



# STC pay Digital Bank

**CPIS-334 | Introduction to Software Project**

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11/6/22

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## Introduction

The emergence of technology has contributed to increasing human interaction with data, specifically financial transactions. We need ways to help pay in easy and inexpensive ways without the need to resort to the bank obtaining bank cards and making transfers manually which wastes time and cost when printing thousands of credit cards for thousands of people. STC PAY shortens the time and facilitates the payment and transfer processes. STC PAY provides an e-wallet service where people are allowed to safely control their payments, and also allows individuals to transfer, receive and control all their money through one application only. There are many features that will be mentioned in the next section.

## Purpose of the Project

Within this fast-paced world, we need to purchase, transfer, or receive money from the comfort of our homes. Moreover, it is much easier to leave the house with a digital wallet on a mobile phone instead of a physical wallet. We also need a tool that facilitates us to buy within a group so we can split the bill between us, these features come with our application STC pay.

STC pay helps people to easily buy, transfer, receive money, pay bills, or even take advantage of good offers from many companies. What makes it more unique is the money split feature which lets people split the bills with three different options: split equally, customize, or percentage. What is more surprising is that it aids in sending gifts or transferring money by number or international transfer! Also, you can send to your friend or family member "I need help" within the app and he can send you money. There are many, many things, but we just mentioned here what will catch your eye.

## Goals and Objectives of the Project

### Goals:

- Provide a variety of digital banking services.
- Provide a convenient and secure means of transferring and receiving payments.
- Increase customer satisfaction.
- Offer innovative solutions.
- Reduce dependency on cash.
- Provide a reliable and secure digital bank.

### Objectives:

- Design a user-friendly and clear mobile app user interface.
- Analysis of the risk, threats, and problems that may occur during the project management processes.
- Offering multi-factor authentication to all users in order to verify their identity when login.
- Offering digital cards along with physical cards.
- Enable customers to manage their finances by adding money and paying bills.
- Offers diverse transforming methods, such as transforming to contacts, and local and international banks.
- Enable users to request money or send gifts to/from their friends and family member.
- Enable users to split bills.
- Create a database that stores the customer's information.

### Scope Statement:

A new database with the customer's bank account information will be needed for this project. We will require a database server that performs the user-requested services in order to store the data. Besides 5G, 4G, WI-FI, or any network modems, the project also requires a reliable link server to respond to the app and the devices.

# Project Charter

**Project Title:** STC pay system software

**Project Start Date:** 30-10-2022

**Project Finish Date:** 29-03-2023

**Budget Information:** The total expense is 282,750,00 SAR. (Only to software part , other cost such as salaries the banks will take this responsibilities). Most of the costs will be incurred in the creation of a Database and design for the system. The rest of work will be for the execution phases.

## Project Manager:

Ghada Eissa Alsulmi , (+966) 50 999 0008, [Ghada\\_Eissa@gmail.com](mailto:Ghada_Eissa@gmail.com)

## Project Objectives:

Create and design a high-security banking payment system. Besides security, the system's most feature is the user's enabled to use his STC pay in everywhere so he can really depend on her than the other original card and with more feature such as split bills between friends in the same time or gift a friend in the application. Whenever the user uses the application he is simply, needs to enter the password and user name so he can access and use the features of the STC pay .

## Main Project Success Criteria:

To make the project successful, the manager should ensure that the project should Meets The following quadruple constraints:

- Scope: Cover all the untraditionally features than the other credit card that supplied by local banks.
- Time: Finish the project within the estimated date of 29-03-2023.
- Cost: Finish the project without overrunning the estimated budget.
- Quality: Gain customer trust and satisfaction.

## Approach:

- Obtaining approval from the Ministry of Interior to launch the project, means we need sensitive information about the user to make him access and use the application.
- Cooperation with local banks in the Kingdom of Saudi Arabia.
- Cooperation with the National Cybersecurity Authority.
- Cooperation with internationals/locals companies, stores and hospital so we can give the user of the STC pay system more offers and special discounts.
- Create a configurable user interface for the system in phones app.
- Create a database that contains all the bank's client information.

- System integration.
- Multi-test for software performance, quality, user friendly, and adaptability. As well as ensuring that the system is safe from hacks gaps.
- Deploy the system in app stores so the user can download it and start use it.
- Train the working staff with the policies of the banks in Saudi Arabia so they can so a system with government standard.

### Roles and Responsibilities:

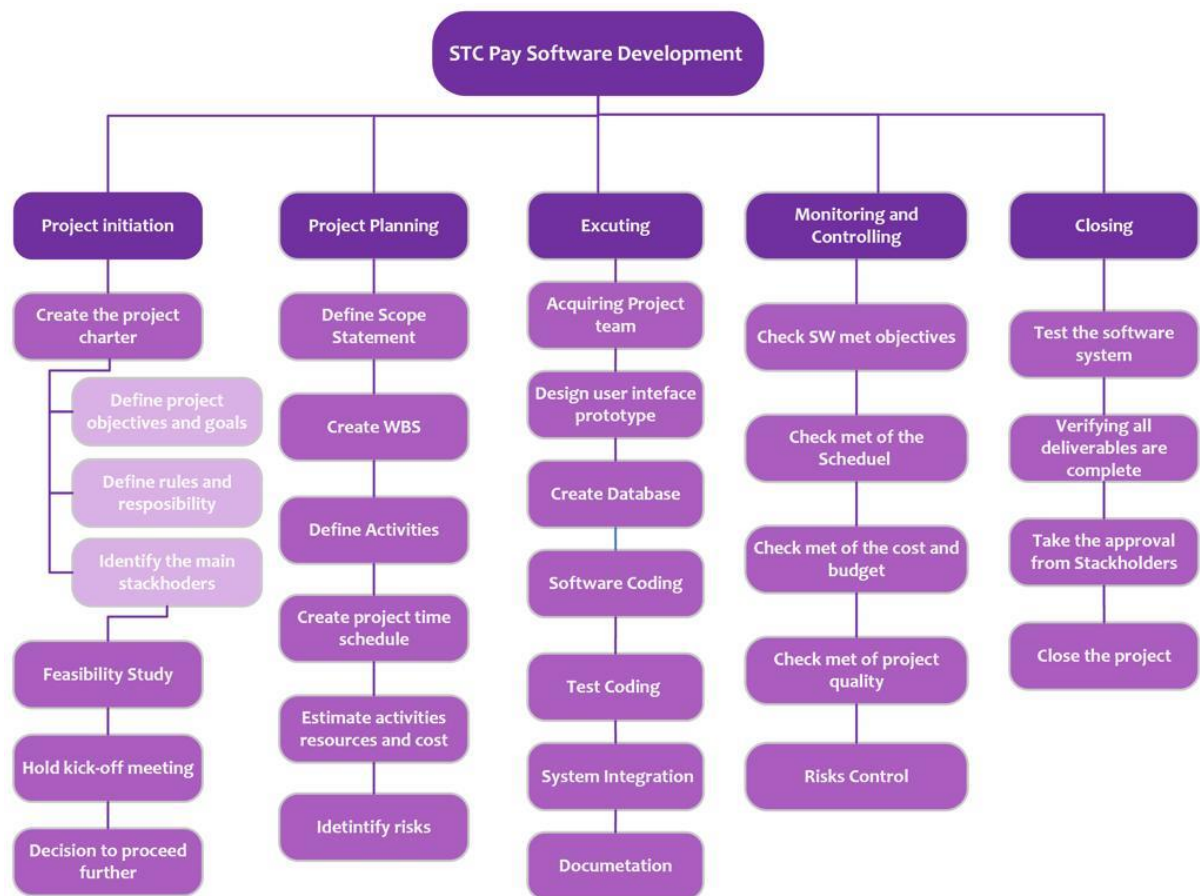
Name	Role	Position	Contact Information
<b>Fai hadi</b>	Management	Project manager	Fai_Hadi @gmail.com
<b>Nora ahmed</b>	Oversee the day-to-day operations	Deputy general manager	Nora_Ahmd@gmail.com
<b>Ziad Abdullah</b>	Take the control of the accountant step in the app	Accountant	Ziad_Abd @gmail.com
<b>Hadeel Fawaz</b>	Take the control of the Financing step in the app	Finance	Hadeel_Faw@gmail.com
<b>Heba Nawaf</b>	Oversees all aspects of Cost	Cost manger	Heba_Naw @gmail.com
<b>Fawaz Mohammed</b>	Database design and all DB- related roles	Database administrator	Fawaz_Moh@gmail.com
<b>Mai Ibrahim</b>	Risk management	Risk manager	Mai_Ibr @gmail.com
<b>Abdullatif Mohsen</b>	Training users and overseeing staff	Human resources	Latif_Mohsen@gmail.com
<b>Afnan Abdo</b>	Programming	Programmer	Afnan_Ab @gmail.com
<b>Manar Eissa</b>	Programming	Programmer	Manar_Eissa @gmail.com
<b>Hattan Hamdi</b>	Programming	Programmer	Hattan_Hmdi @gmail.com
<b>Faisal Ahmed</b>	Programming	Programmer	Fisl_Ahm@gmail.com
<b>Tariq Slama</b>	Interface design	Interface designer	Tariq_Sal@gmail.com
<b>Sanna Naser</b>	Interface design	Interface designer	Sanna_Nas @gmail.com
<b>Asherf Abdullah</b>	Interface design	Interface designer	Asherf_Abdul@gmail.com
<b>Layan Omar</b>	Data Requirement and user collection and analysis	System analyst	Layan_Omr @gmail.com

<b>Omar Khalid</b>	Data Requirement and user collection and analysis	System analyst	Omar_Khl@gmail.com
<b>Ali Faisal</b>	Data Requirement and user collection and analysis	System analyst	Ali_Faisal@gmail.com
<b>Raghad Ziad</b>	Analyzing, designing, and modifying the software	Software engineer	Raghad_Zd@gmail.com
<b>Saleh Othman</b>	Make sure to have a high speed respond with the app software and server.	Network engineer	Saleh_Othm@gmail.com
<b>Emad Anwer</b>	Quality Manger	Quality Manger	Emad_Anwer@gmail.com

Table 1.

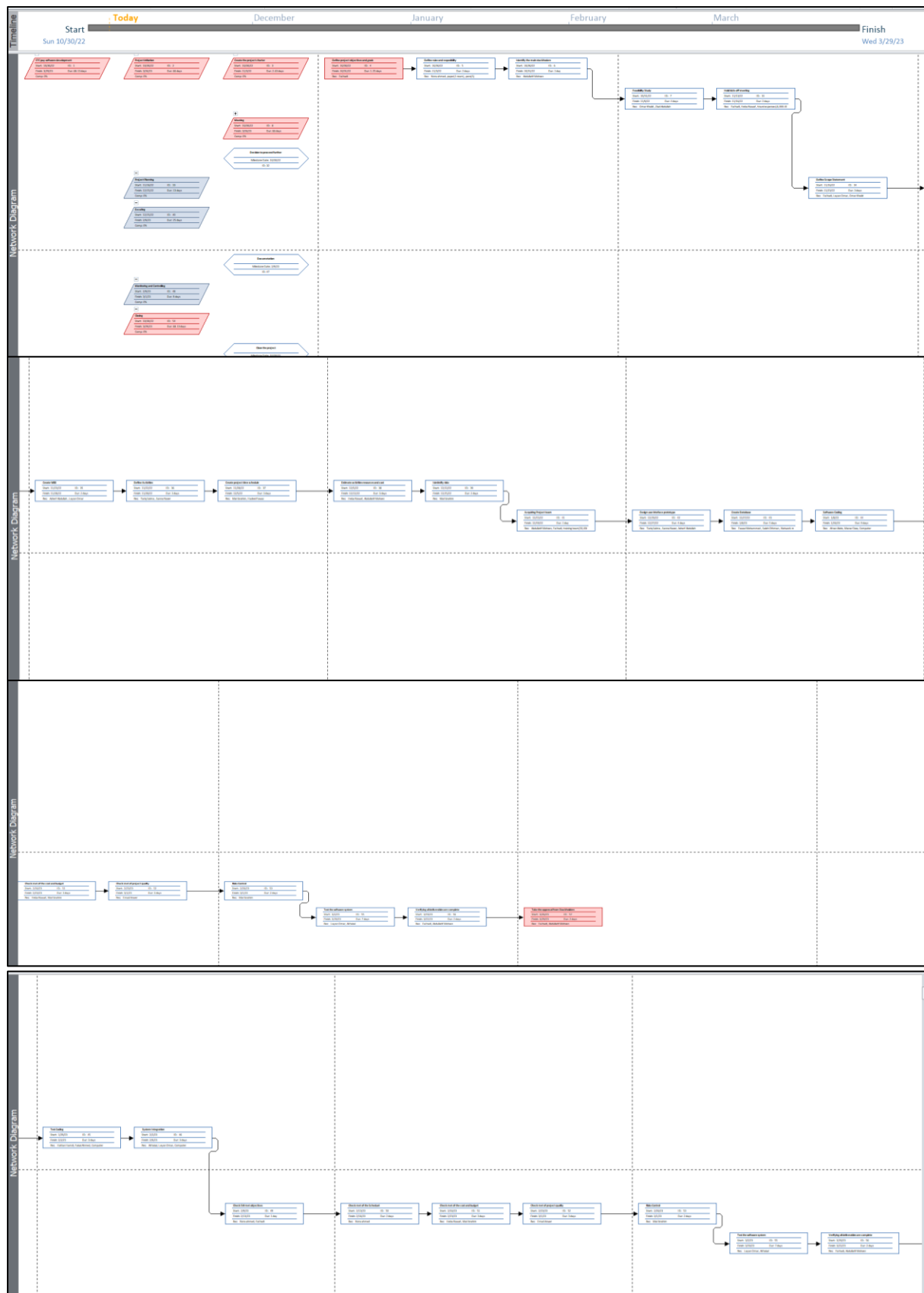


## Work Breakdown Structure (WBS)



Figuer1:

## Precedence Diagram Method (PDM)



Figuer2:

## Project Cost Estimation

	Start	Finish
Current	Sun 10/30/22	Wed 3/29/23
Baseline	Sun 10/30/22	Wed 3/29/23
Actual	NA	NA
Variance	0d	0d

	Duration	Work	Cost
Current	68.13d	1,242h	282,760.00 ر.س.
Baseline	68.13d	1,242h	282,760.00 ر.س.
Actual	0d	0h	0.00 ر.س.
Remaining	68.13d	1,242h	282,760.00 ر.س.

Percent complete:

Duration: 0%      Work: 0%

Close

	Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual	Remaining
1	= STC pay software development	0.00 ر.س.	Prorated	282,760.00 ر.س.	282,760.00 ر.س.	0.00 ر.س.	0.00 ر.س.	282,760.00 ر.س.
2	= Project initiation	0.00 ر.س.	Prorated	33,480.00 ر.س.	33,480.00 ر.س.	0.00 ر.س.	0.00 ر.س.	33,480.00 ر.س.
3	= Create the project charter	0.00 ر.س.	Prorated	6,600.00 ر.س.	6,600.00 ر.س.	0.00 ر.س.	0.00 ر.س.	6,600.00 ر.س.
4	Define project objectives and	0.00 ر.س.	Prorated	2,000.00 ر.س.	2,000.00 ر.س.	0.00 ر.س.	0.00 ر.س.	2,000.00 ر.س.
5	Define rules and responsibility	0.00 ر.س.	Prorated	3,240.00 ر.س.	3,240.00 ر.س.	0.00 ر.س.	0.00 ر.س.	3,240.00 ر.س.
6	Identify the main stakeholders	0.00 ر.س.	Prorated	1,360.00 ر.س.	1,360.00 ر.س.	0.00 ر.س.	0.00 ر.س.	1,360.00 ر.س.
7	Feasibility Study	0.00 ر.س.	Prorated	12,480.00 ر.س.	12,480.00 ر.س.	0.00 ر.س.	0.00 ر.س.	12,480.00 ر.س.
8	* Meeting	0.00 ر.س.	Prorated	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.
31	Hold kick-off meeting	0.00 ر.س.	Prorated	14,400.00 ر.س.	14,400.00 ر.س.	0.00 ر.س.	0.00 ر.س.	14,400.00 ر.س.
32	Decision to proceed further	0.00 ر.س.	Prorated	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.
33	= Project Planning	0.00 ر.س.	Prorated	50,160.00 ر.س.	50,160.00 ر.س.	0.00 ر.س.	0.00 ر.س.	50,160.00 ر.س.
34	Define Scope Statement	0.00 ر.س.	Prorated	15,360.00 ر.س.	15,360.00 ر.س.	0.00 ر.س.	0.00 ر.س.	15,360.00 ر.س.
35	Create WBS	0.00 ر.س.	Prorated	5,920.00 ر.س.	5,920.00 ر.س.	0.00 ر.س.	0.00 ر.س.	5,920.00 ر.س.
36	Define Activities	0.00 ر.س.	Prorated	7,200.00 ر.س.	7,200.00 ر.س.	0.00 ر.س.	0.00 ر.س.	7,200.00 ر.س.
37	Create project time schedule	0.00 ر.س.	Prorated	8,880.00 ر.س.	8,880.00 ر.س.	0.00 ر.س.	0.00 ر.س.	8,880.00 ر.س.
38	Estimate activities resources and cost	0.00 ر.س.	Prorated	9,600.00 ر.س.	9,600.00 ر.س.	0.00 ر.س.	0.00 ر.س.	9,600.00 ر.س.
39	Identify risks	0.00 ر.س.	Prorated	3,200.00 ر.س.	3,200.00 ر.س.	0.00 ر.س.	0.00 ر.س.	3,200.00 ر.س.
40	= Executing	0.00 ر.س.	Prorated	138,640.00 ر.س.	138,640.00 ر.س.	0.00 ر.س.	0.00 ر.س.	138,640.00 ر.س.
41	Acquiring Project team	0.00 ر.س.	Prorated	52,960.00 ر.س.	52,960.00 ر.س.	0.00 ر.س.	0.00 ر.س.	52,960.00 ر.س.
42	Design user interface prototype	0.00 ر.س.	Prorated	14,400.00 ر.س.	14,400.00 ر.س.	0.00 ر.س.	0.00 ر.س.	14,400.00 ر.س.
43	Create Database	0.00 ر.س.	Prorated	20,400.00 ر.س.	20,400.00 ر.س.	0.00 ر.س.	0.00 ر.س.	20,400.00 ر.س.
44	Software Coding	0.00 ر.س.	Prorated	30,240.00 ر.س.	30,240.00 ر.س.	0.00 ر.س.	0.00 ر.س.	30,240.00 ر.س.
45	Test Coding	0.00 ر.س.	Prorated	10,080.00 ر.س.	10,080.00 ر.س.	0.00 ر.س.	0.00 ر.س.	10,080.00 ر.س.
45	Test Coding	0.00 ر.س.	Prorated	10,080.00 ر.س.	10,080.00 ر.س.	0.00 ر.س.	0.00 ر.س.	10,080.00 ر.س.
46	System Integration	0.00 ر.س.	Prorated	10,560.00 ر.س.	10,560.00 ر.س.	0.00 ر.س.	0.00 ر.س.	10,560.00 ر.س.
47	Documentation	0.00 ر.س.	Prorated	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.
48	= Monitoring and Controlling	0.00 ر.س.	Prorated	24,000.00 ر.س.	24,000.00 ر.س.	0.00 ر.س.	0.00 ر.س.	24,000.00 ر.س.
49	Check SW met object	0.00 ر.س.	Prorated	3,200.00 ر.س.	3,200.00 ر.س.	0.00 ر.س.	0.00 ر.س.	3,200.00 ر.س.
50	Check met of the Sch	0.00 ر.س.	Prorated	3,200.00 ر.س.	3,200.00 ر.س.	0.00 ر.س.	0.00 ر.س.	3,200.00 ر.س.
51	Check met of the cost and budget	0.00 ر.س.	Prorated	9,600.00 ر.س.	9,600.00 ر.س.	0.00 ر.س.	0.00 ر.س.	9,600.00 ر.س.
52	Check met of project quality	0.00 ر.س.	Prorated	4,800.00 ر.س.	4,800.00 ر.س.	0.00 ر.س.	0.00 ر.س.	4,800.00 ر.س.
53	Risks Control	0.00 ر.س.	Prorated	3,200.00 ر.س.	3,200.00 ر.س.	0.00 ر.س.	0.00 ر.س.	3,200.00 ر.س.
54	= Closing	0.00 ر.س.	Prorated	36,480.00 ر.س.	36,480.00 ر.س.	0.00 ر.س.	0.00 ر.س.	36,480.00 ر.س.
55	Test the software sys	0.00 ر.س.	Prorated	24,640.00 ر.س.	24,640.00 ر.س.	0.00 ر.س.	0.00 ر.س.	24,640.00 ر.س.
56	Verifying all deliverables are	0.00 ر.س.	Prorated	5,920.00 ر.س.	5,920.00 ر.س.	0.00 ر.س.	0.00 ر.س.	5,920.00 ر.س.
57	Take the approval from Stakeholders	0.00 ر.س.	Prorated	5,920.00 ر.س.	5,920.00 ر.س.	0.00 ر.س.	0.00 ر.س.	5,920.00 ر.س.
58	Close the project	0.00 ر.س.	Prorated	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.	0.00 ر.س.

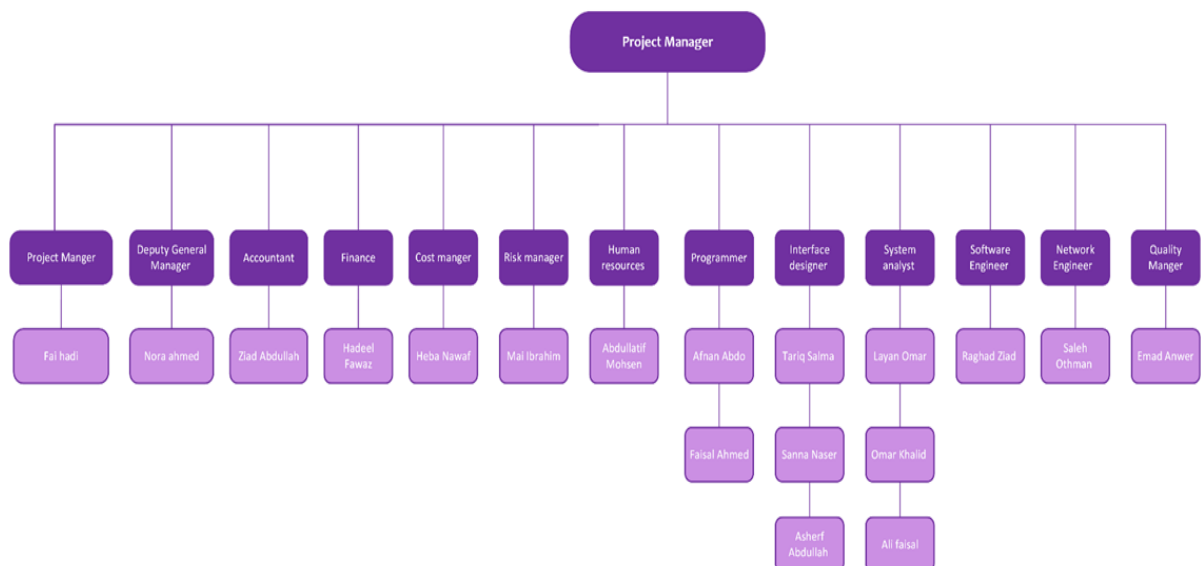
Figuer3:

### Staffing Procedure and Plan (HR Management)

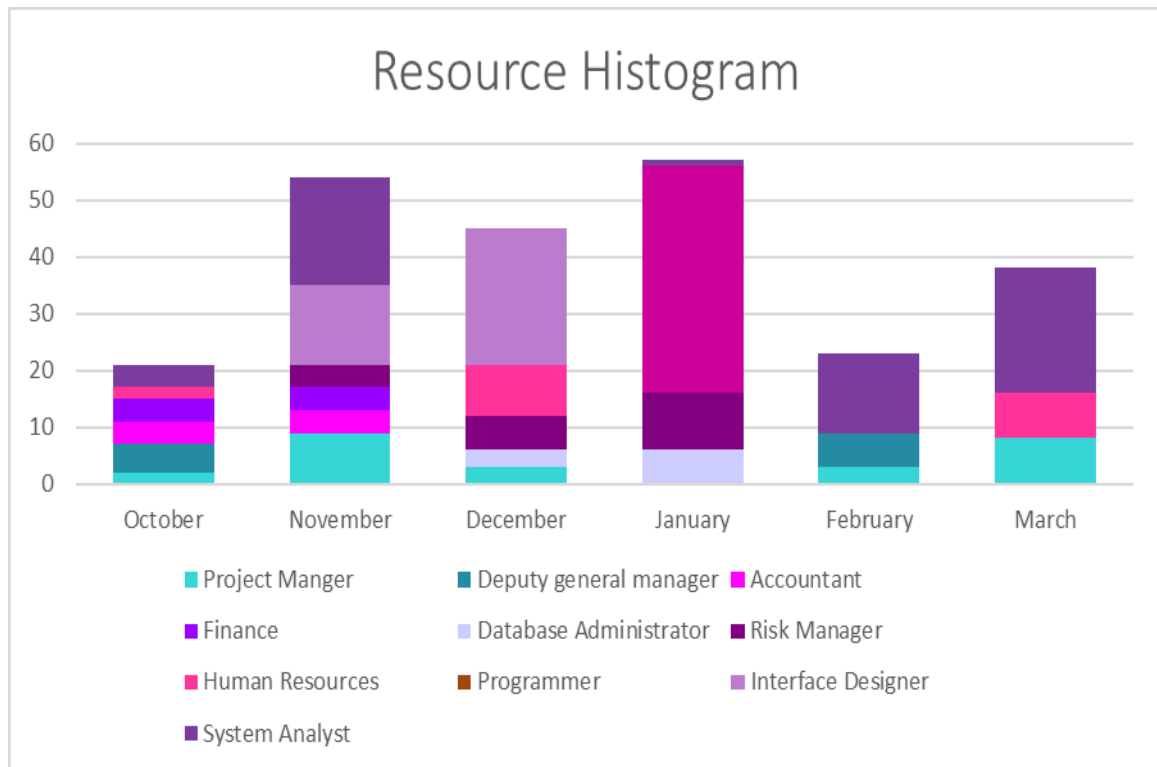
- Estimating the types and number of employees needed for the project.
- Design a recruitment advertisement for the available jobs, including a description of the required skills and experience.
- Post the recruitment advertisement through social media, newspapers, and LinkedIn.
- Select suitable candidates for various jobs by evaluating the candidates' applications, interviews, and employment tests.
- Place the new employee in the right position by training them if needed or transferring to some other job.
- Introducing new employees to the project scope and environment.

### Organizational chart and histogram (HR Management):

#### Organizational Chart



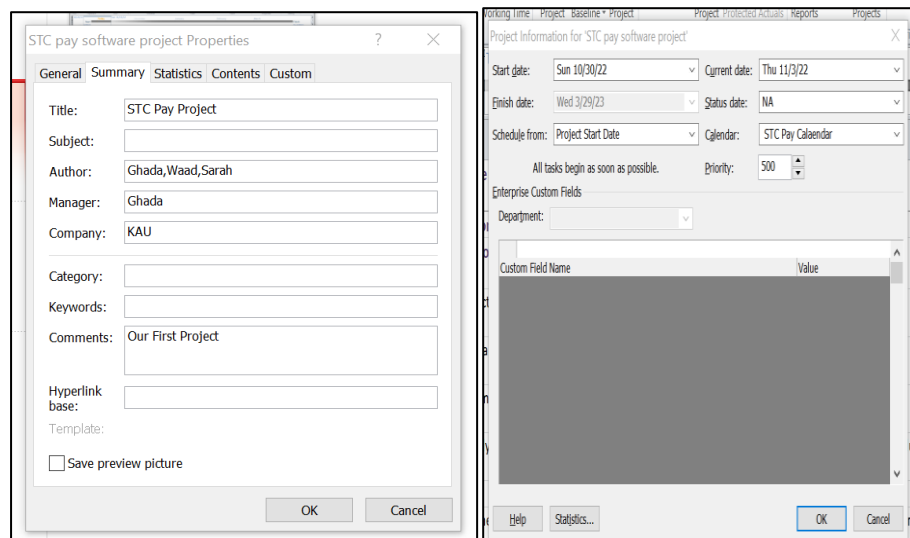
Figuer4:



Figuer5:

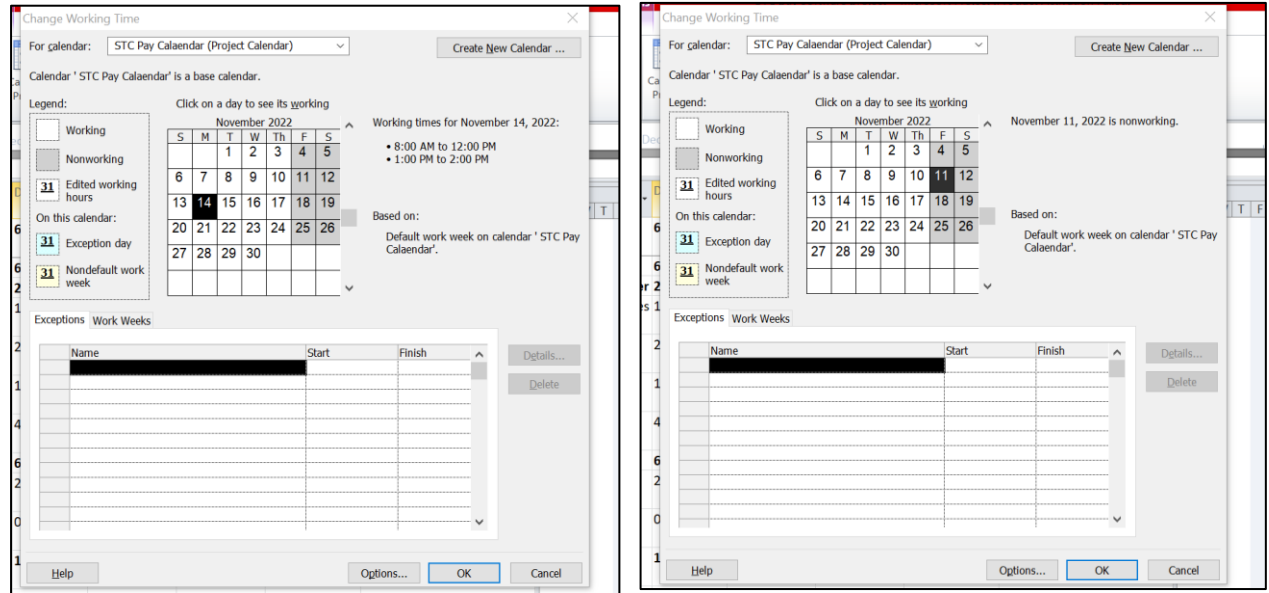
### Detailed project schedule (MS project)

#### 1- Enter general project information, such as the project name and start date



Figuer6:

## 2- Make calendar settings for your project based on your organization's work & nonwork days.



Figuer7:

## 3- Enter the names of summary tasks (Phases)

		Task Mode	Task Name	Duration	Start	Finish
1			STC pay software development	68.63 days	Sun 10/30/22	Thu 3/30/23
2			Project initiation	66 days	Sun 10/30/22	Sun 3/26/23
33			Project Planning	13 days	Wed 11/16/22	Thu 12/15/22
40			Excuting	25 days	Thu 12/15/22	Thu 2/9/23
48			Monitoring and Controllin	11 days	Thu 2/9/23	Tue 3/7/23
54			Closing	68.63 days	Sun 10/30/22	Thu 3/30/23

Figuer8:

#### 4- Enter the names of subtasks

#### 5- Set the tasks duration

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		<b>STC pay software development</b>	<b>68.63 days</b>	<b>Sun 10/30/22</b>	<b>Thu 3/30/23</b>		
2		<b>Project initiation</b>	<b>66 days</b>	<b>Sun 10/30/22</b>	<b>Sun 3/26/23</b>		
3		<b>Create the project charter</b>	<b>2.63 days</b>	<b>Sun 10/30/22</b>	<b>Thu 11/3/22</b>		
4		Define project objectives and goals	1.25 days	Sun 10/30/22	Mon 10/31/22		Fai hadi
5		Define rules and responsibility	2 days	Sun 10/30/22	Thu 11/3/22	4SS	Nora ahmed,paper[1 ream],pens[5]
6		Identify the main stackholders	1 day	Sun 10/30/22	Mon 10/31/22	5SS	Abdullatif Mohsen
7		Feasibility Study	4 days	Mon 10/31/22	Wed 11/9/22	6	Omar Khalid ,Ziad Abdullah
8		<b>Meeting</b>	<b>66 days</b>	<b>Sun 10/30/22</b>	<b>Sun 3/26/23</b>		
31		Hold kick-off meeting	2 days	Sun 11/13/22	Wed 11/16/22	7FS+1 day	Fai hadi,Heba Nawaf,travel expenses [8,000.00 ر.س.]
32		Decision to proceed further	0 days	Sun 10/30/22	Sun 10/30/22		
33		<b>Project Planning</b>	<b>13 days</b>	<b>Wed 11/16/22</b>	<b>Thu 12/15/22</b>		
34		Define Scope Statement	3 days	Wed 11/16/22	Wed 11/23/22	31	Fai hadi,Layan Omar,Omar Khalid
35		Create WBS	2 days	Wed 11/23/22	Mon 11/28/22	34	Asherf Abdullah ,Layan Omar
36		Define Activities	3 days	Tue 11/22/22	Mon 11/28/22	35FF	Tariq Salma ,Sanna Naser
37		Create project time schedule	3 days	Mon 11/28/22	Mon 12/5/22	36	Mai Ibrahim,Hadeel Fawaz
38		Estimate activities resources and cost	3 days	Mon 12/5/22	Mon 12/12/22	37	Heba Nawaf,Abdullatif Mohsen
39		Identify risks	2 days	Mon 12/12/22	Thu 12/15/22	38	Mai Ibrahim
39		Identify risks	2 days	Mon 12/12/22	Thu 12/15/22	38	Mai Ibrahim
40		<b>Excuting</b>	<b>25 days</b>	<b>Thu 12/15/22</b>	<b>Thu 2/9/23</b>		
41		Acquiring Project team	1 day	Thu 12/15/22	Mon 12/19/22	39	Abdullatif Mohsen,Fai hadi,trainin
42		Design user interface prototype	4 days	Mon 12/19/22	Tue 12/27/22	41	Tariq Salma ,Sanna Naser,Asherf Abdullah
43		Create Database	5 days	Tue 12/27/22	Sun 1/8/23	42	Fawaz Mohammed ,Saleh Othmar
44		Software Coding	9 days	Sun 1/8/23	Thu 1/26/23	43	Afnan Abdo,Manar Eissa,Computer
45		Test Coding	3 days	Sun 1/29/23	Thu 2/2/23	44	Hattan Hamdi,Faisal Ahmed,Comp
46		System Integration	3 days	Thu 2/2/23	Thu 2/9/23	45	Ali faisal,Layan Omar,Computer
47		Documetation	0 days	Thu 2/9/23	Thu 2/9/23		Raghad Ziad ,Omar Khalid
48		<b>Monitoring and Controllin</b>	<b>11 days</b>	<b>Thu 2/9/23</b>	<b>Tue 3/7/23</b>		
49		Check SW met objectives	1 day	Thu 2/9/23	Mon 2/13/23	46	Nora ahmed,Fai hadi
50		Check met of the Scheduel	2 days	Mon 2/13/23	Thu 2/16/23	49	Nora ahmed
51		Check met of the cost and budget	3 days	Thu 2/16/23	Thu 2/23/23	50	Heba Nawaf,Mai Ibrahim
52		Check met of project quality	3 days	Thu 2/23/23	Wed 3/1/23	51	Emad Anwer
53		Risks Control	2 days	Thu 3/2/23	Tue 3/7/23	52	Mai Ibrahim
54		<b>Closing</b>	<b>68.63 days</b>	<b>Sun 10/30/22</b>	<b>Thu 3/30/23</b>		
55		Test the software system	7 days	Tue 3/7/23	Wed 3/22/23	53	Layan Omar,Ali faisal
56		Verifying all deliverables are complete	2 days	Wed 3/22/23	Mon 3/27/23	55	Fai hadi,Abdullatif Mohsen
57		Take the approval from Stackholders	2 days	Mon 3/27/23	Thu 3/30/23	56	Fai hadi,Abdullatif Mohsen
58		Close the project	0 days	Sun 10/30/22	Sun 10/30/22		Fai hadi

Figuer9:

## 6- Configure the relationships between subtasks (at least 2 types)

### - FS

8								
31			* Meeting	66 days	Sun 10/30/22	Sun 3/26/23		
32			Hold kick-off meeting	2 days	Sun 11/13/22	Wed 11/16/22	7FS+1 day	Fai hadi,Heba Nawaf,travel expenses [8,000.00 ر.س.]
			Decision to proceed further	0 days	Sun 10/30/22	Sun 10/30/22		

### - SS

2			= Project initiation	66 days	Sun 10/30/22	Sun 3/26/23		
3			= Create the project charter	2.63 days	Sun 10/30/22	Thu 11/3/22		
4			Define project objectives and goals	1.25 days	Sun 10/30/22	Mon 10/31/22		Fai hadi
5			Define rules and responsibility	2 days	Sun 10/30/22	Thu 11/3/22	4SS	Nora ahmed,paper[1 ream],pens[5]
6			Identify the main stackholders	1 day	Sun 10/30/22	Mon 10/31/22	5SS	Abdullatif Mohsen

### - FF

33			= Project Planning	13 days	Wed 11/16/22	Thu 12/15/22		
34			Define Scope Statement	3 days	Wed 11/16/22	Wed 11/23/22	31	Fai hadi,Layan Omar,Omar Khalid
35			Create WBS	2 days	Wed 11/23/22	Mon 11/28/22	34	Asherf Abdullah ,Layan Omar
36			Define Activities	3 days	Tue 11/22/22	Mon 11/28/22	35FF	Tariq Salma ,Sanna Naser

Figuer10:

## 7- Configure the relationships between the summary task

		Task Mode	Task Name	Duration	Start	Finish	Predecessors
1			= STC pay software development	124 days	Sun 10/30/22	Wed 8/2/23	
2			= Project initiation	66 days	Sun 10/30/22	Sun 3/26/23	
33			= Project Planning	13 days	Sun 3/26/23	Mon 4/24/23	2
40			= Excuting	25 days	Mon 4/24/23	Mon 6/19/23	33
48			= Monitoring and Controlling	9 days	Mon 6/19/23	Sun 7/9/23	40
54			= Closing	11 days	Sun 7/9/23	Wed 8/2/23	48

Figuer11:



8- The project should contain some Milestones (at least 2 milestones)

40			<b>Excuting</b>	<b>25 days</b>	<b>Thu 12/15/22</b>	<b>Thu 2/9/23</b>		
41			Acquiring Project team	1 day	Thu 12/15/22	Mon 12/19/22	39	Abdullatif Mohsen,Fai hadi,trainin
42			Design user inteface prototype	4 days	Mon 12/19/22	Tue 12/27/22	41	Tariq Salma ,Sanna Naser,Asherf Abdullah
43			Create Database	5 days	Tue 12/27/22	Sun 1/8/23	42	Fawaz Mohammed ,Saleh Othmar
44			Software Coding	9 days	Sun 1/8/23	Thu 1/26/23	43	Afnan Abdo,Manar Eissa,Compute
45			Test Coding	3 days	Sun 1/29/23	Thu 2/2/23	44	Hattan Hamdi,Faisal Ahmed,Comp
46			System Integration	3 days	Thu 2/2/23	Thu 2/9/23	45	Ali faisal,Layan Omar,Computer
47			Documetation	0 days	Thu 2/9/23	Thu 2/9/23		Raghad Ziad ,Omar Khalid
48			<b>Monitoring and Controlling</b>	<b>11 days</b>	<b>Thu 2/9/23</b>	<b>Tue 3/7/23</b>		
54			<b>Closing</b>	<b>68.63 days</b>	<b>Sun 10/30/22</b>	<b>Thu 3/30/23</b>		
55			Test the software system	7 days	Tue 3/7/23	Wed 3/22/23	53	Layan Omar,Ali faisal
56			Verifying all deliverables are complete	2 days	Wed 3/22/23	Mon 3/27/23	55	Fai hadi,Abdullatif Mohsen
57			Take the approval from Stackholders	2 days	Mon 3/27/23	Thu 3/30/23	56	Fai hadi,Abdullatif Mohsen
58			Close the project	0 days	Sun 10/30/22	Sun 10/30/22		Fai hadi

Figuer12:

9- The project should contain a recurring task that should be repeated once a week on Monday until the finish date

Recurring Task Information

Task Name: Meeting Duration: 1d

Recurrence pattern

☐ Daily Recur every 2 week(s) on:

☒ Weekly

☐ Monthly ☒ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday

☐ Yearly ☒ Thursday ☐ Friday ☐ Saturday

Range of recurrence

Start: Sun 10/30/22 ☐ End after: 22 occurrences

☒ End by: Wed 3/29/23

Calendar for scheduling this task

Calendar: STC Pay Calendar ☐ Scheduling ignores resource calendars

Help OK Cancel

Figuer13:

10- The project should contain all 3 types (work, material, and cost) of resources and enter all their information in the resource sheet.

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue At	Base Calendar
1	Fai hadi	Work		F	Project Manger	100%	200.00	250.00	0.00	Prorated	STC Pay Calaendar
2	Nora ahmed	Work		N	Deputy general manage	100%	200.00	250.00	0.00	Prorated	STC Pay Calaendar
3	Ziad Abdullah	Work		Z	Accountant	100%	170.00	200.00	0.00	Prorated	STC Pay Calaendar
4	Hadeel Fawaz	Work		H	Finance	100%	170.00	200.00	0.00	Prorated	STC Pay Calaendar
5	Heba Nawaf	Work		H	Cost manger	100%	200.00	250.00	0.00	Prorated	STC Pay Calaendar
6	Fawaz Mohammed	Work		F	Database administrator	100%	190.00	250.00	0.00	Prorated	STC Pay Calaendar
7	Mai Ibrahim	Work		M	Risk manager	100%	200.00	250.00	0.00	Prorated	STC Pay Calaendar
8	Abdullatif Mohsen	Work		A	Human resources	100%	170.00	200.00	0.00	Prorated	STC Pay Calaendar
9	Afnan Abdo	Work		A	Programmer	100%	210.00	250.00	0.00	Prorated	STC Pay Calaendar
10	Manar Eissa	Work		M	Programmer	100%	210.00	250.00	0.00	Prorated	STC Pay Calaendar
11	Hattan Hamdi	Work		H	Programmer	100%	210.00	250.00	0.00	Prorated	STC Pay Calaendar
12	Faisal Ahmed	Work		F	Programmer	100%	210.00	250.00	0.00	Prorated	STC Pay Calaendar
13	Tariq Salma	Work		T	Interface designer	100%	150.00	180.00	0.00	Prorated	STC Pay Calaendar
14	Sanna Naser	Work		S	Interface designer	100%	150.00	180.00	0.00	Prorated	STC Pay Calaendar
15	Asherf Abdullah	Work		A	Interface designer	100%	150.00	180.00	0.00	Prorated	STC Pay Calaendar
16	Layan Omar	Work		L	System analyst	100%	220.00	250.00	0.00	Prorated	STC Pay Calaendar
17	Omar Khalid	Work		O	System analyst	100%	220.00	250.00	0.00	Prorated	STC Pay Calaendar
18	Ali faisal	Work		A	System analyst	100%	220.00	250.00	0.00	Prorated	STC Pay Calaendar
19	Raghad Ziad	Work		R	Software engineer	100%	270.00	300.00	0.00	Prorated	STC Pay Calaendar
20	Saleh Othman	Work		S	Network engineer	100%	270.00	0.00	0.00	Prorated	STC Pay Calaendar
20	Saleh Othman	Work		S	Network engineer	100%	270.00	0.00	0.00	Prorated	STC Pay Calaendar
21	Emad Anwer	Work		E	Quality manger	100%	200.00	250.00	0.00	Prorated	STC Pay Calaendar
22	Computer	Work		C		100%	0.00	0.00	0.00	Prorated	STC Pay Calaendar
23	training team	Cost		t						Prorated	
24	travel expenses	Cost		t						Prorated	
25	paper	Material	ream	p	tool		15.00		20.00	Prorated	
26	pens	Material		p	tool		1.00		0.00	Prorated	
27	server for database	Material		s	Equipment		500.00		0.00	Prorated	
28	Network modems	Material		N	Equipment		1,500.00		0.00	Prorated	

Figuer14:

11- At least one task has a semi-flexible constraint, and another task has an inflexible constraint.

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Check SW met objectives Duration: 1 day ☐ Estimated

Constrain task

Deadline: NA

Constraint type: Start No Earlier Than Constraint date: Mon 2/13/23

Task type: Fixed Units ☐ Effort driven

Calendar: STC Pay Calaendar ☐ Scheduling ignores resource calendars

WBS code: 1.4.1

Earned value method: % Complete

☐ Mark task as milestone

Help OK Cancel

Task Information

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Define project objectives and goals Duration: 1.25 day ☐ Estimated

Constrain task

Deadline: NA

Constraint type: Must Start On Constraint date: Sun 10/30/22

Task type: Fixed Units ☐ Effort driven

Calendar: STC Pay Calaendar ☐ Scheduling ignores resource calendars

WBS code: 1.1.1.1

Earned value method: % Complete

☐ Mark task as milestone

Help OK Cancel

Figuer15:

## 12- Set the type of one task as fixed duration and the other task as fixed work.

The left screenshot shows the 'Task Information' dialog box for the task 'Create Database'. The 'Task type' is set to 'Fixed Work'. The 'Duration' is 5 days. The 'Deadline' is NA. The 'Constraint type' is 'As Soon As Possible' and the 'Constraint date' is NA. The 'Task type' is 'Fixed Work', 'Effort driven' is checked, 'Calendar' is 'STC Pay Calendar', 'Scheduling ignores resource calendars' is unchecked, 'WBS code' is '1.3.3', and 'Earned value method' is '% Complete'. The 'Mark task as milestone' checkbox is unchecked.

The right screenshot shows the 'Task Information' dialog box for the task 'Create project time schedule'. The 'Task type' is set to 'Fixed Duration'. The 'Duration' is 3 days. The 'Deadline' is NA. The 'Constraint type' is 'As Soon As Possible' and the 'Constraint date' is NA. The 'Task type' is 'Fixed Duration', 'Effort driven' is unchecked, 'Calendar' is 'STC Pay Calendar', 'Scheduling ignores resource calendars' is unchecked, 'WBS code' is '1.2.4', and 'Earned value method' is '% Complete'. The 'Mark task as milestone' checkbox is checked.

Figuer16:

## 13- At least one person in your resource has a multiple pay rate depending on the task and you should attach these different pay rates to his tasks.

The left screenshot shows the 'Resource Information' dialog box for the resource 'Abdullatif Mohsen'. The 'Cost rate tables' tab is selected. The table shows the following data:

Effective Date	Standard Rate	Overtime Rate	Per Use Cost
250.00 ر.س./h	200.00 ر.س./h	250.00 ر.س./h	0.00 ر.س.

The 'Cost accrual' is set to 'Prorated'.

The right screenshot shows the same resource 'Abdullatif Mohsen' with a different table of rates:

Effective Date	Standard Rate	Overtime Rate	Per Use Cost
200.00 ر.س./h	170.00 ر.س./h	200.00 ر.س./h	0.00 ر.س.

The 'Cost accrual' is set to 'Prorated'.

Figuer17:

The 'Assignment Information' dialog box shows the following details:

- Task: Estimate activities resources and cost
- Resource: Abdullatif Mohsen
- Work: 24h
- Units: 100%
- Work contour: Flat
- Start: Mon 12/5/22
- Finish: Mon 12/12/22
- Cost rate table: B
- Booking type: Committed
- Cost: 4,800.00 ر.س.
- Assignment Owner: (blank)

14- At least one person resource has a multiple pay rate depending on time.

The screenshot shows the 'Resource Information' dialog box for 'Faisal Ahmed'. The 'Costs' tab is active, displaying a table of cost rates for different dates. The 'Cost accrual' is set to 'Prorated'.

Effective Date	Standard Rate	Overtime Rate	Per Use Cost
--	210.00 .ر.س./h	250.00 .ر.س./h	0.00 .ر.س.
Thu 12/1/22	300.00 .ر.س./h	350.00 .ر.س./h	0.00 .ر.س.
Sun 1/15/23	210.00 .ر.س./h	250.00 .ر.س./h	0.00 .ر.س.

Figuer18:

15- At least one task has a lead, and another task has a lag time.

The screenshot shows two 'Task Information' dialog boxes. The top one is for 'Hold kick-off meeting' (Task ID 7) with a predecessor 'Feasibility Study' (Task ID 7) with a lag of 1 day. The bottom one is for 'Risks Control' (Task ID 52) with a predecessor 'Check met of project quality' (Task ID 52) with a lag of 2 days.

ID	Task Name	Type	Lag
7	Feasibility Study	Finish-to-Start (FS)	1d
52	Check met of project quality	Finish-to-Start (FS)	-2d

Figuer19

#### References:

Giraud, A. (2022, October 27). تطبيق ياخذك بعد Stc Pay. <https://stcpay.com.sa/ar/>