

Midocean University

College of Management



Final Project

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Change Management Project

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**How Customer Relationship Management Integration Platform Among + 60
Companies Can Positively Change**

Jeddah – Saudi Arabia



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1.1 Project Mission

In order to provide our region from the Arab world with reliable and high-quality services in various fields, to create job opportunities for thousands of employees, to raise the efficiency of graduate students in important sectors for the benefit of society and to remain a good example.

1.2 Project Vision

Our vision is to be the first leading company in the region in several areas and satisfy customers by providing high quality services. We have a group of companies in many fields and have specialists dedicated to excellence, quality and performance through continuous development. We simply provide solutions for the future of success.

1.3 Develop project goals SMART

Specific

Our main goals are Specific because we specify our target to run our system along the sister companies of KCG (Kabbani Construction Group) and provide a dashboard for the management represent our geographical spread in the Kingdom.

Measurable

Our main goals are Measurable because our initiating project plan was very huge and near to be a dream for the board of members but we separate it to two phases and we are working on the first phase with systematic thinking that we are building our platform with all necessary data to develop it easily in the future and retailor it when needed.

Achievable

Our main goals are Achievable because we are investing our time in successful planning and designing to satisfy all parties of the new platform and we have the clear vision for what we want and need.

Realistic

Our main goals are Realistic because we really need it to increase our profit and eliminate the waste with innovative way that the COVID-19 pandemic assure that need and its benefit for the group and we have the skilled employees and experts to achieve our targets after Allah grace.

Time-Bound

Our main goal is Time-Bounded because we set the duration for the project and it will be 180 Days, 120 of it for design and test of the platform 60 days for implementation and correction after sitting with the 17 companies and we are setting this duration and it will be more enough because our project will be in-house and we have the full control of the outputs.

1.4 Lead and Lag

Leading KPIs of the project will be determine in each phase of the project which will be measured by project compliance with constrains and assumptions that the project ongoing process should not interrupt with existing system and within budget and time limit.

Leading Indicator

The accepted threshold for project schedule, cost overrun must not exceed 10% of the current project approved budget and timeline.

Lagging Indicator

The project process must be within deliver a value within each phase of the project and in each iteration; this must be with the project requirement of reliability and user friendly measurement.

1.5 Project Charter

EXECUTIVE SUMMARY:

The IKK Group of Companies is a major business institution, serving most of the Arab World in the industrial, construction and trading fields, as well as in specialized maintenance and services. Since its establishment the company's been seeking to improve its leading position.

Presently, the IKK Group operates through more than 200 divisions, branches and outlets; it is spread in 10 countries, covering all major cities in the Gulf & MENA Regions, employing around 14,000 employees.

In line with rapid progress of the Kingdom of Saudi Arabia 2030, it became essential to develop a common platform that creates value by facilitating exchanges between companies of the group.

PROJECT PURPOSE/JUSTIFICATION:

Business Need/Case:

This platform will be set up to enhance Group's presence in projects and subsequently increase profitability. It will allow senior management to verify ongoing projects, find out areas of improvement and seize opportunities as needed.

Business Objectives:

The business objectives for this project are in direct support of our corporate strategic plan to improve our profit and reduce costs associated with loss and waste.

- Design and test a new platform within the next 120 days.
- Complete implementation of the new platform within the next 180 days.

PROJECT DESCRIPTION:

The platform will be available to those concerned such as marketing and senior management. It will allow users to see new projects in the desired area and will allow sales staff to take advantage of opportunities. Having such platform can increase net profit margin and other financial metrics.

Project Objectives and Success Criteria:

Objectives should be SMART: Specific, Measurable, Attainable, Realistic, and Time-bound. The project manager must be able to track these objectives in order to determine if the project is on the path to success. Vague, confusing, and unrealistic objectives make it difficult to measure progress and success.

REQUIREMENTS:

This project must meet the following list of requirements in order to achieve success.

- The solution must be tested in the IT lab prior to deployment
- Solution must be implemented without disruption to operations
- The platform shall be reliable & User-Friendly platform.
- The platform shall supports numerous languages
- The platform shall be aligned with latest project tracker platforms.

Additional requirements may be added as necessary, with project sponsor approval, as the project moves forward.

CONSTRAINTS:

The following constraints pertain to the ISA project:

- All security hardware and software must be compatible with our current IT platforms
- All hardware and software must be purchased in accordance with the allocated budget and timeline
- Two IT specialists and one security specialist will be provided as resources for this project

ASSUMPTIONS:

The following are a list of assumptions. Upon agreement and signature of this document, all parties acknowledge that these assumptions are true and correct:

- This project has the full support of the project sponsor, stakeholders, and all departments
- The purpose of this project will be communicated throughout the company prior to deployment
- The IT manager will provide additional resources if necessary

PRELIMINARY SCOPE STATEMENT:

The project will include the design, testing, and delivery of a platform. All personnel, hardware, and software resources will be managed by the project team. All project work will be independent of daily and ongoing operations and all required testing will be done in the IT laboratory. All project funding will be managed by the project manager up to and including the allocated amounts in this document. Any additional funding requires approval from the project sponsor.

PROJECT DELIVERABLES:

Secure, safe and reliable platform to conduct all process of any lead.

SUMMARY MILESTONE SCHEDULE:

The project Summary Milestone Schedule is presented below. As requirements are more clearly defined this schedule may be modified. Any changes will be communicated through project status meetings by the project manager.

Summary Milestone Schedule	
Project Milestone	Target Date (mm/dd/yyyy)
• Project Start	01/01/20xx
• Complete Solution Design	01/21/20xx
• Complete Solution Simulation and Testing	04/01/20xx
• Project Complete	05/15/20xx

PROJECT MANAGER

..... has been assigned by Senior Management as the Project Manager to monitor day-to-day project progress and to ensure completion of the project as per the approved budget that is 1000000 SAR.

If need arise to exceed approved budget, then he shall report to the CEO of IKK with detailed appropriate justification.

AUTHORIZATION

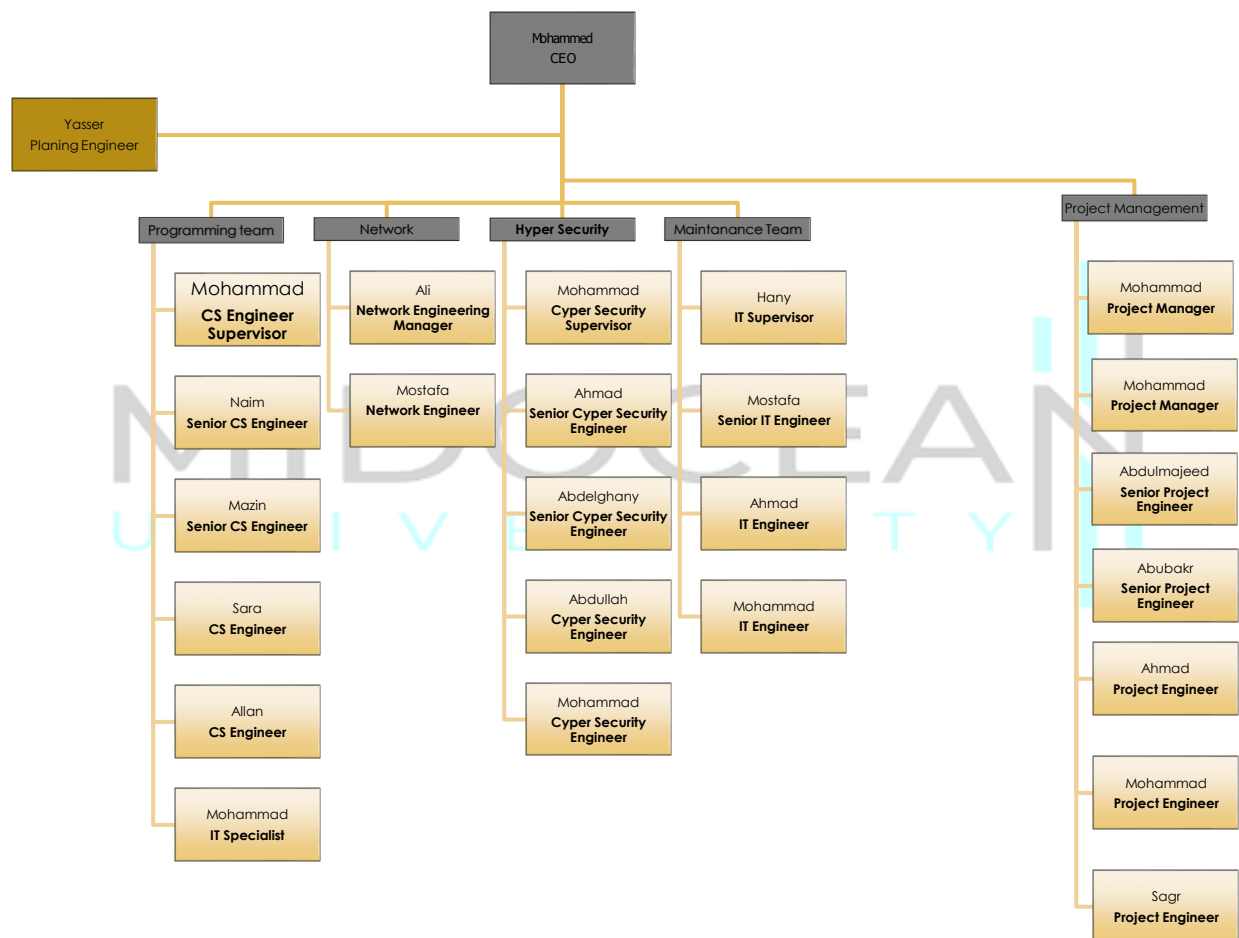
Approved by the Project Sponsor:

_____ Date: _____
<Project Sponsor>

<Project Sponsor Title>

2.1 Project Structure

The following graph shows the project hierarchy for the different departments and positions.



2.2 Practical and Scientific Base for Developing Company Structure:

Since our company is multinational and variety of wide division with it so our structure must be used for all different purpose accordingly the practical experiences and scientific base will differ from one department to another but there

is a certain measure must be full filled before in promotion or vacant hiring ca be fulfilled and there will be as the following:

First, any employ wants to join our company must have a good reputation, well behave and must have team-working spirit.

Second, the department manager must approve any promotion.

Third, senior position must have at least three year past experience to earn a promotion a Bachelor Degree.

Fourth, Supervisor position must have at least eight years past experience and a Bachelor Degree.

Fifth, Manager position must have at least 15 years' experience and a master's degree.



3.1 Check Compliance Model before delivering the project outputs

Each of these outcomes are critical milestone for project success so it must be flowless, and in order to achieve & complete the project deliverables the below schedule describe the success measurement which must obtain to meet with project objectives.

Time frame	Goal	Activities	Expected Outcome	Success Measurement
01/01/20xx	Project Authorization	Project Start	Story Point Approval & Assignments	Completion of story point comparing with working software
01/21/20xx	Working stand-alone software	Complete Solution Design	User friendly & reliability	Software, Hardware & security system compatibility
04/01/20xx	Training our current staff for using the new software features	Complete solution simulation and testing	System compatibility with our ongoing operations	Software up & running smoothly
05/15/20xx	Running software and link to our database	Project Completion	Start obtaining benefits from the new systems	Project completion with budget & timeline

3.2 Develop Checklist model

The project consisted of three main phases and these phase and the below schedule describe the benefit of each phase will deliver and the high value outcome to ensure project meet its requirement.

Phase	Deadline	Status	Notes
Design	01/21/20xx	Approved	Some new feature can be added any time to deliver and get the maximum benefits of the software
Test	04/01/20xx	Pending	1 st test must be in IT lab. 2 nd test of hardware & software computability as stand-alone system
Delivery	05/15/20xx	Pending	Merge the new software with current ongoing operation and make sure no disruption happen.

4.1 Developing a register of stakeholders and forming groups

#	Name	Position	Email	Mobile Number	group
1	Mohammed	CEO	aa@aa.com	966555555	group of project
2	Yasser	Planning Engineer	aa@aa.com	966555555	
3	Mohammed	Project Manager	aa@aa.com	966555555	
4	Mohammed	Project Manager	aa@aa.com	966555555	
5	Abdulmajeed	Senior Project Engineer	aa@aa.com	966555555	
6	Abubakr	Senior Project Engineer	aa@aa.com	966555555	
7	Ahmed	Project Engineer	aa@aa.com	966555555	
8	Mohammed	Project Engineer	aa@aa.com	966555555	
9	Sager	Project Engineer	aa@aa.com	966555555	
10	Hany	IT supervisor	aa@aa.com	966555555	
11	Mostafa	Senior IT supervisor	aa@aa.com	966555555	Electrical
12	Ahmad	IT Engineer	aa@aa.com	966555555	
13	Mohammed	IT Engineer	aa@aa.com	966555555	
14	Mohammed	Cyber Security Supervisor	aa@aa.com	966555555	
15	Ahmed	Senior Cyber Security Engineer	aa@aa.com	966555555	Mechanical
16	Abdelghany	Senior Cyber Security Engineer	aa@aa.com	966555555	
17	Abdullah	Cyber Security Engineer	aa@aa.com	966555555	
18	Mohammed	Cyber Security Engineer	aa@aa.com	966555555	
19	Ali	Network Engineering Manager	aa@aa.com	966555555	IT
20	Mostafa	Network Engineer	aa@aa.com	966555555	
21	Mohammed	CS Engineering supervisor	aa@aa.com	966555555	Architect
22	Naim	Senior CS Engineer	aa@aa.com	966555555	
23	Mazen	Senior CS Engineer	aa@aa.com	966555555	
24	Sara	CS Engineer	aa@aa.com	966555555	
25	Allan	CS Engineer	aa@aa.com	966555555	
26	Mohammed	IT Specialist	aa@aa.com	966555555	

4.2 Power/Interest Grid for Stakeholder Prioritization

Power	Keep Satisfied	Manage Closely
	Monitor	Keep Informed
	Interest	

Power	5 - 6 - 7 - 8 - 9	1 - 2 - 3 - 4 - 20 - 21
	10 - 11 - 12 - 14 - 19 - 25 - 26 - 27	13 - 15 - 16 - 17 - 18 - 22 - 23 - 24
	Interest	

Power/Influence Grid for Stakeholder Prioritization

Power	Keep Satisfied	Manage Closely
	Monitor	Keep Informed
	Influence	

Power	5 - 6 - 7 - 8 - 9	1 - 2 - 3 - 4 - 20 - 21
	10 - 11 - 12 - 14 - 19 - 25 - 26 - 27	13 - 15 - 16 - 17 - 18 - 22 - 23 - 24
	Influence	

4.3 Plan stakeholders' management

#	Name	Position	Email	Mobile Number	Action
1	Mohammed	CEO	aa@aa.com	966555555	Manage Closely
2	Yasser	Planning Engineer	aa@aa.com	966555555	Manage Closely
3	Mohammed	Project Manager	aa@aa.com	966555555	Manage Closely
4	Mohammed	Project Manager	aa@aa.com	966555555	Manage Closely
5	Abdulmajeed	Senior Project Engineer	aa@aa.com	966555555	Keep Satisfied
6	Abubakr	Senior Project Engineer	aa@aa.com	966555555	Keep Satisfied
7	Ahmed	Project Engineer	aa@aa.com	966555555	Keep Satisfied
8	Mohammed	Project Engineer	aa@aa.com	966555555	Keep Satisfied
9	Sager	Project Engineer	aa@aa.com	966555555	Monitor
10	Hany	IT supervisor	aa@aa.com	966555555	Monitor
11	Mostafa	Senior IT supervisor	aa@aa.com	966555555	Monitor
12	Ahmad	IT Engineer	aa@aa.com	966555555	Keep Informed
13	Mohammed	IT Engineer	aa@aa.com	966555555	Monitor
14	Mohammed	Cyber Security Supervisor	aa@aa.com	966555555	Keep Informed
15	Ahmed	Senior Cyber Security Engineer	aa@aa.com	966555555	Keep Informed
16	Abdelghany	Senior Cyber Security Engineer	aa@aa.com	966555555	Keep Informed
17	Abdullah	Cyber Security Engineer	aa@aa.com	966555555	Keep Informed
18	Mohammed	Cyber Security Engineer	aa@aa.com	966555555	Monitor
19	Ali	Network Engineering Manager	aa@aa.com	966555555	Manage Closely
20	Mostafa	Network Engineer	aa@aa.com	966555555	Manage Closely
21	Mohammed	CS Engineering supervisor	aa@aa.com	966555555	Keep Informed
22	Naim	Senior CS Engineer	aa@aa.com	966555555	Keep Informed
23	Mazen	Senior CS Engineer	aa@aa.com	966555555	Keep Informed
24	Sara	CS Engineer	aa@aa.com	966555555	Monitor
25	Allan	CS Engineer	aa@aa.com	966555555	Monitor
26	Mohammed	IT Specialist	aa@aa.com	966555555	Monitor

5.1 Cultures and value

KCG's Cultures, One KCG, tell a powerful story:

A diverse team, operating with integrity, working together, determined to make a difference.

Open to Possibilities:

We are Open to Possibilities by embracing diversity, seeking new approaches and striving for continuous improvement.

Growing Together:

We are Growing Together by sharing knowledge and unwrapping human potential in an environment of mutual respect.

Making a Difference:

We are making a difference by leading with integrity and determination to have a positive impact on everything we do.

One KCG:

We are One Group, winning together while accepting individual responsibility for our results.

5.2 Suggestion for Organizational Values Adopted:

When we were discussing as a graduation group regarding cultures and values, we founded an inspiring company that just established in 2021 with amazing culture and very comfort environment to work and develop the project team members, its OTO Saudi Arabia and we took their culture and values from their website as follows:

We are building a culture where amazing people (like you) can do their best work at OTO. We have a no door policy that means we encourage openness, honesty and respect for other points of view. Our team members enjoy a challenging environment and they take care of each other.

In OTO, we have adapted the Remote Working culture, where we work from home, favorite coffee shop, on the beach, or at an Art museum! You can work from anywhere you like. We are result driven, and aggressive achievers will surround you. No clocking in/out. We do not believe in micromanaging and our working relationships are based on mutual trust, that is why we don't require our team to clock in and out of work. Of course, this trust relationship works both ways!



Work alongside an ambitious and supportive team. We are growing fast and no two days look the same at OTO, but one thing never changes: your colleagues are always there to support you and to bounce off ideas!

Growth and learning opportunities. We believe that in order to grow as a company, our team also needs to continue learning and developing.

Stock options: we believe that everyone should feel like building his own company! That's why we offer stock options for all employees working at OTO.

6.1 Personal Behavior Habits of the Student That Can Affect the Project:

1. Dependency on other team members.
2. Not a team player who lack experience in the assigned task.
3. Stubborn minded with no flexibility to ideas nor time schedule.

6.2 Study these Behaviors, Determine their Causes and How to Get Rid:

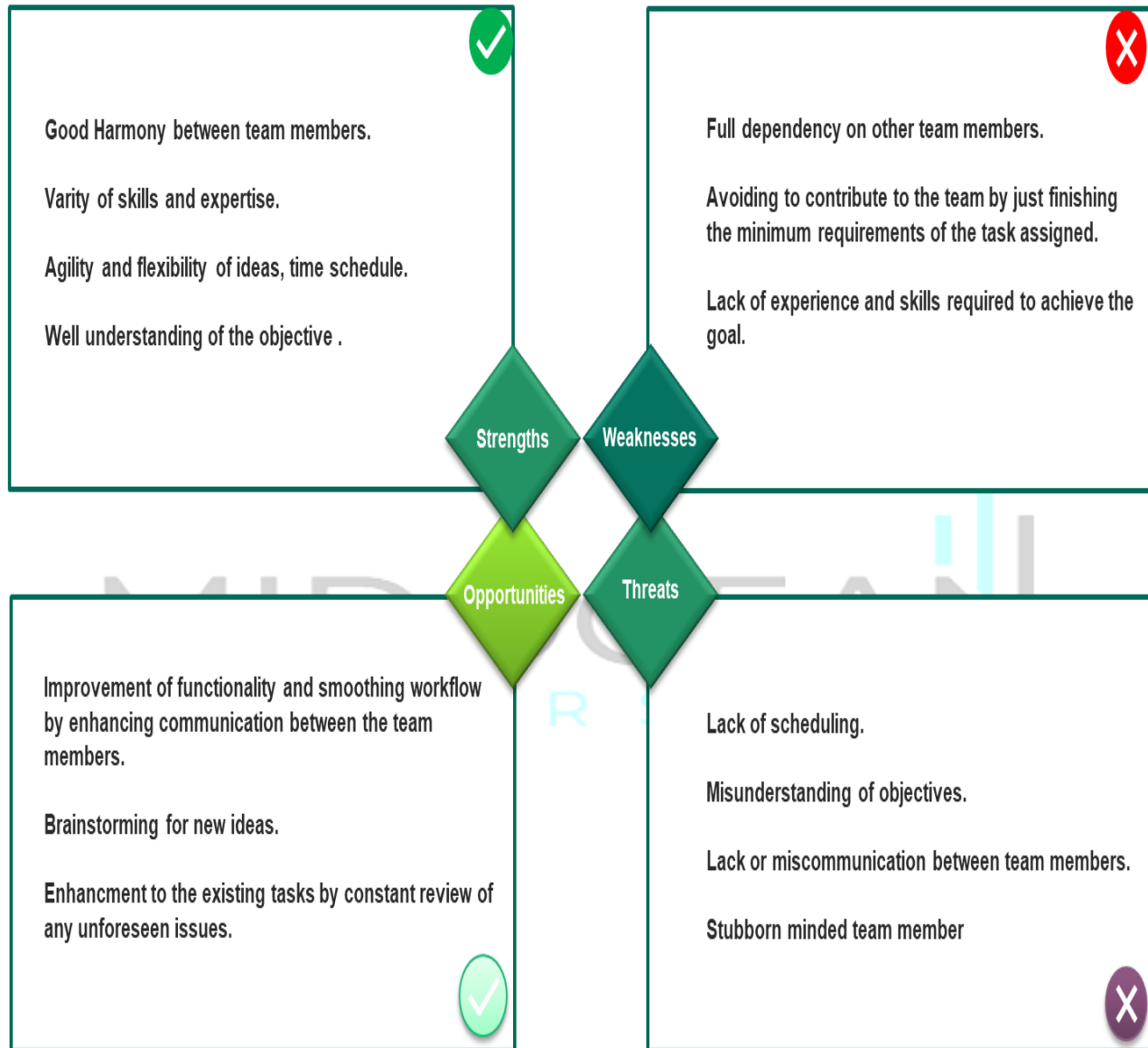
1. Generally, in team work or project if the team is newly created with no previous experience there has to be checklist to have a cooperative and successful team who will be working together to reach the intended goal by dividing the tasks into smaller tasks based on the skills and expertise of each team member. This will result in creating more confident and better results by allowing each member to provide their knowledge and be an added value to the group.
2. Some people prefer to work in groups because they know how to be more active and support other team members who struggle in some points. However, some other type of people prefers to work alone on specified tasks with no interface from others even if there is dependency on their assigned task that could result in delaying the assigned tasks for the other team member. The ultimate solution for a solo member who tend to work alone is to assign the task that is least relevant to other workflow or by simply assign the task

with early due date and time to avoid delaying the workflow for the other team members.

3. Any teamwork requires flexibility and agility in order to come up with the best environment and dynamic between the team members which will be reflected on the quality of each team members' contribution which will eventually result in reaching the intended goal with the best results possible. However, if the team includes stubborn minded member it will defiantly raise much more challenges and it would harm the team harmony, which will eventually result in poor quality delivering the project or failing to deliver at all.



6.3 SWOT Analysis:



7. Personal Integrity and Reliability

7.1 Behaviors that are Inconsistent with Moral Integrity, 7.2 Analysis of the Financial, Social, and Technical Impact:

There are many integrity Ethics

can affect the work environment and projects. Here is, three behaviors can affect the project process financially, socially and technically.

Integrity Ethics Behaviors	Financial Impact	Social impact	Technical Impact
Management Corruption	Medium Impact	High Impact	High Impact
Financial Corruption	High Impact	Medium Impact	Low Impact
Abuse Of Authority	Low Impact	High Impact	Low Impact

8.1 Register of Project Stakeholders

#	Name	Position	Email	Mobile Number	group
1	Mohammed	Project Manager	aa@aa.com	966555555	Project Management
2	Mohammed	Project Manager	aa@aa.com	966555555	
3	Mohammed	Project Manager	aa@aa.com	966555555	
4	Abdulmajeed	Senior Project Engineer	aa@aa.com	966555555	
5	Abubakr	Senior Project Engineer	aa@aa.com	966555555	
6	Ahmed	Project Engineer	aa@aa.com	966555555	
7	Mohammed	Project Engineer	aa@aa.com	966555555	
8	Sager	Project Engineer	aa@aa.com	966555555	
9	Hany	IT Supervisor	aa@aa.com	966555555	
10	Mostafa	Senior IT Engineer	aa@aa.com	966555555	Maintenance Team
11	Ahmad	IT Engineer	aa@aa.com	966555555	
12	Mohammed	IT Engineer	aa@aa.com	966555555	
13	Ahmed	Senior Cyber Security Engineer	aa@aa.com	966555555	Hyper Security
14	Abdelghany	Senior Cyber Security Engineer	aa@aa.com	966555555	
15	Abdullah	Cyber Security Engineer	aa@aa.com	966555555	
16	Mohammed	Cyber Security Supervisor	aa@aa.com	966555555	
17	Ali	Project Manager	aa@aa.com	966555555	
18	Mostafa	Network Engineer	aa@aa.com	966555555	Network
19	Ali	Network Engineering Manager	aa@aa.com	966555555	
20	Naim	Senior CS Engineer	aa@aa.com	966555555	Programming Team
21	Mazen	Senior CS Engineer	aa@aa.com	966555555	
22	Sara	CS Engineer	aa@aa.com	966555555	
23	Allan	CS Engineer	aa@aa.com	966555555	
24	Mohammed	Draftsman	aa@aa.com	966555555	

8.2 Definition of Interpersonal Communication and Effective Communication

Interpersonal communication, called intrapersonal communication, is the communication that occurs within the project. The individual uses this type of communication for various purposes such as analyzing situations, clarifying concepts and reflecting on the results (1)

Effective communication

Effective communication is defined as the process of producing and exchanging information and ideas from one person to another with the intention of influencing and creating a response. Either or both of them affect the course of the event (2)

8.3 Define forms, models, and channels of personal communication

Communication is one of the means that people use to exchange and transfer information and ideas between them, through writing, speech, or any other method. Defining communication as the transmission and exchange of information, emotions, and trends from one individual to another or from one group to another.

Forms of communication

Verbal communication: This communication takes place by spoken speech, whether it is in conversations, meetings, or others, and it may be in written words such as reports, publications, books, e-mail and other written methods. From any distortion or change, the disadvantages are summarized as follows: slow delivery of information, and written or unwritten speech can be misunderstood, especially when some meanings that have more than one meaning are used.

Non-verbal communication: Here information and ideas are transferred without any language, examples of which are: gestures, touch, facial expressions, movements with the hands, in addition to vocal expressions that may express certain feelings such as joy, fun, calmness, fear, etc., and there are things that improve non-verbal communication. (3)

8.4 Communication Matrix

Level of Urgency 1-4	STAKEHOLDER /DRI	objective and goals	Required Actions Messaging & content & ways to contact	Due Date
1	Project Management (IT , Electrical, Mechanical, Architectural	Finish Tasks	Email	Daily
2	PMO	Follow up	report	Weekly
3	Owner	Results	Meeting& report	Monthly
4	PMO & Owner	Close or correct the course of a project or emergency	Meeting	Daily

8.5 Presentation (3 scenarios) of wrong models of communication

All institutions have an organizational structure that shows the administrative levels, authority, responsibility, and management of relationships within the organization, and any defect in this structure leads to impeding effective communication, and they are as follows:

1. Failure to manage information effectively in terms of collection, classification, and distribution.
2. Different languages and dialects, as they affect the understanding of the two parties to the communication and their realization of the intended meaning of the speech, as each of them understands the phrase differently.
3. The presence of different specializations that sometimes hinder communication between workers; Because each of them speaks according to his field of specialization.

9 Stakeholder engagement assessment matrix

C = Current engagement

D = Desired engagement

#	Name	Unaware	Resistant	Neutral	Supportive	Leading
1	Mohammed					C,D
2	Yasser				C	D
3	Mohammed			C	D	
4	Mohammed			C,D		
5	Abdulmajeed				C,D	
6	Abubakr	C		D		
7	Fadi		<u>C</u>	D		
8	Ahmed	C		D		
9	Mohammed			C	D	
10	Sager				C,D	
11	Hany		<u>C</u>	D		
12	Mostafa			C,D		
13	Ahmad		<u>C</u>		D	
14	Mohammed		<u>C</u>		D	
15	Mohammed		<u>C</u>	D		
16	Ahmed			C,D		
17	Abdelghany				C,D	
18	Abdullah			C,D		
19	Mohammed			C,D		
20	Ali				C,D	
21	Mostafa			C,D		
22	Mohammed			C	D	
23	Naim			C	D	
24	Mazen		<u>C</u>		D	
25	Sara	C			D	
26	Allan	C		D		
27	Mohammed		<u>C</u>	D		

10.1 Describe and define the preferred leadership model for project leadership

Adequate leadership style is a vital key to the success of the project. This project required a leader who has integrity, defines clear goals, enhance innovation, and inspires their team to work together towards a common target.

10.2 Determine the reasons for the preference for that model

Transformational / Visionary Leader who have positive vision for the future is the recommended leader to lead the project.

It is recommended as Transformational leaders are able to get staff on board and excited about changes. He is able to gets staff engaged to reach highest possible productivity level. He will also help to build a healthy culture among involved team ends in better overall work.

10.3 Proposals for stimulus methods

In fact, it not reasonable practicable to control each team member's attitude towards the project, However Project Manager shall be able to motivate, encourage and excite the team to achieve successes of the project. Below are simple tips to motivate the project team:

- Project Manager shall elaborate on how the project is benefiting the company as a whole.
- Weekly catch-up meeting shall be conducted to see how the progress of the project.
- Project Manager shall Keep Project's team feeling valued by delivering constant flow of positive feedback for small victories.
-
- Project Manager shall ensure Project's team are feeling supported.
- Project Manager shall support a better Work-Life Balance for all team members by encouraging breaks, allowing flexible hours and working remotely where practicable.

11.1 RACI Matrix

This matrix describes how the tasks should be handled, reported and this will benefit in maintenance a clear project resource hierarchy and work flow and setting the ground rule for each team member and their tasks.

Task	Responsible	Accountable	Consulted	Informed
Project Authorization	CEO	IT Department Manager	Hyper Security Manager	IT Department Team
Assigning Project Team	IT Department Team	IT Department Manager	Hyper Security Manager	CEO
Testing, Commissioning & Handover	IT Department Manager	Hyper Security Manager	IT Department Team	CEO

12 Detention of Conflict and crisis

12.1 Conflicts

It is the conflict, not bad, permanent, difference between employees, whether it is between departments or employees, and sometimes conflicts arise due to lack of resources or overlapping of tasks and divergence of goals. The non-functional organization and the organization must stop this conflict.

Crises

Any external or internal event that may affect the course of the project

12.2 Presenting three expected scenarios for the conflict events in the project

1- Wrestle over resources

Conflict between the project and external parties

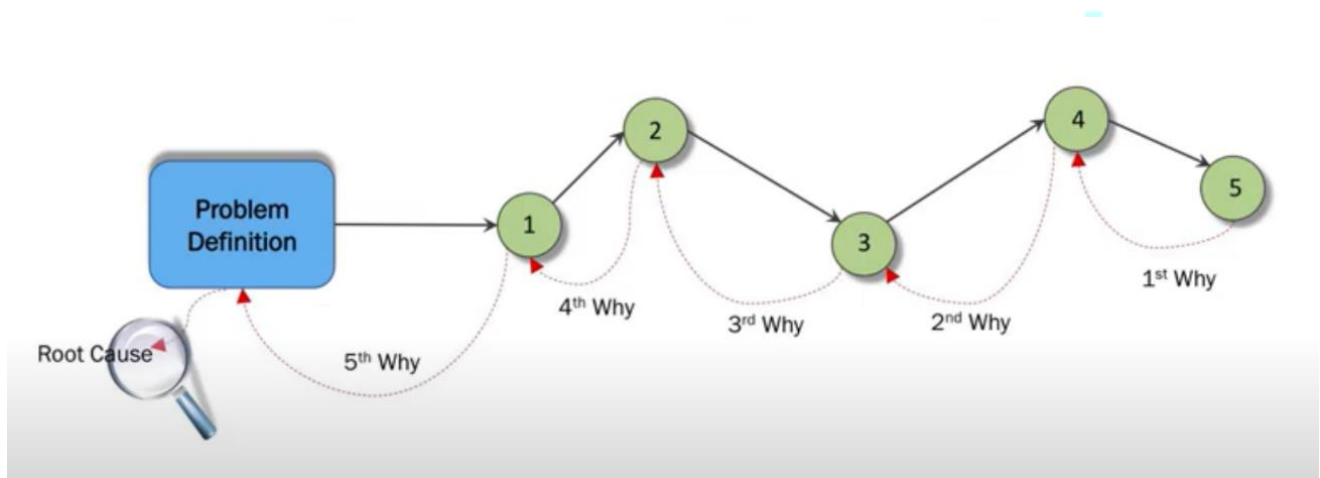
2- The conflict that appears between the project and relevant external parties such as suppliers and receiving committees

3- The struggle for power within the organization or project.

12.3 Determine the optimal strategies for dealing with each conflict

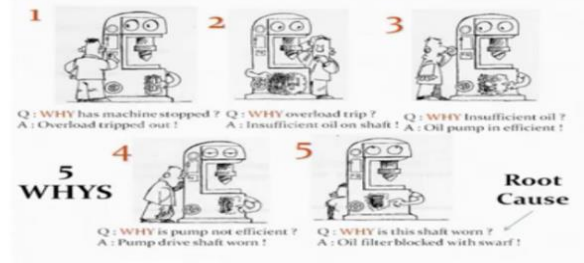
- A. Confronting / Problem Solving
- B. Compromising
- C. Withdrawal / Avoidance
- D. Smoothing / Accommodating
- E. Collaborating
- F. Forcing(3)

12.4 Root Cause Analysis



It is normal in any project that problems appear to us and by tracing the chronology of the event until we reach the origin of the problem and in this way we reach to RCA(Root Cause Analysis)

Mechanical Failure Root Cause Analysis Example



Keep asking “why”
until you find the
actual root cause of
the problem

13. Summary of Resource Crashing & Fast Tracking:

Labor Cost Only	Manhours	Deadline	Relationship type	Schedule Type
185,200 SAR	870 hour	15/May	Normal	Baseline
220,000 SAR	1120 hour	30/April	Without discretion	Fast Tracking
231,600 SAR	1170 hour	28/April	With discretion	Fast Tracking

224,800 SAR	1151 hour	30/ April	Without discretion	Crashing
208,400 SAR	1060 hour	5/ May	With discretion	Crashing

14.1 General Rules for the Negotiation Process

When we are talking about negotiating first of all from our perspective we look at it as an art, easy for someone and difficult someone else and any conflict need to negotiate in order to solve this conflict, not all conflicts are negative and some conflict is healthy in the project and added value to it.

It's possible to face a conflict need to negotiate in any stage of the project and usually it's appear in the first stage of the project (Initiation Stage) and sometimes in (Execution Stage).

As a project manager/member we need to know that some conflicts may appear internally between the project team members and some conflicts may appear with other third parties (stakeholders) of the project and need to know how to manage these conflicts by negotiating effectively.

There are five stages of negotiation:

- 1- Exploration.
- 2- Bidding.
- 3- Bargaining.
- 4- Settling.
- 5- Ratifying.

14.2 Two Negotiating Plans

First plan: (General Plan)

1- Preparation for negotiation

- Preparing for negotiation is an ongoing process. Negotiation does not start or end it ends as soon as an agreement is reached.
- It is necessary to keep any information related to a topic negotiate for possible future need.
- If you know that you have to negotiate with one of the parties a month next, how do you prepare yourself to face the party? the other?
- How do you predict the strategy of the other party and how do you face it?
- The answer is not easy. But anyway, get ready normal thing.

2- Setting goals:

- The objectives of negotiation vary according to the type of situations in which they are located require negotiation.
- But we can set a general goal for negotiation, which is to satisfy or meet the needs of the negotiating parties.
- If we narrow the goal of negotiation in a way that limits our vision the negotiating party would collapse the negotiations.
- It is difficult to build general goals that should be achieved during the negotiation process is left to the negotiating party to pursue it according to the conditions of the negotiation process.

3- Team formation:

Depends on the depth of preparation for negotiation and the number and quality of people participants in this process stress the importance of negotiations, the potential difficulties, the time available.

- It is preferable to negotiate through a team due to the negotiator's need individual to aid. Whether the negotiator is an individual or a team It depends on an important factor, which is: What is the quality of the skills? Or functions required in the negotiation process.
- If it is decided to form a team, the team members must they can implement the plans and goals set.

4- Determine negotiating topics:

- Negotiating topics are those things in which one party takes a positive attitude and the other takes a negative attitude.
- It is essential that negotiating topics be practical as it is difficult to make certain judgments on unrealistic issues. It raises controversy and encourages the exchange of accusations so that the accusations become a topic for dialogue.

Second plan: (Detailed Plan)

Negotiation plan:

- The more skilled the negotiators are, the more time and effort they put into the planning stage.
- There is no dispute that the plan will be modified upon implementation, and accordingly, the negotiation plan will be used as a general framework.
- Negotiators understand that what they will do during negotiation depends on what the other party plans to do.
- It is very difficult to identify your needs and resources and then develop a comprehensive strategy and appropriate tactics to implement these strategies.
- It is difficult to know what is going on in the mind of the other party, especially if it is the first time you are negotiating with him.

- It may be useful for the negotiating team to simulate the negotiation process before its implementation by dividing the team into two groups, the group plays specific roles, and thus fewer surprises during the negotiation process.

The effective negotiator resorts to setting a framework for the negotiation process, and this achieves the following advantages:

1. When you put your ideas on paper, you can categorize them, put them in order, and resolve any inconsistencies that are safe in them.
2. When negotiation is conducted in a team format, it is useful to have a document in the hands of the team members to assist each of them in doing their part.
3. It is useful to review the framework of the negotiation plan between the sessions, after the negotiation process is over, in order to benefit from this experience in future negotiations.

The main elements included in this framework are illustrated in the following tables:

First - Negotiation topics:

1. List the items on your agenda that you wish to negotiate in order of importance:

A-

B-

C-

D-

2. Compare your schedule with the expected schedule of the other party:

A- What are the points of disagreement with regard to

- subjects.
- Priorities.
- Subjects that you deem to be non-negotiable.

3. Types of Topics

A- Issues that achieve common interests for the two negotiating parties

-
-
-
-

B- Subjects subject to bargaining

-
-
-
-

C- How can the two negotiating parties achieve their common interests?

Second - What are the topics that can be negotiated as a single deal:

-
-
-
-

1. List the items on your agenda that you wish to negotiate in order of importance:

A- Your minimum position

-
-
-
-

B- Your maximum position

-
-
-
-

2. The best arrangement for the succession of topics to be presented (of course, this will depend on the progress of the negotiations and the positions and surprises it finds).

A-

B-

C-

D-

Third - the concerned parties:

1. History of previous transactions.
2. That the other party prefers cooperation in solving problems or bargaining.
3. Will a third party participate in the negotiations and how will this affect the course of the negotiations?

Fourth - The expected pattern of negotiations:

Must study:

1. The nature of the issues under negotiation.
2. The parties concerned.
3. The time available for negotiations.

Fifth - the required information:

1. Information can be provided before negotiation.
2. Information that can be obtained during the negotiations.

Sixth - providing information:

1. Information provided during negotiation.
2. Information to be withheld.

Seventh- Formulation of the Strategy:

A negotiation strategy is formulated in light of:

1. Topics.
2. The type and nature of the subjects.
3. Topics to be negotiated.
4. The parties concerned.
5. The expected pattern of negotiations.
6. Information exchange.

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Second Part



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20 Finance

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21 Resources

- 21.1 To explain the concept of Resource Leveling and Smoothing.
- 21.2 To be trained on distributing the project resources of equipment and tools.

22 Procurement

22.1 To develop the procurement execution process, and contractor selection.

22.2 To develop comparing and scoring models.

23 Plan and Control

23.1 To prepare agenda- Invitation and virtual record of a virtual meeting.

23.2 To identify performance measurement, course and submit reports, in addition to explaining the reason.

23.3 To develop Change Request model, including (impact analysis- alternatives analysis recommendation).

24 Risk and Opportunities

24.1 To identify Risks (threats) and opportunities, and giving examples.

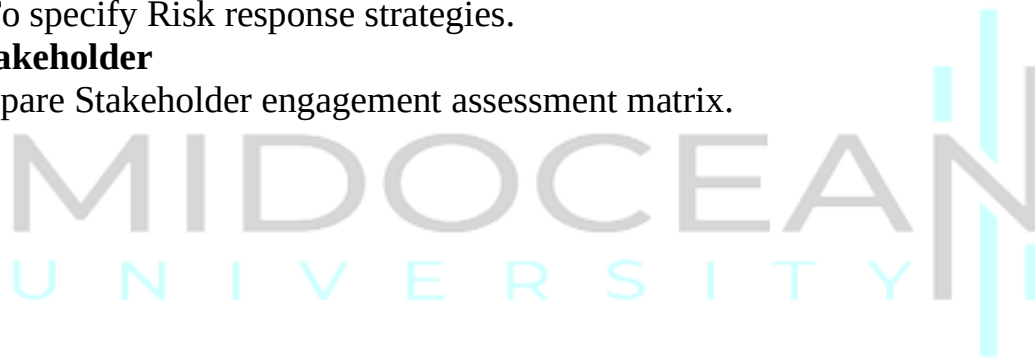
24.2 To prepare Risk register.

24.3 Qualitative Risk Analysis.

24.4 To specify Risk response strategies.

25 Stakeholder

To prepare Stakeholder engagement assessment matrix.



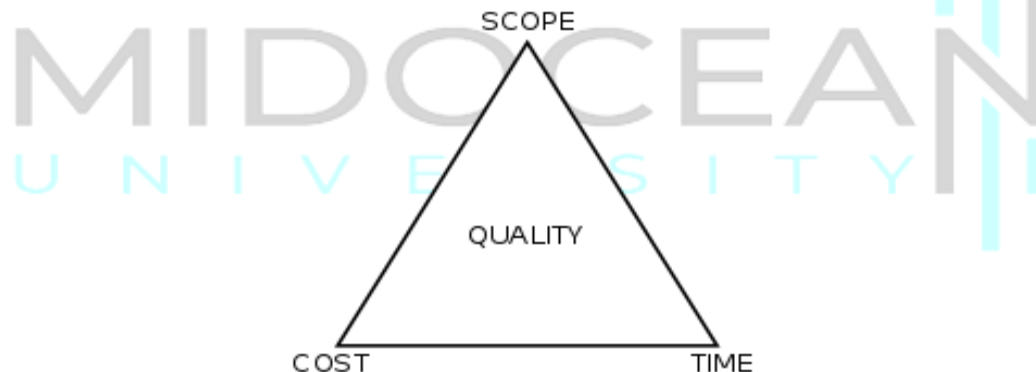
15 Project design

15.1 To identify the Triple constraint of the project.

The **project management triangle** (called also the *triple constraint*, *iron triangle* and *project triangle*) is a model of the constraints of project management. While its origins are unclear, it has been used since at least the 1950s.[1] It contends that:

1. The quality of work is constrained by the project's budget, deadlines and scope (features).
2. The project manager can trade between constraints.
3. Changes in one constraint necessitate changes in others to compensate or quality will suffer.

For example, a project can be completed faster by increasing budget or cutting scope. Similarly, increasing scope may require equivalent increases in budget and schedule. Cutting budget without adjusting schedule or scope will lead to lower quality.



Project management triangle topics

Time

For analytical purposes, the time required to produce a deliverable is estimated using several techniques. One method is to identify tasks needed to produce the deliverables documented in a work breakdown structure or WBS. The work effort for each task is estimated and those estimates are rolled up into the final deliverable estimate.

The tasks are also prioritized, dependencies between tasks are identified, and this information is documented in a project schedule. The dependencies between the tasks can affect the length of the overall project (dependency constrained), as can

the availability of resources (resource constrained). Time is different from all other resources and cost categories.

Using actual cost of previous, similar projects as the basis for estimating the cost of current project.

According to the Project Management Body of Knowledge (PMBOK) the Project Time Management processes include:

1. Plan Schedule Management
2. Define Activities
3. Sequence Activities
4. Estimate Activity Resources
5. Estimate Activity Durations
6. Develop Schedule
7. Control Schedule

Define Activities

1. Inputs: Management Plan, Scope Baseline, Enterprise environmental factors, Organizational process assets
2. Tools: Decomposition, Rolling Wave Planning, Expert Judgment
3. Outputs: Activity list, Activity attributes, Milestone list

Activity sequencing

1. Inputs: Project Scope Statement, Activity List, Activity Attributes, Milestones List, Approved change requests
2. Tools: Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network templates, dependency degeneration, applying leads and lags
3. Outputs: Project Schedule Network diagrams, Activity List Updates, Activity Attributes updates, Request Changes

Activity resource estimating

1. Inputs: Enterprise Environmental factoring, Organizational process assets, Activity list, Activity attributes, Resources Availability, Project Management Plan
2. Tools: Expert Judgment Collections, Alternative Analysis, Publishing estimating data, Project management software implementation, Bottom up estimating

3. Outputs: Activity resource requirements, Activity attributes, Resource breakdown structure, resource calendars, request change updates.

Activity duration estimating

4. Inputs: Enterprise environmental factors, organization process assets, Project scope statement, activity list, activity attributes, activity resource requirements, resource calendars, project management plan, risk register, activity cost estimates
 5. Tools: Expert judgment collection, analogous estimating, parametric estimating, Bottom up Estimation, Two-Point estimation, Three-point estimation, reserve analysis
1. Outputs: Activity duration estimates, activity attribute updates and estimates

Schedule development

1. Inputs: Organizational process assets, Project scope Statement, Activity list, Activity attributes, project Schedule Network diagrams, Activity resource requirements, Resource calendars, Activity duration estimates, project management plan, risk register
2. Tools: Schedule Network Analysis, Critical path method, schedule compression, what if scenario analysis, resources leveling, critical chain method, project management software, applying calendars, adjusting leads and lags, schedule model
3. Outputs: Project schedule, Schedule model data, schedule baseline, resource requirements update, activity attributes, project calendar updates, request changes, project management plan updates, schedule management plan updates

Schedule control

1. Inputs: Schedule management plan, schedule baseline, performance reports, approved change requests
2. Tools: Progressive elaboration reporting, schedule change control system, performance measurement, project management software, variance, analysis, schedule comparison bar charts
3. Outputs: Schedule model data updates, schedule baseline. performance measurement, requested changes, recommended corrective actions, organizational process assets, activity list updates, activity attribute updates, project management plan updates

Due to the complex nature of the 'Time' process group the project management credential *PMI Scheduling Professional* (PMI-SP) was created.

Cost

To develop an approximation of a project cost depends on several variables including: resources, work packages such as labor rates and mitigating or controlling influencing factors that create cost variances. Tools used in cost are, risk management, cost contingency, cost escalation, and indirect costs . But beyond this basic accounting approach to fixed and variable costs, the economic cost that must be considered includes worker skill and productivity which is calculated using various project cost estimate tools. This is important when companies hire temporary or contract employees or outsource work.

15.1.1.1 Cost Process Areas

- Cost Estimating is an approximation of the cost of all resources needed to complete activities.
- Cost budgeting aggregating the estimated costs of resources, work packages and activities to establish a cost baseline.
- Cost Control – factors that create cost fluctuation and variance can be influenced and controlled using various cost management tools.

15.1.1.1.1 Project Management Cost Estimating Tools

- Analogous Estimating: Using the cost of similar project to determine the cost of the current project
- Determining Resource Cost rates: The cost of goods and labor by unit gathered through estimates or estimation.
- Bottom Up estimating: Using the lowest level of work package detail and summarizing the cost associated with it. Then rolling it up to a higher level aimed and calculating the entire cost of the project.
- Parametric Estimating: Measuring the statistical relationship between historical data and other variable or flow.
- Vendor Bid Analysis: taking the average of several bids given by vendors for the project.
- Reserve Analysis: Aggregate the cost of each activity on the network path then add a contingency or reserve to the end result of the analysis by a factor determined by the project manager.
- Cost of Quality Analysis: Estimating the cost at the highest quality for each activity.

Project management software can be used to calculate the cost variances for a project.

15.1.2 Scope

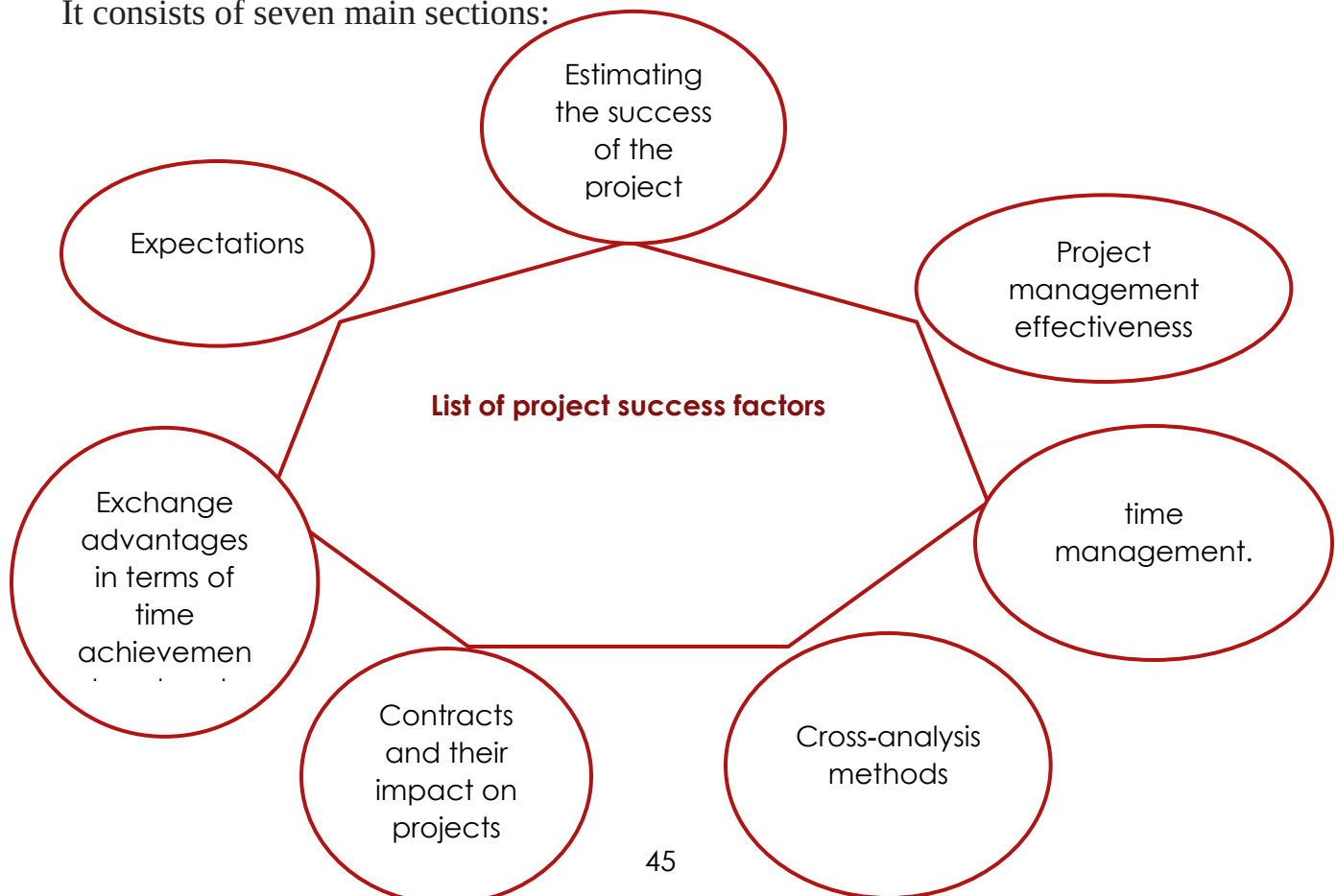
Requirements specified to achieve the end result. The overall definition of what the project is supposed to accomplish, and a specific description of what the end result should be or accomplish. A major component of scope is the quality of the final product. The amount of time put into individual tasks determines the overall quality of the project. Some tasks may require a given amount of time to complete adequately, but given more time could be completed exceptionally. Over the course of a large project, quality can have a significant impact on time and cost (or vice versa).

Together, these three constraints have given rise to the phrase "On Time, On Spec, On Budget." In this case, the term "scope" is substituted with "spec(ification)."

15.2 To set up a list of the project success factors.

List of project success factors

It consists of seven main sections:



The first section (estimating the success of the project) shows how to assess whether the project was successful or not through a set of measures.

The second section (the effectiveness of project management) How to measure the effectiveness of project management by evaluating the set of activities that make up the project.

The third section (Expectations) contains a forecast of what may affect the progress of the project and lead to its delay.

The fourth section (time management) explains the importance of distributing the available time on activities and then following up on the distribution of time on activities during work.

The fifth section (methods of cross-analysis) shows the role of project management in deciding the time, cost and specifications required to complete the project.

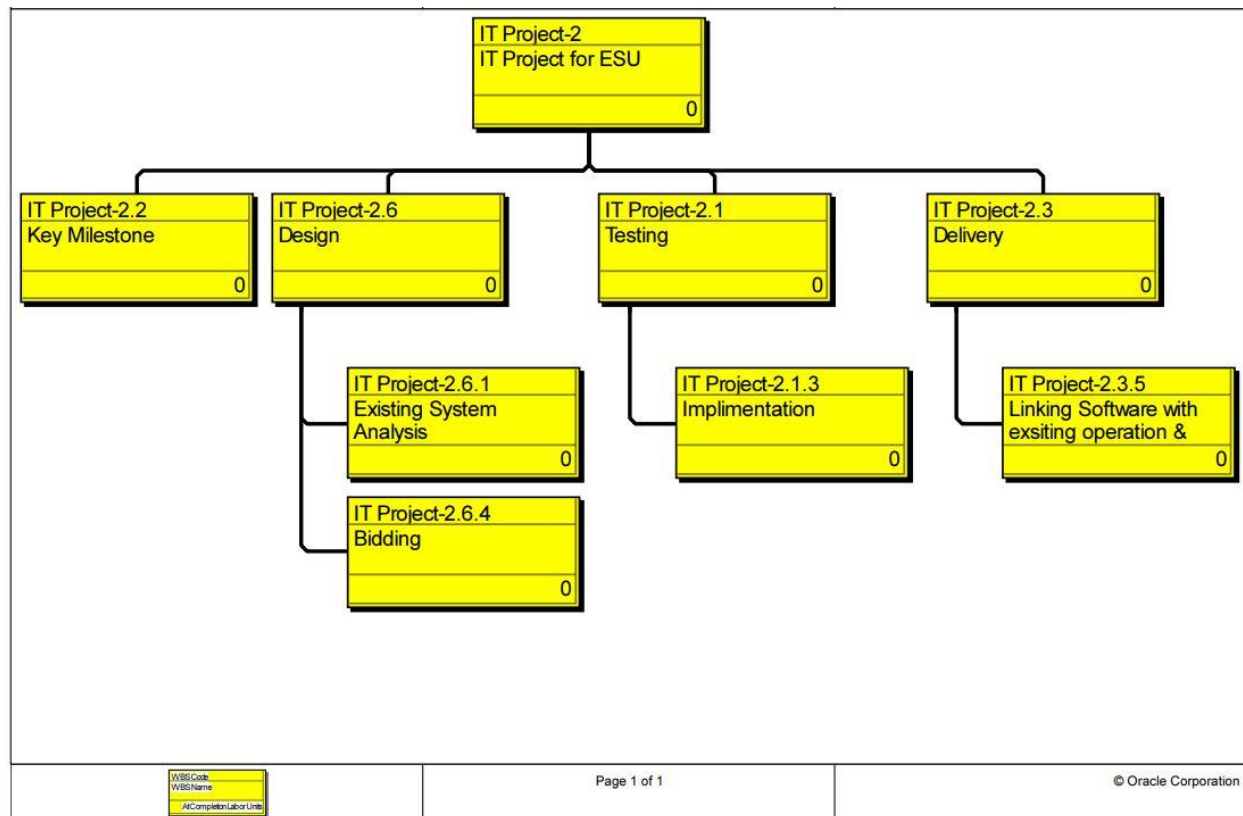
The sixth section (contracts and their impact on projects) highlights the role of contracts, whether inside or outside the institution, in regulating the workflow and defining the role and responsibilities of each party.

Finally, the seventh section (the preferences of exchange in terms of time, achievement and costs) presents the role of time, cost and achievement in the proposed project plan, and differentiation processes may be made between these three variables even before starting the implementation of the project.

15.3 To develop and identify work breakdown structure, in addition to prepare a guide to illustrate it.

Project were decomposition to three planning package and one key milestone WBS then these planning package where to decomposition to work package depending

on project deliverable and work flow process, to better organize the tasks and activity require to deliver the project and assigning tasks owners.



16 Requirements and objectives

16.1 To identify Requirement traceability matrix.

16.2 To specify the methods used in requirement collection.

16.3 To develop the hierarchical structure of the objectives of the project connected to the strategy.

Traceability Matrix Requirement

The matrix follows the requirements permanent in a software system that is followed by the project department whether if the demand is internal company such as sales and others so that no project is affected by the change of employees this model or external customers to maintain the course of projects and has many programs that can be used and the most famous program Microsoft

REQUIREMENTS TRACEABILITY MATRIX

PROJECT MANAGER:	KHALID	PROJECT ID:	AX-EMEA-0926302					
PROJECT SPONSOR:	Hussain	PROJECT TITLE:	EBSU					
REQUIREMENT INFORMATION					RELATIONSHIP TRACEABILITY			
ID	CATEGORY	REQUIREMENT	PRIORITY	SOURCE	BUSINESS OBJECTIVE	DELIVERABLE(S)	VERIFICATION	VALIDATION
REQ-001	Mandatory	Ability for customers to search the knowledge base for solutions to broadband problems.	High	CTO	Increase self-service resolution rate by 13%	Knowledge base module Analytics module	Achievement of business objective within 1 yr from go live.	Unit test and UAT.
REQ-002	Should have	My account area with ability for customers to register their product.	Medium	CCO	Increase registration rate of products to 50% in 2 yrs	My account module Product registration plug-in	Achievement of business objective.	Unit test and UAT.
REQ-003	Nice to have	Ability for customers to see recently viewed knowledge articles in a my account area.	Low	Service Desk	Increase CSAT by 3% by 2nd half FY.	My account module and customisation to save viewed knowledge articles.	Up tick of CSAT.	Unit test and UAT.

Determine the requirements collection methods that were used to collect requirements

- **Interviews “both formal and informal:**

It is an effective way of collecting information from the stakeholders, by talking and conversing directly with them. and he will

The interviewer asks questions and then records these answers. These interviews can be individual to person, or with group of people.

- **Focus Groups.**

It brings together the qualified people involved in the project For example: department managers, old employees and the specialists in each molecule to know and determine their expectations and attitude towards the outputs and in these meetings it is known to control the discussions between the members.

- **Facilitated Workshops.**

Intensive meetings of the main stakeholders of the project, in which the requirements of the product are determined.

Workshops are the basic technology in which requirements are identified and reconciled, and because the group's interaction in workshops is normal, improving

Facilitating these sessions enhances trust among members and develops communication skills among participants .

- Managing professional projects according to PMI methodology -
Writer Nasser Al-Mohammed 2017

17 Scope

17.1 To develop, identify, and prepare the scope statement (Its limits- and objects that are not included).

Project Scope Statement

Project #	Project Description	Date Submitted	Project Priority
System enhancement	This project should include upgrading the existing system without disruption of running software	01/01/20xx	Class 3 (Important)

Step 1. Project Deliverables

Deliverable ID#	Description
1	Complete standalone system
2	Connection of the new software with the old one

Step 2. List of Project Tasks

Task ID#	Task to be completed
1	Existing software analysis
2	Existing hardware analysis
3	Existing system compatibility
4	Available enhancement
5	preparing bidding specs
6	preparing bidding quantity
7	preparing bidding BOQ
8	preparing bidding draft contract
9	receiving offers
10	analyzing technical offers
11	analyzing financial offers
12	assigning contract
13	Story point grooming
14	Sprint planning meeting
15	Sprint review meeting
16	Minimum Viable software (MVP) evaluation
17	Integration new software with the existing system
18	Testing stand-alone system
19	Story point assessment
20	Testing the integration compatibility
21	Training the current staff
22	Handover the new system

Step 3. Out of Scope

This project will NOT accomplish or include the following:	Upgrading the existing system
---	-------------------------------

Step 4. Project Assumptions

Please list any project factors that will be considered to be true, real, or certain. Assumptions generally involve a certain degree of risk.

#	Assumption
1	System Compatibility
2	System Enhancement
3	Affecting Existing Operations

Step 5. Project Constraints

Project Start Date	01/01/20xx
Launch/Go-Live Date	08/05/20xx
Project End Date	15/05/20xx
List other dates/descriptions of key milestones	17/04/20xx Complete Solution Simulation and Testing
Budget constraints	Project budget must not exceed 236,600 s.r.
Quality or performance constraints	System integration must occur without effect the running software including different server to be able to separate and isolate each system to be standalone in future expansion

17.2 To develop, identify, and explain the concepts: Scope creep and giving examples.

Scope Creep is the uncontrolled expansion of work that will affect a one or several of project constraints such as Scope, Quality, Cost, time.

Example of scope creep, is the project main constraint that we should not upgrade the existing system but while we were in the final phase of our project which include system compatibility with the existing software without effect the current operation. We found out that we must upgrade some of the old system hardware

with a newer one to be match with our new system which will cause more expansion in the project budget, time, and unidentified future risks.

17.3 To illustrate product analysis management. To illustrate the transformation of the work packages in Work Breakdown Structure to activities.

Product Analysis:

This project having no tangible product to be delivered. It will be will be set up to be used by company' employees to enhance Group's presence in projects and subsequently increase profitability.

Scope definition, function of the platform, characteristics, requirements & constrains are well explained on the Project Charter.

To illustrate the transformation of the work package in work breakdown structure to activity.

Work package has been decomposed to activity to describe the project scope of work while determining the task owners and the required resource (Labor, non-labor & material) to better be able to estimate time & budget required to finalize each activity and to better understand how the project tasks work follow will be.

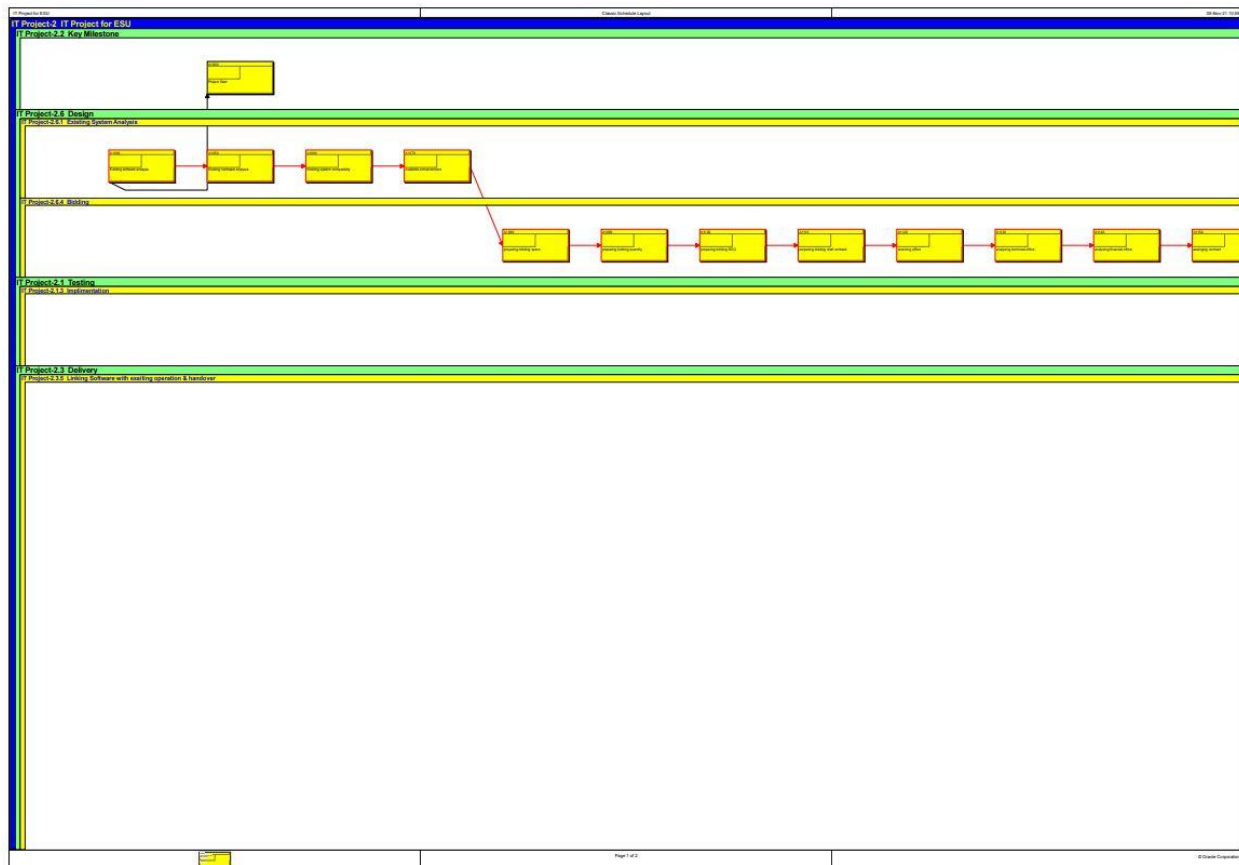
18 Time

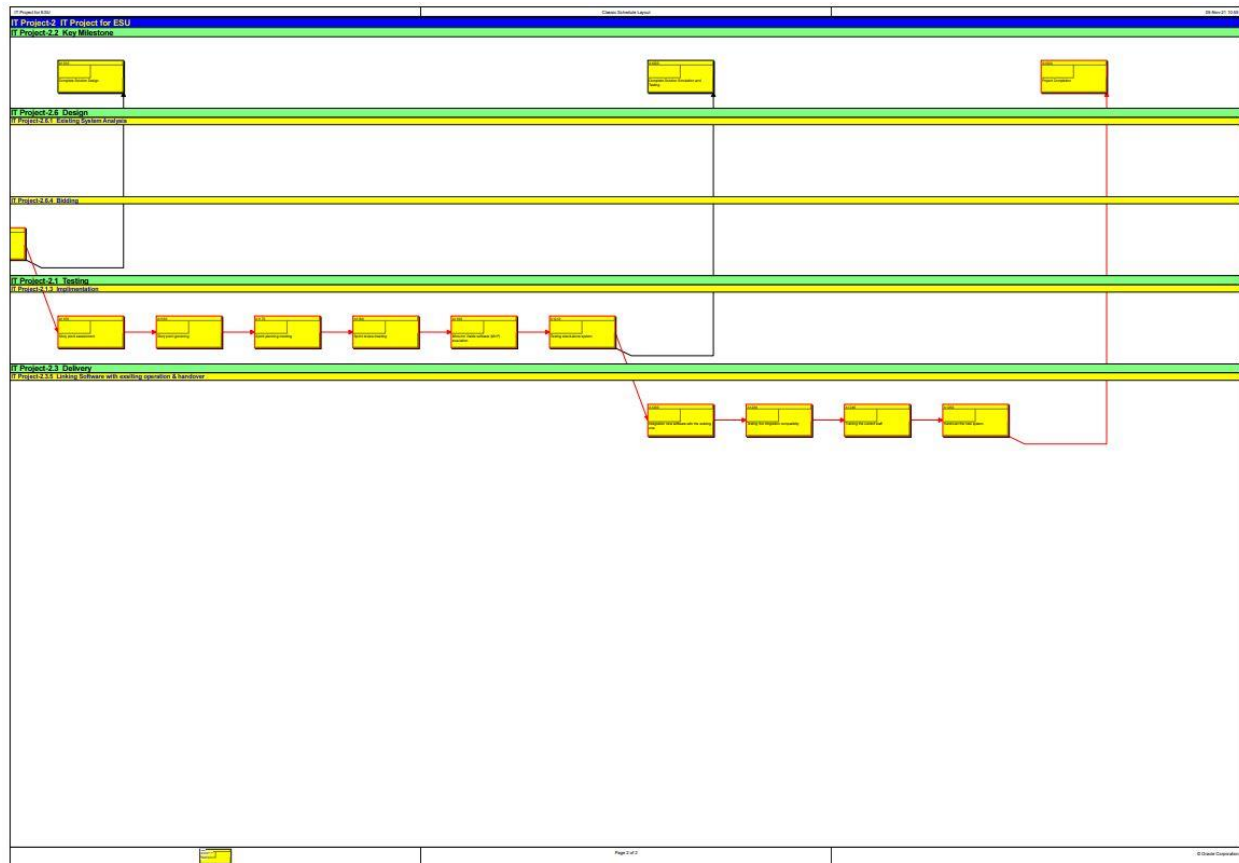
18.1 To develop the functions list or the activities included in each work package in WBS.

18.2 To illustrate the relationships between the activities.

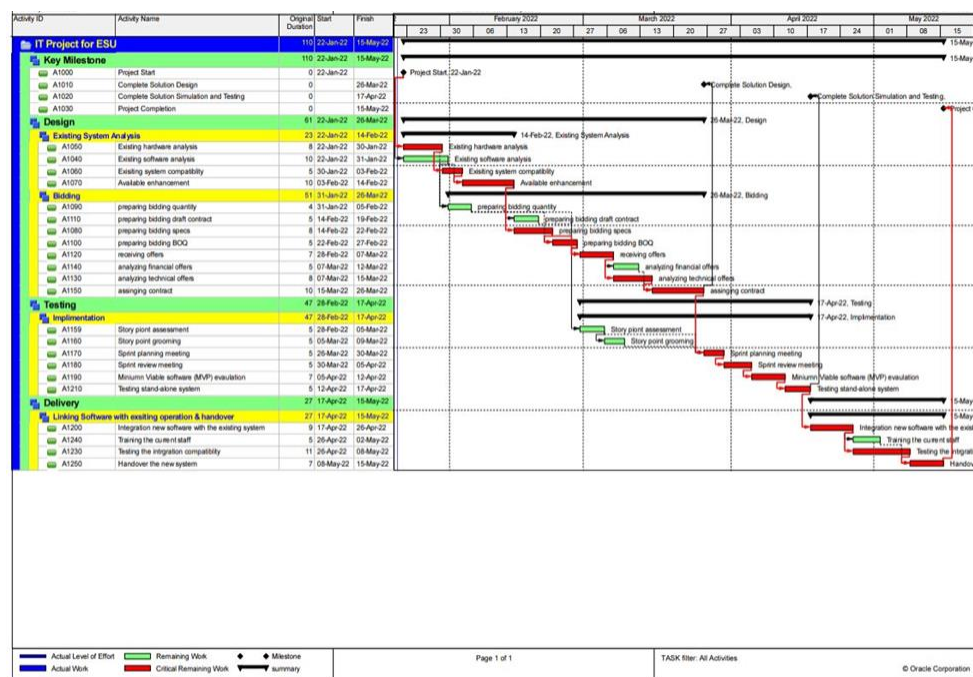
The project relationship will be usually finished to start relationship, which is the common and typical relationship for most of the project, without using any lag or lead. While its possible to use lag for the project if we were behind our schedule and the compressed activities will work in parallel in fast tracking mode while considering the consequences of these tasks with project cost increasing (cost overrun) and rework of some activity will be happened.

18.3 To develop the logical diagram of the project activities, and identify the critical path.





18.4 To prepare Gantt chart and Milestones model.



19 Quality

19.1 To clarify Deming model for quality.

01	CREATE PURPOSE FOR IMPROVEMENT	08	DRIVE OUT FEAR
02	ADOPT THE NEW PHILOSOPHY	09	BREAK DOWN SILOS
03	CEASE DEPENDENCE ON INSPECTION TO ACHIEVE QUALITY	10	NO SLOGANS
04	WORK WITH ONE SUPPLIER TO REDUCE COST	11	NO QUOTAS OR NUMERICAL GOALS
05	CONTINUOUS IMPROVEMENT	12	REMOVE ANNUAL RATINGS OR MERIT SYSTEM
06	ON-THE-JOB TRAINING	13	INSTITUTE EDUCATION AND SELF-IMPROVEMENT PROGRAMS
07	LEADERSHIP	14	INVOLVE ALL WORKERS IN THE TRANSFORMATION

Deming's 14 Points for Total Quality Management

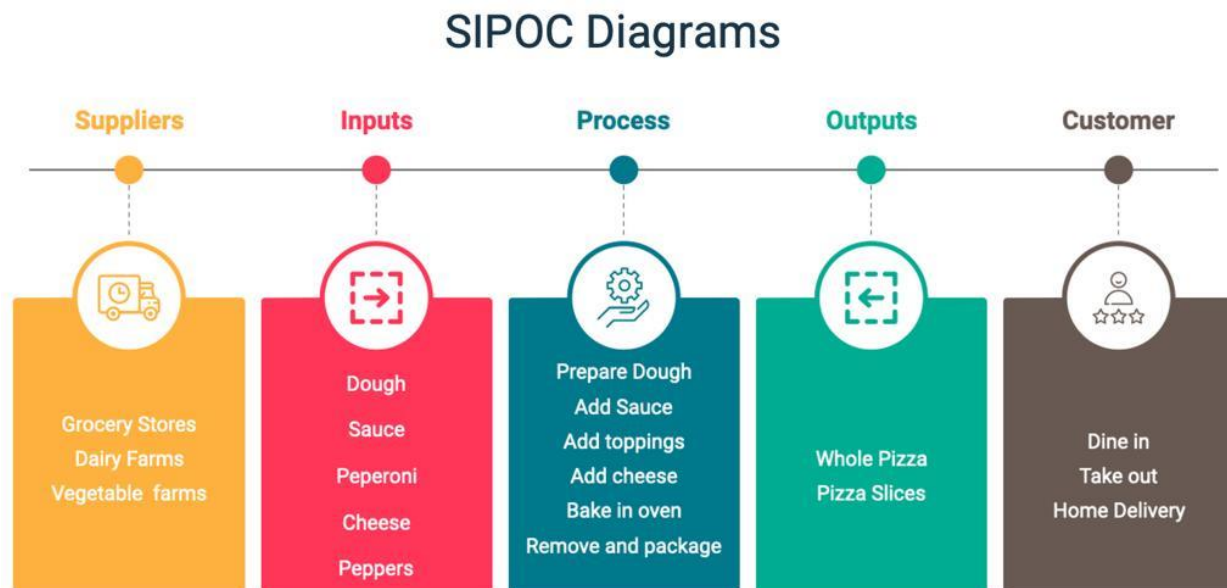
W. Edwards Deming's 14 Points

1. Create constancy of purpose for improving products and services.
2. Adopt the new philosophy.
3. Cease dependence on inspection to achieve quality.
4. End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier.
5. Improve constantly and forever every process for planning, production and service.
6. Institute training on the job.
7. Adopt and institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations and targets for the workforce.
11. Eliminate numerical quotas for the workforce and numerical goals for management.
12. Remove barriers that rob people of pride of workmanship, and eliminate the annual rating or merit system.
13. Institute a vigorous program of education and self-improvement for everyone.

14. Put everybody in the company to work accomplishing the transformation.

These total quality management principles can be put into place by any organization to more effectively implement total quality management. As a total quality management philosophy, Dr. Deming's work is foundational to TQM and its successor, quality management systems.

19.2 To develop SIPOC model, and Ishikawa for one of the issues of the project outputs.



Ishikawa model

In the case of applying the Ishikawa model to Customer Relationship Management

We will find ourselves dealing with the following problems

1 people: There are many percentages of human errors that can occur due to human errors in the project model, due to the dependence of this project on manual entries, for example: frequent errors in entering data for customers (numbers, names or addresses) In order to avoid human errors, specific boxes have been added to entries to reduce common errors, for example: selecting a box for the company name, selecting a box for the customer's first name and a box for the last

name Specify boxes for the address, box for the region, box for the city, box for the neighborhood, box for the street name, and box for the building name. The most important of which is the email field and the phone number field that accepts only 10 entries starting with 05 .

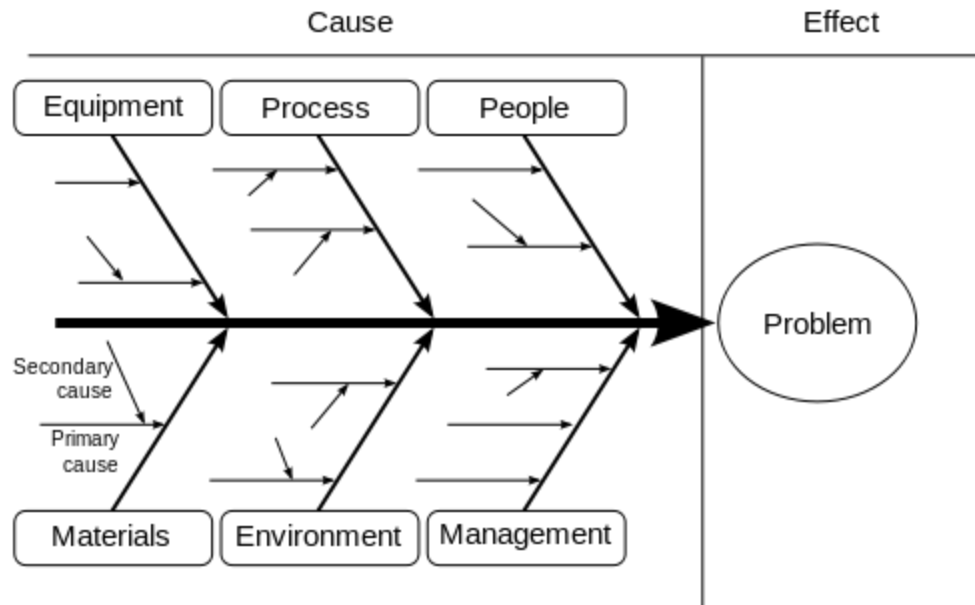
2 process : The procedures depend on Customer Relationship Management On several steps: 2.1 Data entry 2.2 Securing information (this is the most important step to ensure that customer data is not leaked) 2.3 Customer evaluation after project completion 2.4 Data extraction by authorized personnel.

3 equipment: The project adopts Customer Relationship Management On a server connected to all companies in the group to ensure that customer information is provided to all companies within the group One of the biggest risks facing equipment (server) is data loss from technical faults or server security breaches In order to avoid this problem, a technical support team must be provided from within the group to ensure that information is not leaked, anti-intrusion support, electronic barriers and firewalls against security intrusions should be provided, with the need for this team to be from within the group to ensure that data is not leaked in the event of contracting with external companies.

4 materials :This project does not depend on any materials that depend on providing information support and services.

5 environment.

6 management.



20 Finance

20.1 To establish Cost Breakdown Structure, and the project balance in accordance with WBS.

WBS Code	WBS Name	Total Activities	At Completion	Total Cost	Start	Finish	At Completion	At Completion	At Completion
							Labour Cost	Non-labour Cost	Material Cost
IT Project-2	IT Project for EBU	26	SR240,370.00	22-Jan-22	15-May-22	SR248,720.00	SR110.00	SR31,540.00	
IT Project-2.2	Key Milestone	4	SR0.00	22-Jan-22	15-May-22	SR0.00	SR0.00	SR0.00	
IT Project-2.6	Design	12	SR136,110.00	22-Jan-22	26-Mar-22	SR136,000.00	SR110.00	SR0.00	
IT Project-2.6.1	Existing System Analysis	4	SR56,430.00	22-Jan-22	14-Feb-22	SR56,320.00	SR110.00	SR0.00	
IT Project-2.6.4	Bidding	8	SR79,680.00	31-Jan-22	26-Mar-22	SR79,680.00	SR0.00	SR0.00	
IT Project-2.1	Testing	6	SR61,040.00	28-Feb-22	17-Apr-22	SR55,040.00	SR0.00	SR6,000.00	
IT Project-2.1.3	Implementation	6	SR61,040.00	28-Feb-22	17-Apr-22	SR55,040.00	SR0.00	SR6,000.00	
IT Project-2.3	Delivery	4	SR83,220.00	17-Apr-22	15-May-22	SR57,680.00	SR0.00	SR25,540.00	
IT Project-2.3.5	Linking Software with existing operation & handov	4	SR83,220.00	17-Apr-22	15-May-22	SR57,680.00	SR0.00	SR25,540.00	

20.2 To calculate Earned Value Management of the project after ending of 20% of its period and completion of 50% of the outputs case-by-case basis.

Earn Value Analysis 20%:

Activity ID	Activity Name	Start	BL Project Late Start	Finish	BL Project Finish	Budget At Completion	Actual Total Cost	BL Project Total Cost	Cost Performance Index	Cost Variance Index
IT Project for ESU		22-Jan-22	A	16-May-22	15-May-22	SR280,370.00	SR73,360.00	SR280,370.00	0.92	-0.09
Key Milestone		22-Jan-22	A	16-May-22	15-May-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1000	Project Start	22-Jan-22	22-Jan-22			SR0.00	SR0.00	SR0.00	0.00	0.00
A1010	Complete Solution Design			26-Mar-22	26-Mar-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1020	Complete Solution Simulation and Testing			18-Apr-22	17-Apr-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1030	Project Completion			16-May-22	15-May-22	SR0.00	SR0.00	SR0.00	0.00	0.00
Design		22-Jan-22	A	26-Mar-22	26-Mar-22	SR136,110.00	SR73,360.00	SR136,110.00	0.92	-0.09
Existing System Analysis		22-Jan-22	A	15-Feb-22	14-Feb-22	SR56,430.00	SR59,130.00	SR56,430.00	0.95	-0.05
A11	Existing system compatibility	22-Jan-22	30-Jan-22	30-Jan-22	03-Feb-22	SR8,000.00	SR7,000.00	SR8,000.00	1.14	0.13
A11	Existing hardware analysis	22-Jan-22	22-Jan-22	31-Jan-22	30-Jan-22	SR11,575.00	SR10,875.00	SR11,575.00	1.06	0.06
A11	Existing software analysis	30-Jan-22	24-Jan-22	03-Feb-22	31-Jan-22	SR17,655.00	SR22,055.00	SR17,655.00	0.80	-0.25
A11	Available enhancement	03-Feb-22	03-Feb-22	15-Feb-22	14-Feb-22	SR19,200.00	SR19,200.00	SR19,200.00	1.00	0.00
Bidding		03-Feb-22	A	26-Mar-22	26-Mar-22	SR79,680.00	SR14,250.00	SR79,680.00	0.76	-0.32
A11	preparing bidding quantity	03-Feb-22	19-Feb-22	07-Feb-22	05-Feb-22	SR4,800.00	SR5,250.00	SR4,800.00	0.91	-0.09
A11	preparing bidding specs	15-Feb-22	14-Feb-22	23-Feb-22	22-Feb-22	SR9,600.00	SR0.00	SR9,600.00	0.00	0.00
A11	preparing bidding draft contract	15-Feb-22	22-Feb-22	23-Feb-22	19-Feb-22	SR6,000.00	SR6,000.00	SR6,000.00	0.67	-0.50
A11	preparing bidding BOQ	23-Feb-22	22-Feb-22	28-Feb-22	27-Feb-22	SR6,000.00	SR0.00	SR6,000.00	0.00	0.00
A11	receiving offers	28-Feb-22	28-Feb-22	07-Mar-22	07-Mar-22	SR8,400.00	SR0.00	SR8,400.00	0.00	0.00
A11	analyzing financial offers	07-Mar-22	09-Mar-22	13-Mar-22	12-Mar-22	SR6,000.00	SR0.00	SR6,000.00	0.00	0.00
A11	analyzing technical offers	07-Mar-22	07-Mar-22	15-Mar-22	15-Mar-22	SR26,880.00	SR0.00	SR26,880.00	0.00	0.00
A11	assessing contract	15-Mar-22	15-Mar-22	26-Mar-22	26-Mar-22	SR12,000.00	SR0.00	SR12,000.00	0.00	0.00
Testing		28-Feb-22	A	18-Apr-22	17-Apr-22	SR61,040.00	SR0.00	SR61,040.00	0.00	0.00
Implementation		28-Feb-22	A	18-Apr-22	17-Apr-22	SR61,040.00	SR0.00	SR61,040.00	0.00	0.00
A11	Story point assessment	28-Feb-22	15-Mar-22	05-Mar-22	05-Mar-22	SR9,200.00	SR0.00	SR9,200.00	0.00	0.00
A11	Story point grooming	06-Mar-22	20-Mar-22	10-Mar-22	09-Mar-22	SR6,000.00	SR0.00	SR6,000.00	0.00	0.00
A11	Sprint planning meeting	26-Mar-22	26-Mar-22	31-Mar-22	30-Mar-22	SR8,000.00	SR0.00	SR8,000.00	0.00	0.00
A11	Sprint review meeting	31-Mar-22	30-Mar-22	05-Apr-22	05-Apr-22	SR9,600.00	SR0.00	SR9,600.00	0.00	0.00
A11	Minimum Viable software (MVP) evaluation	05-Apr-22	05-Apr-22	12-Apr-22	12-Apr-22	SR13,440.00	SR0.00	SR13,440.00	0.00	0.00
A11	Testing stand-alone system	12-Apr-22	12-Apr-22	18-Apr-22	17-Apr-22	SR14,800.00	SR0.00	SR14,800.00	0.00	0.00
Delivery		18-Apr-22	A	16-May-22	15-May-22	SR83,220.00	SR0.00	SR83,220.00	0.00	0.00
Linking Software with existing operation & handover		18-Apr-22	A	16-May-22	15-May-22	SR83,220.00	SR0.00	SR83,220.00	0.00	0.00
A11	Integration new software with the existing system	18-Apr-22	17-Apr-22	27-Apr-22	26-Apr-22	SR21,000.00	SR0.00	SR21,000.00	0.00	0.00
A11	Training the current staff	27-Apr-22	03-May-22	02-May-22	02-May-22	SR29,100.00	SR0.00	SR29,100.00	0.00	0.00
A11	Testing the integration compatibility	27-Apr-22	26-Apr-22	09-May-22	08-May-22	SR20,240.00	SR0.00	SR20,240.00	0.00	0.00
A11	Handover the new system	09-May-22	08-May-22	16-May-22	15-May-22	SR12,880.00	SR0.00	SR12,880.00	0.00	0.00

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Earn Value Analysis 50%:

Activity ID	Activity Name	Start	BL Project Late Start	Finish	BL Project Finish	Budget At Completion	Actual Total Cost	BL Project Total Cost	Cost Performance Index	Cost Variance Index
IT Project for ESU		22-Jan-22	A	16-May-22	15-May-22	SR280,370.00	SR123,630.00	SR280,370.00	0.93	-0.05
Key Milestone		22-Jan-22	A	16-May-22	15-May-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1000	Project Start	22-Jan-22	22-Jan-22			SR0.00	SR0.00	SR0.00	0.00	0.00
A1010	Complete Solution Design			26-Mar-22	26-Mar-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1020	Complete Solution Simulation and Testing			18-Apr-22	17-Apr-22	SR0.00	SR0.00	SR0.00	0.00	0.00
A1030	Project Completion			16-May-22	15-May-22	SR0.00	SR0.00	SR0.00	0.00	0.00
Design		22-Jan-22	A	26-Mar-22	26-Mar-22	SR136,110.00	SR108,780.00	SR136,110.00	0.92	-0.09
Existing System Analysis		22-Jan-22	A	15-Feb-22	14-Feb-22	SR56,430.00	SR59,130.00	SR56,430.00	0.95	-0.05
A11	Existing system compatibility	22-Jan-22	30-Jan-22	30-Jan-22	03-Feb-22	SR8,000.00	SR7,000.00	SR8,000.00	1.14	0.13
A11	Existing hardware analysis	22-Jan-22	22-Jan-22	31-Jan-22	30-Jan-22	SR11,575.00	SR10,875.00	SR11,575.00	1.06	0.06
A11	Existing software analysis	30-Jan-22	24-Jan-22	03-Feb-22	31-Jan-22	SR17,655.00	SR22,055.00	SR17,655.00	0.80	-0.25
A11	Available enhancement	03-Feb-22	03-Feb-22	15-Feb-22	14-Feb-22	SR19,200.00	SR19,200.00	SR19,200.00	1.00	0.00
Bidding		03-Feb-22	A	26-Mar-22	26-Mar-22	SR79,680.00	SR49,650.00	SR79,680.00	0.87	-0.15
A11	preparing bidding quantity	03-Feb-22	19-Feb-22	07-Feb-22	05-Feb-22	SR4,800.00	SR5,250.00	SR4,800.00	0.91	-0.09
A11	preparing bidding specs	15-Feb-22	14-Feb-22	23-Feb-22	22-Feb-22	SR9,600.00	SR0.00	SR9,600.00	0.00	0.00
A11	preparing bidding draft contract	15-Feb-22	22-Feb-22	23-Feb-22	19-Feb-22	SR6,000.00	SR6,000.00	SR6,000.00	0.67	-0.50
A11	preparing bidding BOQ	23-Feb-22	22-Feb-22	28-Feb-22	27-Feb-22	SR6,000.00	SR6,000.00	SR6,000.00	1.00	0.00
A11	receiving offers	28-Feb-22	28-Feb-22	07-Mar-22	07-Mar-22	SR8,400.00	SR8,400.00	SR8,400.00	1.00	0.00
A11	analyzing financial offers	07-Mar-22	07-Mar-22	15-Mar-22	15-Mar-22	SR26,880.00	SR0.00	SR26,880.00	0.00	0.00
A11	analyzing technical offers	07-Mar-22	09-Mar-22	16-Mar-22	12-Mar-22	SR6,000.00	SR10,500.00	SR6,000.00	0.57	-0.75
A11	assessing contract	16-Mar-22	15-Mar-22	26-Mar-22	26-Mar-22	SR12,000.00	SR10,500.00	SR12,000.00	1.14	0.13
Testing		28-Feb-22	A	18-Apr-22	17-Apr-22	SR61,040.00	SR14,850.00	SR61,040.00	1.02	0.02
Implementation		28-Feb-22	A	18-Apr-22	17-Apr-22	SR61,040.00	SR14,850.00	SR61,040.00	1.02	0.02
A11	Story point assessment	28-Feb-22	15-Mar-22	05-Mar-22	05-Mar-22	SR9,200.00	SR10,350.00	SR9,200.00	0.89	-0.13
A11	Story point grooming	06-Mar-22	20-Mar-22	10-Mar-22	09-Mar-22	SR6,000.00	SR4,500.00	SR6,000.00	1.33	0.25
A11	Sprint planning meeting	26-Mar-22	26-Mar-22	31-Mar-22	30-Mar-22	SR8,000.00	SR0.00	SR8,000.00	0.00	0.00
A11	Sprint review meeting	31-Mar-22	30-Mar-22	05-Apr-22	05-Apr-22	SR9,600.00	SR0.00	SR9,600.00	0.00	0.00
A11	Minimum Viable software (MVP) evaluation	05-Apr-22	05-Apr-22	12-Apr-22	12-Apr-22	SR13,440.00	SR0.00	SR13,440.00	0.00	0.00
A11	Testing stand-alone system	12-Apr-22	12-Apr-22	18-Apr-22	17-Apr-22	SR14,800.00	SR0.00	SR14,800.00	0.00	0.00
Delivery		18-Apr-22	A	16-May-22	15-May-22	SR83,220.00	SR0.00	SR83,220.00	0.00	0.00
Linking Software with existing operation & handover		18-Apr-22	A	16-May-22	15-May-22	SR83,220.00	SR0.00	SR83,220.00	0.00	0.00
A11	Integration new software with the existing system	18-Apr-22	17-Apr-22	27-Apr-22	26-Apr-22	SR21,000.00	SR0.00	SR21,000.00	0.00	0.00
A11	Training the current staff	27-Apr-22	03-May-22	02-May-22	02-May-22	SR29,100.00	SR0.00	SR29,100.00	0.00	0.00
A11	Testing the integration compatibility	27-Apr-22	26-Apr-22	09-May-22	08-May-22	SR20,240.00	SR0.00	SR20,240.00	0.00	0.00
A11	Handover the new system	09-May-22	08-May-22	16-May-22	15-May-22	SR12,880.00	SR0.00	SR12,880.00	0.00	0.00

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21 Resources

21.1 To explain the concept of Resource Leveling and Smoothing.

we will explain the resource leveling and something as per the following points:

- 1- Resource smoothing will distribute the project resource on the assigned task while considering the max time/ effort for each resource per day, while maintaining this distribution within the resource, project calendar without modifying the project critical path. Generally, will be used when time is constraint.
- 2- Resource leveling will do the same thing just like smoothing but with consideration the limitation of project critical path. Generally, resource smoothing will be used when we have limited resource availability.

21.2 To be trained on distributing the project resources of equipment and tools.

WBS Name	Activity Name	Start	Finish	Budgeted Cost	Budgeted Units	February 2022										March 2022					April 2022					May 2022	
						23	30	06	13	20	27	06	13	20	27	03	10	17	24	01	08						
(New Resource)		22-Jan-22	15-May-22	R260,370.0	Budgeted																						
						Budgeted	R21,683.5	R19,852.5	R12,960.0	R15,270.0	R8,100.0	R18,050.5	R20,960.0	R13,770.0	R8,450.0	R11,640.0	R12,960.0	R17,250.0	R16,208.3	R35,050.1	R10,420.5	R12,420.0					
Tools		22-Jan-22	31-Jan-22	SR110.00	16	Budgeted	2	12	2																		
						Budgeted	SR3.50	SR12.55																			
Tool Set		22-Jan-22	31-Jan-22	SR50.00	10	Budgeted	1	8	1																		
						Budgeted	SR3.33	SR7.97	SR5.70																		
Existing System	Existing hardware analysis	22-Jan-22	30-Jan-22	SR25.00	5	Budgeted	1	4	0																		
						Budgeted	SR21.09	SR9.39																			
Existing System	Existing software analysis	22-Jan-22	31-Jan-22	SR25.00	5	Budgeted	1	3	1																		
						Budgeted	SR16.87	SR6.31																			
Ladders		22-Jan-22	31-Jan-22	SR60.00	6	Budgeted	1	1	1																		
						Budgeted	SR3.59	SR4.59	SR6.84																		
Existing System	Existing hardware analysis	22-Jan-22	30-Jan-22	SR30.00	3	Budgeted	0	3	0																		
						Budgeted	SR26.22	SR25.31	SR0.47																		
Existing System	Existing software analysis	22-Jan-22	31-Jan-22	SR30.00	3	Budgeted	0	2	1																		
						Budgeted	SR20.38	SR20.25	SR6.36																		
Material		12-Apr-22	02-May-22	SR1,540.0	Budgeted																						
						Budgeted																					
Cables		17-Apr-22	26-Apr-22	SR1,440.00	72	Budgeted																					
						Budgeted																					
Linking Software	Integration new software with the	17-Apr-22	26-Apr-22	SR1,440.00	72	Budgeted																					
						Budgeted																					
Servers		12-Apr-22	26-Apr-22	SR4,500.00	3	Budgeted																					
						Budgeted																					
Implementation	Testing stand-alone system	12-Apr-22	17-Apr-22	SR1,500.00	1	Budgeted																					
						Budgeted																					
Linking Software	Integration new software with the	17-Apr-22	26-Apr-22	SR3,000.00	2	Budgeted																					
						Budgeted																					
Screens		12-Apr-22	02-May-22	SR2,800.00	4	Budgeted																					
						Budgeted																					
Implementation	Testing stand-alone system	12-Apr-22	17-Apr-22	SR700.00	1	Budgeted																					
						Budgeted																					
Linking Software	Training the current staff	26-Apr-22	02-May-22	SR2,100.00	3	Budgeted																					
						Budgeted																					
Mice & Keyboards		12-Apr-22	02-May-22	SR1,800.00	12	Budgeted																					
						Budgeted																					
Implementation	Testing stand-alone system	12-Apr-22	17-Apr-22	SR300.00	2	Budgeted																					
						Budgeted																					
Linking Software	Training the current staff	26-Apr-22	02-May-22	SR1,500.00	10	Budgeted																					
						Budgeted																					
Laptop		12-Apr-22	02-May-22	SR1,000.00	6	Budgeted																					
						Budgeted																					
Implementation	Testing stand-alone system	12-Apr-22	17-Apr-22	SR3,500.00	1	Budgeted																					
						Budgeted																					
Linking Software	Training the current staff	26-Apr-22	02-May-22	SR17,500.00	5	Budgeted																					
						Budgeted																					
Computer Specialist Team		03-Feb-22	12-Apr-22	SR42,240.00	116	Budgeted																					
						Budgeted	SR3,120.00	R12,960.00	SR3,120.00																		
Existing System	Available enhancement	03-Feb-22	14-Feb-22	SR19,200.00	80	Budgeted																					
						Budgeted	SR3,120.00	R12,960.00	SR3,120.00																		
Implementation	Sprint review meeting	30-Mar-22	05-Apr-22	SR8,600.00	40	Budgeted																					
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22 Procurement

To develop the procurement execution process, and contractor selection.

After receiving vendors (contractors/ suppliers) offers we must have technical review meeting including all the bids and this meeting will be held in present of vendors to discuss project requirement and the compatibility with their offers without point to any bias data to be able to get best result of the project.

To develop comparing and scoring models.

Comparing and scoring model will be based on the following criteria:

Category	Work Description	Vendor	Reputation 5%	Quality 15%	Delivery period 10%	Price 15%	Warranty 10%	Maintenance 15%	Manufacturer 10%	Spare part Availability 20%
Hardware	Laptop									
Hardware	PC									
Hardware	Mouse									
Hardware	Monitor									
Hardware	Keyboard									
Hardware	Server									
Hardware	Data Cabinet									
Hardware	Spare part Availability									
Software	Integration									
Software	system compatibility									

23 Plan and Control

23.1 41. To prepare agenda- Invitation and virtual record of a virtual meeting.

Dear All,

Hope all is well.

You are kindly invited to attend the for first meeting for Customer relationship management integration platform project.

Meeting Date: 00/00/2024.

Time: 10:00 AM.

Venue: ONLINE

Our agenda will be as follow:

- Discuss the project budget.
- Employee awareness plan about the project.
- Discuss the status of the current servers.
- Discussing a communication plan between stakeholders.
- Discuss the resources required for the project.

23.2 To identify performance measurement, course and submit reports, in addition to explaining the reason.

In our project we will use Quantitative indicators by Measuring employee interaction with the system and the number of projects submitted through the platform. In each company, the employees will apply for the proposed projects, and through each company, the performance for the employees will be measured by the number of submissions on the projects and the number of projects obtained.

23.3 To develop Change Request model, including (impact analysis- alternatives analysis recommendation).

24 Risk and Opportunities

24.1 To identify Risks (threats) and opportunities, and giving examples.

Each project is exposed to change. The chance or the possibility of danger in project objectives. The consequences can be positive or negative. The danger with negative impact considered as a risk, a danger with a positive impact considered as an opportunity. For example, installing or upgrading a virus software is a risk, for that it may cause a delay in the work progress which cost the organization. While choosing a new program is also an opportunity risk. As the goal is to achieve better result by installing new software.

24.2 To prepare Risk register.

It is one of the risk management tools and is used to list and arrange the risks facing the facility according to priority, by calculating the level of the risk. The following table listing the expected risks the project can face during and after execution.

24.3 Qualitative Risk Analysis.

Risk is analyzed according to the consequences and likelihood of each risk that registered in the project. Below tables shows the scale to measure each risk.

CONSEQUENCE SCALE

Level	Descriptor	Qualitative Description	Quantitative Description	Typical Value
5	Catastrophic	- Loss of ability to continue ongoing operations. - Most or all business objectives cannot be achieved.	Financial impact exceed 80% of the estimated EML*	100%
4	Severe	- Disruption to ongoing operations. - Some important objectives cannot be achieved.	Financial impact of between 46% to 80% of the estimated EML	60%
3	Major	- Disruption to ongoing operations. - Some business objectives cannot be achieved.	Financial impact of between 22% to 45% of the estimated EML	30%
2	Moderate	Minor disruption to ongoing operations.	Financial impact of between 7.5% to 21% of the estimated EML	12%
1	Insignificant	- No significant disruption to ongoing operations. - Business as usual.	Financial impact of between 0% to 7.5% of the estimated EML	3%

	Rare	Possible	Likely
Catastrophic	High	Very High	Very High
Severe	Medium	High	Very High
Major	Medium	High	High
Moderate	Low	Medium	Medium
Insignificant	Low	Medium	Medium

24.4 To specify Risk response strategies.

Risk Response Strategy is an action plan on what to do if a Risk accrues on your project. The main risk response strategies for threats are Mitigate, Avoid, Transfer, Actively Accept, Passively Accept, and Escalate a Risk.

CONTROL EFFECTIVENESS SCALE

Level	Descriptor	Value range	Typical Value
5	Effective	Control helps to reduce consequence/likelihood to a level within 0% to 30% from its original level.	20%
4	Qualified	Control helps to reduce consequence/likelihood to a level within 31% to 50% from its original level.	40%
3	Marginal	Control helps to reduce consequence/likelihood to a level within 51% to 70% from its original level.	60%
2	Deficient	Control helps to reduce consequence/likelihood to a level within 71% to 90% from its original level.	80%
1	No control	Inherent consequence/likelihood remain at 100%	100%

25 Stakeholder

To prepare Stakeholder engagement assessment matrix.

The Stakeholder Engagement Assessment Matrix is a simple yet powerful project management technique to document desired and monitor actual engagement levels of stakeholders. It helps identify potential gaps in the involvement of stakeholders.

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
CEO	C			D	
PROJECT MANAGER				D	C

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
IT SUPERVISOR				D C	
NETWORK ENGINEER			C	D	
CYBER SECURITY MANAGER			C		

Desired ("D") and current ("C")

Template of RISK REGISTER															
Simple No.	Department/Div/Sec	Title	Cause(s)	Risk Event	Consequence(s)	Inherent Risk			Existing Controls		Existing Controls		Residual Risk		
						Likelihood	Consequence	Risk Rating	Preventive	Corrective	Preventive Rating	Corrective Rating	Likelihood	Consequence	Risk Rating
1	IT	Server failure	Server failure could happen during the programming process or during webpage running.	Server failure can lead to days without system access to loss of critical business data. This can lead to operation issues, service outages and repair costs.	1. Interruptions to the operations 2. changes in the planned server input 3. loss of data	5	5	H(25)	1. Conduct routine maintenance. 2. Regularly install updates 3. Maintain strict access control and detailed event logs. 5. Monitor performance trends.	1. Backup server. 2. Emergency response procedure (ERP)	5	4	1	5	H(5)
2	Procurement	Increasing of electronic devices prices	Increased component prices are inevitable when demand outstrips supply increasing in raw material prices	Increasing in electronics prices will decrease the demand on such a project that rely on electronic devices.	the demand on the project will be less.	2	4	H(8)	Stocking and providing all the equipment expected to be needed for the project at the best time.	the platform is available to work on all smart devices. Phones, tablets.	3	4	1	4	M(12)
3	Marketing	Marketing cost risk	Due to the high cost for marketing.	as searching for new project in the cities is time consuming. This platform will be effective. Indispensable to advertise and how much it will cost.	reducing the advertising campaign level.	3	2	M(6)	Platform Marketing plan.	1. Increase marketing budget. 2. apply this platform for company employees. 3. announce on the weekly newsletter to avoid any marketing costs.	3	4	3	2	M(12)
4	IT	Technological developments and recent discoveries	advanced technology is giving potential to all virtual projects. technology takes away focus from the old ones. If it is not updated and advanced.	when a new technology comes, virtual projects like Platforms becomes threaten.	the demand on the project will be less.	2	2	L(4)	1. Expand the knowledge. keep up with technology market.	2. Up and running Back up system, well established IT support unit to prevent any unforeseen risk.	3	4	1	1	L(2)
5	IT	Too many tasks happening at the same time affecting the speed of the server	Due to short circuit	While working on the programming, in this phase a lot of tasks are running at the same time. This may lead to slowing down the server.	interruptions to the operations	5	5	H(25)	divide the tasks upon priority considering the server capability	1. Backup server.	3	4	3	5	H(12)
6	User	Political and legal risks	Some projects are closed and confidential in the first phases.	High risk from politically accepted criteria might occur.	A lot of justification might be required to fulfill the risk mitigation	2	3	M(6)	exclusive permits to gather and share all the information about the project.	prepare a template of permit request in case needed. To be submitted to the authorized.	3	4	1	3	M(4)
7	User	Evolution of the individual's needs	Depending on the needs, the requirement might differ.	Inconsistency of the requirements could impact the credentials and cause risk	The credential of the requirements might be affected	2	2	L(4)	Water suppression system is available in the tapes room data room. Fire extinguisher is available in the corridor	safety and precautionary policy should be in place	3	4	1	1	L(2)