

**SWE30010 - Managing IT Projects**

**TASK 08: Sprint Planning Meeting**

HUMAN RESOURCE MANAGEMENT WITH

ATTENDANCE SYSTEM

*Group 2*

**GROUP 2 INFORMATION**

| **Name** | **ID** | **Tutor** | **Class** |
| --- | --- | --- | --- |
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**INTRODUCTION**

In any Agile development project, the process of selecting backlog items for a sprint is crucial for ensuring the successful delivery of features and meeting stakeholder expectations. During the Sprint Planning Meeting, our team engages in discussions to prioritize product backlog items based on various factors. In this project, we will discuss the factors considered by the team and formulate criteria for prioritizing the product backlog items for our hypothetical project.

**BACKLOG**

**Initial Release Schedule of the Product backlog item**

For this task, we focused on the first sprint of the full project. The items included in sprint ome are as follow:

| **No.** | **Item** | **Dependencies** | **Business Value (1 least – 10 most)** | **Release Schedule** |
| --- | --- | --- | --- | --- |
| **F1** | **Product UI/UX Design** | **None** | **7** | **Sprint 1** |
| **F2** | **Website for HRM** | **None** | **9** | **Sprint 1** |
| **F3** | **HR database schema design** | **F2** | **8** | **Sprint 1** |
| **F4** | **Manager Portal** | **F1, F3** | **7** | **Sprint 1** |
| F5 | Employee Feedback and Survey Module | F1, F3 | 6 | Sprint 2 |
| F6 | Employee information form implementation | F3 | 8 | Sprint 2 |
| F7 | Fingerprint scanner implementation/installation | F3 | 8 | Sprint 2 |
| F8 | Recruitment module development | F3 | 7 | Sprint 2 |
| F9 | Payroll calculation module development | F3 | 7 | Sprint 2 |
| F10 | On and Offboarding template implementation | F3, F6 | 6 | Sprint 3 |
| F11 | Leave request feature implementation | F3, F6 | 6 | Sprint 3 |
| F12 | Performance evaluation module development | F3, F6 | 6 | Sprint 4 |
| F13 | Implement reporting dashboard | F9 | 8 | Sprint 4 |

**SPRINT DEVELOPMENT**

# **Important Factors**

There are several factors to consider when prioritizing a backlog item to work on for a Sprint. These factors are:

* Business Value: Business value refers to the importance of each backlog item in achieving project goals and delivering value to stakeholders.
* Development Effort: Development effort encompasses the time, resources, and complexity required to implement each backlog item.
* Feature Dependency: Feature dependency refers to the extent to which a backlog item relies on other features or components.
* Date Needed / Timeline: The urgency and timeline constraints associated with each backlog item.
* Risk Involved: Risk assessment involves identifying potential risks and uncertainties associated with each backlog item that will have a negative impact on project timelines.

After careful discussion with our team, we have finalized the following factors to be the most crucial to the success of this project:

* Business Value: Business value is an important factor to this project as it directly correlates to the project’s goals and contributes to overall success and stakeholders satisfaction.
* Development Effort: Development effort is another crucial factor to consider for proper resource and time allocation.
* Risk Involved: Understanding the risks involved with a task is vital to delivering a satisfactory product. By prioritizing items with higher risk, you can mitigate potential issues early in the development process.

The factors we discarded are:

* Feature Dependency: Feature dependency is discarded as we have decided that if we depended on it too much as a prioritization factor, we would be unable to pinpoint which task is the most important. An item of higher significance might be dependent on a less important preceding item, resulting in that more important task being locked out.
* Date Needed / Timeline: While timeline considerations are important for overall project planning and scheduling, the team has decided that timeline constraints can be addressed at a higher level during release planning and sprint planning.

# Criteria for Backlog Items prioritization

We will attempt to develop our criteria by answering the following questions:

1. What if not all factors are of equal importance?
2. Why does a particular factor have a higher weight than the other?
3. What should be the proper weighing among these factors?

**Question 1.**

We need to determine the importance of each factor as it serves as the foundation for effective task management. Without categorizing and weighing factors, it becomes challenging to establish priorities, keep track of tasks, and assign them to team members.

**Question 2.**

Putting an emphasis on the weight of business value is imperative due to its direct correlation with the project's overall success. By evaluating tasks based on their business value, we align our efforts with strategic objectives, ensuring that resources are directed towards tasks that contribute most significantly to project goals.

Once the business value is determined, we delve into assessing the effort required to develop specific features or tasks. While considering development effort is essential, it takes a backseat to business value in our decision-making process. Tasks with higher business value may warrant greater effort to ensure their successful implementation.

Furthermore, we also factor in the risk associated with each task. Assigning weights to risk helps in prioritizing tasks that may pose potential challenges or setbacks to the project. By addressing high-risk tasks proactively, we mitigate potential negative impacts on project timelines and outcomes.

**Question 3.**

With these considerations, we assign weights to each factor to guide our decision-making process effectively:

* Business Value: 50%
* Development Effort: 30%
* Risk Involved: 20%

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# Sprint Backlog Item to develop

Based on the criteria above, our team has decided that the item *F2*, namely *“Website for HRM”* is the most important task and should be prioritized above all. It has the highest business value in Sprint 1 and is the core of the project, hosting the various functionalities later on, meaning many items are also dependent on it.

# Work Breakdown Structure

We first examine the Product Backlog Items list and determine the task needed to be used in the WBS chart, after careful discussion and consideration, there are four (4) items and 20 tasks that need to be done in Sprint 1.

| **Item** | **Task ID** | **Description** | **Dependency** |
| --- | --- | --- | --- |
| Product UX/UI Design | T1 | Research the overall design  of current Gemadept’s system. | None |
|  | T2 | Sketch initial wireframes on paper or using digital tools to visualize the basic layout and flow. | T1 |
|  | T3 | Design high-fidelity mockups using design software like Sketch or Figma, incorporating branding elements and visual styles. | T1, T2 |
|  | T4 | Come up with the UI code and structure. | T3 |
|  | T5 | Conduct usability testing with a sample group of users to gather feedback on the design and iterate accordingly. | T4 |
| Base website for HRM | T6 | Develop a sitemap to organize the structure and navigation of the website. | T5 |
|  | T7 | Design and implement a responsive front-end using HTML, CSS, and JavaScript frameworks. | T6 |
|  | T8 | Fine tune the UI code to make it closely align to the UX/UI. | T4, T7 |
|  | T9 | Set up a back-end system to handle user authentication, database interactions, and business logic using technologies like Node.js or Django. | None |
|  | T10 | Conduct front and back-end testing to ensure the application meets business expectations. | T9 |
| HR database schema design | T11 | Identify and prioritize the key entities in the HR domain, such as employees, departments, and positions. | None |
|  | T12 | Create an entity-relationship diagram (ERD) to visualize the relationships between different entities. | T11 |
|  | T13 | Define the attributes and data types for each entity based on the information to be stored. | T12 |
|  | T14 | Normalize the database schema to eliminate redundancy and minimize data anomalies. | T13 |
|  | T15 | Review and optimize the schema design for performance and scalability, considering factors like indexing and query optimization. | T14, T10 |
| Manager Portal | T16 | Gather requirements from managers and stakeholders to understand their needs and expectations. | T10 |
|  | T17 | Create user stories or use cases to document the desired functionality of the portal. | T16 |
|  | T18 | Develop features such as employee performance dashboards, task management tools, and reporting capabilities. | T5, T10 |
|  | T19 | Implement role-based access control to ensure that managers only have access to relevant data and functionality. | T18 |
|  | T20 | Test the functionality to ensure the feature is up to compliance and security. | T19 |

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*Figure 4: WBS Chart*