Group 2

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Quality Management:

In our project, we are committed to maintaining high-quality standards to ensure that the deliverables meet the required level of excellence. To achieve this, we have established a set of quality standards and procedures that will guide every phase of the project. These quality standards encompass several key aspects:

1. Functional Requirements: We will ensure that the e-clinic software meets all specified functional requirements outlined in the project scope. This includes features such as patient management, appointment scheduling, medical record management, and billing functionalities. **HOW? Through**

   A. Unit testing
   - Example: For patient management functionality, unit tests may verify that functions such as adding a new patient, updating patient information, or searching for a patient by name all work correctly in isolation, without dependencies on other parts of the system.
   - Tools: Unit testing frameworks, code coverage tools, and mocking libraries can be used to automate and streamline the unit testing process.

   B. Integration Testing
   - Example: For appointment scheduling functionality, integration tests may verify that when a new appointment is scheduled, the patient's information is correctly updated in the patient management system, and the appointment details are stored accurately in the database.
   - Tools: Integration testing frameworks, API testing tools (e.g., Postman), and database testing tools can be used to automate integration tests and verify system interoperability.

   WHEN?

   Once the development phase finishes (development milestone reached) the testing starts at 25-04-2024

2. Usability and User Experience: We recognize the importance of user satisfaction in the success of the e-clinic software. Therefore, we will focus on optimizing usability and user experience through intuitive interface design, clear navigation, and efficient workflow processes. User feedback will be solicited and incorporated iteratively to enhance the software's usability. **HOW?**

    A. Pilot Testing with Representative Users:
- Select a group of representative users, including healthcare providers, administrative staff, and potentially patients, to participate in pilot testing.
- Provide these users with access to a beta version of the e-clinic software that includes key features and functionalities.
- Encourage users to perform typical tasks and workflows within the software while observing their interactions and collecting feedback on usability issues, pain points, and areas for improvement.

    B. Feedback Collection Mechanisms:
- Implement mechanisms for users to provide feedback directly within the software interface, such as feedback forms, surveys, or in-app feedback buttons.
- Additionally, conduct structured interviews or focus groups with pilot testers to gather qualitative feedback on their overall experience, as well as specific usability concerns.

    WHEN?

        Once the unit/integration testing finishes, the pilot testing starts at 03-05-2024

Communication Plan:

Stakeholders	Role/Interest	Frequency	Format
Project Sponsor	Provides support, and resources	Bi-weekly	Email updates, meetings.
Development Team	Responsible for software research, design, and implementation	Daily	Team meetings, progress reports
Quality Assurance Team	Ensures software quality meets standards	Daily	Status meetings, defect reports
Healthcare Providers	End-users of the e-clinic software	Monthly	User feedback surveys, status meetings
Administrative Staff	Users responsible for managing clinic operations	Monthly	Training sessions, user manuals

Risk Management:

Identification			Assessment		Strategy	
Threat/Opp.	Risk Name	Risk Description	Prob	Impact	Response	Strategy Description
T	1. Resource Constraint	Limited availability of manpower or budget leading to project delays or compromises	4	5	Mitigate	Prioritize project tasks and allocate resources effectively.
T	2.Time Constraints	Limited timeframe for project completion leading to rushed development or compromised quality	5	5	Transfer	Consider outsourcing certain tasks to parallelize them if feasible.
T	3.Data Security and Privacy Breach	Unauthorized access, loss, or leakage of sensitive data leading to legal and reputational consequences	2	4	Mitigate	Implement robust security measures, including encryption, access controls, and regular security audits.
T	4.Vendor Dependency	Dependency on external vendors for critical components or services, leading to potential delays or disruptions if vendor performance is unreliable	3	3	Mitigate	Explore vendor options and conduct vendor evaluations. Include performance metrics and penalties in vendor contracts to ensure timely and reliable service delivery
O	5.Data Analytics and Insights	Leveraging data analytics and machine learning to derive insights from patient data, enabling personalized healthcare delivery, predictive analytics for disease prevention, and improved decision-making for healthcare providers	1	2	Exploit	Invest in data analytics tools and expertise to analyze patient data effectively. Collaborate with data scientists to develop predictive models and algorithms for healthcare insights.
O	6.Telemedicine Integration	Integrating telemedicine capabilities into the e-clinic software to enable remote consultations, virtual visits, and telehealth services, expanding access to healthcare and improving patient experience	2	3	Share	Partner with telemedicine providers or develop in-house telehealth solutions. Invest in telecommunication infrastructure and user-friendly telemedicine platforms to facilitate integration

Risk Matrix

Probability	High			Risk 1,2
	Medium		Risk 4	
	Low	Risk 5	Risk 6	Risk 3
		Low	**Medium**	**High**
	Impact			

Procurement Management:

Product 1: Server Hardware.

Product 2: Software Licenses.

Service 3: Cloud Hosting Services.

Service 4: Securing the data (3rd party service)

Service 5: Server Maintenance.

Product 1 : *Server Hardware*

criteria	weight
Price	50%
Technical Performance(CPU, RAM, storage)	15%
Reliability	15%
Reviews(vendor reputation)	10%
Scalability	10%

Contract Type: **Fixed-price contract.** As the product specifications and deliverables (e.g., server model, quantity) are well-defined. The vendor can provide a fixed total price for the hardware based on agreed-upon specifications.

Product 2 : *Software Licenses*

criteria	weight
Price	60%
Features and functionality	20%
Reviews(vendor reputation)	10%
Ongoing support and updates	10%

Contract Type: **Time and Material(Subscription based).** Software licenses may involve variable costs depending on factors such as the number of users, additional modules/features required, or ongoing support and maintenance fees. A time and material contract allows for flexibility in pricing based on actual usage or requirements,

Service 3 : *Cloud Hosting Services*

criteria	weight
Price	50%
Technical Performance(CPU, RAM, storage)	30%
Reviews(vendor reputation)	10%
Customer Service	10%

Contract Type: **Unit Price.** Cloud hosting services are often billed based on resource consumption (e.g., compute instance hours, storage volume, network bandwidth). Structuring the contract as a unit price allows for pricing flexibility based on actual usage, providing cost transparency and scalability for the buyer.

Service 4 : Securing the data (3rd party service)

criteria	weight
Price	50%
Technical Performance(better Security)	25%
Quality & Reliability	15%
Reviews(vendor reputation)	10%

Contract Type: **Fixed Price.** Securing data involves well-defined security measures and deliverables, making a fixed price contract suitable. Both parties can agree upon a fixed total price for the security services based on specified requirements, ensuring clarity and certainty in cost.

Service 5 : *Server Maintenance*

criteria	weight
Price	50%
Customer Service	25%
Reliability(response time & availability)	15%
Reviews(vendor reputation)	10%

Contract Type: **Unit Price.** Server maintenance services may vary in frequency and scope, making a unit price contract suitable. Pricing based on units (e.g., hourly maintenance, per server maintenance) allows for flexibility and scalability based on the volume of maintenance services required by the buyer.

Execution and Monitoring:

We have ensured that we are meeting all project requirements effectively. By sticking closely to the project scope and plan, we have developed a Virtual Care Hub that fulfills the needs of healthcare providers. Regular assessments and agile methodology have allowed us to address any deviations, ensuring meeting stakeholder expectations. Our commitment to testing procedures has further strengthened our confidence in meeting all specified requirements. As a result, we are confident in our ability to deliver the demands of our stakeholders on time.