BAIT3153 Software Project Management

ASSIGNMENT 202109

Project Title : JnT Forwarding Management Courier Services System

Programme : RSD

Tutorial Group : 2

Declaration

- I confirm that I have read and complied with all the terms and conditions of Tunku Abdul Rahman University College's plagiarism policy.
- I declare that this assignment is free from all forms of plagiarism and for all intents and purposes is my own properly derived work.

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Project Description

This project will be going to carry out an update to enhance the current Forwarding Management Courier Services System of JnT Express. It will be aiming to increase the efficiency and effectiveness of tasks when the staff uses the system to complete their daily tasks. According to the requirements that were collected from the staff, this update will be more focusing on the section of delivery task scheduling and customer service. There will also be a minor update on the system UI which will be according to the requirements from the staff, such as the color scheme and the layout of the system UI.

This update project has been planned after we received the feedback of the staff after using the current version of the system. In the feedback, they mentioned that although there's a small improvement in the efficiency and effectiveness of them when completing the daily tasks, they have a sensation that there's still room for the system to be improved.

The objective of the project is to deploy a new updated system that is able to maintain the required function and features. Other than this, the system also able to reschedule the delivery schedule/ delivery route immediately once any new event that may affect the route is reported. The system also will be able to expand the functionality of the auto reply system of customer service function and also update the color scheme of the system to a higher contrast scheme to increase the readability of the content.

This can use Waze or Google Map.

The task of the project will be classified into 7 classes which is System Concept Initiation, Feasibility Study, System Design, Coding, Testing, Deployment and Training, Monitoring and Support.

Work Breakdown Structure (WBS)

1. **System Concept Initiation**
   - 1.1. Current systems analysis
   - 1.2. Requirement Analysis
     - 1.2.1. User requirement
     - 1.2.2. System requirement
2. **Feasibility Study**
   - 2.1. Project aim, scope and constraints
   - 2.2. Technical feasibility
   - 2.3. Define risks and response plan
   - 2.4. Cost benefit analysis
   - 2.5. Briefing on new update details with development team
3. **System Design**
   - 3.1. New function development
     - 3.1.1. Database
     - 3.1.2. UI
     - 3.1.3. Backend
4. **Coding**
   - 4.1. Current website code enhancement
   - 4.2. Website coding
   - 4.3. Debugging
5. **Testing**
   - 5.1. Unit Testing
   - 5.2. Integration Testing
   - 5.3. System Testing
6. **Deployment and Training**
   - 6.1. Deploy new version of website application
     - 6.1.1. Install infrastructure
     - 6.1.2. Update database structure
     - 6.1.3. Update website
   - 6.2. Version update details briefing
   - 6.3. User training
7. **Monitoring and Support**
   - 7.1. On-Site monitoring
   - 7.2. On-Site support 1
   - 7.3. Backup and maintenance 1
   - 7.4. On-Site Support 2
   - 7.5. Backup and Maintenance 2

The software process model we chose is **Rapid Application Development Model (RAD)** which was used to develop the system in this project. Rapid Application Model is an incremental software development process model that emphasizes an extremely short development cycle. The RAD model is used when the user requirements are clearly defined and there is also high user involvement in which the developers can easily ask the opinion from the user when they meet the problems. Based on the defined requirements requested by the users, the developers will separate into several teams to develop the software in order to complete the software in a short period of time.

This project will include metrics to make sure the product quality and the progress of the project is on track. At the different stages of the project, different metrics will be utilized. During the estimation stage, the metrics will be referring to the metrics that were used by previous projects. Therefore, the metrics will be more effective as the previous project is completed successfully by the support of these metrics. During the project execution, the progress of the project will be monitored by comparing the actual date with the scheduled milestone date. During technical work, few metrics will be used, such as the count of the uncovered error occurring per review hour.

The project is estimated to start on 6 December 2021 and be completed on 4 January 2023. The whole project will be expected to be completed in about 267 days which is approximately 8.5 months.

According to the WBS above, the assigned start date for each task will be as followed:

Task	Start Date	Finish Date	Duration
System Concept Initiation	Mon 6/12/21	Fri 14/1/22	30 days
Feasibility Study	Mon 17/1/22	Thu 17/3/22	41 days
System Design	Fri 18/3/22	Thu 14/4/22	20 days
Coding	Fri 15/4/22	Fri 15/7/22	60 days
Testing	Mon 18/7/22	Fri 26/8/22	30 days
Deployment and Training	Mon 29/8/22	Mon 5/12/22	66 days
Monitoring and Support	Tue 6/12/22	Wed 4/1/23	20 days

The total estimated budget for the current project will be RM 400,000, which includes the labour costs, equipment and materials cost, project management software costs, travel cost, administrative costs and office supplies costs.

Project Goals and Objectives

The goals of the current project are to create a more flexible, efficient, and effective solution on performing the daily task in the forwarding management system of JnT Express Malaysia. Other than this, we are planning to enhance the current system in order to help JnT Express Company to increase their productivity and performance when using the proposed system. This will help in improve the employee satisfaction by improving the current system. By having this project to be conduct, it will able to improve the team collaboration and communication. This will help in increase the experience in contribution in their own roles.

The objective of the project is to deploy a new updated system that is able to maintain the required function and features. Other than this, the system also able to reschedule the delivery schedule/ delivery route immediately once any new event that may affect the route is reported. The system also will be able to expand the functionality of the auto reply system of customer service function and also update the colour scheme of the system to a higher contrast scheme to increase the readability of the content.

Project Scope and Exclusions

The scope for this project is to improve the memory required for the system in order to reduce the response time required and make the system work more efficiently. Next, we also will improve the customer services in order to enhance the company image and have retained old customers and further improves the delivery services. It will bring more flexibility to the customer to receive the parcel and reduce the difficulty for delivery men in some unexpected situation. On the other hand, we also will improve the system user interface by using the golden eight rules and Don Norman principle. This can make the system have a better user interface in order to let the user have the best user experience.

Others from project scope, we also prepared the project exclusion update for the system which is improve the system with an extra payment method which is e-payment. The system will allow the customer to make payment by using an e-wallet. Next, we will upgrade and cut off data of the application and database server in order to let the user store more data through the system.

Exclusions are elements that project members are not going to focus but those non-functional requirements are highligted by the project sponsor.

Project Background

As there are some issues that were reported from JnT express which is currently using the logistics software, we planned to have an enhancement to the system and solved the issue. The enhancement we made will totally increase the productivity of the system and also reduce the workload required for the hardware. We will enhance the memory load required of the system in order to let the daily task go on smoothly. Other than this, we will improve the user interface to be more user friendly by using the suitable colour design. Thus, it can make the system look more attractive and let the user always feel comfortable when using the system. This is required to be enhanced because it may lead to the delay on the effectiveness of the daily task. Other than that, we planned to upgrade and cut off the old data for the database and application server to reduce the risk of overloading for the server.

Project Stakeholders

Name	Position	Internal/ External	Project Role	Contact Information
Foong Chee Kean	CEO	Internal	CEO	ckFoong@jnt.com
Loke Choon Keat	Senior Project Analyst	Internal	Project Manager	ckLoke@jnt.com
Alvin Lim Zhi Yoong	Senior System Analyst	Internal	Team 1 Leader	alvinLim@jnt.com
Ng Xing Ran	Senior Software Developer	Internal	Team 2 Leader	xrNg@jnt.com
Sing Wei Hern	Senior IT Support	Internal	Team 3 Leader	whSing@jnt.com
Kiki	Business Analyst	Internal	Team 1 Member	kiki@jnt.com
Jane	Front-end Developer	Internal	Team 2 Member	jane@jnt.com
Edmond	System Tester	Internal	Team 3 Member	edmond@jnt.com
Alison	Programmer Analyst	Internal	Team 1 Member	alison@jnt.com
Lex	Back-end Developer	Internal	Team 2 Member	lex@jnt.com
Rex	IT Support Executive	Internal	Team 3 Member	rex@jnt.com
Jhin Ran	Security Analyst	Internal	Team 1 Member	jhinRan@jnt.com
John	Back-end Developer	Internal	Team 2 Member	john@jnt.com
Elaine	Database & Infrastructure Administrator	Internal	Team 3 Member	elaine@jnt.com
Tim	System Analyst (Part time)	Internal	Team 1 Member	tim@jnt.com
Walter	Developer (Part time)	Internal	Team 2 Member	walter@jnt.com
Yone	IT Support Executive (Part time)	Internal	Team 3 Member	yone@jnt.com
Sara	IT Support Executive (Part time)	Internal	Team 3 Member	sara@jnt.com

Project Assumption

Resources Assumption

- During the project cycle, some of the materials which are required in the project might be lacking. For example, there might be a loss of electricity when the developer is coding.
- The people who are involved in the project might not give out their best performance when they are in a bad environment or in a bad situation which is illness. This will cause the efficiency of the project to run down.
- Although all the resources are allocated well, there is still a risk that if some of the resources are insufficient or absent at the time. This will cause the delay of the timeline or affect the goal of the project.
- Some of the tools are required to access to execute their task by the project team. However, the tools might not be enough to let all members access at the same time.

Budget Assumption

- The salary of the team members will be slightly higher because we are using quite a lot of human effort which are fully experienced and have a high technical knowledge. By the way, all the costs are within the budget. When the task of the timeline is delayed, the budget might be affected due to project members might having overtime work.
- The equipment cost for the project will be within the budget. On the other hand, we cannot make sure whether the price will be updated or become higher.

Technology Assumption

- The suitable technology will be used in the projects such as application server and database server.
- There will be several servers as backup in order to avoid the failure of the server and cause the unwanted loss.

Schedule-Based Assumption

- All the required meetings will be conducted well and people who are involved in the project are required to attend the meeting. On the other hand, some of them might be absent due to any emergency.
- All the tasks will be allocated well and be completed on time by all the project team members.
- All the stage reports will be able to be generated at the end of the stage in order to update the latest process of the project. However, when they find any issue occurring, they will go through all the steps in the stage to make sure the requirements are based on request and correct.

Quality Assumption

- The project will have detailed testing for the system to make sure the requirements and the quality are the best and released to the client.
- We also make sure the hardware and software are the best and suitable for installation in the workplace in order to maintain the quality.

Project Dependencies

In this project, we are using the finish to start dependency. This is because we need to make sure all the steps are correct and move to the next step without problems or issues. This can avoid problems and require you to roll back to the previous step to repeat the work. This is one of the serious issues to avoid delay of the project cycle. At the first, we must have the several stage in order to conduct then project. The first stage will be System Concept Initiation. This stage will be considered and study on the current system and made analysis data. Next, we will have the requirement analysis stage which is collecting all the user requirements and system requirement. Next, follow by the system design and coding. This will able to show the user interface and first stage features. After having the user interface and features, they can only perform testing. Once testing is done, we only can perform deployment and training. Last, we planned to have monitoring and support after the live system is deployed.

Project Constraints

Time Constraints

In the project we have chosen to use the RAD process model, our project estimate duration is around 267 days to be done, it might be beyond their expected. Stakeholders may cut down the project time in order to fulfil their expected time. It could affect the project quality due to the given time limitation. In addition, due to the COVID pandemic, staff are not able to go back to the office to meet and update the project progress. Hence, currently work style will be changed to remote work (work from home), some of the unpredictable concerns is staff could face issues like internet issues, people who are not motivated, inactive, health issues etc. So, the project could be delayed when the concern happens. During the coding and testing phase, both teams will spend more time on it due to resolving the errors, checking correctness, quality standards and so on. When it comes to time limitation, the project teams will consider to cut down the other phrase duration in order to rush the project.

Cost Constraints

In this project cost overview, the preliminary budget is around RM260,000 and the stakeholder budget is RM400,000. When the project is kickstart, the cost might be differed due to the current economy status, currency exchange rate and server price etc. When the time limitation occurs, the project will need to put in more resources to catch up the due date time. In other cases, during this COVID pandemic many companies are suffering from economic disadvantages, the project might face budget cuts due to vendors losing or no longer cooperating. If there is a budget cut down, the project team will need to reduce the number of team members or decrease the pay rate to fulfil the budget restrictions. Besides, the project manager has to take time to rearrange the project planning.

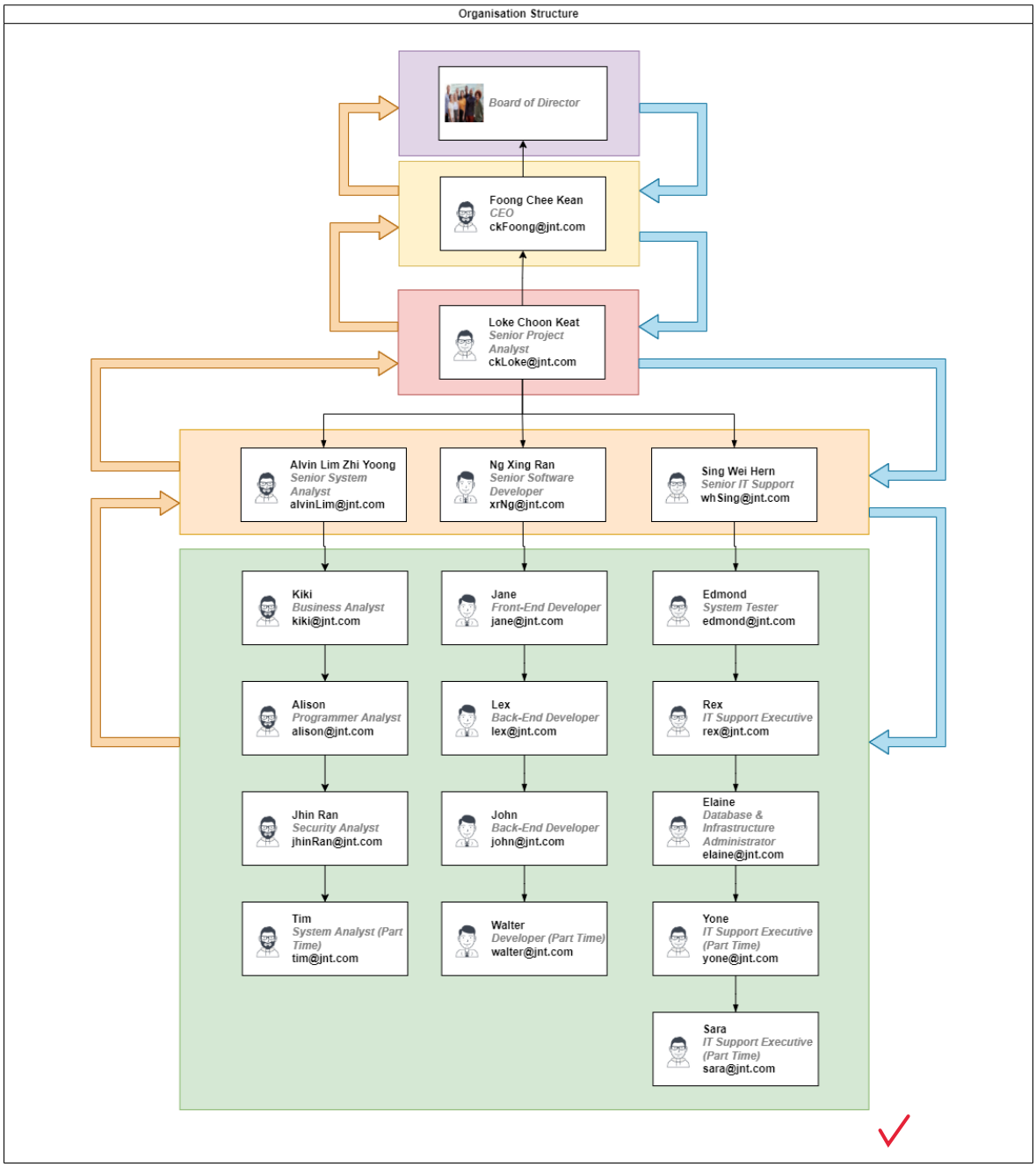
Scope Constraints

The deliverables can be created if there is not any cut down cost, time and serious factors might delay the project. So, after the main scope is done and there is budget and time allowed, the project team can proceed to do the exclusion scope. When the time and cost is limited, we will plan to have a discussion with stakeholders which part of the remaining deliverables that allow us to omit in order to meet the time and budget restrictions. During the requirement analysis phase, the discussion with stakeholders the project might have scope creep and cause the project scope to enlarge.

Quality Constraints

When the time is rushed, the project quality will be reduced and will not deliver as undertaking quality. Hence, it might cost more to maintain the quality based on the coding and testing stage. Coding stage will have to take an overtime pay rate to catch up the project duration. Hence, if the testing stage finds out many errors or defects the coding team will crumble. The cost constraint affecting the project scope will likely decrease and the quality will decline when it has an unexpected rise in cost. The most concern is the unstable economic environment, it could affect the database and application server cost. For the final deliverable, the project team needs to have inclusion of a minimum requirement website to stakeholders whenever a difficult situation occurs.

Project Organization and Governance



Project Communication Plan

Description	Frequency	Method	Audience	Owner
Name of the communication	How often?	Communication method	Who will receive the communication	Who is responsible
Project team meeting	Daily	Hybrid meeting (f2f & online)	Project team	Project manager
Stakeholder update	Every two weeks	Email	Stakeholders	Project manager
Board meeting	Every two weeks	Hybrid meeting (f2f & online)	Project board	Project manager

How the online meeting can be conducted? Google Meet?

Can have monthly meeting such as verification of works before next stage begin of a process model.

Project Quality Plan

First Quality Plan – Efficiency (Prepared by Loke Choon Keat)

Attribute Name	Efficiency
Description	Efficiency is the resources used in the system to fulfil the aims with the best performance which the resources are time, cost and human effort.
Quality Measurement	Time taken of the system to complete the order and made payment
Test	The tester will act as the staff to perform the task. First, the tester will key in the information that is provided by the customer such as receiver name, contact number and address. After key in all the details, the system is able to provide the delivery package such as delivery to the front door, hand to hand or drop point. Next, the system will show the parcel details confirmation before the receipt is printed. Last, the order had been done and the customer had made payment based on the package selected by using the system. The test had been delivered successfully.
Target Range	The order and payment had been successfully made within a short period of time which is 5 minutes.

Short answer.

Second Quality Plan – Reliability (Prepared by Alvin Lim Zhi Yoong)

Attribute Name	Reliability
Description	level of a system or components that executes certain operations over a particular time frame under a particular condition.
Quality Measurement	Metric • (Errors / KLOC) • (Defects / KLOC) The errors/defects count will be recorded down when the software is being tested. In the end of the testing, if the value obtained by the formula Errors/KLOC or Defects/KLOC were below 1, then the software will be reliable. Generally, below 1 error or defect found in every 1000 lines of code will be the best practice.
Test	• Daily operations such as receiving orders and managing delivery schedules. • Parcel status tracking and update • Delivery schedule scheduling ?
Target Range	• No errors occur when running a set of operations in 30 minutes • No failures occur when running a set of operations in 30 minutes Repeating point.

Third Quality Plan – Security (Prepared by Ng Xing Ran)

Attribute Name	Security
Description	To protect the company assets, data, information, person and system have the accurate access right to the appropriate class or type of authorization. It makes sure the system even when it is subjected to malicious attacks, its operation and functionalities remain unaffected.
Quality Measurement	In the test, the frequency of cyberattacks on the system within a week/month will be recorded. Besides, the system vulnerabilities testing will be carried out as a qualitative research project with a significant observation component.
Test	Tester will act as an attacker that attempts to breach the system monthly to measure that often it will happen. Hence, it was able to find out the known vulnerabilities and inner thread that exist in the system in order to specific the scope. Next, the test will try to allocate the vulnerability of account security. The system needs to block users for incorrect password login for a maximum 5 times within 5 hours. The tester will pretend to be a staff A trying login staff B account. Staff A will know the staff B username based on the default system generated, then attempts to use the common words that possible staff B will use for password.
Target Range	The system server will be down for a few hours(cyberattack) to do maintenance. The system will block the user account due to multiple times entering the wrong password. Repeating point from Test.

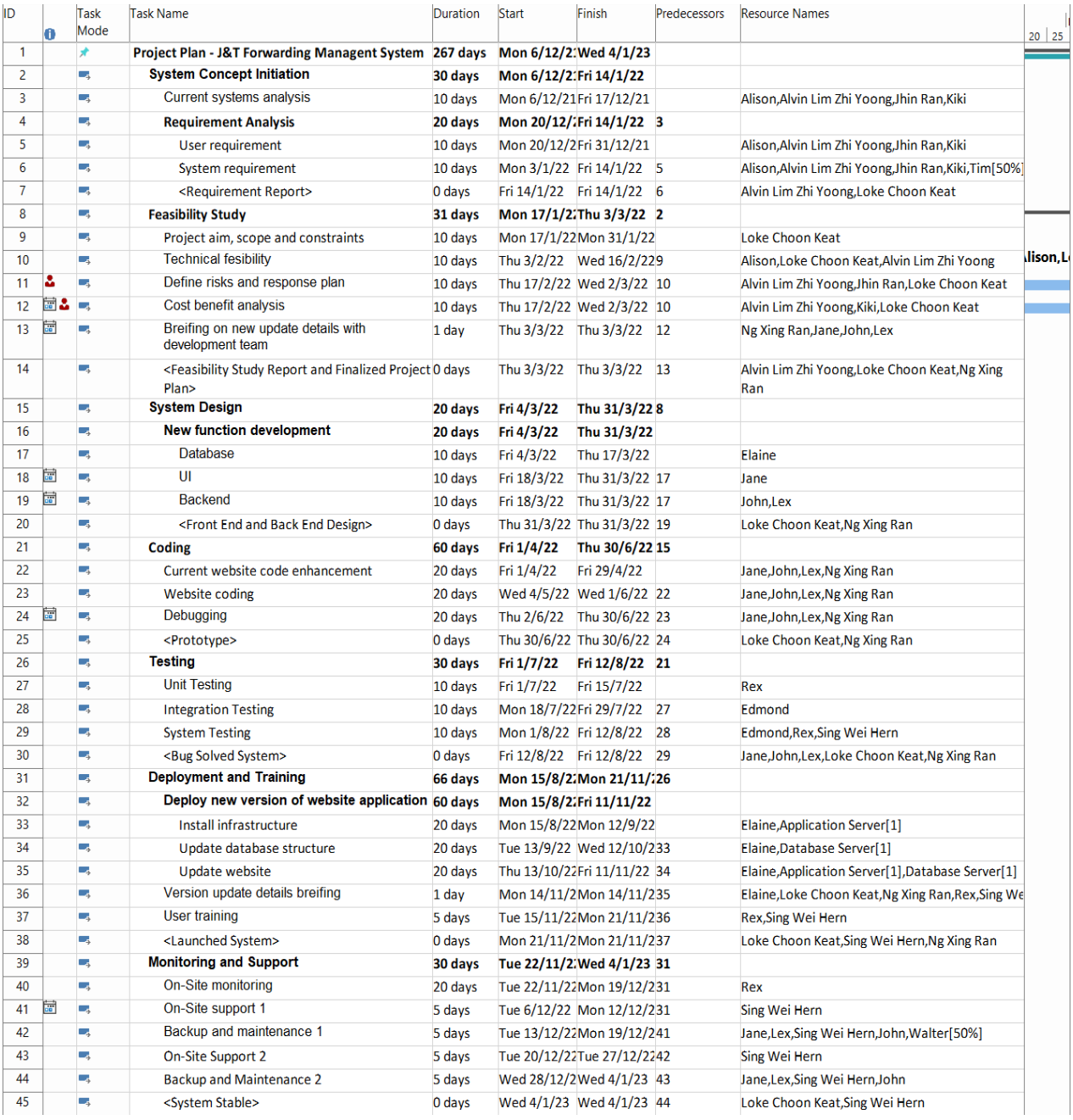
Fourth Quality Plan – Satisfaction (Prepared Sing Wei Hern)

Attribute Name	Satisfaction
Description	The degree of how the users feel when interacting with the system compared to their expectation. This can be in terms of the UI design, operation logic, usefulness, comfortability etc.
Quality Measurement	Customer Satisfaction Score (CSAT) that is specially made for the staff that uses the system. This tool is being used to ask the system user about their feeling and opinion about the current system performance and functions. Any unsatisfied points can be listed by the user so that the team could enhance the system more precisely.
Test	A survey conductor will randomly pick up around 40% of the system users to ask them to answer some questions related to the system usage such as UI design, smoothness, usefulness and so on. The survey will normally be measured via a 5-point scale, from "Extremely Satisfied" to "Extremely Unsatisfied". The average score of the survey will be calculated to get the satisfaction of the user of the system. Other testing?
Target Range	The average satisfaction score should be around 80%- 100%. If the score is lower than 80%, this means that the currently done project is having a serious problem that causes the user to feel unsatisfied with. So, the project manager or the one in charge needs to start to do the investigation and improvement on the system by undergoing a survey or interview with the staff.

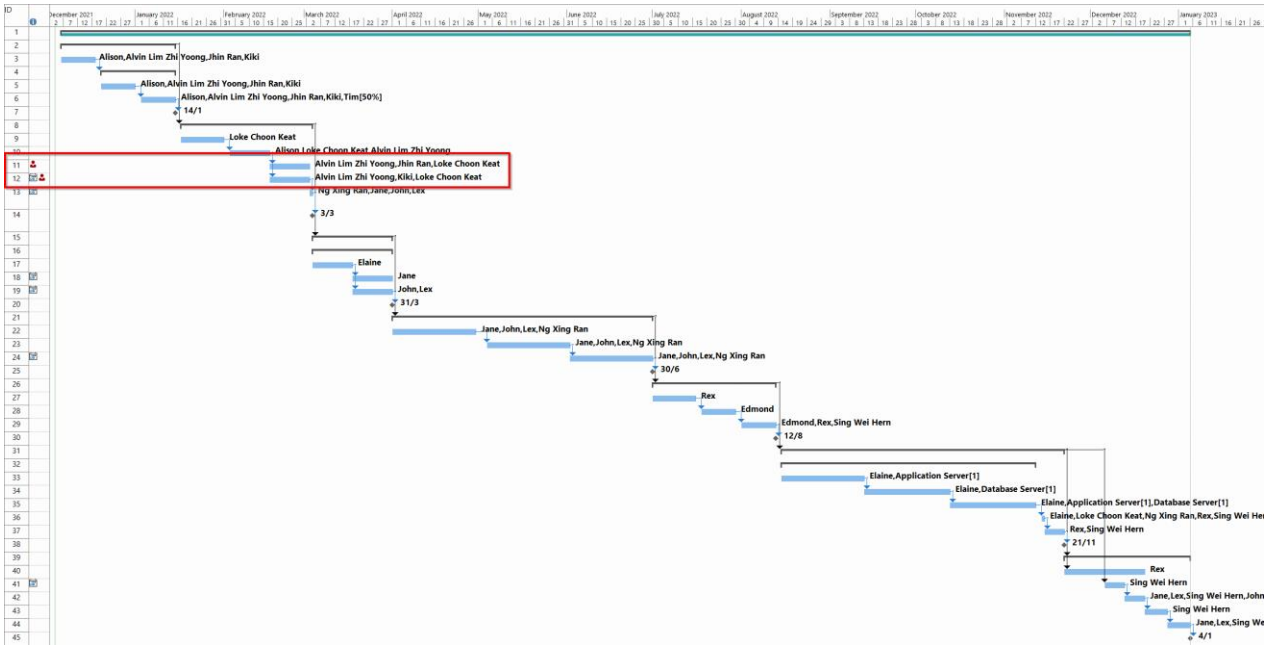
Initial Project Plan

At first, we have created a gantt chart for the project. The project is planned for duration around 267 days which the start day is 6/12/2021 and the end day was 4/1/2023.

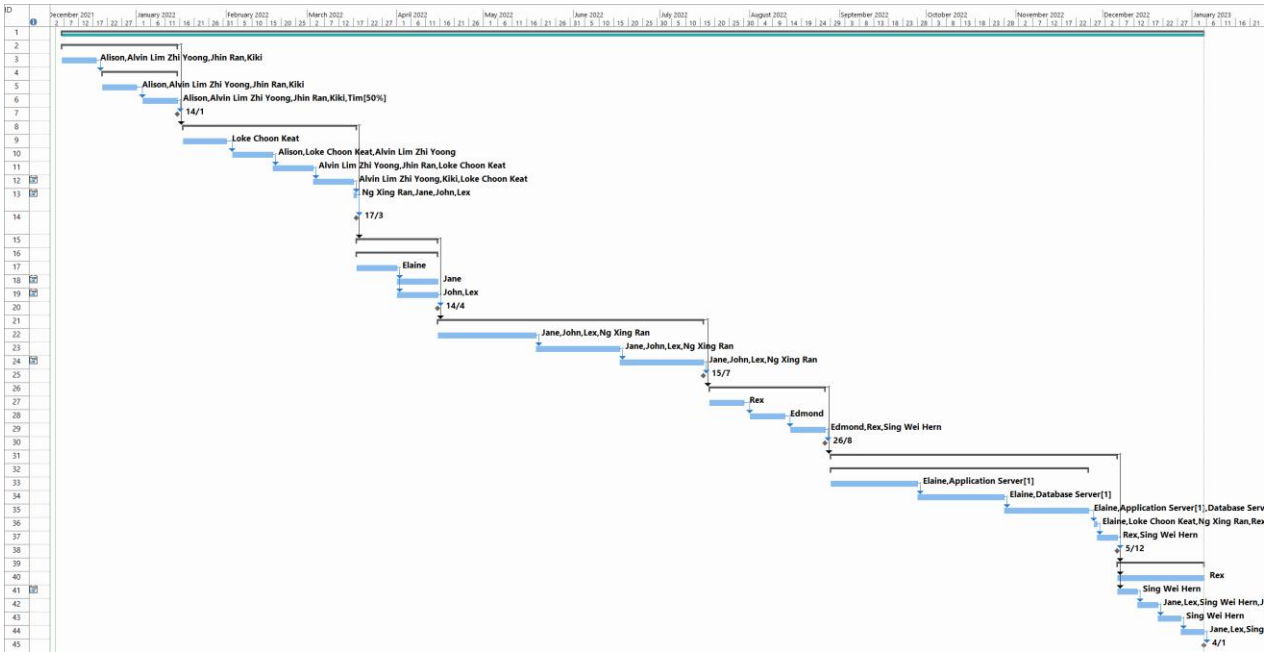
ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		**Project Plan - J&T Forwarding Managent System**	**267 days**	**Mon 6/12/2**	**Wed 4/1/23**		
2		**System Concept Initiation**	**30 days**	**Mon 6/12/2**	**Fri 14/1/22**		
3		Current systems analysis	10 days	Mon 6/12/21	Fri 17/12/21		Alison,Alvin Lim Zhi Yoong,Jhin Ran,Kiki
4		**Requirement Analysis**	**20 days**	**Mon 20/12/**	**Fri 14/1/22**	**3**	
5		User requirement	10 days	Mon 20/12/2	Fri 31/12/21		Alison,Alvin Lim Zhi Yoong,Jhin Ran,Kiki
6		System requirement	10 days	Mon 3/1/22	Fri 14/1/22	5	Alison,Alvin Lim Zhi Yoong,Jhin Ran,Kiki,Tim[50%]
7		<Requirement Report>	0 days	Fri 14/1/22	Fri 14/1/22	6	Alvin Lim Zhi Yoong,Loke Choon Keat
8		**Feasibility Study**	**31 days**	**Mon 17/1/2**	**Thu 3/3/22**	**2**	
9		Project aim, scope and constraints	10 days	Mon 17/1/22	Mon 31/1/22		Loke Choon Keat
10		Technical fesibility	10 days	Thu 3/2/22	Wed 16/2/22	9	Alison,Loke Choon Keat,Alvin Lim Zhi Yoong
11		Define risks and response plan	10 days	Thu 17/2/22	Wed 2/3/22	10	Alvin Lim Zhi Yoong,Jhin Ran,Loke Choon Keat
12		Cost benefit analysis	10 days	Thu 17/2/22	Wed 2/3/22	10	Alvin Lim Zhi Yoong,Kiki,Loke Choon Keat
13		Breifing on new update details with development team	1 day	Thu 3/3/22	Thu 3/3/22	12	Ng Xing Ran,Jane,John,Lex
14		<Feasibility Study Report and Finalized Project Plan>	0 days	Thu 3/3/22	Thu 3/3/22	13	Alvin Lim Zhi Yoong,Loke Choon Keat,Ng Xing Ran
15		**System Design**	**20 days**	**Fri 4/3/22**	**Thu 31/3/22**	**8**	
16		**New function development**	**20 days**	**Fri 4/3/22**	**Thu 31/3/22**		
17		Database	10 days	Fri 4/3/22	Thu 17/3/22		Elaine
18		UI	10 days	Fri 18/3/22	Thu 31/3/22	17	Jane
19		Backend	10 days	Fri 18/3/22	Thu 31/3/22	17	John,Lex
20		<Front End and Back End Design>	0 days	Thu 31/3/22	Thu 31/3/22	19	Loke Choon Keat,Ng Xing Ran
21		**Coding**	**60 days**	**Fri 1/4/22**	**Thu 30/6/22**	**15**	
22		Current website code enhancement	20 days	Fri 1/4/22	Fri 29/4/22		Jane,John,Lex,Ng Xing Ran
23		Website coding	20 days	Wed 4/5/22	Wed 1/6/22	22	Jane,John,Lex,Ng Xing Ran
24		Debugging	20 days	Thu 2/6/22	Thu 30/6/22	23	Jane,John,Lex,Ng Xing Ran
25		<Prototype>	0 days	Thu 30/6/22	Thu 30/6/22	24	Loke Choon Keat,Ng Xing Ran
26		**Testing**	**30 days**	**Fri 1/7/22**	**Fri 12/8/22**	**21**	
27		Unit Testing	10 days	Fri 1/7/22	Fri 15/7/22		Rex
28		Integration Testing	10 days	Mon 18/7/22	Fri 29/7/22	27	Edmond
29		System Testing	10 days	Mon 1/8/22	Fri 12/8/22	28	Edmond,Rex,Sing Wei Hern
30		<Bug Solved System>	0 days	Fri 12/8/22	Fri 12/8/22	29	Jane,John,Lex,Loke Choon Keat,Ng Xing Ran
31		**Deployment and Training**	**66 days**	**Mon 15/8/2**	**Mon 21/11/**	**26**	
32		**Deploy new version of website application**	**60 days**	**Mon 15/8/2**	**Fri 11/11/22**		
33		Install infrastructure	20 days	Mon 15/8/22	Mon 12/9/22		Elaine,Application Server[1]
34		Update database structure	20 days	Tue 13/9/22	Wed 12/10/2	33	Elaine,Database Server[1]
35		Update website	20 days	Thu 13/10/22	Fri 11/11/22	34	Elaine,Application Server[1],Database Server[1]
36		Version update details breifing	1 day	Mon 14/11/2	Mon 14/11/2	35	Elaine,Loke Choon Keat,Ng Xing Ran,Rex,Sing We
37		User training	5 days	Tue 15/11/22	Mon 21/11/2	36	Rex,Sing Wei Hern
38		<Launched System>	0 days	Mon 21/11/2	Mon 21/11/2	37	Loke Choon Keat,Sing Wei Hern,Ng Xing Ran
39		**Monitoring and Support**	**30 days**	**Tue 22/11/2**	**Wed 4/1/23**	**31**	
40		On-Site monitoring	20 days	Tue 22/11/22	Mon 19/12/2	31	Rex
41		On-Site support 1	5 days	Tue 6/12/22	Mon 12/12/2	31	Sing Wei Hern
42		Backup and maintenance 1	5 days	Tue 13/12/22	Mon 19/12/2	41	Jane,Lex,Sing Wei Hern,John,Walter[50%]
43		On-Site Support 2	5 days	Tue 20/12/22	Tue 27/12/22	42	Sing Wei Hern
44		Backup and Maintenance 2	5 days	Wed 28/12/2	Wed 4/1/23	43	Jane,Lex,Sing Wei Hern,John
45		<System Stable>	0 days	Wed 4/1/23	Wed 4/1/23	44	Loke Choon Keat,Sing Wei Hern



Other than this, we also allocated all resources to all the required task. There are also happened over allocated resources to the task when all resources are allocated.



The task is required the same resources to process at the same time, but it happened over allocated situation. So, we had planned to put predecessor for the task no.12 which is finish to start method and task no.12 have to wait task no.11 finish only can start. Once the over allocated issue is solved, the project plan cycle will go smooth and without any resources over allocated.



Next, we also have inserted all the resources which display at the Resource Sheet.

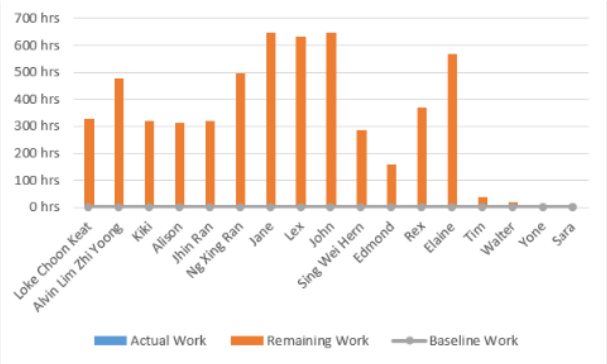
	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base	Code	Position
1	**Loke Choon Keat**	Work		L	Project Manager	100%	RM70.00/hr	M100.00/hr	RM0.00	Prorated	Standard	L1	Senior Project Analyst
2	**Alvin Lim Zhi Yoong**	Work		A	1(Leader)	100%	RM60.00/hr	RM90.00/hr	RM0.00	Prorated	Standard	A1	Senior System Analyst
3	Kiki	Work		K	1	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	K1	Business Analyst
4	Alison	Work		A	1	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	A2	Programmer Analyst
5	Jhin Ran	Work		J	1	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	J1	Security Analyst
6	**Ng Xing Ran**	Work		N	2(Leader)	100%	RM60.00/hr	RM90.00/hr	RM0.00	Prorated	Standard	N1	Senior Software Developer
7	Jane	Work		J	2	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	J2	Front-End Developer
8	Lex	Work		L	2	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	L2	Back-End Developer
9	John	Work		J	2	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	J3	Back-End Developer
10	**Sing Wei Hern**	Work		S	3(Leader)	100%	RM60.00/hr	RM90.00/hr	RM0.00	Prorated	Standard	S1	Senior IT Support
11	Edmond	Work		E	3	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	E1	System Tester
12	Rex	Work		R	3	100%	RM50.00/hr	RM80.00/hr	RM0.00	Prorated	Standard	R1	IT Support Executive
13	Elaine	Work		E	3	100%	RM0.00/hr	RM0.00/hr	RM0.00	Prorated	Standard	E2	Database & Infrastructure Adminstrator
14	Database Server	Material		D	Shared		RM0.00		RM100.00	Prorated		DS1	DELL Server
15	Application Server	Material		A	Shared		RM0.00		RM100.00	Prorated		AS1	Oracle Repository
16	Tim	Work		T	1	50%	RM55.00/hr	RM0.00/hr	RM0.00	Prorated	Standard	T1	System Analyst (Part Time)
17	Walter	Work		W	2	50%	RM55.00/hr	RM0.00/hr	RM0.00	Prorated	Standard	W1	Developer (Part Time)
18	Yone	Work		Y	3	50%	RM50.00/hr	RM0.00/hr	RM0.00	Prorated	Standard	Y1	IT Support Executive (Part Time)
19	Sara	Work		S	3	50%	RM50.00/hr	RM0.00/hr	RM0.00	Prorated	Standard	S2	IT Support Executive (Part Time)

There is also a summary for the resource overview which show the workload of the resources.

RESOURCE OVERVIEW

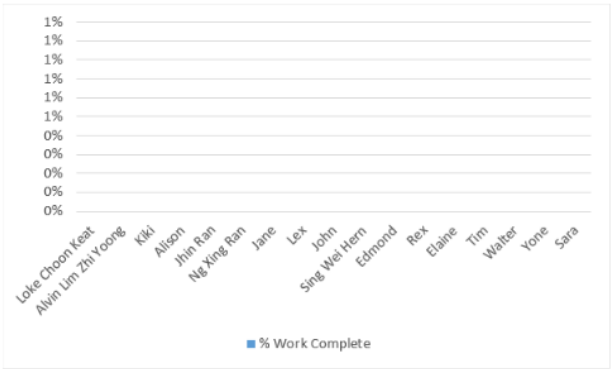
RESOURCE STATS

Work status for all work resources.



WORK STATUS

% work done by all the work resources.

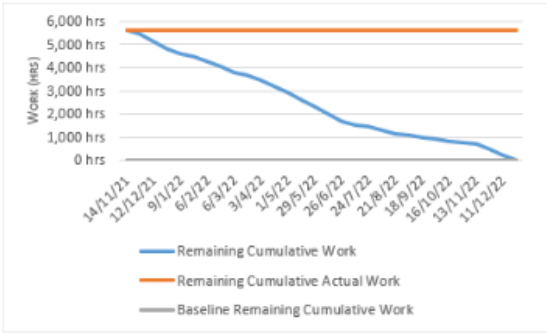


RESOURCE STATUS

Remaining work for all work resources.

Name	Start	Finish	Remaining Work
Loke Choon Keat	Fri 14/1/22	Wed 4/1/23	328 hrs
Alvin Lim Zhi Yoong	Mon 6/12/21	Thu 17/3/22	480 hrs
Kiki	Mon 6/12/21	Wed 16/3/22	320 hrs
Alison	Mon 6/12/21	Wed 16/2/22	312 hrs
Jhin Ran	Mon 6/12/21	Wed 2/3/22	320 hrs
Ng Xing Ran	Thu 17/3/22	Mon 5/12/22	496 hrs
Jane	Thu 17/3/22	Wed 4/1/23	648 hrs
Lex	Thu 17/3/22	Wed 4/1/23	632 hrs
John	Thu 17/3/22	Wed 4/1/23	648 hrs
Sing Wei Hern	Mon 15/8/22	Wed 4/1/23	288 hrs
Edmond	Mon 1/8/22	Fri 26/8/22	160 hrs
Rex	Mon 18/7/22	Wed 4/1/23	368 hrs
Elaine	Fri 18/3/22	Mon 28/11/22	568 hrs
Tim	Mon 3/1/22	Fri 14/1/22	40 hrs
Walter	Tue 13/12/22	Mon 19/12/22	20 hrs
Yone	NA	NA	0 hrs
Sara	NA	NA	0 hrs

WORK OVERVIEW

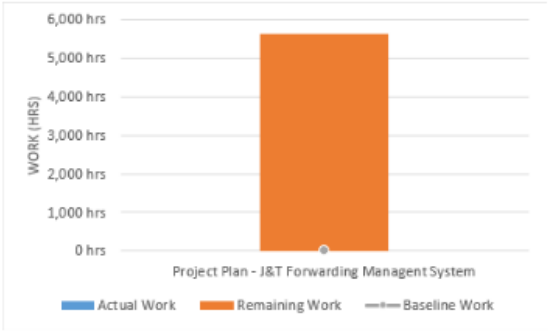


WORK BURNDOWN

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 OVERVIEW

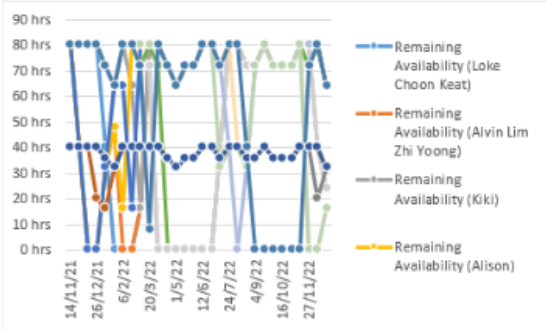
Mon 6/12/21 - Wed 4/1/23

WORK STATS

Shows work stats for all top level tasks.

RESOURCE STATS

Shows work stats for all your resources.



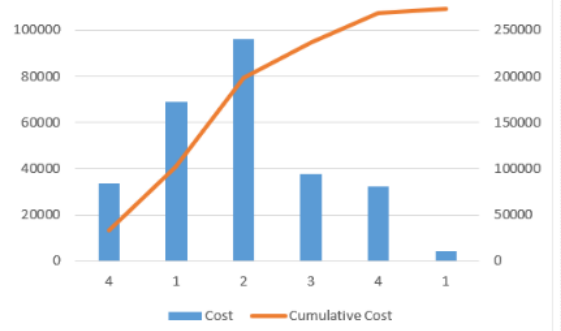
REMAINING AVAILABILITY

Shows remaining availability for all work resources.

On the other hand, we also have the cash flow report which can show our project cost variance which is RM269,000 and actual cost. In this project, we have not start to launch, so the actual cost will remain RM0.00.

CASH FLOW

Actual Cost	Baseline Cost	Remaining Cost	Cost Variance
RM0.00	RM0.00	RM272,900.00	RM272,900.00



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
System Concept Initiation	RM52,200.00	RM0.00	RM52,200.00	RM0.00	RM0.00	RM0.00
Feasibility Study	RM50,480.00	RM0.00	RM50,480.00	RM0.00	RM0.00	RM0.00
System Design	RM12,000.00	RM0.00	RM12,000.00	RM0.00	RM0.00	RM0.00
Coding	RM100,800.00	RM0.00	RM100,800.00	RM0.00	RM0.00	RM0.00
Testing	RM20,800.00	RM0.00	RM20,800.00	RM0.00	RM0.00	RM0.00
Deployment and Training	RM6,720.00	RM0.00	RM6,720.00	RM0.00	RM0.00	RM0.00
Monitoring and Support	RM29,900.00	RM0.00	RM29,900.00	RM0.00	RM0.00	RM0.00

Other than this, we also had the model scoring sheet to measure the qualification of the team members.

No	Staff	Leadership Skill	Technical Skill	Communication Skill	Delegation skill	Background & Experience	Total		Department
		20%	20%	20%	20%	20%	100%		
1	Alvin Lim Zhi Yoong	18%	19%	17%	18%	19%	91%	<- Significantly higher than others	IT
2	Alison	16%	18%	17%	16%	18%	85%		IT
3	Edmond	15%	17%	17%	16%	17%	82%		IT
4	Elaine	15%	18%	17%	14%	19%	83%		IT
5	Jane	17%	17%	16%	15%	18%	83%		IT
6	Jhin Ran	15%	18%	18%	16%	17%	84%		IT
7	John	14%	18%	17%	17%	16%	82%		IT
8	Kiki	15%	17%	19%	15%	17%	83%		IT
9	Lex	17%	17%	16%	15%	18%	83%		IT
10	Loke Choon Keat	19%	17%	18%	19%	19%	92%	<- Highest Score	IT
11	Ng Xing Ran	18%	19%	17%	18%	18%	90%	<- Significantly higher than others	IT
12	Rex	14%	16%	17%	16%	17%	80%		IT
13	Sara	13%	16%	16%	14%	14%	73%	<- Lack of experience	IT
14	Sing Wei Hern	18%	17%	19%	19%	17%	90%	<- Significantly higher than others	IT
15	Tim	14%	17%	16%	16%	15%	78%	<- Score slightly lower than others, Backup staff	IT
16	Walter	15%	15%	15%	15%	15%	75%	<- Score slightly lower than others, Backup staff	IT
17	Yone	14%	18%	16%	15%	16%	79%	<- Score slightly lower than others, Backup staff	IT

Description					
Loke Choon Keat	Excellent leadership	Average IT skills	Being able to efficiently con	Being able to assign a	Past IT project management success
Alvin Lim Zhi Yoong	Good leaderships	Excellent IT Skills	Average Coomunication skil	Good delegation skills	Experienced Software Engineer
Ng Xing Ran	Good leaderships	Excellent IT Skills	Average Coomunication skil	Good delegation skills	Experienced in Software develop
Sing Wei Hern	Good leaderships	Average IT skills	Efficiently communicate wi	Good delegation skills	Good at identify customer problem faced and guidances
Kiki					Good business background
Alison					Senior developer
Jhin Ran					Master analytical thinking and problem-solving
Jane					Experienced in web application, UI design
Lex					Senior developer
John					Senior developer
Edmond					Good at finding error, missing requirements
Rex					Good at identify customer problem faced and guidances
Elain					Excellent skills in database management
Tim	As a part time staff				Average techinical skill but lack of experience
Walter	As a part time staff				Average techinical skill but lack of experience
Yone	As a part time staff				Good techinical skill but lack of experience

Project Control

People Control

- Undergo a performance evaluation for the staff once every four months to ensure that the physical and mental condition of the staff is at the best condition. Try to incorporate with the Human Resource (HR) department in order to improve and maintain it.
- Any complaints or suggestions done by the staff should be listened to and handled well to avoid any unwanted problems to happen.

Cost Control

- Monitor the usage of resources and make sure that there are no any misuses by any staff
- Follow up and monitor the latest price for all the needed materials and equipment to get the most valuable and best price-performance ratio at the right time

Time Control

- Using project planning tools to schedule activities to well define the project workflow.
- Having an estimation in resources and duration in order to plan the second path whenever there is a critical situation.

Quality Control

- Every week having a meeting with the project team and stakeholder to follow up the project progress and figure out the solving plan if any problems occurred.
- Have a system and equipment maintenance every month to ensure the whole system and project is in the best condition hence would not interrupt the process.

Initial Risk Log

Risk - Delivery Deadline will be tightened (Prepared by Loke Choon Keat)

Risk Name	Category	Probability (%)	Impact	RMMM
Delivery Deadline will be tightened No descriptions.	BU	40%	2	**Mitigation** • Make a proper and well planning before doing the development ✓ • Make sure there are backup members to cover the emergency leave members in the plan. **Monitoring** • keep track the development stage process to make sure all the process is on time as planned in the project cycle. ✓ **Management** • Negotiate with customer for extend the deadline • Project team members might need to have overtime work in order to follow the timeline for the project cycle. ✓

Risk - Insufficient knowledge on programming techniques or tools (Prepared by Alvin Lim Zhi Yoong)

Risk Name	Category	Probability (%)	Impact	RMMM
Insufficient knowledge on programming techniques or tools No descriptions.	ST	20	3	Mitigation: • Brief the programming techniques or tools that are required by the project before it starts. ✓ • Assign the task according to the knowledge field of the staff. • Give sufficient time for team members to study the relevant topics before the project starts. Monitoring: • Supervising on the work done by the team members to make sure it goes on the right track. ✓ • Having a full testing on the software before deploying it at the user site. Management: • Negotiate with the customer site to delay the software deployment date, so the team members will have sufficient time to study the new knowledge. ✓

Risk – Staff Turnover (Prepared by Sing Wei Hern)

Risk Name	Category	Probability (%)	Impact	RMMM
Staff turnover No descriptions.	ST	30%	3	Mitigation: • Do some meetings or talks with the staff to understand the reason for them to turnover.✓ • Arrange and distribute the jobs and workloads to all individuals in the team evenly before the actual progress starts. Monitoring: • Monitor the work pressure and motivation of the team members during the whole progress ✓ • Have a small gathering every weekend to release the stress and help to enhance the peership between each team member. Management: • Make sure the progress done by the staff that leaving has been backed up ✓ • The staff will have to pass over the knowledge across the team and especially the new comer

Risk – Technology out of expectation (Prepared by Ng Xing Ran)

Risk Name	Category	Probability (%)	Impact	RMMM
Unfamiliar with the new technology No descriptions.	TE	30%	4	Mitigation: • Referring back the project goals and objective to ensure the project is on track ✗ • Encourage project members to illuminate the issue during the project meeting. • Hiring a software developer that is familiar with the new technology to guide the team. ✓ Monitoring: • Keep tracking every team progress and reporting the requirement ✓ • Discuss and conclude the meeting summary and planning the next steps Management: • Every week having a meeting with the project team and stakeholder in order to update the project progress. • Giving the project member training with the aim of letting project members get used/ familiar with new technology. ✓

References

What are Project Assumptions? | *Wrike* (n.d.). Available at: https://www.wrike.com/blog/what-are-project-assumptions/ (Accessed: 4 December 2021).

What are Project Assumptions? | *Wrike* (n.d.). Available at: https://www.wrike.com/blog/what-are-project-assumptions/ (Accessed: 4 December 2021).