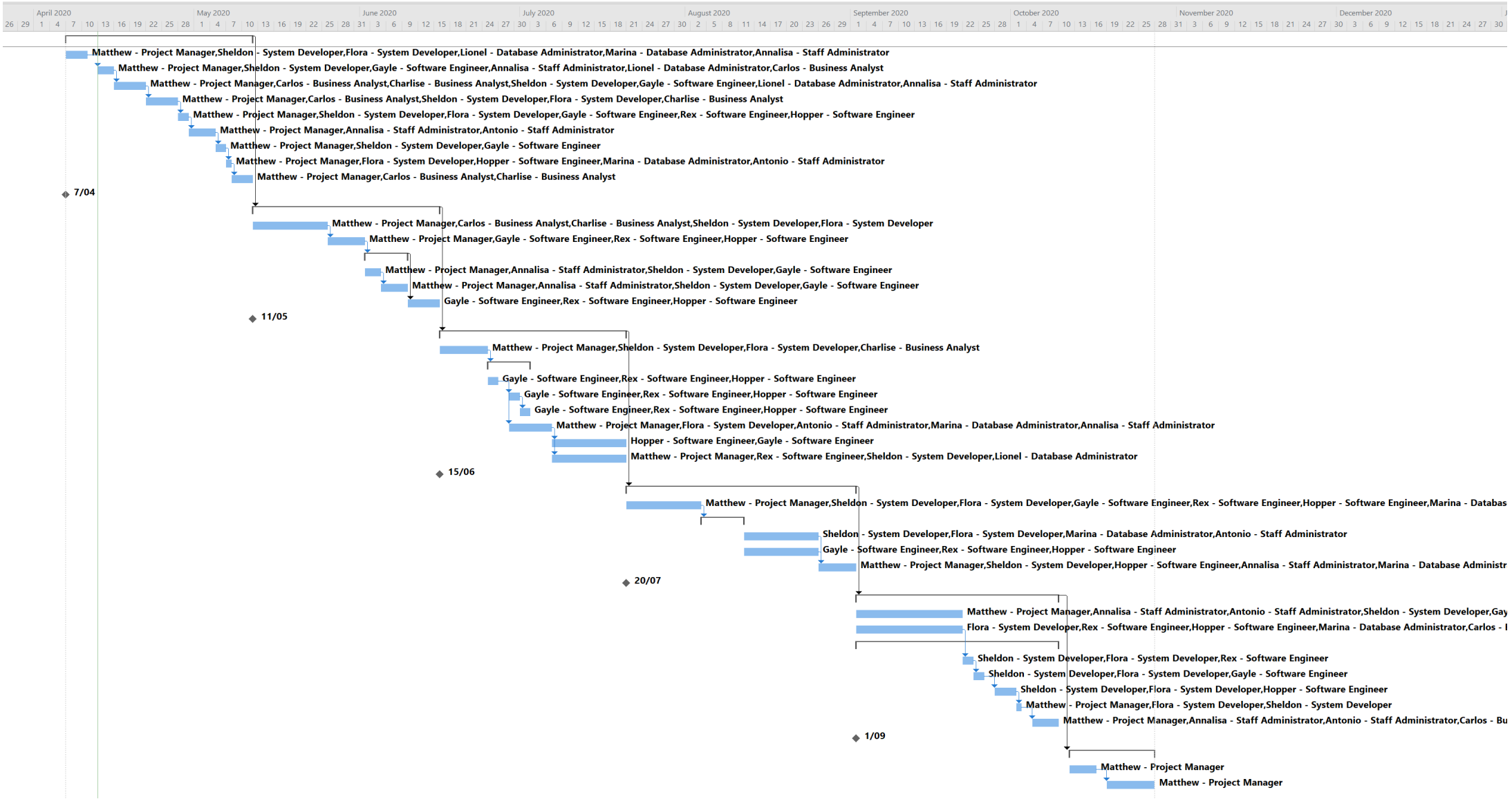
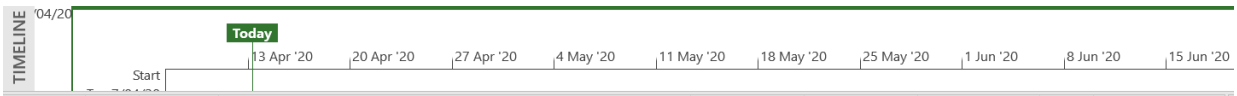
Assignment Algorithm - Question 1



TIMELINE



GANTT CHART

	Task Mode	Task Name	Duration	Start	Finish	Prec	Resource Names
1		**1 Planning for EIS System**	**25 days**	**Tue 7/04/20**	**Mon 11/05/20**		
2		1.1 Gathering Requirements from different departments	4 days	Tue 7/04/20	Fri 10/04/20		Matthew - Projec
3		1.2 Create WBS	3 days	Mon 13/04/20	Wed 15/04/20	2	Matthew - Projec
4		1.3 Feasibility Studies	4 days	Thu 16/04/20	Tue 21/04/20	3	Matthew - Projec
5		1.4 Feasibility of Design an EIS System	4 days	Wed 22/04/20	Mon 27/04/20	4	Matthew - Projec
6		1.5 Feasibility of Integrating Different Databases	2 days	Tue 28/04/20	Wed 29/04/20	5	Matthew - Projec
7		1.6 Human Resource	3 days	Thu 30/04/20	Mon 4/05/20	6	Matthew - Projec
8		1.7 Physical Phasing Planning	2 days	Tue 5/05/20	Wed 6/05/20	7	Matthew - Projec
9		1.8 PGO Database Planning	1 day	Thu 7/05/20	Thu 7/05/20	8	Matthew - Projec
10		1.9 Financial Planning	2 days	Fri 8/05/20	Mon 11/05/20	9	Matthew - Projec
11		1.10 EIS Plan Completed	0 days	Tue 7/04/20	Tue 7/04/20		
12		**2 Analysing the EIS System**	**25 days**	**Mon 11/05/20**	**Mon 15/06/20**	**1**	
13		2.1 Project Requirements	10 days	Tue 12/05/20	Mon 25/05/20		Matthew - Projec
14		2.2 Data Analysis	5 days	Tue 26/05/20	Mon 1/06/20	13	Matthew - Projec
15		**2.3 Application Prototyping**	**6 days**	**Tue 2/06/20**	**Tue 9/06/20**	**14**	
16		2.3.1 Licensing Software Trial	3 days	Tue 2/06/20	Thu 4/06/20		Matthew - Projec
17		2.3.2 Web Application Trial	3 days	Fri 5/06/20	Tue 9/06/20	16	Matthew - Projec
18		2.4 Metadata analysis	4 days	Wed 10/06/20	Mon 15/06/20	15	Gayle - Software
19		2.5 EIS Analyst Completed	0 days	Mon 11/05/20	Mon 11/05/20		
20		**3 Designing the EIS System**	**25 days**	**Mon 15/06/20**	**Mon 20/07/20**	**12**	
21		3.1 Data Design	7 days	Tue 16/06/20	Wed 24/06/20		Matthew - Projec
22		**3.2 Designing ETL process**	**6 days**	**Thu 25/06/20**	**Thu 2/07/20**	**21**	
23		3.2.1 Extracting Data	2 days	Thu 25/06/20	Fri 26/06/20		Gayle - Software
24		3.2.2 Transforming Data	2 days	Mon 29/06/20	Tue 30/06/20	23	Gayle - Software
25		3.2.3 Loading Data	2 days	Wed 1/07/20	Thu 2/07/20	24	Gayle - Software
26		3.3 PGO Layout	6 days	Mon 29/06/20	Mon 6/07/20	23	Matthew - Projec
27		3.4 Metadata Repository Design	10 days	Tue 7/07/20	Mon 20/07/20	26	Hopper - Softwa
28		3.5 Application Design	10 days	Tue 7/07/20	Mon 20/07/20	26	Matthew - Projec
29		3.6 EIS Design Completed	0 days	Mon 15/06/20	Mon 15/06/20		
30		**4 Implementing the EIS System**	**31 days**	**Mon 20/07/20**	**Tue 1/09/20**	**20**	
31		4.1 ETL Development	10 days	Tue 21/07/20	Mon 3/08/20		Matthew - Projec
32		**4.2 Application Development**	**6 days**	**Tue 4/08/20**	**Tue 11/08/20**	**31**	
35		4.3 Network Development	10 days	Wed 12/08/20	Tue 25/08/20	34	Sheldon - System
36		4.4 Developing Metadata repository	10 days	Wed 12/08/20	Tue 25/08/20	34	Gayle - Software
37		4.5 GPO Setup	5 days	Wed 26/08/20	Tue 1/09/20	36,35	Matthew - Projec
38		4.6 EIS Implemention Completed	0 days	Mon 20/07/20	Mon 20/07/20		
39		**5 Testing & Intergrating the EIS System**	**28 days**	**Tue 1/09/20**	**Fri 9/10/20**	**30**	
40		5.1 Staff Training	14 days	Wed 2/09/20	Mon 21/09/20		Matthew - Projec
41		5.2 Intergration Maintenance	14 days	Wed 2/09/20	Mon 21/09/20		Flora - System D
42		**5.3 Test Trials**	**28 days**	**Tue 1/09/20**	**Fri 9/10/20**		
43		5.3.1 Connection Trial	2 days	Tue 22/09/20	Wed 23/09/20	41	Sheldon - System
44		5.3.2 GPO Connection Trial	2 days	Thu 24/09/20	Fri 25/09/20	43	Sheldon - System
45		5.3.3 Department Trial	4 days	Mon 28/09/20	Thu 1/10/20	44	Sheldon - System
46		5.3.4 Governor Trial	1 day	Fri 2/10/20	Fri 2/10/20	45	Matthew - Projec
47		5.3.5 Staff Member Trial	5 days	Mon 5/10/20	Fri 9/10/20	46	Matthew - Projec
48		5.3.6 EIS Testing Completed	0 days	Tue 1/09/20	Tue 1/09/20		
49		**6 EIS System Deployment & Maintenance**	**12 days**	**Mon 12/10/20**	**Tue 27/10/20**	**39**	
50		6.1 Documentation	5 days	Mon 12/10/20	Fri 16/10/20		Matthew - Projec
51		6.2 Evalution	7 days	Mon 19/10/20	Tue 27/10/20	50	Matthew - Projec

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base Calendar
1	Matthew - Project Manager	Work		M	PM	100%	$5.00/hr	$0.00/hr	$0.00	Prorated	Standard
2	Carlos - Business Analyst	Work		CA	BA	100%	$7.60/hr	$0.00/hr	$0.00	Prorated	Standard
3	Charlise - Business Analyst	Work		CR	BA	100%	$7.20/hr	$0.00/hr	$0.00	Prorated	Standard
4	Sheldon - System Developer	Work		S	SD	100%	$7.00/hr	$0.00/hr	$0.00	Prorated	Standard
5	Flora - System Developer	Work		F	SD	100%	$6.60/hr	$0.00/hr	$0.00	Prorated	Standard
6	Gayle - Software Engineer	Work		G	SE	100%	$6.10/hr	$0.00/hr	$0.00	Prorated	Standard
7	Rex - Software Engineer	Work		R	SE	100%	$6.40/hr	$0.00/hr	$0.00	Prorated	Standard
8	Hopper - Software Engineer	Work		H	SE	100%	$6.40/hr	$0.00/hr	$0.00	Prorated	Standard
9	Lionel - Database Administrator	Work		L	DA	100%	$6.10/hr	$0.00/hr	$0.00	Prorated	Standard
10	Marina - Database Administrator	Work		M	DA	100%	$5.90/hr	$0.00/hr	$0.00	Prorated	Standard
11	Annalisa - Staff Administrator	Work		AL	SA	100%	$5.50/hr	$0.00/hr	$0.00	Prorated	Standard
12	Antonio - Staff Administrator	Work		AT	SA	100%	$5.70/hr	$0.00/hr	$0.00	Prorated	Standard
13	Telephones	Material		T			$1,000.00		$0.00	Prorated	
14	Network Switches	Material		N			$2,000.00		$0.00	Prorated	
15	Printers	Material		P			$5,000.00		$0.00	Prorated	
16	HRMIS	Material		H			$5,000.00		$0.00	Prorated	
17	KOFAX Document Tracking	Material		K			$5,000.00		$0.00	Prorated	
18	Custom GIS Web Application	Material		C			$20,000.00		$0.00	Prorated	
19	Electronic Maps	Material		E			$5,000.00		$0.00	Prorated	
20	Touch Screen PC	Material		T			$1,000.00		$0.00	Prorated	
21	Routers	Material		R			$1,000.00		$0.00	Prorated	

PROJECT OVERVIEW

TUE 7/04/20 - TUE 27/10/20

% COMPLETE

0%

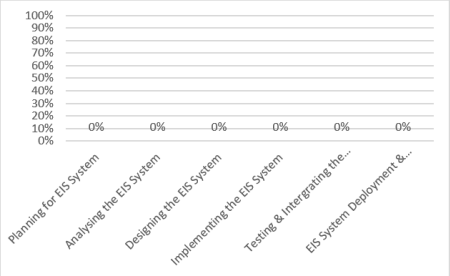
MILESTONES DUE

Milestones that are coming soon.

Name	Finish
EIS Plan Completed	Tue 7/04/20
EIS Analyst Completed	Mon 11/05/20
EIS Design Completed	Mon 15/06/20
EIS Implemention Completed	Mon 20/07/20
EIS Testing Completed	Tue 1/09/20

% COMPLETE

Status for all top-level tasks. To see the status for subtasks, click on the chart and update the outline level in the Field List.



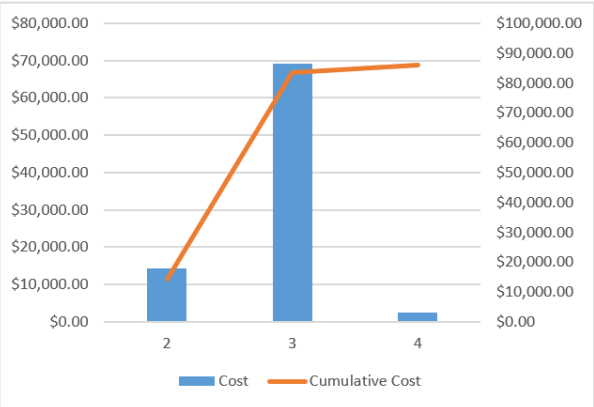
LATE TASKS

Tasks that are past due.

Name	Start	Finish	Duration	% Complete	Resource Names
Gathering Requirements from different departments	Tue 7/04/20	Fri 10/04/20	4 days	0%	Matthew - Project Manager,Sheldon - System Developer,Flora - System Developer,Lionel - Database Administrator, Marina - Database Administrator, Annalisa - Staff Administrator
EIS Plan Completed	Tue 7/04/20	Tue 7/04/20	0 days	0%	

CASH FLOW

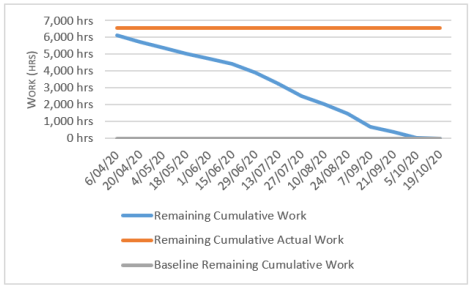
Actual Cost	Baseline Cost	Remaining Cost	Cost Variance
$0.00	$0.00	$85,942.40	$85,942.40



The chart shows the project's cumulative cost and the cost per quater.
To see the costs for a different time period, select the Edit option from the Field List.

The table below shows cost information for all top-level tasks.
To see cost stats for all tasks, set the Outline Level in the Field List.

Name	Remaining Cost	Actual Cost	Cost	ACWP	BCWP	BCWS
Planning for EIS System	$6,375.20	$0.00	$6,375.20	$0.00	$0.00	$0.00
Analysing the EIS System	$5,365.60	$0.00	$5,365.60	$0.00	$0.00	$0.00
Designing the EIS System	$6,689.60	$0.00	$6,689.60	$0.00	$0.00	$0.00
Implementing the EIS System	$56,921.60	$0.00	$56,921.60	$0.00	$0.00	$0.00
Testing & Intergrating the EIS System	$10,110.40	$0.00	$10,110.40	$0.00	$0.00	$0.00
EIS System Deployment & Maintenance	$480.00	$0.00	$480.00	$0.00	$0.00	$0.00

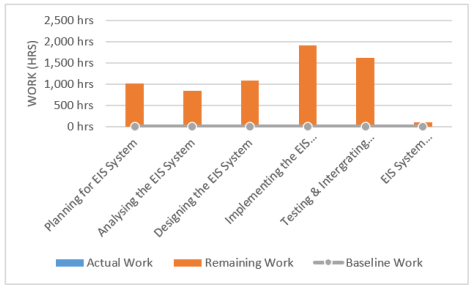


WORK BURNDOWN

Shows how much work you have completed and how much you have left. If the remaining cumulative work line is steeper, then the project may be late.

Is your baseline work zero?

Try setting a baseline



WORK STATS

Shows work stats for all top level tasks.

% Work Complete

0%

Remaining Work

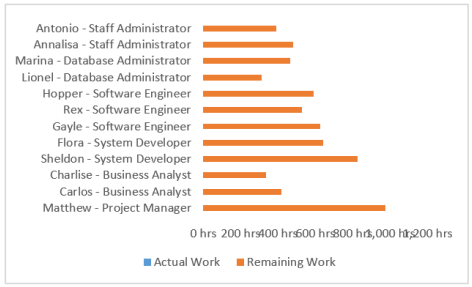
6,584 hrs

Actual Work

0 hrs

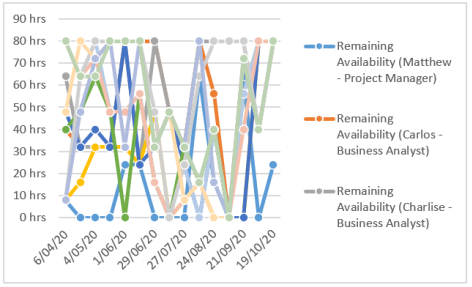
WORK OVERVIEW

Tue 7/04/20 - Tue 27/10/20



RESOURCE STATS

Shows work stats for all your resources.



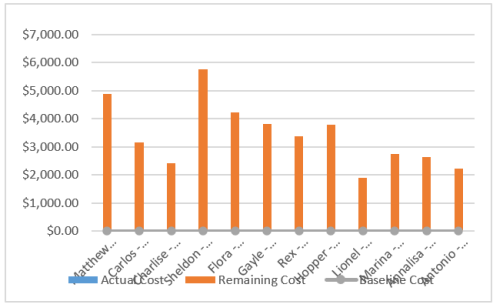
REMAINING AVAILABILITY

Shows remaining availability for all work resources.

RESOURCE COST OVERVIEW

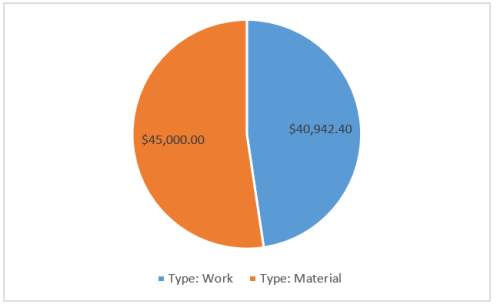
COST STATUS

Cost status for work resources.



COST DISTRIBUTION

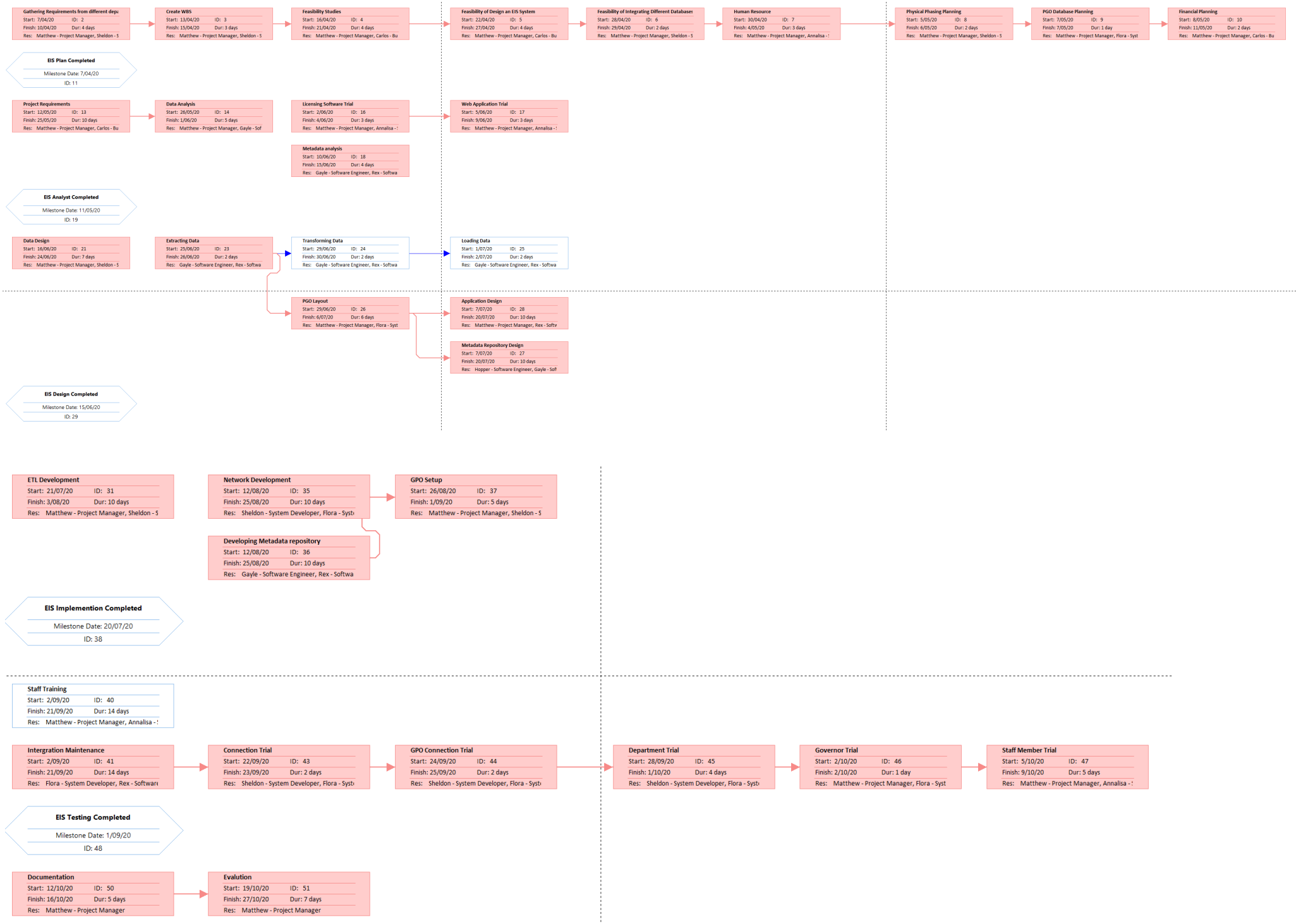
How costs are spread out amongst different resource types.



COST DETAILS

Cost details for all work resources.

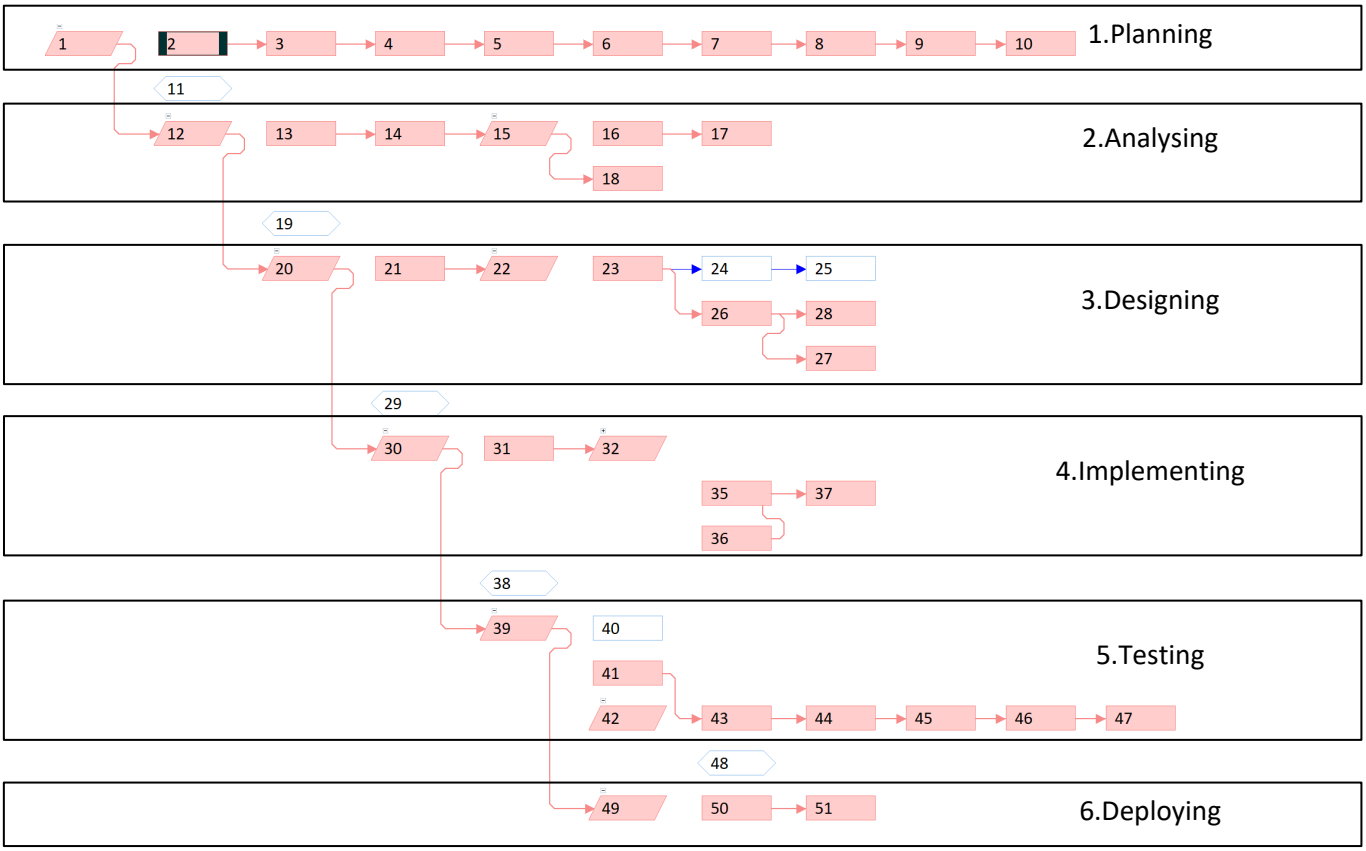
Name	Actual Work	Actual Cost	Standard Rate
Matthew - Project Manager	0 hrs	$0.00	$5.00/hr
Carlos - Business Analyst	0 hrs	$0.00	$7.60/hr
Charlise - Business Analyst	0 hrs	$0.00	$7.20/hr
Sheldon - System Developer	0 hrs	$0.00	$7.00/hr
Flora - System Developer	0 hrs	$0.00	$6.60/hr
Gayle - Software Engineer	0 hrs	$0.00	$6.10/hr
Rex - Software Engineer	0 hrs	$0.00	$6.40/hr
Hopper - Software Engineer	0 hrs	$0.00	$6.40/hr
Lionel - Database Administrator	0 hrs	$0.00	$6.10/hr
Marina - Database Administrator	0 hrs	$0.00	$5.90/hr
Annalisa - Staff Administrator	0 hrs	$0.00	$5.50/hr
Antonio - Staff Administrator	0 hrs	$0.00	$5.70/hr


Gathering Requirements from different dep
Start: 7/04/20 ID: 2
Finish: 10/04/20 Dur: 4 days
Res: Matthew - Project Manager, Sheldon - S
Create WBS
Start: 13/04/20 ID: 3
Finish: 15/04/20 Dur: 3 days
Res: Matthew - Project Manager, Sheldon - S
Feasibility Studies
Start: 16/04/20 ID: 4
Finish: 21/04/20 Dur: 4 days
Res: Matthew - Project Manager, Carlos - Bu
Feasibility of Design an EIS System
Start: 22/04/20 ID: 5
Finish: 27/04/20 Dur: 4 days
Res: Matthew - Project Manager, Carlos - Bu
Feasibility of Integrating Different Databases
Start: 28/04/20 ID: 6
Finish: 29/04/20 Dur: 2 days
Res: Matthew - Project Manager, Sheldon - S
Human Resource
Start: 30/04/20 ID: 7
Finish: 4/05/20 Dur: 3 days
Res: Matthew - Project Manager, Annalisa -
Physical Phasing Planning
Start: 5/05/20 ID: 8
Finish: 6/05/20 Dur: 2 days
Res: Matthew - Project Manager, Sheldon - S
PGO Database Planning
Start: 7/05/20 ID: 9
Finish: 7/05/20 Dur: 1 day
Res: Matthew - Project Manager, Flora - Syst
Financial Planning
Start: 8/05/20 ID: 10
Finish: 11/05/20 Dur: 2 days
Res: Matthew - Project Manager, Carlos - Bu
EIS Plan Completed
Milestone Date: 7/04/20
ID: 11
Project Requirements
Start: 12/05/20 ID: 13
Finish: 25/05/20 Dur: 10 days
Res: Matthew - Project Manager, Carlos - Bu
Data Analysis
Start: 26/05/20 ID: 14
Finish: 1/06/20 Dur: 5 days
Res: Matthew - Project Manager, Gayle - Sof
Licensing Software Trial
Start: 2/06/20 ID: 16
Finish: 4/06/20 Dur: 3 days
Res: Matthew - Project Manager, Annalisa -
Web Application Trial
Start: 5/06/20 ID: 17
Finish: 9/06/20 Dur: 3 days
Res: Matthew - Project Manager, Annalisa -
Metadata analysis
Start: 10/06/20 ID: 18
Finish: 15/06/20 Dur: 4 days
Res: Gayle - Software Engineer, Rex - Softwa
EIS Analyst Completed
Milestone Date: 11/05/20
ID: 19
Data Design
Start: 16/06/20 ID: 21
Finish: 24/06/20 Dur: 7 days
Res: Matthew - Project Manager, Sheldon - S
Extracting Data
Start: 25/06/20 ID: 23
Finish: 26/06/20 Dur: 2 days
Res: Gayle - Software Engineer, Rex - Softwa
Transforming Data
Start: 29/06/20 ID: 24
Finish: 30/06/20 Dur: 2 days
Res: Gayle - Software Engineer, Rex - Softwa
Loading Data
Start: 1/07/20 ID: 25
Finish: 2/07/20 Dur: 2 days
Res: Gayle - Software Engineer, Rex - Softwa
PGO Layout
Start: 29/06/20 ID: 26
Finish: 6/07/20 Dur: 6 days
Res: Matthew - Project Manager, Flora - Syst
Application Design
Start: 7/07/20 ID: 28
Finish: 20/07/20 Dur: 10 days
Res: Matthew - Project Manager, Rex - Softv
Metadata Repository Design
Start: 7/07/20 ID: 27
Finish: 20/07/20 Dur: 10 days
Res: Hopper - Software Engineer, Gayle - Sof
EIS Design Completed
Milestone Date: 15/06/20
ID: 29
ETL Development
Start: 21/07/20 ID: 31
Finish: 3/08/20 Dur: 10 days
Res: Matthew - Project Manager, Sheldon - S
Network Development
Start: 12/08/20 ID: 35
Finish: 25/08/20 Dur: 10 days
Res: Sheldon - System Developer, Flora - Syst
GPO Setup
Start: 26/08/20 ID: 37
Finish: 1/09/20 Dur: 5 days
Res: Matthew - Project Manager, Sheldon - S
Developing Metadata repository
Start: 12/08/20 ID: 36
Finish: 25/08/20 Dur: 10 days
Res: Gayle - Software Engineer, Rex - Softwa
EIS Implemention Completed
Milestone Date: 20/07/20
ID: 38
Staff Training
Start: 2/09/20 ID: 40
Finish: 21/09/20 Dur: 14 days
Res: Matthew - Project Manager, Annalisa -
Intergration Maintenance
Start: 2/09/20 ID: 41
Finish: 21/09/20 Dur: 14 days
Res: Flora - System Developer, Rex - Softwar
Connection Trial
Start: 22/09/20 ID: 43
Finish: 23/09/20 Dur: 2 days
Res: Sheldon - System Developer, Flora - Syst
GPO Connection Trial
Start: 24/09/20 ID: 44
Finish: 25/09/20 Dur: 2 days
Res: Sheldon - System Developer, Flora - Syst
Department Trial
Start: 28/09/20 ID: 45
Finish: 1/10/20 Dur: 4 days
Res: Sheldon - System Developer, Flora - Syst
Governor Trial
Start: 2/10/20 ID: 46
Finish: 2/10/20 Dur: 1 day
Res: Matthew - Project Manager, Flora - Syst
Staff Member Trial
Start: 5/10/20 ID: 47
Finish: 9/10/20 Dur: 5 days
Res: Matthew - Project Manager, Annalisa -
EIS Testing Completed
Milestone Date: 1/09/20
ID: 48
Documentation
Start: 12/10/20 ID: 50
Finish: 16/10/20 Dur: 5 days
Res: Matthew - Project Manager
Evalution
Start: 19/10/20 ID: 51
Finish: 27/10/20 Dur: 7 days
Res: Matthew - Project Manager

Assignment Algorithm - Question 2

How long will your project take?

The duration of the EIS project will take about 146 days (excluding weekends) or 6 months with each month broken up into a stage of the project. The Project will commenced on the 7th of April 2020 till the 27th of October. April – Planning, May – Analysing, June – Designing, July – Implementing, September – Testing and October – Deployment.



How have you calculated this?

I've calculated and planned this project by analysing what was required for the governor's EIS. I compared the governor's EIS plan to other plans that were similar and see how much time that stage and task needs to ensure proper fulfilment. With the amount of people hired to work on the EIS is analysed to ensure a proper critical path is initialised. When constructing an EIS, the waterfall approach is the best way to keep the project on time to the due date.

In the Planning Phrase (Task 1 – 10)

The PM has to attend to all tasks in order to get the project up and going which vital when setting the foundations of the EIS. Since the PM cannot be at two places at a time, the traditional waterfall method was used, same as goes most of the hired workers as they're expected to follow each criteria of the system before proceeding to analysation.

In the Analysing Phrase (Task 12 – 18)

Throughout the analyst phrase, it is required to stick to the traditional waterfall method due to PM's lack of availability between tasks, although not many staff member are hired during this stage since it requires the head member of each department to analytically research the system. The application and software prototype is introduced here for the governor to try out before the system being built.

In the Designing Phrase (Task 20 – 27)

The data design task is the beginning task before it separates the staff members into their teams. As the PM isn't used much in this phrase as it requires more labour work from the software engineer staff members as they require to sort out the metadata and the ETL process.

In the Implementing Phrase (Task 30 – 36)

The construction stage is where the system gets physically built which requires the longest amount of days of the project. I divided the tasks even with the right amount of time in order to keep in line with the project schedule smoothly without any interruptions.

In the Testing Phrase (Task 39 – 47)

During the testing phrase, every team member is involved to ensure that the system is up and running before deployment by running a series of trials for different group work groups. Before the trials begin, staff training is required in order to understand the system while in the meantime, the system is undergoing an integration maintenance to ensure its functionality is work between each department.

In the Deploying Phrase (Task 49 – 51)

The final stage to account the overview successes/failures of the project through the documentation and evaluation process. All costs of labour/hardware/software and overtime of working shifts will be documented to wrap up the EIS project with a well-formed conclusion.

Costings of the EIS

Staff Wages

When it came to the costings, I did some background research of the median payrate of the roles of the workers that we're used to build the EIS under the Philippines' country conditions. Country conditions that involves their currency, Pesos (will be exchanged and paid in USD), their country background and their job role that determines their pay. The average employee earns around ₱300 pesos ($6 USD) an hour which does not create an impact on the governor's budget.

Hardware

When it comes to hardware, it is expected to be expensive due to being in the Philippines as it requires the goods to be imported such as the networking switches, printers and a computer which can cause a hefty cost to the governor's budget.

Software

Software is be also expensive when it comes to building the EIS system with a customised web application and for the governor's office to use and receive reports on, however free software like MySQL, Apache, Linux and PHP (LAMP) is for free which can help the governor reduce its budget without any heavy cost in software use.

Timeframes Staff Allocation

The normal timeframe of each work session is 9am to 5pm in the afternoon with a 30 min lunch break in-between which gives staff members more of a healthy balance when it comes building the EIS system. Staff members do not operate on the EIS project over the weekends. There may be a possibility of over-time when it comes to working on the EIS in order to keep up to schedule.

Staff Allocation

When it comes to staff allocation, I ensure that each staff department has a head member that leads the group when something goes wrong when the project manager is not in attendance, However head members need to complete to extra tasks in order to have a greater understanding in the system and what their tasks help towards the EIS's end goal. Mainly when assigning staff to tasks, I ensure that each staff member gets equal amount of work and try and balance between each staff member at different sets of tasks.

References

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