PROJECT PROPOSAL

HEALTHCARE CUSTOMER RELATIONSHIP MANAGEMENT (CRM) SYSTEM

PART 1

1.1 Discuss the above factors and finalize a list of factors that you think is important to the success of your project.

During our Spring Planning Meeting, it is crucial for us to consider various factors when selecting spring backlog items from the product backlog. These factors will help us prioritize the right items and ensure the success of our project. Here is a discussion among our team regarding the importance of each factor and the factors we decide not to include:

Factor 1: Business Value

Business value refers to the potential revenue, customer satisfaction, market advantage, or strategic alignment associated with each item, we place a heavy emphasis on this factor, as it allows us to prioritize backlog items based on the impact that it may have on the organization's goals and objectives. With that in mind, we can focus on delivering the most valuable features first.

Factor 2: Development Effort

Development effort revolves around the complexity and resources for each backlog item. By understanding the effort involved, we can allocate our team's capacity effectively and plan realistic sprint goals, ensuring a smooth and achievable development process.

Factor 3: Feature Dependency

We also take into consideration feature dependencies to identify items that are crucial for the implementation of other features. By prioritizing items that act as building blocks or prerequisites for other functionalities, we can ensure a logical and coherent development flow.

Factor 4: Timeline

The timeline is an essential factor, especially when there are external dependencies or time-sensitive requirements. By considering the date needed or project deadlines, we can prioritize items that align with our project schedule and avoid unnecessary delays or bottlenecks.

Factor 5: Risk Involved

Assessing risks associated with each backlog item helps us mitigate potential issues and uncertainties. By considering factors such as technical complexity, dependencies, and unknowns, we can prioritize items that minimize project risks or address critical uncertainties early on.

1.2. Discussion on other factors that were brought up in the meeting, but we did not include it, and the reason behind our rejection.

Rejected Factor 1: Personal Preferences

Although, we acknowledge ourselves as high-skilled individuals with relevant experience on the developing project, we also agree that personal preferences should not be a determining factor as they can introduce bias and hinder objective decision-making. We all agree that decision made during the development process will need to be discussed and concurred by all members. The factors that we approved, therefore, is perfectly aligned with the project's goals and it will deliver the maximum value to our stakeholders.

Rejected Factor 2: Individual Team Member Workload

While it's important to consider team capacity, individual team member workload should not be a primary factor. Our Scrum team will collaborate and distribute work based on their collective capacity and skills, ensuring a balanced workload across the team.

Rejected Factor 3: Technical Preferences

While we may have personal preferences for certain technologies or tools, it's important not to prioritize backlog items solely based on technical preference. Our focus should be on delivering value to the stakeholders and selecting the most suitable solutions that align with project goals and requirements.

Rejected Factor 4: Cost of Implementation

Although the cost of implementation is a valid consideration, it should not be the sole deciding factor. While budget constraints and cost-effectiveness are important, they should be weighed against other factors such as business value and risk to ensure that we prioritize items that deliver the most significant impact.

By considering the factors mentioned above and excluding those that may introduce bias or hinder objective decision-making, we can create a prioritized sprint backlog that maximizes value, manages risks, and ensures the success of our project.

PART 2:

Formulate your criteria for prioritizing the Product Backlog items and justify your choice

Prioritizing items in the Product Backlog is vital in determining the project's success and whether the project can meet the proposed timeline. During the prioritization process, we need to consider several factors. It is necessary to understand that not all factors have the same importance level, as each factor will have different impacts on the final outputs of the project. The criteria for prioritizing the Product Backlog items will mainly rely on the business value that each backlog item contributes to the overall success and goals of the project. Other factors, such as feature dependency, risk management, and customer feedback, also affect the prioritization of the product backlog items.

In this section, our team will examine the influence of different criteria on prioritizing items in the Product Backlog for our healthcare CRM system. We will focus on the five factors outlined in Part 1 to determine the hierarchy of importance among these factors within our project.

Factor 1: Business Value

After discussing this, our team agreed that this factor is the most important because it directly relates to the value we can deliver to our clients. Selecting the backlog items based on the potential business value ensures that we will develop the most valuable features for the business clients first, which helps optimize their Return on Investment (ROI).

Factor 2: Development Effort

Although this factor has a lower importance level than Business Value and Risk Management, it is considered an indispensable component in controlling the effectiveness of team operations. Selecting appropriate backlog items to develop in a sprint is crucial for team resource allocation and planning. The chosen items should not make the team workload too stressful but should be realistic and ensure effective resource utilization.

Factor 3: Feature Dependency

In the Product Backlog we prepared in our Project Proposal, all required functionality is placed in appropriate sprints to prevent feature dependency. We understand that items that have dependencies on other features must be developed first. Therefore, this is not the key factor that needs to be considered when selecting items from our available sprint backlog.

Factor 4: Timeline

While following the timeline is necessary for a project, our team decided not to prioritize this factor in selecting backlog items as it does not act as a separate factor in prioritization. The timeline will depend on other factors, such as Business Value or Development Effort. The project timeline is more flexible than other factors as we can narrow it when needed to enhance the Business Value. However, if there are strict deadlines, we still consider the timeline factor to prioritize the item selection.

Factor 5: Risk Involved

We believe that everything will have its risks, and it is impossible to eliminate all risks that may occur in our project. The only way to reduce the negative impact of risks on the project's success is by managing and mitigating risks. Having a clear understanding of risks and prioritizing items based on the level of risk allows our Agile team to resolve uncertainties or pitfalls early. If many risks exist in one project, it will prevent all features from reaching the customer's needs. It means "Everything is developed, but nothing is completely done".

From the above analysis, we determined the prioritization of factors in selecting our sprint backlog items as follows:

Priority	Factors
1	Business Value
2	Risk Involved
3	Development Effort
4	Feature Dependency
5	Timeline

The choice to assign a higher weight to a factor depends on the specific goals of the products. We are working to develop a CRM system for a healthcare center, which focuses on two points: providing patients with easy access to the healthcare center services and supporting healthcare employees to manage the business operation effectively. Therefore, our team will concentrate on the Business Value first when selecting sprint backlog items to ensure that all core functionalities meet customer demands with the highest Business Value. We also pay more attention to the Risk-involved factors as health & medicine is always a sensitive field. Prioritizing the backlog items related to security risks, and patients' data risks is necessary to increase the delivered Business value and gain clients' trust

From the perspective of our Scrum team, there is no proper weighing among these factors for all projects. The determination of the weighing cannot be solely left to the Scrum team. Instead, it requires collaboration and discussion among the project stakeholders and the development team to find proper weighing. The weighing among these prioritizing factors should follow the project vision, requirements, and goals.

PART 3

Use your criteria in Task 2 above to select the highest priority item from the Product backlog that could be developed in one sprint

Our healthcare CRM system project is in **Sprint 1 - Patient Engagement and Patient account registration**. The highest priority item selected from the Sprint Backlog will be specified and briefly explained as follows:

Item name: Allow the patient to register an account on the patient engagement platform

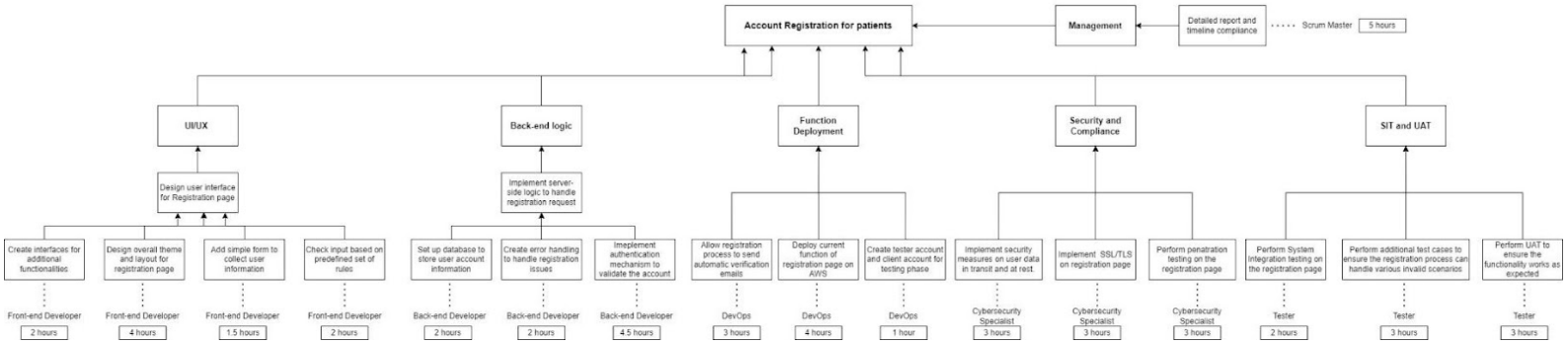
Item Description

The registration functionality allows both patients and healthcare staff to create accounts on the patient engagement platform, with different roles assigned to each account type. This involves designing a user interface, in which patients can enter their personal information when creating an account. The registration process must validate all input fields to ensure the accuracy of account details, and it should have secure authentication protocols to protect the confidentiality of patient information. The registration process should be user-friendly, facilitating easy access to essential information and healthcare services on the platform, while also supporting the Customer Relationship Management (CRM) system of the healthcare center.

Sub-tasks

- Design the user interface for the Registration page
- Add input fields to collect user information (name, password, email, phone, etc.)
- Check the requirements of each input field based on the predefined set of rules
- Set up the database to store user account information
- Implement server-side logic to handle the registration request
- Implement the authentication mechanisms to validate the account
- Allow the registration process to send automatic verification emails
- Create error handling to handle any registration issues
- Implement security measures (encryption, hashing) to protect user account information
- Perform UAT testing to ensure the functionality can work correctly
- Perform additional test cases to ensure the Registration process can handle different invalid scenarios (invalid fields, blank inputs, submit when the form is not completed)

PART 4: Work Breakdown Structure



Rationale

Our Scrum Team uses a Work Breakdown Structure (WBS) to provide a clear and organized view of the project's scope and deliverables, it is a visual representation of the project's goals, sub-deliverables, and work packages which helps to organize and structure the project tasks. The first sprint of our project aims at completing the Account Registration functionality for the patient, which comprises 6 main objectives with an estimated duration of 48 hours: UI/UX design, Back-end logic design, function deployment on AWS, Security and Compliance, testing including SIT and UAT, and the overall management tasks for our team.

Overall, with a clear understanding of key factors and a well-constructed WBS, we lay a steady foundation for our project planning, execution and communication, ensuring that all project activities are accounted for and contributing to the successful completion of the Healthcare Customer Relationship Management System.