the product meets the defined requirements and quality goals.
4. **Quality Assurance** – This would put the measures in place to prevent defects and issues from occurring in the first place, as the team would do various testing methods and processes to ensure the project is being executed according to the established standards and guidelines.
5. **Continuous Improvement** – The team would recommend someone from the development team of the system as the developer for future updates, improvements, and fixes for the project.
6. **Communication** – The team will maintain communication with the relevant stakeholders, so they would be aware of the changes, plans, status, and feedback if needed.

The development team will incorporate Agile and Scrum method practices, including user experience, sprints, and retrospectives, to make sure that the quality of the system throughout the system’s lifecycle meets the client's expectations and the needs of the relevant stakeholders. In addition, a risk management plan will be made to identify and mitigate potential risks throughout the system’s lifecycle.

Overall, the Quality Management Plan of the E-Cliniq will prioritize delivering a high-quality product that meets client’s requirements through Agile and Scrum method.

**Requirements**

E-Cliniq system will be fully functional, user-friendly, and compatible with devices that has access to a browser, and internet connection as the quality management plan will contain both the system and process quality standards.

**Requirements for product quality.**

* E-Cliniq will be fully functional and adhere to the objectives’ technical requirements.
* The user-interface must be user-friendly to all the relevant stakeholders and users. The developers will train relevant users first-hand.
* The system would collaborate with the clients’ request and have maintenance upon request.
* The system requires devices that has access to a web browser and internet connection.

**Requirements for ensuring quality of process.**

* The development team will implement an ongoing process of testing and quality assurance to ensure that the system meets all technical specifications and requirements.
* The development team will conduct regular sprint reviews to identify and promptly address any quality issues.
* The development team will follow a defined configuration management process to ensure consistent development, testing, and deployment of the system.

**Compliance Demonstration**

* E-Cliniq will be evaluated by relevant stakeholders against the established quality requirements and standards before deployment.
* The development team will maintain comprehensive documentation of all testing and quality assurance activities, which will be made available to the client upon request.
* The development team will conduct a formal acceptance test with the client to ensure that the system meets their requirements and expectations.
* The development team will provide ongoing support and maintenance services to ensure that the system continues to meet the established quality standards over time.

**Continual Improvement**

The development team would prefer to suggest a developer from the team to ensure that the system can be improved, updated, and fixed whenever problems arise while still upholding the quality standards.

**Quality Assurance**

The QA process for E-Cliniq will be integrated into the Agile and Scrum method to ensure that the quality is achieved through collaborative effort and continuous improvement as the following steps will be undertaken:

* Defining quality standards – The project manager will collaborate with the relevant stakeholders to define and document the quality standards for the project in the quality management plan as the quality standards will constantly be communicated to everyone.
* Quality metrics – The development team will use quality metrics to track and report on the project's performance against the quality standards.
* Continuous improvement – The developers would use the feedback to modify changes requested by the stakeholders to ensure the quality of the system.
* Compliance with industry standards – The developers would ensure that the E-Cliniq system would adhere to relevant standards such as accessibility standards, security standards, and data privacy regulations.
* Reviewing feedback – The developers would constantly review feedback to improve and modify changes of the system.

The Project Manager will closely monitor the quality assurance metrics. Any breach of these standards will be reviewed and corrected by the Project Manager and Project Sponsor. The development team will receive regular feedback from relevant stakeholders. The quality assurance procedure will also be reviewed frequently to find and implement improvements.

**Quality Control**

In Agile and Scrum methodology, quality control is embedded into the development process, and the focus is on continuous testing and quality feedback. The Quality Control process the E-Cliniq System will involve the following steps:

• Continuous testing and feedback: The project team will perform continuous testing to identify defects and ensure that the product is meeting customer requirements. The testing will be automated wherever possible.

•User Acceptance Testing (UAT): The relevant stakeholders will evaluate the system to ensure it satisfies their needs and expectations. The UAT will be performed at the end of each sprint, and any necessary modifications will be made based on feedback from the users.

•Compatibility Testing: The E-Cliniq system will be evaluated on multiple platforms, including mobile devices and browsers, to ensure compatibility and address any difficulties that may arise when the system is used in various settings.

•Continuous Monitoring: After deployment, the development team will monitor the effectiveness of the E-Cliniq system. This will involve keeping an eye on important performance measures including response time, and system uptime. This will provide essential information to aid with any system upgrades and identify any problems or bottlenecks. The following quality metrics will be used to monitor and assess the system's performance:

* Test Coverage: The percentage of the system that has been evaluated.
* Test Case Pass Rate: The percentage of test cases that have been passed.
* Response Time: The time taken for the system to respond to user requests.
* System Uptime: The percentage of time the system is available and functioning as expected.
* Tracking and Documenting Quality Evaluations: The development team will track and document the outcomes of the Quality Control process, which will be used to monitor the project's progress and the effectiveness of any remedial actions that are taken.

In conclusion, the quality control process for the E-Cliniq system will be an integral part of the development process, with a focus on continuous testing, user feedback, and performance monitoring. The project team will continuously monitor and assess the quality of the product as part of the Quality Control process, ensuring that it meets the required quality standards and customer requirements.

**Quality Control Measurements**

The Agile and Scrum techniques will be employed to promote continuous inspection and modification throughout the project lifecycle for the E-Cliniq system, which will adopt a transparent and collaborative approach to quality control.

To guarantee that the product fulfills the standards and criteria, quality control measures will be made at each stage of the development process and documented on a shared, viewable platform, such as a project management tool, as opposed to a static spreadsheet or table.

The following details will be on the platform:

•Measurement date

•Measurement type (e.g., automated testing, code review, peer review, user story acceptance)

•The measurement's findings (such as passed/failed, the number of flaws discovered, and the percentage of code coverage)

•Requirements and standards for comparison

•Member of the team in charge of measuring

•Team member responsible for assessing the measurement results

•Taking any required corrective actions

•The date that the remedial measures were finished

Dashboards and other visual tools will be used to track the quality control measurements in real-time so that all team members can readily access and comprehend the data. The dashboards will draw attention to patterns and problem areas so that the team can act fast and make the necessary adjustments. The quality control metrics will be reviewed, and the method will be adjusted as necessary during routine team reviews such as sprint reviews and retrospectives. Together, the group will pinpoint potential improvement areas and put any found problems into practice.

In conclusion, the E-Cliniq system will use Agile and Scrum approaches to implement a collaborative and dynamic quality control strategy. To make sure the product satisfies the standards and needs, the team will regularly assess the product's quality and make the required improvements. On a common platform, all quality control measurements will be collected and tracked in real-time. The team will collaborate to address any problems and implement any necessary improvements.