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***Unit Name : Managing IT Projects***

***Unit Code : SWE30010***

**Project Proposal[[1]](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?new=1&ui=en-US&rs=en-US&wopisrc=https://studentsswinburneedu-my.sharepoint.com/personal/102781080_students_swinburne_edu_my/_vti_bin/wopi.ashx/files/cb66c0d3fded44418f00eb612b578de8&wdnewandopenct=1727404912773&wdorigin=OFFICECOM-WEB.MAIN.NEW&wdprevioussessionsrc=HarmonyWeb&wdprevioussession=e4caa159-80d8-4b61-b1eb-ca260ea2ce5e&wdenableroaming=1&mscc=1&wdodb=1&hid=803854A1-107B-3000-CAFF-66BA05FE32FB.0&uih=sharepointcom&wdlcid=en-US&jsapi=1&jsapiver=v2&corrid=49136649-5f2a-fe66-27da-3d01ce9844cb&usid=49136649-5f2a-fe66-27da-3d01ce9844cb&newsession=1&sftc=1&uihit=docaspx&muv=1&cac=1&sams=1&mtf=1&sfp=1&sdp=1&hch=1&hwfh=1&dchat=1&sc={"pmo":"https://studentsswinburneedu-my.sharepoint.com","pmshare":true}&ctp=LeastProtected&rct=Normal&wdhostclicktime=1727404913294&wdredirectionreason=Unified_SingleFlush" \l "_ftn1" \t "_blank) : *Intelligent Chatbot for Software Project Knowledge Management***

**Background**

Mr. Lei Sing Hong, founder of a local startup that provides software maintenance services, has identified a critical challenge in his growing team. With multiple ongoing software projects and a new programmer struggling to quickly understand the complexities of these applications, Mr. Lei aims to improve team productivity and onboarding efficiency. The proposed solution is an intelligent chatbot capable of reading, understanding, and responding to inquiries about software documentation, project progress, client information, and more. This will provide an efficient way for employees to access contextual knowledge quickly, thereby reducing the time spent on searching for information and increasing productivity.

**Scope**

The main objective of this project is to design and develop an intelligent chatbot that helps Mr. Lei’s team manage project information more efficiently. The chatbot will be able to understand and respond to queries regarding various software projects, providing updates on project status, retrieving client details, and allowing users to access and search relevant documentation.

The chatbot will have several specific capabilities:

* It will be integrated with the company's project management system to allow real-time tracking of project status.
* It will use natural language processing (NLP) to understand and respond to user queries related to project documentation.
* The chatbot will enable users to easily retrieve client information, project timelines, and generate automated reports.
* The system will also allow team members to track project progress and update statuses based on current developments.

**Deliverables and schedule**

By the time we need to meet our client and present the final progress, the team will provide a draft of certain part for our software project such as the authentication to access specific documents. There will also be user manual provided and some tutorials for the staffs to refer to help them to understand the purpose of each feature. This project will need be done in the end of the semester which is in week 12.

1. Intelligent Chatbot Software

* Fully functional chatbot capable of reading, interpreting and responding to queries related to project documentation, progress and clients.
* A user-friendly interface for user to easily use it.

1. User Documentation

* A comprehensive user manual detailing how to interact with the Intelligent Chatbot, covering its functionalities, query handling and troubleshooting.
* FAQs section which can enhance user experience and improve user experience.

1. Training Program

* Provide a training session for employees who use the chatbot to familiarize themselves with chatbot features including hands-on sessions or workshops,

1. Repository of Project Information

* The website portal with access to the most recent data of the client project which includes resources, updates and documentation.
* Improving search functionality to speed up obtaining data and navigation.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Item | Dependencies | Business Value (1 least – 10 most) | Release Schedule  (Sprint #1 | 2 | 3 | …) |
| 1 | Set up chatbot framework (create basic structure) | None | 10 | Sprint #1 |
| 2 | The staffs can understand the documents easier since the chatbot will explain it in simpler form. | None | 9 | Sprint #1 |
| 3 | Each user from different departments/group projects are given specific authentication to access their project. | 1 | 9 | Sprint #1 |
| 4 | Staffs can retrieve back the archive chats for future reference. | 1 | 6 | Sprint #1 |
| 5 | The admin and project manager can manage the project status (Project progress tracking, generate reports). | None | 7 | Sprint #2 |
| 6 | The boss can access all type of information within seconds such as client’s contracts, technical specifications, meeting notes, etc. | 4 | 4 | Sprint #2 |
| 7 | The staff can use the chatbot to identify any errors such as bug tracking, code structure and algorithm. | 4 | 7 | Sprint #2 |
| 8 | Users are capable to personalize the settings such as the preferred language. | None | 2 | Sprint #3 |
| 9 | Integrate natural language project (NLP) tools for analysing project documentation | None | 6 | Sprint #3 |
| 10 | Technical Query Support – Chatbot be able to answer all technical questions (programmers) | None | 8 | Sprint #3 |

**Group 1**

|  |  |
| --- | --- |
| **Student ID** | **Name** |
| 104386380 | Bazilah Mardhiah Binti Azman |
| 101226470 | Lorenzo Anak Martin |
| 101215931 | Derrick Lu Qing Lee |
| 102781080 | Nur Nazurah Binti Abdul Rased |

***Comments:***   
**Lorenzo Anak Martin** – I agreed on backlog item 3 and 4 to be in sprint 1# and sprint #2 respectively. First and foremost, for item 3, retrieving archive chats for future references is valuable for staff. This is entirely because it can affect most of the project’s decision making, and communication. By allowing team members to use archived chats for references, it can help the team members to not missed out any crucial information that affect the project. Thus, I agree this feature to be in sprint #1. Secondly for project status I would agree it would be in sprint #2. This is highly because generating project’s reports and status heavily dependent on collecting and gathering project data. Without the existing project, any data or information wouldn’t exist in the first place. Reports and status updates require a foundation of ongoing tasks, milestones, and progress tracking, which takes time to accumulate. Therefore, this feature is believed to be in Sprint #2. 

**Derrick Lu Qing Lee** - I agree that the feature allowing staff to retrieve archived chats for future reference should be included in **Sprint 1**. This functionality is essential from the start as it enables team members to revisit previous conversations, ensuring important information is not missed and enhancing collaboration. Since it is a core feature, implementing it early will improve the overall effectiveness of the chatbot. Additionally, the feature allowing the admin and project manager to manage project status and generate reports should be placed in **Sprint 2**. Although it provides significant business value, the technical complexity of integrating project progress tracking and report generation with the project management system may require a more stable framework. Thus, it is better suited for development once the foundational chatbot functions are established.

**Bazilah Mardhiah Binti Azman** - Overall, I agree with the proposed changes to the project background, which now includes more detailed explanations. We have also updated the scope, deliverables, and schedule accordingly. For the product backlog items, we have agreed to add more items and adjust the sprint allocations for items 4 and 5. I believe it will require more time for the admin to assign specific authentication to each user, particularly since different group projects will require unique access permissions. As for the item 5, I agree with Derrick point regarding placing the project status management and report generation features in **Sprint 2**. It makes sense to prioritize the foundational chatbot functionalities first, as they create the necessary structure for a more complex system. The integration of project tracking and reporting will be more effective once the core framework is stable. This approach not only minimizes potential risks but also ensures smoother implementation of the more technically demanding features.

**Nur Nazurah Binti Abdul Rased** – For this task, we had all decided and agreed with all the changes and updates from the background until the backlog. We compared all our pass task 1 and come up with this new updated project proposal. I agree with everything especially the backlog parts. I believe it’s better to put item 4 in Sprint #1 and item 5 in Sprint #2. Logically, I would understand why they could be put in the first sprint which is Sprint #1 as both items has a high business value but, in my opinion, it would be too heavy for our team to make it happen as both of it hold an important part for this project. Furthermore, we have a limited time for each sprint, and to make it all done with their respective time, I believe it’s better to balance the tasks out instead of pushing all the heavy and important tasks into one sprint. Since items 2 until 4 have the same dependencies which is on item 1 and items 6 and 7 have dependencies on item 5, it will be much easier to separate them into two different parts or sprint for a better management.