

Managing A successful Project

Adeeb.Shaban
18110018 |

Table of Contents

Introduction	4
Introduction	5
Aims and Objectives of the Project.....	6
Survey	7
Survey	8
Survey	9
Survey	10
Survey	11
Project planning	12
Project planning	13
1. Scope:	13
Project planning	14
Project planning	15
D- Verifying the scope: is the formal acceptance of the completed project scope by the stakeholders, and the acceptance is achieved often by customer inspection and then sign off on key deliverables.....	15
Project planning	16
2. Cost:	16
Project planning	17
Project planning	18
3. Time:	18
Project planning	19
As shown in the screenshot, some of the tasks starts together and some of them need to be finished to start the other tasks, to achieve the main goal.	19
Project planning	20
Project planning	21
Project planning	22
F- Controlling the schedule: Is to control and manage the changes of the project schedule.....	22
4. Risks:	22
Project planning	23
Project planning	24

Project planning	25
Project planning	26
Project planning	27
 5. Resources:.....	27
Project planning	28
Project planning	29
Project planning	30
 6. Quality:	30
Project planning	31
 7. Communication:.....	31
Project planning	32
Project planning	33
Evaluation of the project	34
References	35
Bibliography	35

Introduction

This research will focus on **artificial intelligence (AI)**, more specifically on **Internet of Things (IOT)** and the **Virtual assistance (VA)**. So, what are **Artificial Intelligence (AI)** and **Internet of Things (IoT)**?

Firstly, **Artificial Intelligence**: is to make a robot or a computer or even a product to think and act like humans. Artificial Intelligence study human brains of thinking, learning, deciding, and working. When solving problems and study the intelligent software system outcomes. And the aim of Artificial intelligence is to improve computer functions that are related to human experience and knowledge. Artificial Intelligence is composed to: (Selvamanikkam, 2018)

- 1- Reasoning
- 2- Learning
- 3- Problem Solving
- 4- Perception
- 5- Linguistic Intelligence

Some applications that are related to Artificial Intelligence: (Selvamanikkam, 2018)

- 1- Gaming
- 2- Vision Systems
- 3- Intelligent robots
- 4- Expert Systems.

Secondly, **Internet of Things(IoT)** is the network that all the physical objects are connected to the internet through some network routers or devices. (Aayush, 2017)

IoT make the objects be controlled through a remote through an existed network. (Aayush, 2017)

Some **IoT** applications: (Aayush, 2017)

- 1- **Personal house smart plug**: which is automating the house system
- 2- **Enterprise**: is to enterprise many applications such as: environmental monitoring system and smart environment.
- 3- **Medical and health caring**: Is to monitor and have emergencies to notify the system.

Introduction

First of all, as I've been asked by my manager to conduct a research project to advise the potential benefits and challenges that can arise from the inclusion of AI Virtual Assistants into the systems used in our homes and offices.

The virtual assistant which is called "Olivia" that will be in the universities that have dorms for students and offices in the university will interact with the university's system in which will focus on the university's security side where students can enter and leave the university using their smart cards, as well as their dorms. Also, they will be able to enter their assigned lectures using the smart cards.

The students can use their smart card to order meals from the cafeteria, in which the students order their meals from their mobile phone (Connected with the smart card using university's application) and use the reader from the cafeteria to receive their meal (Credit Cards are the payment method stored in the student's phone).

As for the dorms, students will be able to enter their dorms using also the smart cards and the students will have access to the cameras in their dorms for the security reasons and nothing could be stolen from others.

The virtual assistant "Olivia" will be the key for these smart cards, in how, it will be creating those cards for the registered students and in how the student will have the access to these features by entering their full information and could edit them when the students have problems.

If the smart card is stolen or lost, Olivia will alert the student's mobile of an unusual activity (Since the smart cards is connected to the student's phone) in which the student can report his stolen using Olivia by his phone.

As for the offices, the university's instructors and employees can use Olivia check if there's any lectures or meeting, and will use Olivia to check every student whether they're present or absent and alert the student if they had exceeded their absences. For excused absences (E.g. Any medical or family condition accrued), students will use Olivia to report that excuses to the instructors.

Aims and Objectives of the Project

For the aims and objectives, we need to declare what points we want to reach and what objectives we need to do to accomplish our aims in the given scenario.

Aims for the project:

- 1-** Artificial Intelligence's Virtual assistant to more human interaction.
- 2-** Having more features in the virtual assistant so it could solve problems.
- 3-** Having in the virtual assistant a deep self-learning and more open to human society.
- 4-** Making houses more secured using the virtual assistant.
- 5-** Having a communication between houses and offices using the virtual assistant.

Objectives for the project:

- 1-** Making AI virtual assistant more user friendly and making humans feel like they are working with another human.
- 2-** Making the AI virtual assistant think like humans, and have brains to solve problems.
- 3-** Making the AI virtual assistant existed in the working's and society's areas
- 4-** Making the AI virtual assistant connected to the security in homes and offices.
- 5-** Creating profiles and connect to the virtual assistant in houses and offices so the services would be synced in our homes and offices

Aims and objectives are related to each other because to reach an aim you need to do tasks to accomplish that aim and by that, I mean, objectives are things that we need to do to reach aims and if one of the objectives aren't done, there will be some issues that would make the accomplisher further from his aim. Aims could be goals, and these goals will reach to a bigger goal that is needed to finish a project. In IT companies, aims and objectives need to be done in an efficient and accurate ways.

When we need to develop our Artificial Intelligent virtual assistance project, we need to improve the system and add new services and our aims and objectives will be bigger and more complicated. So, starting a new project aren't as hard as developing it, so the bigger we think, the more we will have.

Artificial Intelligent Virtual Assistants have a high cost and need a lot of effort, time, work and new ideas and because it needs some algorithms and concepts because it is a new technology and it's hard to say or see its problems and development. And also, if some of new problems came up, it will need much time to find the answer and the solution of that problem. So, making decisions and finding the aims and objectives for the IT AI Virtual assistant aren't easy and needs a good experienced decision maker, so the project would be successful and accurate to the world and be used in different cultures and could be dependent on.

Survey

I've sent an anonymous survey to some people to see their ideas and thoughts about smart universities, the survey was about the comfortability and how people think about the security if there were smart universities and if they would be comfortable to link their payment methods such as: credit cards, to their smart cards.

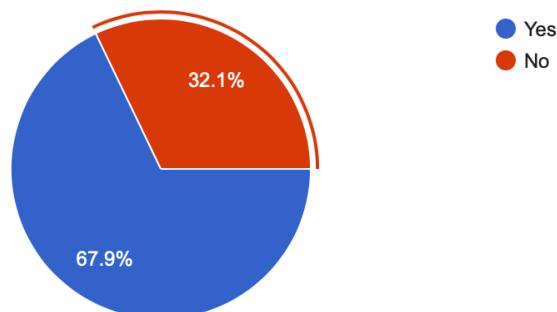
Here are the some of the responses from different people.

Here, I asked some people if they were comfortable to study in a smart university. 67.9% of the people have answered yes so, they are comfortable to study in a smart university, in my opinion, people that said yes prefer to study in a high technological environment, also, smart universities would help them consuming their time in more efficient way and shortens their work by using smart devices. Also, the would be living in an organized environment because smart universities will allow students and instructors to enter and leave it if they have lectures and work to do so there won't be any disorganized areas in the university.

On the other hand, 32.1% of the people who said no won't be too comfortable to study in a smart university, in my opinion, people who said no won't prefer to study in smart universities because they will risk putting all their public and private information in that university, also, some of people aren't used to live in a technological environment, also some people like to work manually and don't like machines to register their information and processing their data.

Are you comfortable studying in a smart university

28 responses



Survey

Now, I asked some people about their opinion if smart universities will improve security or not.

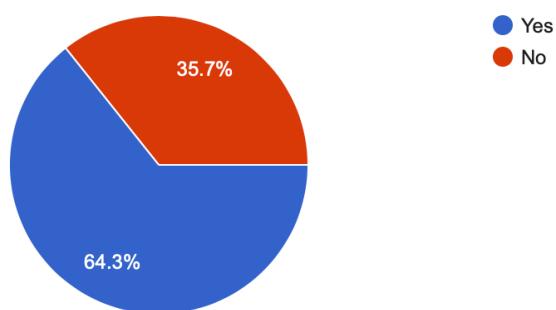
Here are the some of the responses from different people.

Here, I asked some people if smart universities will improve security. 64.3% of the people have said yes, so, they think that smart universities will make them feel safer to live in a secure environment because smart universities would have the best security services such as: Card ID, cameras. In my opinion, people who said yes prefer smart universities in the security side because they will feel comfortable to keep their items and devices in the university without worrying about anyone taking them. Also, while having this security services, students will be able to feel like they are living in their homes and would have more tendency to study and process more.

On the other hand, 35.7% of the people have said no, so they think security won't be improved in smart universities, in my opinion, people that said no aren't sure about the improvement of security in smart universities because they are afraid if someone could hack the smart university's system and has the access to their private information and leak or sell their data, that someone could be also a student, so there are some mixed opinions about the security side in smart universities, so, it's hard to say that smart universities will 100% improve security.

Do you think that a smart university would improve security

28 responses



Survey

Finally, the last question was about linking payment method (credit card) to the smart card in the smart university.

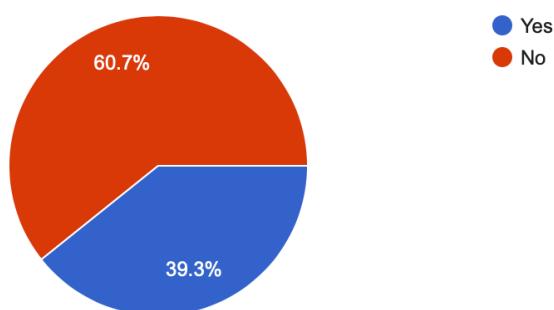
Here are some of the responses from different people.

Here I asked some people if they are suitable with this idea of having a smart card and having their credit card on it so they can use it in the university. 39.3% of the people said yes, so, they are comfortable to link their credit card with the smart university's smart card. In my opinion, people who said yes want to link their credit card with the smart university's smart card because the smart card will be able to connect multiple credit cards so students don't have to hold them on, also, the smart will be monetarized and students can track it and stop it from working if it's stolen using the university's application.

On the other hand, 60.7% of the people have answered no, so, they aren't with the idea of connecting their credit card with the smart card. In my opinion, people who said no has a point of not trusting the smart card if it has a big amount of money, also, people would be afraid if someone steals their card and has the money before they even could stop the card, that would be a big issue and would affect the university's security and reputation.

Would you connect your credit card with a smart card in the university

28 responses



Survey

After the results, I will talk about my personal answers on these questions.

Firstly, I'm comfortable studying in a smart university because in our counties, we have a big issue called "Crimes", and I'm talking about the side of stealing and identity theft, so, smart universities could help in these situations when the student has all the access for his own personal and public data, and honestly, when there's a secure place to live in and study, comfort will always be around because, when a person are living in a secure environment, he will be comfortable and he will be studying and not worrying about stuff that distract education.

I'm also, I'm with the idea of improving security while having a smart university because, universities always have the problem of lost items of students and not knowing who stole them, so when having many cameras in different areas, it won't happen, no one could have the possibility to steal in a high secured area. Also, while a student has the access to his own dorm's cameras, security will improve for sure, and the main reason of that improvement is that the data of students and the university's areas will be secured and cannot be stolen by anyone.

And finally, I would link my credit card with the smart university's card, because it would make everything easier, by that, I mean that I won't have to go to the ATM and withdrawing money when I'm not holding cash, and have also the access to my credit card when using the university's application. And by that, I mean, I would be comfortable, with the idea of the improvement and with linking my smart card in the smart university.

You can see that the three questions are related to each other, and by that, I mean, when you are living in a good and secure environment and having all the access to all of your data including your payment methods, you will be comfortable for sure, and you will process more and work more.

After all, people have different opinions, and some might agree and disagree on this idea of having a smart university, and some people like everything automated and the other like everything manual. It is about having the success of the project and having more people agreed with the plan, and share it to the world to make it easier, better, and more secure and safe. But the project needs to be organized well with less errors and many services and features, and this kind of project would be a breakthrough and something new to the world so all people will get used to live in a technological environment and be more familiar with the world's changes. We all know that the world will be more technological and less dependence on people's skills. That will help to improve accuracy and having the best outcomes.

Survey

Now, here's an evidence of the made survey that is sent to people:

The screenshot shows a survey creation interface with a purple header bar. The top bar includes a back arrow, the title "Smart university", a folder icon, a star icon, and several action buttons: a paint palette, a camera, a gear, a "SEND" button, a three-dot menu, and a user profile icon.

The main area is divided into two tabs: "QUESTIONS" and "RESPONSES". The "RESPONSES" tab shows a count of 28 responses. Below the tabs, there are three survey questions:

- Are you comfortable studying in a smart university?** (Multiple choice)
Options: Yes (radio button), No (radio button), Add option or ADD "OTHER".
Status: Required (switch is on).
- Do you think that a smart university would improve security ***
Options: Yes (radio button), No (radio button).
- Would you connect your credit card with a smart card in the university ***
Options: Yes (radio button), No (radio button).

The bottom of the interface shows a toolbar with various icons for file operations and a help section. A status message at the bottom right indicates "Submitted 8/20/19, 8:59 PM".

Project planning

To plan a project, we need to define what our project is, its name and our aims, objectives and where will the project go.

Also. We need to define our resources that we need to achieve our tasks, such as: human, material and software resources

And when planning a project, we need to consider: **Scope, Time, Cost, Quality, Resources, Risks and Communication.**

And then, we need to define our tasks and what resources is needed in our tasks.

Here's a screenshot of how I started planning the project before filling the information.

The screenshot shows a dark-themed application window titled "Managing A Successful Project Assignment". At the top right, it says "August 30, 2019 at 7:05 PM". The main area contains a checklist with various items:

- AI virtual assistance research
- Giving the project a name: Olivia
- Adding resources:
 - 1- Human Resources:
 - A team of 9 (3 Programmers, 2 designers(simulation, hardware design) , 2 Database administrator , 1 recorder(For Olivia's voice) , 3 networking technicians (one for every network type), 1 maintenance, 3 builders)
 - 2- Material Resources:
 - Hardwares:
 - A- Computers (10 computers)
 - B- Recorder (1 recorder interface)
 - C- Microphone
 - D- Equipments to build the VA
 - Softwares:
 - A- License for (Xcode and Windows 10 pro license for the programmers (IDE) , Binder for the designers, SQL software for the databases, Logic Pro X for the recorders, PacketTracer for the networkers)
 - B- Cloud. (For backups)
- Tasks:
 - A- Programmers will start building the algorithm for the VA 1
 - B- Designers will start designing the physical build of the VA 4
 - C- Database administrators will start creating the data base for the VA and storing it in the cloud 3
 - D- Recorder will start recording the VA voice 5
 - E- Networkers will start planning the network ranges for the VA (ex. LAN, WAN) 2
 - F- Maintenance will go with the weekly maintenance schedule 7
 - G- builders will go with the design of the designers and start Building the physical of the VA 6

Project planning

Now, I will start talking about the project planning in details.

1. Scope:

refers to all the work involved in creating the products of the project and the processes used to create them.

And now, we need to **Collect the requirements of our project >> defining our scope >> Creating a Work Breakdown Structure (WBS) >> Verifying our scope >> Creating our scope.**

A- Scope requirements: defining and documenting the features and functions of the products produced during the project as well as the processes used for creating them.

Here are some of the requirements that is needed to achieve our scope for the project:

Name	Category	Source	Statuses
10 Computers	Hardware	Electronics store	Completed, computers have been ordered and it met the requirements of having a 16GB RAM for 1000\$ reach
Recorder interface and a microphone	Hardware	Electronics store	Completed, recorder interface and the microphone have been ordered and met the requirements for 450\$
Xcode IDE License	Software	Online	Completed and met the requirements for 200\$
Blinder License	Software	Online	Completed and met the requirements
SQL Software License	Software	Online	Completed and met the requirements for 100\$
Windows 10 pro License	Software	Online	Completed and met the requirements for 100\$
Logic Pro X License	Software	Online	Completed and met the requirements for 200\$

Project planning

B- Defining our scope: reviewing the project charter, requirements documents, and organizational process assets to create a scope statement

For example, The Windows 10 pro License is an important part of the software resources, and it will make a risk if it has expired So:

Project Charter: Windows 10 License will expire									
Project Statement 1: We need to repurchase the Windows 10 pro license for a further period of time, we can also get offers from windows when buying a bigger subscription.									
Project Statement 2: The project needs computers and computers need an operating system, so we need to get the Windows 10 pro license for all 10 computer that are needed for the project									

C- Creating a Work Breakdown Structure: subdividing the major project deliverables into smaller, more manageable components

The Work Breakdown Structure is the plan that has the tasks, duration, starting finishing time, procedures, resources that will work in the tasks, the cost and the percentage of completion, it's basically views the whole project.

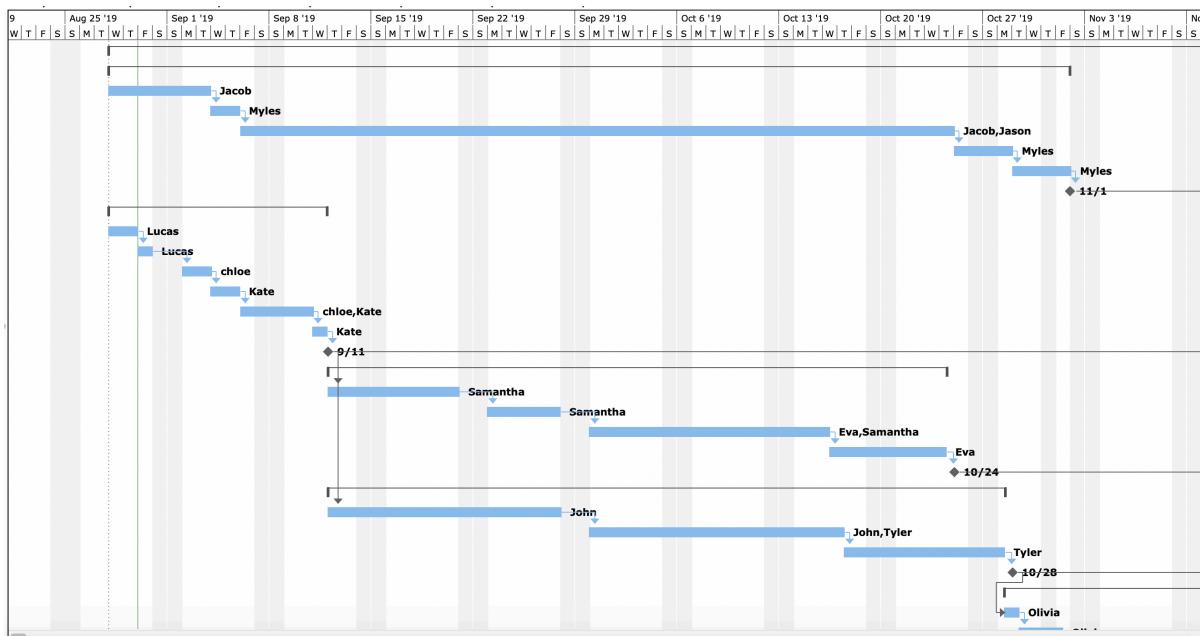
Here's a screenshot of the project of the WBS done by Microsoft Project:

#	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Cost	% Complete
1	✓	Olivia Virtual Assistant	17.59	Wed	Thu 1/7/21			\$36,476.92	100%
2	✓	Creating the Logic of Olivia	2.35 mons	Wed	Fri 11/1/19			\$7,569.23	100%
3	✓	Writing the Algorithm for Olivia's code	5 days	Wed 8/28/19	Tue 9/3/19		Jacob	\$461.54	100%
4	✓	Selecting the most suitable algorithm for Olivia	2 days	Wed 9/4/19	Thu 9/5/19	3	Myles	\$184.62	100%
5	✓	Coding Olivia's Code	35 days	Fri 9/6/19	Thu 10/24/19	4	Jacob,Jason	\$6,461.54	100%
6	✓	Debugging Olivia's Code	2 days	Fri 10/25/19	Mon 10/28/19	5	Myles	\$184.62	100%
7	✓	Testing The code by running it	3 days	Tue 10/29/19	Fri 11/1/19	6	Myles	\$276.92	100%
8	✓	Finishing Olivia's Software	0 mons	Fri 11/1/19	Fri 11/1/19	7		\$0.00	100%
9	✓	Connecting All workstations to one server	0.55 mons	Wed	Wed			\$1,938.46	100%
10	✓	Analyzing number of workstations prepaid for study	2 days	Wed 8/28/19	Thu 8/29/19		Lucas	\$276.92	100%
11	✓	Preparing the Networking Equipments	1 day	Fri 8/30/19	Fri 8/30/19	10	Lucas	\$138.46	100%
12	✓	Installing the Equipments	2 days	Mon 9/2/19	Tue 9/3/19	11	chloe	\$276.92	100%
13	✓	Preparing the Server	2 days	Wed 9/4/19	Thu 9/5/19	12	Kate	\$276.92	100%
14	✓	Configuring the Server and Networking Equipments	3 days	Fri 9/6/19	Tue 9/10/19	13	chloe,Kate	\$830.77	100%
15	✓	Testing	1 day	Wed 9/11/19	Wed 9/11/19	14	Kate	\$138.46	100%
16	✓	Finishing the task with everything working perfectly	0 mons	Wed 9/11/19	Wed 9/11/19	15		\$0.00	100%
17	✓	Gathering All data in the Cloud	1.53 mons	Thu	Thu			\$5,953.85	100%
18	✓	Gathering the Data	7 days	Thu 9/12/19	Fri 9/20/19	16	Samantha	\$969.23	100%
19	✓	Analysing the Data	5 days	Mon 9/23/19	Fri 9/27/19	18	Samantha	\$692.31	100%
20	✓	Creating the Database	12.5 days	Mon 9/30/19	Wed 10/16/19	19	Eva,Samantha	\$3,461.54	100%
21	✓	Storing the Database in the Cloud	6 days	Wed 10/16/19	Thu 10/24/19	20	Eva	\$830.77	100%
22	✓	Finishing Gathering Data in the cloud	0 mons	Thu 10/24/19	Thu 10/24/19	21		\$0.00	100%
23	✓	Designing the Virtual and Physical shape of Olivia	1.63 mons	Thu	Mon			\$3,184.62	100%
24	✓	Designing the Physical Shape Of Olivia	12 days	Thu 9/12/19	Fri 9/27/19	16	John	\$830.77	100%
25	✓	Designing the Simulation of Olivia	13.5 days	Mon 9/30/19	Thu 10/17/19	24	John,Tyler	\$1,869.23	100%
26	✓	Interacting the Physical and Simulation of	7 days	Thu 10/17/19	Mon 10/28/19	25	Tyler	\$484.62	100%
27	✓	Finishing the Design	0 mons	Mon 10/28/19	Mon 10/28/19	26		\$0.00	100%
28	✓	Recording the voice of Olivia	0.5 mons	Mon	Tue			\$692.31	100%
29	✓	Preparing the recording Interface and Microphone	1 day	Mon 10/28/19	Tue 10/29/19	27	Olivia	\$69.23	100%
30	✓	Recording Olivia's Voice in English	2 days	Tue 10/29/19	Fri 11/1/19	29	Olivia	\$138.46	100%

Project planning

Also, while having a Work Breakdown Structure, Gantt Chart is another way of describing and monitoring the Work Breakdown Structure so they interact to each other and it shows when the task begins and is more than one task begin together and it shows the resources needed in the tasks and the milestone where the task is finished to start a new task and the percentage of completion.

Here's a screenshot of the Gantt Chart:



D- Verifying the scope: is the formal acceptance of the completed project scope by the stakeholders, and the acceptance is achieved often by customer inspection and then sign off on key deliverables

E- Controlling scope: is controlling the changes of the project's scope

And **variance** is the difference between the actual planned and the actual performed.

For my project, I haven't had any changes for the scope because it is clear and the process is working perfectly so it doesn't need any changes, each task is needed to achieve the project's scope.

Project planning

2. Cost:

Is a resource sacrificed or foregone to achieve a specific objective or something given up in exchange.

Costs are usually measured in monetary units like dollars.

And now, we need to **Estimate costs >> Determine the budget>> Control Costs**

A- Estimating Costs: developing an approximation or estimate of the costs of the resources needed to complete a project

We need to show the resource needs of cost to complete each task.

Here's a screenshot on how we estimate costs:

On each task, there's a cost for the resources as shown in the screenshot below:

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Cost
1	✓	Olivia Virtual Assistant	17.59	Wed	Thu 1/7/21			\$36,476.92
2	✓	Creating the Logic of Olivia	2.35 mons	Wed	Fri 11/1/19			\$7,569.23
3	✓	Writing the Algorithm for Olivia's code	5 days	Wed 8/28/19	Tue 9/3/19		Jacob	\$461.54
4	✓	Selecting the most suitable algorithm for Olivia	2 days	Wed 9/4/19	Thu 9/5/19	3	Myles	\$184.62
5	✓	Coding Olivia's Code	35 days	Fri 9/6/19	Thu 10/24/19	4	Jacob,Jason	\$6,461.54
6	✓	Debugging Olivia's Code	2 days	Fri 10/25/19	Mon 10/28/19	5	Myles	\$184.62
7	✓	Testing The code by running it	3 days	Tue 10/29/19	Fri 11/1/19	6	Myles	\$276.92
8	✓	Finishing Olivia's Software	0 mons	Fri 11/1/19	Fri 11/1/19	7		\$0.00
9	✓	Connecting All workstations to one server	0.55 mons	Wed	Wed			\$1,938.46
10	✓	Analysing number of workstations prepaid for study	2 days	Wed 8/28/19	Thu 8/29/19		Lucas	\$276.92
11	✓	Preparing the Networking Equipments	1 day	Fri 8/30/19	Fri 8/30/19	10	Lucas	\$138.46
12	✓	Installing the Equipments	2 days	Mon 9/2/19	Tue 9/3/19	11	chloe	\$276.92
13	✓	Preparing the Server	2 days	Wed 9/4/19	Thu 9/5/19	12	Kate	\$276.92
14	✓	Configuring the Server and Networking Equipments	3 days	Fri 9/6/19	Tue 9/10/19	13	chloe,Kate	\$830.77
15	✓	Testing	1 day	Wed 9/11/19	Wed 9/11/19	14	Kate	\$138.46
16	✓	Finishing the task with everything working perfectly	0 mons	Wed 9/11/19	Wed 9/11/19	15		\$0.00
17	✓	Gathering All data in the Cloud	1.53 mons	Thu	Thu			\$5,953.85
18	✓	Gathering the Data	7 days	Thu 9/12/19	Fri 9/20/19	16	Samantha	\$969.23
19	✓	Analysing the Data	5 days	Mon 9/23/19	Fri 9/27/19	18	Samantha	\$692.31
20	✓	Creating the Database	12.5 days	Mon 9/30/19	Wed 10/16/19	19	Eva,Samantha	\$3,461.54
21	✓	Storing the Database in the Cloud	6 days	Wed 10/16/19	Thu 10/24/19	20	Eva	\$830.77
22	✓	Finishing Gathering Data in the cloud	0 mons	Thu 10/24/19	Thu 10/24/19	21		\$0.00
23	✓	Designing the Virtual and Physical shape of Olivia	1.63 mons	Thu	Mon			\$3,184.62
24	✓	Designing the Physical Shape Of Olivia	12 days	Thu 9/12/19	Fri 9/27/19	16	John	\$830.77
25	✓	Designing the Simulation of Olivia	13.5 days	Mon 9/30/19	Thu 10/17/19	24	John,Tyler	\$1,869.23
26	✓	Interacting the Physical and Simulation of	7 days	Thu 10/17/19	Mon 10/28/19	25	Tyler	\$484.62
27	✓	Finishing the Design	0 mons	Mon 10/28/19	Mon 10/28/19	26		\$0.00
28	✓	Recording the voice of Olivia	0.5 mons	Mon	Tue			\$692.31
29	✓	Preparing the recording Interface and Microphone	1 day	Mon 10/28/19	Tue 10/29/19	27	Olivia	\$69.23
30	✓	Recording Olivia's Voice in English	2 days	Tue 10/29/19	Fri 11/1/19	29	Olivia	\$138.46

Project planning

B- Determining the budget: allocating the overall cost estimate to individual work items to establish a baseline for measuring performance.

We need to show the whole entire cost for the project.

Here is a screenshot on how to determine your budget:

We can see the biggest summary task called Olivia's virtual assistant as it shows the whole project's cost which is \$36,476.92:

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Cost
1	✓	Olivia Virtual Assistant	17.59	Wed	Thu 1/7/21			\$36,476.92
2	✓	Creating the Logic of Olivia	2.35 mons	Wed	Fri 11/1/19			\$7,569.23
3	✓	Writing the Algorithm for Olivia's code	5 days	Wed 8/28/19	Tue 9/3/19		Jacob	\$461.54
4	✓	Selecting the most suitable algorithm for Olivia	2 days	Wed 9/4/19	Thu 9/5/19	3	Myles	\$184.62
5	✓	Coding Olivia's Code	35 days	Fri 9/6/19	Thu 10/24/19	4	Jacob,Jason	\$6,461.54
6	✓	Debugging Olivia's Code	2 days	Fri 10/25/19	Mon 10/28/19	5	Myles	\$184.62
7	✓	Testing The code by running it	3 days	Tue 10/29/19	Fri 11/1/19	6	Myles	\$276.92
8	✓	Finishing Olivia's Software	0 mons	Fri 11/1/19	Fri 11/1/19	7		\$0.00
9	✓	Connecting All workstations to one server	0.55 mons	Wed	Wed			\$1,938.46
10	✓	Analysing number of workstations prepaid for study	2 days	Wed 8/28/19	Thu 8/29/19		Lucas	\$276.92
11	✓	Preparing the Networking Equipments	1 day	Fri 8/30/19	Fri 8/30/19	10	Lucas	\$138.46
12	✓	Installing the Equipments	2 days	Mon 9/2/19	Tue 9/3/19	11	chloe	\$276.92
13	✓	Preparing the Server	2 days	Wed 9/4/19	Thu 9/5/19	12	Kate	\$276.92
14	✓	Configuring the Server and Networking Equipments	3 days	Fri 9/6/19	Tue 9/10/19	13	chloe,Kate	\$830.77
15	✓	Testing	1 day	Wed 9/11/19	Wed 9/11/19	14	Kate	\$138.46
16	✓	Finishing the task with everything working perfectly	0 mons	Wed 9/11/19	Wed 9/11/19	15		\$0.00
17	✓	Gathering All data in the Cloud	1.53 mons	Thu	Thu			\$5,953.85
18	✓	Gathering the Data	7 days	Thu 9/12/19	Fri 9/20/19	16	Samantha	\$969.23
19	✓	Analysing the Data	5 days	Mon 9/23/19	Fri 9/27/19	18	Samantha	\$692.31
20	✓	Creating the Database	12.5 days	Mon 9/30/19	Wed 10/16/19	19	Eva,Samantha	\$3,461.54
21	✓	Storing the Database in the Cloud	6 days	Wed 10/16/19	Thu 10/24/19	20	Eva	\$830.77
22	✓	Finishing Gathering Data in the cloud	0 mons	Thu 10/24/19	Thu 10/24/19	21		\$0.00
23	✓	Designing the Virtual and Physical shape of Olivia	1.63 mons	Thu	Mon			\$3,184.62
24	✓	Designing the Physical Shape Of Olivia	12 days	Thu 9/12/19	Fri 9/27/19	16	John	\$830.77
25	✓	Designing the Simulation of Olivia	13.5 days	Mon 9/30/19	Thu 10/17/19	24	John,Tyler	\$1,869.23
26	✓	Interacting the Physical and Simulation of	7 days	Thu 10/17/19	Mon 10/28/19	25	Tyler	\$484.62
27	✓	Finishing the Design	0 mons	Mon 10/28/19	Mon 10/28/19	26		\$0.00
28	✓	Recording the voice of Olivia	0.5 mons	Mon	Tue			\$692.31
29	✓	Preparing the recording Interface and Microphone	1 day	Mon 10/28/19	Tue 10/29/19	27	Olivia	\$69.23
30	✓	Recording Olivia's Voice in English	2 days	Tue 10/29/19	Fri 11/1/19	29	Olivia	\$138.46

C- Controlling costs: To control the changes to the project budget

It is about controlling if there's any changes during the tasks. For example; one computer has stopped working, we will need to pay for the fixing or getting a new device so the duration won't be affected and the project will go on time. So, we need to control the cost so it would not make a huge difference in the project

For me, I didn't have any changes for the costs to control it.

Project planning

3. Time:

To manage the project's time and duration you will need to:

Define activities, sequence activities >> estimate activity resources >> estimate activity durations >> develop the schedule >> control the schedule.

A- Define activities: identifying the specific activities that the project team members and stakeholders must perform to produce the project deliverables

It is related to the WBS that has cost, expected duration and a required resource and the milestone that has no duration that shows a finished task

I will give an example of some activates in the WBS and its milestone.

Here's a screen shot how we define activities:

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Cost
1	<input checked="" type="checkbox"/>	Olivia Virtual Assistant	17.59	Wed	Thu 1/7/21			\$36,476.92
2	<input checked="" type="checkbox"/>	Creating the Logic of Olivia	2.35 mons	Wed	Fri 11/1/19			\$7,569.23
3	<input checked="" type="checkbox"/>	Writing the Algorithm for Olivia's code	5 days	Wed 8/28/19	Tue 9/3/19		Jacob	\$461.54
4	<input checked="" type="checkbox"/>	Selecting the most suitable algorithm for Olivia	2 days	Wed 9/4/19	Thu 9/5/19	3	Myles	\$184.62
5	<input checked="" type="checkbox"/>	Coding Olivia's Code	35 days	Fri 9/6/19	Thu 10/24/19	4	Jacob,Jason	\$6,461.54
6	<input checked="" type="checkbox"/>	Debugging Olivia's Code	2 days	Fri 10/25/19	Mon 10/28/19	5	Myles	\$184.62
7	<input checked="" type="checkbox"/>	Testing The code by running it	3 days	Tue 10/29/19	Fri 11/1/19	6	Myles	\$276.92
8	<input checked="" type="checkbox"/>	Finishing Olivia's Software	0 mons	Fri 11/1/19	Fri 11/1/19	7		\$0.00
9	<input checked="" type="checkbox"/>	Connecting All workstations to one server	0.55 mons	Wed	Wed			\$1,938.46
10	<input checked="" type="checkbox"/>	Analysing number of workstations prepaid for study	2 days	Wed 8/28/19	Thu 8/29/19		Lucas	\$276.92
11	<input checked="" type="checkbox"/>	Preparing the Networking Equipments	1 day	Fri 8/30/19	Fri 8/30/19	10	Lucas	\$138.46
12	<input checked="" type="checkbox"/>	Installing the Equipments	2 days	Mon 9/2/19	Tue 9/3/19	11	chloe	\$276.92
13	<input checked="" type="checkbox"/>	Preparing the Server	2 days	Wed 9/4/19	Thu 9/5/19	12	Kate	\$276.92
14	<input checked="" type="checkbox"/>	Configuring the Server and Networking Equipments	3 days	Fri 9/6/19	Tue 9/10/19	13	chloe,Kate	\$830.77
15	<input checked="" type="checkbox"/>	Testing	1 day	Wed 9/11/19	Wed 9/11/19	14	Kate	\$138.46
16	<input checked="" type="checkbox"/>	Finishing the task with everything working perfectly	0 mons	Wed 9/11/19	Wed 9/11/19	15		\$0.00
17	<input checked="" type="checkbox"/>	Gathering All data in the Cloud	1.53 mons	Thu	Thu			\$5,953.85
18	<input checked="" type="checkbox"/>	Gathering the Data	7 days	Thu 9/12/19	Fri 9/20/19	16	Samantha	\$969.23
19	<input checked="" type="checkbox"/>	Analysing the Data	5 days	Mon 9/23/19	Fri 9/27/19	18	Samantha	\$692.31
20	<input checked="" type="checkbox"/>	Creating the Database	12.5 days	Mon 9/30/19	Wed 10/16/19	19	Eva,Samantha	\$3,461.54
21	<input checked="" type="checkbox"/>	Storing the Database in the Cloud	6 days	Wed 10/16/19	Thu 10/24/19	20	Eva	\$830.77
22	<input checked="" type="checkbox"/>	Finishing Gathering Data in the cloud	0 mons	Thu 10/24/19	Thu 10/24/19	21		\$0.00
23	<input checked="" type="checkbox"/>	Designing the Virtual and Physical shape of Olivia	1.63 mons	Thu	Mon			\$3,184.62
24	<input checked="" type="checkbox"/>	Designing the Physical Shape Of Olivia	12 days	Thu 9/12/19	Fri 9/27/19	16	John	\$830.77
25	<input checked="" type="checkbox"/>	Designing the Simulation of Olivia	13.5 days	Mon 9/30/19	Thu 10/17/19	24	John,Tyler	\$1,869.23
26	<input checked="" type="checkbox"/>	Interacting the Physical and Simulation of	7 days	Thu 10/17/19	Mon 10/28/19	25	Tyler	\$484.62
27	<input checked="" type="checkbox"/>	Finishing the Design	0 mons	Mon 10/28/19	Mon 10/28/19	26		\$0.00
28	<input checked="" type="checkbox"/>	Recording the voice of Olivia	0.5 mons	Mon	Tue			\$692.31
29	<input checked="" type="checkbox"/>	Preparing the recording Interface and Microphone	1 day	Mon 10/28/19	Tue 10/29/19	27	Olivia	\$69.23
30	<input checked="" type="checkbox"/>	Recording Olivia's Voice in English	2 days	Tue 10/29/19	Fri 11/1/19	29	Olivia	\$138.46

As we can see in the screenshot, there's some tasks that have time, cost, duration, resources and milestones

Milestone is finishing the task that doesn't need time, cost or resources

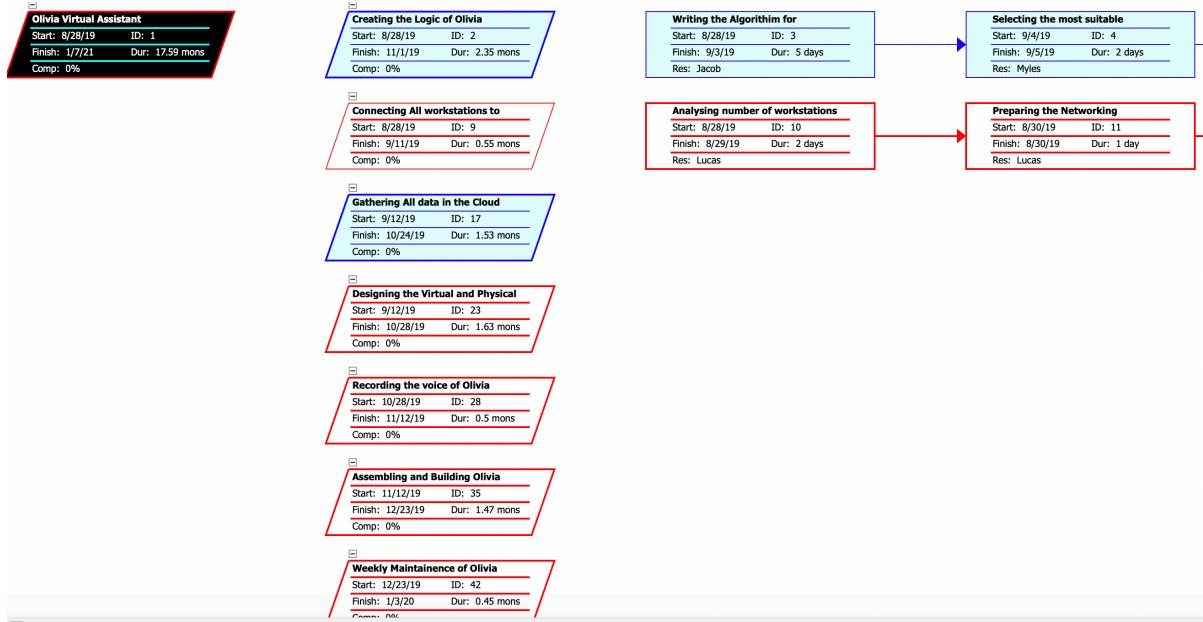
Project planning

B- Sequencing activates: Identifying and documenting the relationships between project activities

Here, we need a **Network diagram** which describes the logical relationships among, or sequencing of project activities

It is basically the relationship between tasks and when comes first and when finishes first and what needs to be done before the other, as priorities

I will give a screenshot about the relationship between tasks:



As shown in the screenshot, some of the tasks starts together and some of them need to be finished to start the other tasks, to achieve the main goal.

There's four types of task dependency or priorities:

Finish to start: need to finish a task to start another

Start to finish: The second task can't finish until the first starts

Finish to finish: The both of tasks need to finish together

Start to start: The both of tasks need starts together

We used **finish to start, start to start** in the planning

Project planning

C- Estimate activity resources: Estimating how many **resources** a project team should use to perform project activates.

Here we need to know how much a task needs resources such as: humans, equipment and materials and also, a task could have more than one resource depending on its needs, up, I showed the WBS and we can see that I used more than one resource to achieve a task.

D- Estimating activity duration

it is related to duration and effort which is:

Duration: includes the actual amount of time worked on activity.

Effort: The number of workdays or work hours that is required to achieve a task.

And we can reduce the duration and the effort by adding more resources which is called **Effort Driven** Which is when a HR has a free time, could help the human resource to achieve the task to reduce time or when there's some work added.

Here's a screenshot of the duration and the effort (Work):

		Task Mode ▾	Name ▾	Work	Duration ▾
1	<input checked="" type="checkbox"/>		Olivia Virtual Assistant	4,208 hrs	17.59 mons
2	<input checked="" type="checkbox"/>		Creating the Logic of Olivia	656 hrs	2.35 mons
3	<input checked="" type="checkbox"/>		Writing the Algorithm for	40 hrs	5 days
4	<input checked="" type="checkbox"/>		Selecting the most suitable	16 hrs	2 days
5	<input checked="" type="checkbox"/>		Coding Olivia's	560 hrs	35 days
6	<input checked="" type="checkbox"/>		Debugging	16 hrs	2 days
7	<input checked="" type="checkbox"/>		Testing The code by running	24 hrs	3 days
8	<input checked="" type="checkbox"/>		Finishing Olivia's Software	0 hrs	0 mons
9	<input checked="" type="checkbox"/>		Connecting All workstations to	112 hrs	0.55 mons
10	<input checked="" type="checkbox"/>		Analysing number of	16 hrs	2 days
11	<input checked="" type="checkbox"/>		Preparing the Networking	8 hrs	1 day
12	<input checked="" type="checkbox"/>		Installing the Equipments	16 hrs	2 days
13	<input checked="" type="checkbox"/>		Preparing	16 hrs	2 days
14	<input checked="" type="checkbox"/>		Configuring the Server and	48 hrs	3 days
15	<input checked="" type="checkbox"/>		Testing	8 hrs	1 day
16	<input checked="" type="checkbox"/>		Finishing the task with	0 hrs	0 mons
17	<input checked="" type="checkbox"/>		Gathering All data in the Cloud	344 hrs	1.53 mons

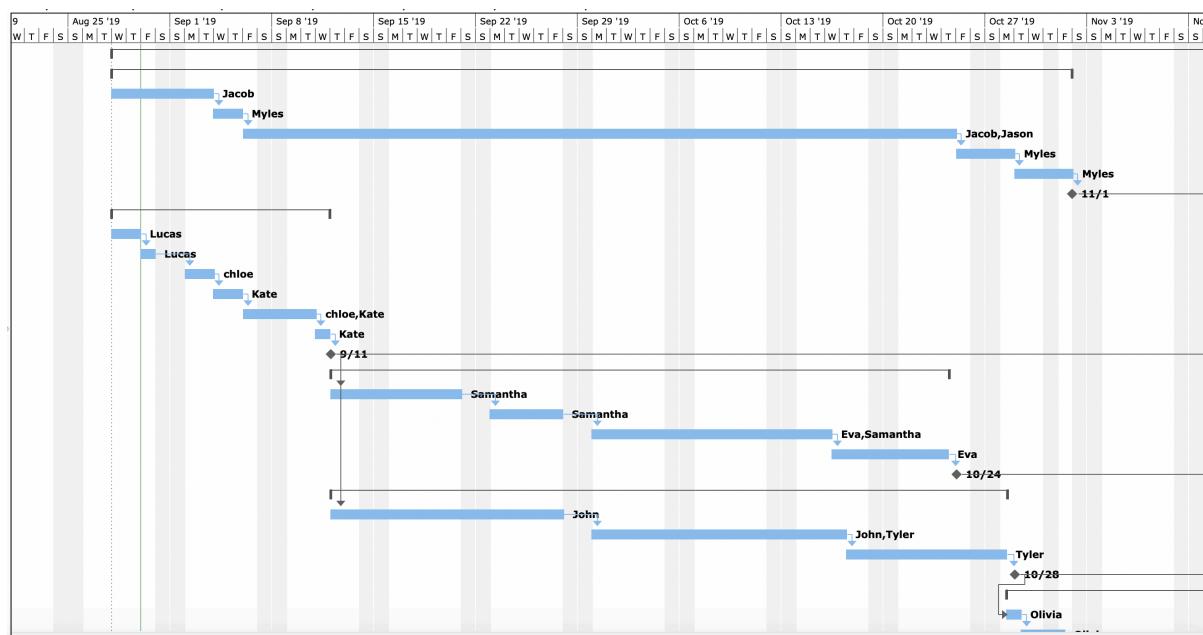
Project planning

E- Developing the schedule: Analyzing activity sequences, activity resource estimates and activity duration estimates to create the project's schedule.

We can Develop the schedule by adding the **Gantt chart** which provides a standard format for displaying the schedule information by listing the project tasks and their start and finish dates in the calendar format.

And resources used and milestones.

Here's a screen shot for the Gantt chart:



Project planning

F- Controlling the schedule: Is to control and manage the changes of the project schedule.

We could have some issues with people, we should be working with people's issues so we could have a successful project, every project has its own issues, here's some things a project manager should do to solve people's issues to carry with a successful project:

- 1- Empowerment
- 2- Incentives
- 3- Discipline
- 4- Negotiation

4. Risks:

A **Risk** is an uncertainty that can have a negative or positive effect on meeting project objectives

Project risk management processes is like the following:

Planning risk management >> identifying risks >> performing qualitative risk analysis >> performing quantitative risk analysis >> planning risk responses >> monitoring and controlling risks

A- Planning risk management: is a plan that documents and understand the managing risk throughout a project.

There're some topics addressed in the risk management plan such as:

- 1- Methodology
- 2- Roles and responsibilities
- 3- Budget and schedule
- 4- Risk probability and impact
- 5- Risk documentation

And also, there's categories for risks such as: Market, financial, technology, people and process risks.

Risks are related to the priorities and the important of tasks and the more the importance of a task has gone bigger, the level of risk will be riskier. So we need to manage the risks that would happen to the project.

Project planning

We need to build a **Risk breakdown structure** where we define what risks categories would happen and what it will affect in our project.

Knowledge area	Risk condition	The probability to happen	The effectiveness of the risk
Cost	We could have an estimating error of cost; the estimated cost was unreasonable	Low chance to happen	The project could have lost funding from the stakeholders, and the project won't get any profits
Time	We could have errors in time estimating for the time or resource	Medium chance to happen	The project will be late and won't finish on time
Communication	Could be carelessness in planning or a conflict between the HR and the stakeholders	Low chance to happen	The project won't process unless everything is going on the plan
Scope	Could be a problem while defining the scope or the work packages	High chance to happen	There's no project if there is no scope

B- Identifying risks: is the process of understanding what potential events might hurt or enhance a particular project.

To identifying risks, we will need to use one of these tools and techniques:

- 1- Brainstorming
- 2- The Delphi technique
- 3- Interviewing
- 4- SWOT analysis

For me, I will use the brainstorming because I see it has the best outcomes and effectiveness.

Project planning

Brainstorming: is a technique by which group attempts to generate ideas or finding a solution for a specific problem by amassing ideas spontaneous and without judgement.

Defining the problem >> knowing what will this problem affect >> generating ideas to solve the problem >> deciding what best solution we need >> solving the problem.

As we said before in the previous problem, by doing the risk breakdown structure, we will know what our risks that could happen and what probability to happen and its effectiveness on the project.

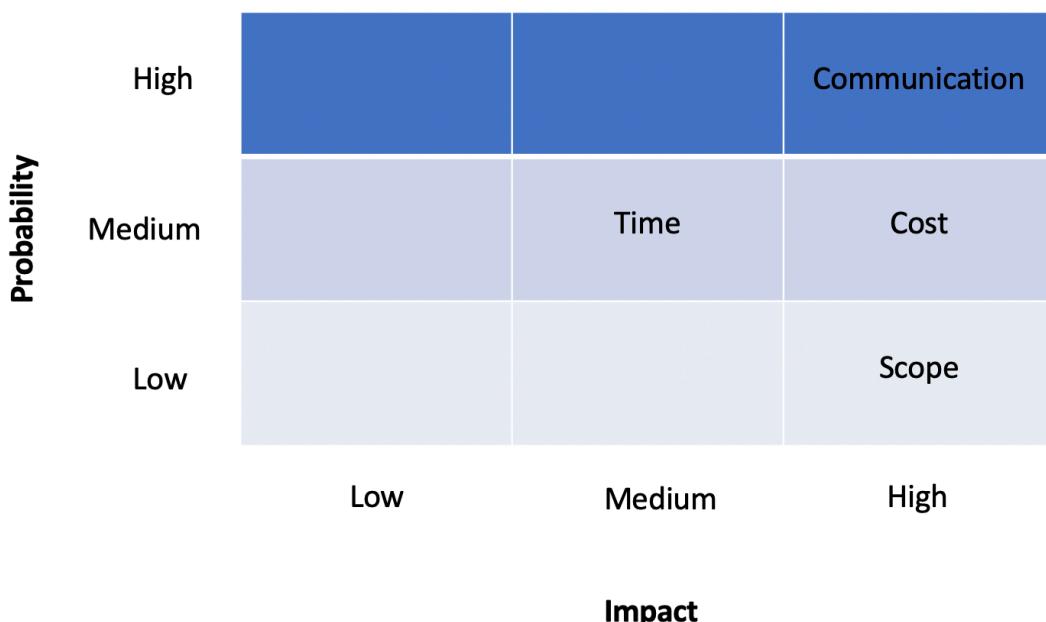
For example, cost risks have a low chance to happen because it should be managed one, because it's one of the important areas in the project and it would affect the project by the profits and funding.

C- Performing qualitative risk analysis: is the impact of identified risks and the probability and impact that could happen.

The probability/impact lists the relative probability of a risk occurring on one side of a matrix and the relative impact of the risk occurring on the other.

Risks are labeled as: **Low risk/ medium risk/ high risk.**

Here's how it's done:



Project planning

D- Performing quantitative risk analysis: It often follows qualitative risk analysis, but both can be done together.

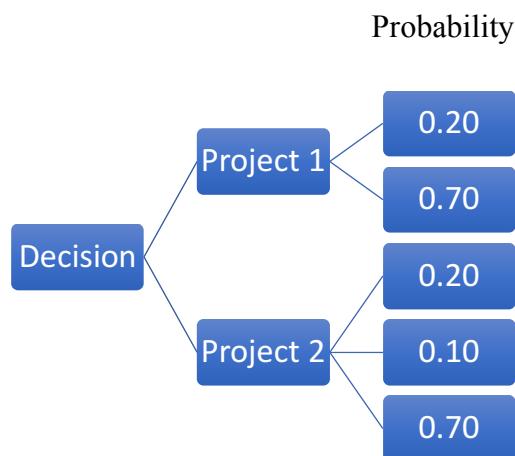
There's main techniques for performing quantitative risk analysis includes:

- 1- Decision tree analysis
- 2- Simulation
- 3- Sensitivity analysis

I will use the **Decision tree analysis** which is diagramming analysis technique that used to help select the best course of action in situations in which future outcomes are uncertain.

It is called the **Expected Monetary Value** Which is the product of a risk event probability and the risk event's monetary value.

Here's how a decision tree is made.



Making a decision would hugely affect the project, sometimes making different decisions would lead to different outcomes, and would lead to more or less profits for the project.

For example, I had made a decision on the recording set for the project, I chose a recorder interface instead of a whole recording set, that would help to decrease the cost and have the same outcome.

Project planning

E- Planning risk responses:

After we identified and qualified the risks, we need to decide how to response to them.

We have four main strategies to respond to negative risks:

- 1- Risk Avoidance
- 2- Risk acceptance
- 3- Risk transference
- 4- Risk mitigation

Risk avoidance: is to avoid risks so it would have a less probability to happen

I will use this methodology because when you avoid risks, you will work with a higher percentage of success, for example: we avoided the risk of having a bad quality computers by finding the most suitable computer components for our project, so we could not worry about any technical error that could happen to the project

F- Monitoring and controlling risks:

Is to execute the risk management process to respond the risk events.

We could have an unplanned response to risk events that must be done when there are no contingency plans that is called **Workarounds**.

The main outputs of the risk monitoring and controlling are:

- 1- Risk register updates
- 2- Organizational process assets updates
- 3- Change requests
- 4- Updating to the project management plan and other project

We can use software to assist the project risk management:

We can also add a license for Excel and Project 2007 to perform simulations, software is always important to assist the project of making it easier by its features that can assist the workers and its tools that aren't found in hardware tools.

Project planning

5. Resources:

People are very important resources because they are the ones who make the project a successful or a failure project and they are the ones who use the material resources and achieve the tasks and complete all the project requirements, so they need to be experienced people and know how to manage their time, cost, quality, etc.

Now, to manage a human resource project, we need to achieve the following:

Develop the human resource plan >> acquire the project team >> develop the project team >> manage the project team

A- Developing the human resource plan: Involves identifying documenting project roles, responsibilities and reporting relationships contents

It is about creating a resource sheet and putting the HR in groups depending on their profession and majors, and each of the HR will have a cost for their work and responsibility in the project and their effectiveness.

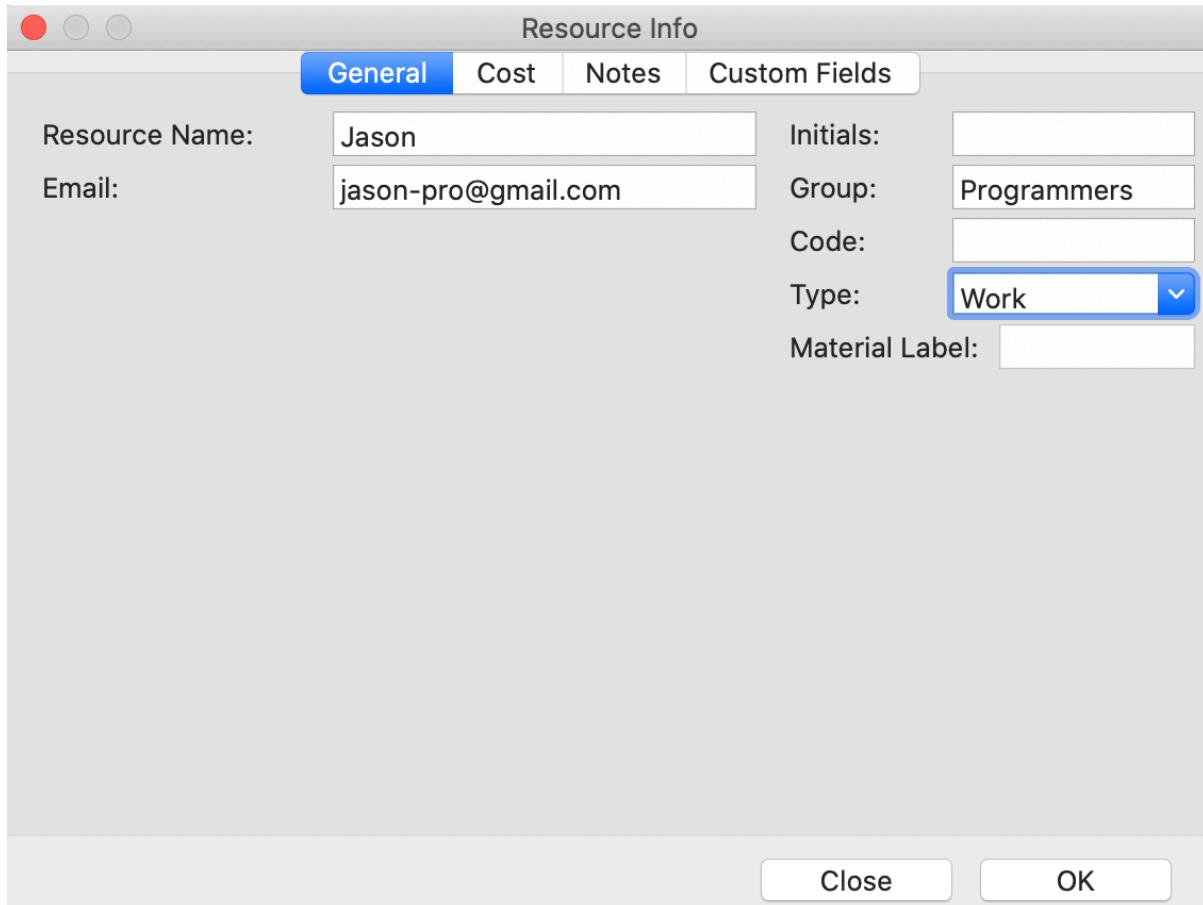
Here's a screenshot of the HR that work in the project:

		Resource Name	Type	Material Lab [*]	Initials	Group	Max. Unit [*]	Std. Rate	Ovt. Rate [*]	Cost/Use [*]	Accrue A [*]	Base Calenda [*]
1		Jason	Work			Programmers	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard
2		Jacob	Work			Programmers	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard
3		Myles	Work			Programmers	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard
4		John	Work			Designers	100%	\$8.65/hr	\$0.00/hr	\$0.00	Prorated	Standard
5		Tyler	Work			Designers	100%	\$8.65/hr	\$0.00/hr	\$0.00	Prorated	Standard
6		Eva	Work			Database Administrator	100%	\$17.31/hr	\$0.00/hr	\$0.00	Prorated	Standard
7		Samantha	Work			Database Administrator	100%	\$17.31/hr	\$0.00/hr	\$0.00	Prorated	Standard
8		Olivia	Work			Recorder	100%	\$8.65/hr	\$0.00/hr	\$0.00	Prorated	Standard
9		Lucas	Work			Networking Technicians	100%	\$17.31/hr	\$0.00/hr	\$0.00	Prorated	Standard
10		chloe	Work			Networking Technicians	100%	\$17.31/hr	\$0.00/hr	\$0.00	Prorated	Standard
11		Kate	Work			Networking Technicians	100%	\$17.31/hr	\$0.00/hr	\$0.00	Prorated	Standard
12		Jaden	Work			Maintainence	100%	\$14.42/hr	\$0.00/hr	\$0.00	Prorated	Standard
13		Jae	Work			Builders	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard
14		Jack	Work			Builders	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard
15		HTU University	Work				100%	\$4.81/hr	\$0.00/hr	\$0.00	Prorated	Standard
16		Benjamin	Work			Builders	100%	\$11.54/hr	\$0.00/hr	\$0.00	Prorated	Standard

Project planning

B- Acquiring the project team: It is about qualifying people into teams and to assign an appropriate type and number of people to work on projects at appropriate time.

Here is a screenshot of one of the resources that works with the team of programmers:



As we can see in the screenshot above, this HR works with the team of programmers, he will be working as a coder assistant to code the system and he will take \$11.54/hr. And will have a standard rate of salary

Project planning

C- Developing the project team: is to help working together more effectively to improve the project performance

As mentioned before, we can add more than one resource into each task, to help finishing the task in a small amount of time or if some work has been added to achieve the maximum efficiency of the task.

Here is a screenshot on how a resource can help another resource to achieve a task:

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	<input checked="" type="checkbox"/>	Olivia Virtual Assistant	17.59	Wed	Thu 1/7/21		
2	<input checked="" type="checkbox"/>	Creating the Logic of Olivia	2.35 mons	Wed	Fri 11/1/19		
3	<input checked="" type="checkbox"/>	Writing the Algorithm for Olivia's code	5 days	Wed 8/28/19	Tue 9/3/19		Jacob
4	<input checked="" type="checkbox"/>	Selecting the most suitable algorithm for Olivia	2 days	Wed 9/4/19	Thu 9/5/19	3	Myles
5	<input checked="" type="checkbox"/>	Coding Olivia's Code	35 days	Fri 9/6/19	Thu 10/24/19	4	Jacob,Jason
6	<input checked="" type="checkbox"/>	Debugging Olivia's Code	2 days	Fri 10/25/19	Mon 10/28/19	5	Myles
7	<input checked="" type="checkbox"/>	Testing The code by running it	3 days	Tue 10/29/19	Fri 11/1/19	6	Myles
8	<input checked="" type="checkbox"/>	Finishing Olivia's Software	0 mons	Fri 11/1/19	Fri 11/1/19	7	

D- Managing the project team: is to lead the term in performing various project activities if there is needed changes for the project and corrective actions should be recommended and if the updates are needed to the project management plan or organization process assets.

After the team has worked together, two HR of the programmers, Jason and Jacob have had a conflict between them and Myles the supervisor stepped in and solved the conflicted by negotiating

Project planning

6. Quality:

Is the degree to which a set of inherent characteristics fulfils requirements.

We can say also, it's based on:

Conformance of requirements: the process of the project and the products meeting the written requirements.

Fitness for usage: Is the product that can be used as it was intended.

Now, to build a plan for quality management, we will need to:

Plan the quality >> perform quality assurance >> Perform quality control

A- Planning the quality:

Is to identify which standards are relevant to the project and how to satisfy them

To plan a quality, we have some important things to do:

- 1- **Selecting proper materials:** is to select the best material depending on its cost and quality, they need to be managed well to have the best outcomes for the project.

For example, I used logic pro X that has a license of \$200 instead of a free program, that's because this program has the best WAV sounds that are produced in a high-quality sounding, other than free programs that has a bad quality of production.

Quality is relevant to cost, we need to balance between the cost and the quality to have the best outcomes.

- 2- **Training and indoctrinating people to quality:** Is to train people how to choose wisely between materials and the cost.
- 3- **Planning a process that ensures the appropriate outcome:** As said before, its about selecting the best materials to have the best outcomes.

B- Performing quality assurance:

Includes all the activities that is related to satisfy quality standards for the project.

We have the **Benchmarking** which is generating ideas for quality improvements by comparing a specific project practices or product characteristics to other projects.

Now, we need to control the quality, that is done by:

- 1- Accepting the decisions
- 2- Reworking
- 3- Process adjustment

Project planning

C- Performing quality control:

There're some ways to help controlling the quality, I will use the **5 whys** technique which as asking 5 questions to lead to the biggest problem, and that how it's done.

We had a problem of non-working computer

Why? Because the computer has stopped working and the computer's monitor isn't working

Why? Because the computer's hardware has been defected

Why? Because the computer's parts aren't working perfectly

Why? Because the computer was over heating

Why? Because the computer had been turned on for more than 24 hours.

7. Communication:

Project communication management processes are like the following:

Identifying stakeholders >> Planning communications >> managing stakeholder's expectations >> Reporting performance

A- Identifying stakeholders:

I used the stakeholder management strategy to identify our stakeholders for the project:

Name	Position	Internal/ External	Level of interest	Level of influence	Potential management strategies
Barbra	CEO of information in TWLO, customer	External	Medium	High	Since Barbra is one of the sponsors of the project, she needs maximum attention and needed to be provided by the status of the project
Carol	VP of Telecom, boss of Lucas	Internal	High	High	Carol works well, she can communicate with her team and other in the project, but she has a problem of short temper. So, she needs attention
Kayne	Project manager, works under Adeeb	Internal	High	High	He works well, but has a problem communicating with adeeb

Project planning

B- Planning communications: Every project need to have a type of communications management plan, and a document that guides the project communications.

We can also make a sample stakeholder analysis for project communication, here's how it's done:

Stakeholders	Document name	Document format	Contact person	Due
Customer management	Monthly states report	Meeting and a hard copy	Mohammad, Yaqob	The start of every month
Internal management	Monthly states report	Meeting and a hard copy	Yousef	The start of every month
Software subcontractor	Software implementation plan	E-Mail	Najwa	December 1

C- Managing stakeholder's expectations:

Project managers should understand and work with various stakeholders and to devise ways to identify and resolve issues.

We can use the **expectations management matrix** to help clarify expectations:

Measure of success	Priority	Expectations	Guidelines
Scope	1	The scope is the most important requirement because it identifies the project goals	Meetings need to be focused on so people can communicate and share ideas
Time	2	Project should be done by the deadline because it would affect the quality of the project	Project managers need to focus on making schedules for time and solving issues that might affect the schedule goals
Cost	3	Cost is important because it is about succeeding or failing in profits or loss	Cost must be organized well because it will take a set back to meeting schedule and then scope goals

Project planning

E- Reporting performance:

When reporting performance, stakeholders will inform about how resources are being used to achieve project objectives.

There's three ways of reporting performance:

- 1- **Statutes reports:** It describes where the project stands at a specific time.
- 2- **Progress reports:** It describes what the project team has accomplished during a certain period of time.
- 3- **Forecasts:** Is to predict future and progress based on past information and trends.

Evaluation of the project

After defining our aims and objectives, planning for the project. I will be talking about the project management process and the methodologies used in our project.

For me, I used the survey and some research to gather data and analyze it to use it on the project. After making a survey and been sent to people, I saw that some of people are with and against my project as I said in the survey.

People have had reason to go against the project because there's always some people that won't like projects in general, but the project has many advantages more than its constraints, so there's always succeeding if the project has many advantages and make the life easier and more secure.

I used MS project to put all the gathered data to create the project and adding all the requirements to the project. We planned the project considering the: **Scope, time, cost, quality, communication, risk and resources**, the project has had some problems such as: defining the scope of the project and some latency, but I managed to define it after making the survey and some researching, and the project has gone well. After succeeding in planning the project, the stakeholders have accepted the project.

The project would have gone better if there were no problems defining the scope or some lack of time and communicating with the stakeholders.

References

Bibliography

Becominghuman.ai [Online] / auth. Selvamanikkam Meruja // Introduction to Artificial Intelligence. - Aug 29, 2018. - <https://becominghuman.ai/introduction-to-artificial-intelligence-5fba0148ec99>.

GKMit [Online] / auth. Aayush // INTERNET OF THINGS(IoT): INTRODUCTION, APPLICATIONS AND FUTURE SCOPE. - Jun 19, 2017. - <https://www.gkmit.co/blog/internet-of-things-iot-introduction-applications-and-future-scope>.