CIS 414 – IT Project Management

Group 3

MILESTONE 1

	Student
1	Raghed Aljassim
2	Yasmeen Ibrahim
3	Lujain Alshubini
4	Hala Alyousef
5	Maen Alhammadi

Stakeholder register:

Stakeholder Register for Project Name

Prepared by: Raghed Aljassim **Date: 25 -9 - 2023**

Name	Position	Internal/External	Project Role	Contact Information
Lujain Alshubini	PMO Director	Internal	Project Manager	LujainAlshubini@gmail.com
Maen Alhammadi	Business analyst	External	Advisor	MaenAlhammadi@gmail.com
Yasmeen Alhaji	Program Manager	Internal	Program Manager	YasmeenAlhaji@gmail.com
Raghed Aljassim	CEO	Internal	Sponsor	RaghedAljassim@gmail.com
Hala Alyousef	Team Member	Internal	Programmer	HalaAlyousef@gmail.com
Fatima Alghamdi	Monsha'at/Government Funding for Small Business	External	Funder	FatimaAlghamdi@gmail.com

Stakeholder management strategy:

Name	Level of interest	Level of Influence	Potential Mangement Strategies
Lujain	High	High	Lujain is the one who came up with the project idea, she has an entrepreneur streak that usually means she tends to move at her own fast pace. Scheduled meetings are one viable way for management to offset negative effects of this tendency and maximize her leadership.
Maen	High	Low	Maen was extremely excited about the idea. Due to her more empirically oriented role in the project, it is important to make sure she has the correct information to analyze at every given situation without jeopardizing privacy.
Yasmeen	High	High	Yasmeen is a top manager in the project, she approved the project idea. Her support is crucial in the project's completion.
Raghad	High	High	Raghad is the project sponsor; she loved the project vision and sees so much potential in it. She has lofty expectations that need to be fulfilled in orderly fashion to keep her engagement and approval. Frequent reports must be prepared for her.
Hala	Low	High	Hala was ambivalent about the project idea, preferring alternative ideas presented in the meeting. She lacks in the ambition department when it comes to new ideas and prefers well tread paths. She needs to be shown the feasibility of the project to be fully engaged in the project.
Fatima	Low	High	Project must comply with the conditions presented with the acquisition of funds and keep the party informed with all necessary information.

Kick-off meeting:

KICK-OFF MEETING

14/09/2023

PROJECT NAME:

Smart System for Small Businesses Project

MEETING OBJECTIVE:

Starting with the first step in the project by discussing ideas, sharing resources, and distributing tasks for milestone one

AGENDA

- Introduction of attendees
- Review the basic idea of the project
- Lecturer review requirements
- Appropriate sources for lecturer review
- Discussion of other tasks of the First Milestone (i.e., Stakeholder register, Stakeholder management strategy, Team Contract)
- Methods of communication between group members, and teamwork files in OneDrive

Action Item	Assigned to	Due Date
Abstract of Lecturer review, Kick-off meeting	Yasmeen	16-22.09.23
Introduction of Lecturer review, Stakeholder management strategy	Lujain	16-22.09.23
Lecturer review	Hala	16.09.23
Conclusion of Lecturer review, Team contract	Maeen	16-22.09.23
Reference of Lecturer review, Stakeholder Register	Raghad	16-22.09.23

DATE AND TIME OF NEXT MEETING:

Date: 24.09.2023
Time: 5:30PM

CIS 414 – IT Project Management

Group 3

MILESTONE 2

	Student
1	Raghed Aljassim
2	Yasmeen Ibrahim
3	Lujain Alshubini
4	Hala Alyousef
5	Maen Alhammadi

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Scope Statement

Project Title: Smart System for Small Business Project.
Date: 16/9/2023
Prepared by: Lujain Alshubini , Program Manager, 2210002568@iau.edu.sa.

Project Summary and Justification:
Raghad Aljassim, CEO of multiple small and medium companies general authority (monsha'at), requested this project to assist the small companies that contribute to the development of the country's economy; therefore, this project aims to provide a smart data analysis system dedicated to small businesses to help entrepreneurs and stakeholders.
This project will help small businesses in their management. By combining the storage of data pertaining to business inventory, ins and outs, profits and losses, analysing popular opinion in social media, and using AI. This, packaged in a program with an accessible interface will help small business management in making decisions and predictions of the business future.
The budget for the project is $50000. Estimated benefits are $10000 each year.
It is important to focus on the system paying for itself within five years of its completion.

Product Characteristics and Requirements:
As a regular user of the system

1. **Templates and Tools:** The program will allow authorized user to log in, show the menu of the available processes,
2. **User-friendly Interface:** provide an easy interface to interact with.
3. **Search feature:** allow user to search for a specific kind of function/item.
4. **Inventory System:** A system for documenting business data, from the amount of resources available/used/ordered to the amount of sales, business expenses and so on. Basically an inventory of all data about the business.
5. **Function Integration:** It should integrate the different aspects of the software (inventory, AI, analysis of public data) in order to create the bigger whole, which is making predictions and decision making easier for the user.

As an administrator in the system

1. **Management and Tools:** The program will allow authorized users to create their own tabs and sections in the inventory system and allow them to hide certain information and sections of the program from average users. It also offers the function of authorizing and unauthorizing users freely for the administrator.
2. The program will be available 24 hours a day, 7 days a week, with 3 hour per week for system maintenance and other periodic maintenance, as appropriate.

Summary of Project Deliverables:

Project management-related deliverables: Literature review, Stakeholder Register, Stakeholder Management Strategy, project charter, Kick-Off Meeting Agenda, team contract, scope statement, WBS, Gantt Chart, List of Prioritized Risks.

Product-related deliverables:

1. Survey: Survey current small business owners and clients to help determine desired features of the program.
2. Instructions for using program tools: The website will include information on how to use several of the program tools, including the following as a minimum: data analysis, inventory upkeep, cost estimates, and so on. Essentially it is a guide.
3. SQL Database: To store the data for the program.
4. User Interface (UI): All the elements that the user of the program sees and interacts with.
5. Back-end code: All the processes and functionality that the program has. Server side code that cannot be accessed by the user.
6. Project benefit measurement plan: A project benefit plan will measure the financial value of the program.

Project Success Criteria:

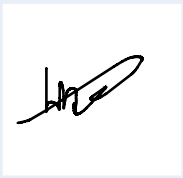
Our goal is to complete this project within 6 months for no more than $500000. The project sponsor, Raghad Aljassim, has emphasized the importance of the project paying for itself within 5 year after the program is complete. And to meet this financial goal, the program must have visible benefits to the work process, folding in multiple aspects of previous management roles into one, thus making the work much more smoother. We must also develop a method for capturing the benefits while the website is being developed and tested. If the project takes a little longer to complete or costs a little more than planned, the project will still view it as a success.

Start Date	16/9/2023
Finish Date	18/2/2024

Project Charter

Project Title	*Smart System for Small business*	**Date**	*16/9/2023*

Key Schedule Milestones	· ***Requirement analysis*** *for the whole project by 23 September 2023.* . ***Developing*** *the Information System and Testing, fixing bugs, and solving any problem along the way by 14 February 2024* · ***Designing*** *the user interface and visual features by 11 December 2023..* · Start ***Implementing*** *the System for final tests by 17 October 2023.* · ***Evaluating*** *and delivering the final product for the client with a fee by 18 February 2024.*
Budget Information	*This project is funded and supervised by (Small & Medium Enterprises General Authority). The estimated budget is 50,000 SAR for this project, the cost is for labor, training, Software and hardware.*
Project Manager	*Lujain Alshubini, (966)5068867, 2210002568@iau.edu.sa.*
Project Objectives	· *Allow users to choose one of three subscription options (there are three payment plans available with different features and prices).* · *Give users an intuitive inventory system that streamlines the documentation of business data.* · *provide the ability for the program to make analysis based on the inventory data, online reviews, and AI.* · *Provide advice and guidance on how to increase sales and social media engagement.* · *provide calculation for NVP and taxes.*
Main Project Success	*When the system achieves the main goal of it, which is creating an intuitive and accessible environment for small business owners. In addition, it should be operational at the time and cost planned.* *The Stakeholders are pleased with the result and they continue to be satisfied afterwords.*
Approaches	· *make sure to finish the project within 6 months (there is an option for a 2-month extension only).* · *Allow users to subscribe, unsubscribe, upgrade, and downgrade their plan.* · *develop a solid database system.* · *develop an attractive and friendly user interface.* · *deploy artificial intelligence technologies in analysis and advice-giving.*

Roles and Responsibilities	*Name*	*Role*	*Position*	*Contact Information*
	Lujain Alshubini	*Project manager*	**Project manager**	**2210002568@iau.edu.sa**
	Maen Alhammadi	*Developer*	**Team member**	**2210003673@iau.edu.sa**
	Raghad ALjassim	*Devolper*	**Team member**	**2210003613@iau.edu.sa**
	Yasmeen Ibrahim	*Database admistator*	**Team member**	**2210003632@iau.edu.sa**
	Hala Alyousef	*UI/UX designer*	**Team member**	**2200002309@iau.edu.sa**
Documentation	*All the project documentation are made and edited using Microsoft word, saved and kept in Microsoft one drive. Which both are provided from the university by an educational E-mail.*			
Signatures				
Comments	*None*			

Work Breakdown Structure (WBS)

Date 2/10/2023

Project: Smart System for Small Business

1. Pre-initiating.
   1.1. Prepare business case.
   1.2. Select the project manager.
2. Initiating.
   2.1. Hold project kick-off meeting.
   2.2. Identify key stakeholders.
   2.3. Prepare project charter.
   2.4. Prepare stakeholder register.
   2.5. Prepare stakeholder management strategy.
3. Planning
   3.1. Hold team planning meeting.
   3.2. Prepare team contract.
   3.3. Prepare scope statement.
   3.4. Prepare work breakdown structure- level 1 and 2.
   3.5. Prepare WBS dictionary.
   3.6. Prepare project cost estimate.
   3.7. Prepare project management plan.
   3.8. Prepare project organizational chart.
   3.9. Prepare responsibility assignment matrix.
   3.10. Prepare resource histogram.
   3.11. Prepare a list of prioritized risks.
4. Executing.
   4.1. System Survey
   4.2. Create software map.
   4.3. Develop SQL database.
   4.4. Design front-end interfaces.
   4.5. Implement back-end code.
5. Monitoring and Control.
   5.1. Progress reports.
6. Closing.
   6.1. Prepare final project report.
   6.2. Prepare final project presentation.
   6.3. Lessons learned.

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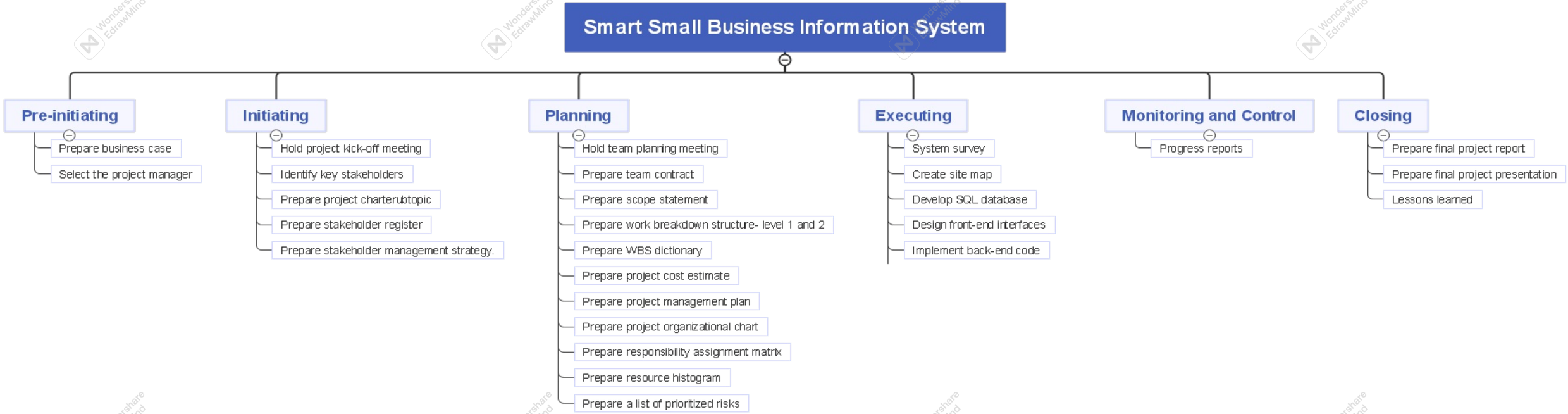

WBS Dictionary

WBS Level	WBS Code	WBS Name	WBS Description
1	1	Pre-initiating	Laying the groundwork by the senior managers of the project
2	1.1	Prepare Business Case	The project sponsors will analyse the economic feasibility of the project.
2	1.2	Select the Project Manager	Head management selecting the primary project manager who will be responsible for managing the team.
1	2	Initiating	Starting the project
2	2.1	Hold project kick-off meeting	The project sponsors and management will hold a meeting to discuss their future plans and officially start the project
2	2.2	Identify key stakeholders	Specifying who the most crucial stakeholders are
2	2.3	Prepare project charter	Develop the project charter that outlines the scope, objectives, and approach.
2	2.4	Prepare stakeholder register	Documenting the individuals and groups affected by the project.
2	2.5	Prepare stakeholder management strategy	Craft the plan of engagement and communication with the stakeholders
1	3	Planning	Start the planning of execution
2	3.1	Hold team planning meeting	Arrange a meeting with the project team in order to define the responsibilities of each member and the

			objectives of the project
2	3.2	Prepare team contract	Define the terms and conditions that the project team will be operating under
2	3.3	Prepare scope statement	Defining and documenting the scope of the project. Meaning what will be included in the project and the requirements.
2	3.4	Prepare work breakdown structure-level 1 and 2	Creating the foundational document of the project. This document breaks down the project into manageable steps, thus providing the basis for planning and management of the project. However, this one will only include 2 levels for the sake of levity.
2	3.5	Prepare WBS dictionary	Making the WBS dictionary, the purpose of it is to elaborate on the steps of the project.
2	3.6	Prepare project cost estimate	Developing an approximation of the amount of resources needed to complete the project.
2	3.7	Prepare project management plan	Develop a comprehensive plan that outlines the approach, processes, and tools for managing the project.
2	3.8	Prepare project organizational chart	Creating an illustrative chart that makes the project team structure easier to visualize

2	3.9	Prepare responsibility assignment matrix	Assign and delegate tasks and responsibilities to project team members and stakeholders.
2	3.10	Prepare resource histogram	Determine what resources are needed and how much of said resource is required for the completion of the project
2	3.11	Prepare a list of prioritized risks	Identify what risks could befall the project and how likely each risk is to actually occur.
1	4	Executing	Starting the actual execution. This part will take the most time and resources to finish.
2	4.1	System Survey	Conduct a survey to gather information about the problems facing the company and developing a plan for implementing the system design concept that has been chosen.
2	4.2	Create software map	Develop a visual representation of the software (Smart System for Small Business) structure and navigation
2	4.3	Develop SQL database	Design and build a SQL database to store and manage data for the software
2	4.4	Design front-end interfaces	Create the user interface design for the program, this pertains the layout, graphics, and any interactive element.

2	4.5	Implement back-end code	Develop the server-side code, processes, security.
1	5	Monitoring and Control	The monitoring period of the project, which involves measuring the progress towards the objectives of the project and correcting any deviation from the plan.
2	5.1	Progress reports	Creating a document that explains how much progress is made on every objective of the plan.
1	6	Closing	The final period of the project. We measure the acceptance of the stakeholders of the project results.
2	6.1	Prepare final project report	Writing a report that documents the performance of the project and compares it to the original scope and goals of the project.
2	6.2	Prepare final project presentation	Prepare a presentation for the stakeholders. The presentation should summarize the implementation of the project, the problems faced during the project (if any), how they were solved, the final results of the project and the future direction of the organization.
2	6.3	Lessons learned	Document information about both the positives and

			negatives of the project

Project: Smart System for Small Business Project.

Project start: Sat, 9/16/2023
Display week: 1

TASK	START	END
1. Pre-initiating.	9/16/23	9/19/23
1.1. Prepare business case.	9/16/23	9/19/23
1.2. Select the project manager.	9/17/23	9/17/23
2. Initiating.	9/20/23	9/23/23
2.1. Hold project kick-off meeting.	9/20/23	9/20/23
2.2. Identify key stakeholders.	9/21/23	9/22/23
2.3. Prepare project charter.	9/21/23	9/22/23
2.4. Prepare stakeholder register.	9/22/23	9/23/23
2.5. Prepare stakeholder management strategy.	9/23/23	9/23/23
3. Planning	9/26/23	10/15/23
3.1. Hold team planning meeting.	9/26/23	9/26/23
3.2. Prepare team contract.	9/27/23	9/28/23
3.3. Prepare scope statement.	9/29/23	10/1/23
3.4. Prepare work breakdown structure- level 1 and 2.	10/2/23	10/4/23
3.5. Prepare WBS dictionary.	10/4/23	10/4/23
3.6. Prepare project cost estimate.	10/4/23	10/4/23
3.7. Prepare project management plan.	10/4/23	10/5/23
3.8. Prepare project organizational chart.	10/5/23	10/5/23
3.9. Prepare responsibility assignment matrix.	10/7/23	10/10/23
3.10.Prepare resource histogram.	10/11/23	10/13/23
3.11.Prepare a list of prioritized risks.	10/14/23	10/15/23
4. Execution	10/17/23	2/14/24
4.1. System survey.	10/17/23	10/21/23
4.2. Create software map.	10/17/23	10/27/23
4.3. Develop SQL database.	10/29/23	11/7/23
4.4. Design front-end interfaces.	11/7/23	11/12/23
4.5. Implement back-end code.	11/16/23	2/14/24
5. Monitoring and Control.	10/17/23	2/14/24
5.1. Progress reports.	10/17/23	2/14/24
6. Closing.	2/9/24	2/18/24
6.1. Prepare final project report.	2/9/24	2/10/24
6.2. Prepare final project presentation.	2/10/24	2/16/24
6.3. Lessons learned.	2/16/24	2/18/24
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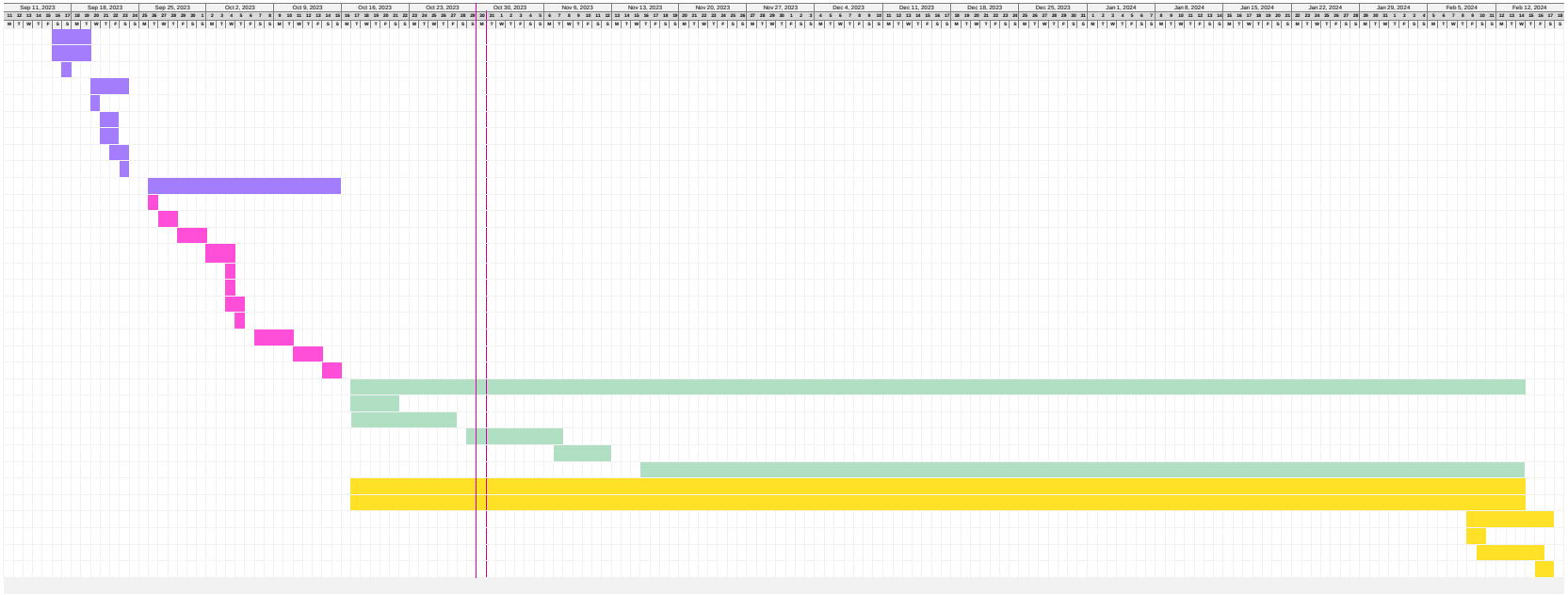

Milestone 2 Report

Milestone	Date	Status	Responsible	Issues/Comments
Work Breakdown Structure Level 2+WBS dictionary	27/10/2023	Done	1- Hala Alyousef 2- Raghad ALjassim	-
Gantt Chart	28/10/2023	Done	Maen Alhammadi	-
Scope Statement	27/10/2023	Done	Yasmeen Ibrahim	-
Project Charter	27/10/2023	Done	Lujain Alshubini	-
Milestone 2 Report	28/10/2023	Done	All the team	-

CIS 414 – IT Project Management

Group 3

MILESTONE 3

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4	Hala Alyousef
5	Maen Alhammadi

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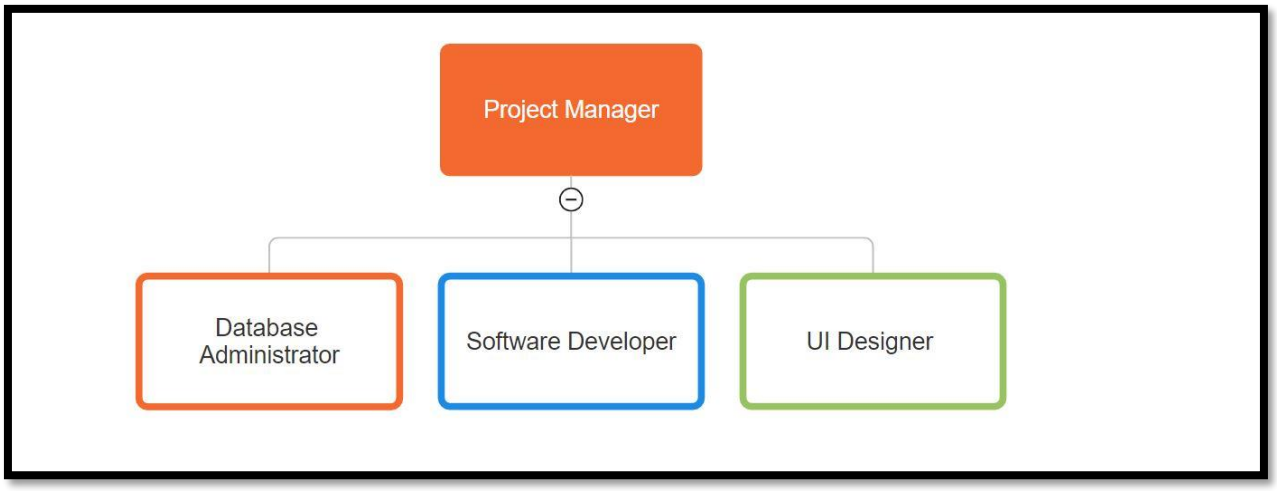
Project Cost Estimate

WBS Categories	Labor	Hours	SAR/Hour	Total (SAR)	WBS Level 2 Total	% of Total
1. Pre-initiating					SAR 500	
1.1. Prepare business case.	1	3	SAR 100	SAR 300		**0.83%**
1.2. Select the project manager.	1	2	SAR 100	SAR 200		
2. Initiating.					SAR 1440	**2.39%**
2.1. Hold project kick-off meeting.	2	2	SAR 80	SAR 320		
2.2. Identify key stakeholders.	2	2	SAR 80	SAR 320		
2.3. Prepare project charter.	1	3	SAR 100	SAR 300		
2.4. Prepare stakeholder register.	1	2	SAR 100	SAR 200		
2.5. Prepare stakeholder management strategy.	1	3	SAR 100	SAR 300		
3. Planning					SAR 3900	**6.49**
3.1. Hold team planning meeting.	5	3	SRA 80	SAR 1400		
3.2. Prepare team contract	1	2	SAR 100	SAR 200		
3.3. Prepare scope statement.	1	3	SAR 100	SAR 200		
3.4. Prepare work breakdown structure- level 1 and 2.	1	2	SAR 100	SAR 200		
3.5. Prepare WBS dictionary.	1	2	SAR 100	SAR 200		
3.6. Prepare project cost estimate.	1	3	SAR 100	SAR 300		
3.7. Prepare project management plan.	1	3	SAR 100	SAR 300		
3.8. Prepare project organizational chart.	1	3	SAR 100	SAR 300		
3.9. Prepare responsibility assignment matrix.	1	3	SAR 100	SAR 300		
3.10.Prepare resource histogram.	1	3	SAR 100	SAR 300		
3.11.Prepare a list of prioritized risks.	1	2	SAR 100	SAR 200		
4. Executing.					SAR 54400	**90.45%**
4.1. System Survey	2	20	SAR 80	SAR 3200		
4.2. Create software map.	2	10	SAR 80	SAR1600		
4.3. Develop SQL database.	4	30	SAR 80	SAR9600		
4.4. Design front-end interfaces.	4	40	SAR 100	SAR 16000		
4.5. Implement back-end code.	4	60	SAR 100	SAR 24000		

5. Monitoring and Control.					SAR 500	**0.83%**
5.1. Progress reports.	1	5	SAR 100	SAR 500		
6. Closing.					SAR 700	**1.16%**
6.1. Prepare final project report.	1	3	SAR 100	SAR 300		
6.2. Prepare final project presentation.	1	2	SAR 100	SAR 200		
6.3. Lessons learned.	1	2	SAR 100	SAR 200		

Total of cost estimate=60140 SAR

Project Organizational Chart



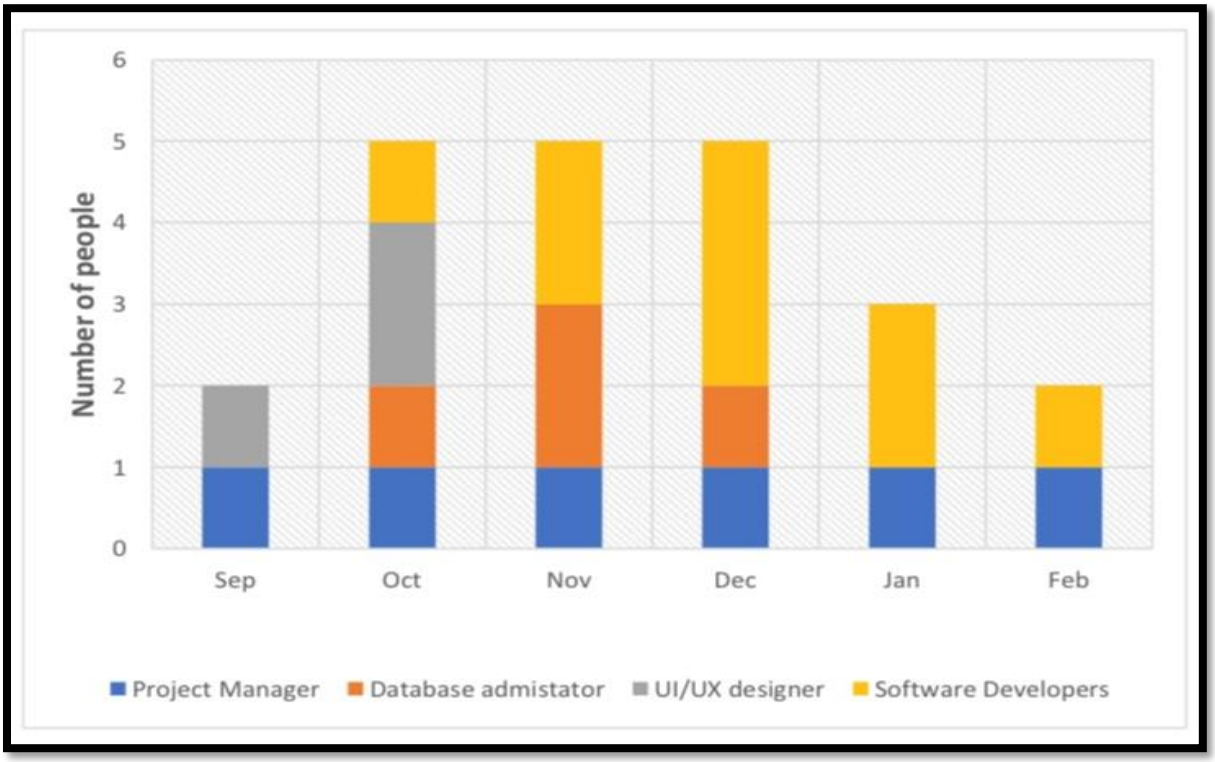
Responsibility Assignment Matrix

WBS Code	Project Manager	Software Developer	Project Sponsor/CEO	Database Administrator	Business Analyst	UI Designer
1.1. Prepare business case.			R,P		P	
1.2. Select the project manager.			R,P			
2.1. Hold project kick-off meeting.	P,R	P	R,P	P	P	P
2.2. Identify key stakeholders.	P,R		P,R		R,P	
2.3. Prepare project charter.	R,P		P		P	

2.4. Prepare stakeholder register.	P		P		R,P	
2.5. Prepare stakeholder management strategy.	R,P					
3.1. Hold team planning meeting.	R,P	P	P	P		**P**
3.2. Prepare team contract	R,P	P	R,P	P		**P**
3.3. Prepare scope statement.	P		R,P			
3.4. Prepare work breakdown structure- level 1 and 2.	R,P		P	P		
3.5. Prepare WBS dictionary.	R,P		P			
3.6. Prepare project cost estimate.	R,P		R,P	R,P		
3.7. Prepare project management plan.	R,P					
3.8. Prepare project organizational chart.	R,P		R,P			
3.9. Prepare responsibility assignment matrix.	R,P					
3.10.Prepare resource histogram.	R,P					
3.11.Prepare a list of prioritized risks.	R,P		R,P		P	
4.1. System Survey			R,P		P	
4.2. Create software map.	R	R,P		P,R		P,R
4.3. Develop SQL database.	R	P		R,P		P
4.4. Design front-end interfaces.	R					R,P
4.5. Implement back-end code.	R	R,P		P		

5. Monitoring and Control.	R	R,P		R,P		R,P
5.1. Progress reports.	R,P	R,P		R,P		R,P
6.1. Prepare final project report.	R,P					
6.2. Prepare final project presentation.	R,P	P		P		P
6.3. Lessons learned.	R,P		R,P		P	

Resource Histogram



Resource /Month	Sep	Oct	Nov	Dec	Jan	Feb
Project Manager		1	1	1	1	1
Database admistator		0	1	2	1	0
UI/UX designer		1	2	0	0	0
Software Developers		0	1	2	3	2

List of prioritized risks

Ranking	Potential Risk
1	Project not meeting the scope/ objectives
2	Lack of management
3	Absence of leadership
4	Budget overrun
5	Technology risk – such as providing artificial intelligence technologies in analysis and advice giving
6	Wrong time estimation, missing deadline
7	People risk - Lack of users
8	Designing the user interface
9	Competitors developing the same project
10	Unprecedented surprises. For instance, the Covid-19

Probability / Impact matrix

Probability	Low	Medium	High
High		**Risk 3**	**Risk 2**
Medium		**Risk 6**	**Risk 4** **Risk 5** **Risk 1**
Low	**Risk 10**	**Risk 7** **Risk 9**	**Risk 8**

Impact

Milestone report

MILESTONE	DATE	STATUS	RISPONSBLE	ISSES/COMMENTS
Project Cost Estimate	29/11/2023	**Done**	Raghed Aljassim	**It took time to search for similar examples of cost estimation**
Project Organizational Chart	30/11/2023	**Done**	Hala Alyousef	**took much less time and was easier to solve because the organization is very small.**
Responsibility Assignment Matrix	30/11/2023	**Done**	Hala Alyousef	**I had trouble with the responsibility matrix where the juggling of the external stakeholders roles and the internal stakeholders roles was somewhat confusing to manage.**
Resource Histogram	29/11/2023	**Done**	Maen Alhammadi	**The task took longer than I expected.**
List of prioritized risks		**Done**		**The only part I had trouble with is deciding the specific order of the risks as the team had disagreements on whether some risks might be considered redundant or in the wrong placement.**
Milestone report	2/12/2023	**Done**	Lujain Alshubini	-
Trello Snapshots	19/11/2023 to 2/12/2023	**Done**	Lujain Alshubini	**The Trello progressed smoothly after I got the handle of it.**