UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

SEMESTER II 2023/2024

SYSTEM ANALYSIS AND DESIGN (SECD2613)

PHASE 1

PROJECT PROPOSAL & PLANNING REPORT

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SECTION: 08

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1.0 Introduction

Restaurant Management System (RMS) are becoming indispensable tools in current's restaurant business for improving client experiences and optimizing operations. However, plenty of restaurants, for instance Siao Sheng Ya, are having problems with their existing RMS.

At present, the Siao Sheng Ya restaurant's manager, Mr. Kiho states that the restaurant only accepts orders from diners and takeout customers using a primitive RMS. However, this system lacks crucial features such as advanced reservation capabilities, online payment options and delivery administration. In addition to this, processing payments and entering orders by hand at the counter causes inefficiencies and service delays. Due to its restricted capabilities, the restaurant is unable to effectively compete in the market and adapt to changing client needs.

Mr. Kiho intends to improve the current RMS to better serve the demands of the restaurant's patrons in order to address these issues. In order to maintain its competitive edge in the fast-paced restaurants sector of nowadays, Mr. Kiho is modernizing its system to incorporate enhanced reservation capabilities, delivery management and online payment choices.

2.0 Background Study

Currently, Siao Sheng Ya restaurant relies on a basic restaurant management system (RMS) to handle its daily operations, encompassing food ordering, menu display, and pick-up services for dining in or takeout orders. Despite its reputation for delectable cuisine, the restaurant grapples with inefficiencies in delivery management, reservation capabilities, and payment methods. Mr. Kiho, the proprietor, has turned to DineDart.com, a robust platform, to optimize his operations and enhance customer service.

Additionally, Mr. Kiho has observed a significant number of students and low-income families patronizing his establishment. Recognizing the need to cater to their needs, he contemplates offering a dedicated menu tailored to their preferences, aiming to provide a welcoming atmosphere for all patrons. In the fiercely competitive restaurant industry, customer satisfaction is paramount. However, Siao Sheng Ya faces challenges in delivering seamless dining experiences and promptly addressing customer inquiries.

The current pick-up service falls short of meeting service standards and fostering customer loyalty. Moreover, the limited payment options, particularly the requirement to pay at the counter, result in long queues and inconvenience for customers. The absence of a reservation system further compounds the issue, forcing patrons to wait in line, leading to frustration and potential loss of business.

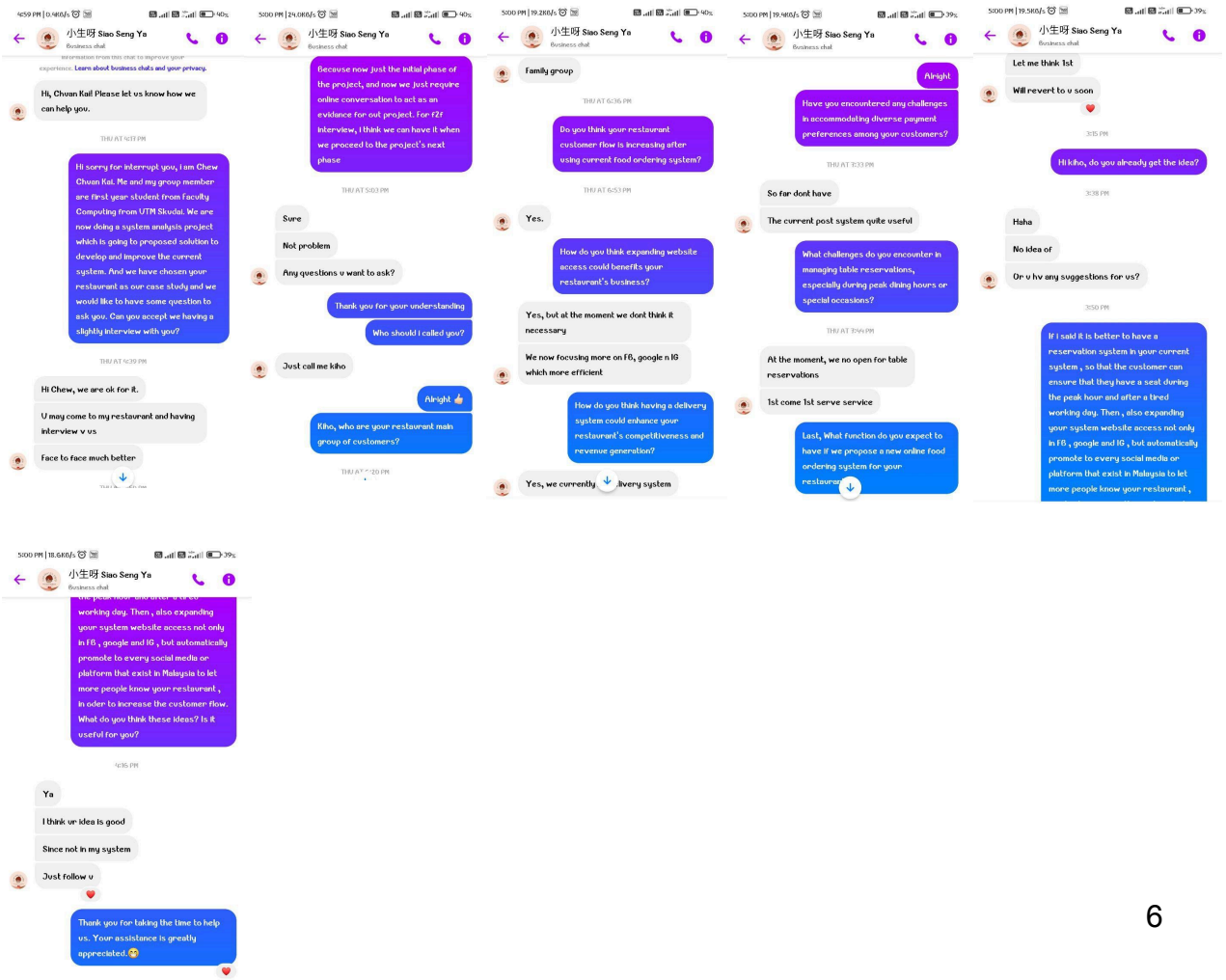
To address these challenges, Siao Sheng Ya seeks to digitize key operational processes, including delivery management, payment processing, catering menus, and reservation capabilities. By leveraging the capabilities of DineDart.com, the restaurant aims to streamline operations, enhance service efficiency, and elevate the overall dining experience for its customers. Through innovative technology and seamless integration, Siao Sheng Ya endeavors to delight customers and achieve excellence in its business operations.

Interview with Siao Sheng Ya

This interview we are using the pyramid structure to arrange our interview questions with Siao Sheng Ya. By this arranging questions, the interviewee, Mr Kiho is able to warmed up to the topic we are going to discuss.

Type of questions	Interview questions	
Introduction	Interviewer	Hi sorry for interrupt you, i am Chew Chuan Kai. Me and my group member are first year student from Faculty Computing from UTM Skudai. We are now doing a system analysis project which is going to proposed solution to develop and improve the current system. And we have chosen your restaurant as our case study and we would like to have some question to ask you. Can you accept we having a slightly interview with you?
	Interviewee	Sure! Not problem. Any questions u want to ask?
Closed-ended question	Interviewer	Who should i called you?
	Interviewee	Just call me kiho.
Closed-ended question	Interviewer	Kiho, who are your restaurant main group of customers?
	Interviewee	Family group.
Closed-ended question	Interviewer	Do you think your restaurant customer flow is increasing after using current food ordering system?
	Interviewee	Yes.
Open-ended question	Interviewer	How do you think expanding website access could benefits your restaurant's business?
	Interviewee	Yes, but at the moment we dont think it necessary. We now focusing more on FB, google n IG which more efficient
Open-ended question	Interviewer	How do you think having a delivery system could enhance your restaurant's competitiveness and revenue generation?
	Interviewee	Yes, we currently hv delivery system.
Open-ended question	Interviewer	Have you encountered any challenges in accommodating diverse payment preferences

		among your customers?
	Interviewee	So far don't have. The current post system quite useful
Open-ended question	Interviewer	What challenges do you encounter in managing table reservations, especially during peak dining hours or special occasions?
	Interviewee	At the moment, we no open for table reservations, 1st come 1st serve service.
Open-ended question	Interviewer	Last, What function do you expect to have if we propose a new online food ordering system for your restaurant?
	Interviewee	It is better to have a reservation system in current system , so that the customer can ensure that they have a seat during the peak hour and after a tired working day. Then , also expanding the system website access not only in FB , google and IG , but automatically promote to every social media or platform that exist in Malaysia to let more people know our restaurant , in oder to increase the customer flow.



3.0 Problem Statement

1. Limited Website Access

Many restaurants have websites primarily designed to showcase their menu, ambiance, and location. However, access to these websites is often restricted to patrons physically present in the restaurant. This limitation arises from a traditional mind-set that views the website as an extension of the physical establishment rather than a tool for reaching potential customers beyond the premises. Consequently, individuals seeking information about the restaurant's offerings, making reservations, or placing delivery orders are unable to do so without visiting the restaurant in person. This restricts the restaurant's ability to attract new customers and limits the convenience for existing ones, particularly those who prefer to plan their dining experiences in advance or order food for delivery.

2. Lack of Reservation System

In the absence of a reservation system, customers may encounter difficulties securing a table, especially during peak dining hours or for special occasions such as holidays or anniversaries. This can lead to frustration, longer wait times, or even loss of business if potential diners opt for alternative establishments with reservation capabilities. Moreover, without a centralized system for managing reservations, restaurant staff may struggle to keep track of bookings, leading to overbooking or underutilization of available seating capacity. As a result, both customers and restaurant management are inconvenienced, impacting overall satisfaction and operational efficiency.

3. Absence of Delivery System

With the rise of food delivery platforms and changing consumer preferences, offering delivery services has become increasingly important for restaurants to remain competitive and meet the evolving needs of their customers. However, many restaurants still lack an integrated delivery system, relying instead on third-party delivery services that may impose high commission fees and compromise the restaurant's Brand experience. By not having control over the delivery process, restaurants risk inconsistency in food quality, longer delivery times, and potential disputes with delivery partners. Additionally, without a direct delivery option,

restaurants miss out on potential revenue streams from customers who prefer the convenience of having food delivered to their doorstep.

4. Limited Payment Methods

The payment landscape has evolved significantly with the advent of digital payment technologies, yet some restaurants continue to offer limited payment options such as cash-only or a select few credit/debit cards. This poses challenges for customers who prefer alternative payment methods such as mobile wallets, online payment platforms, or contactless transactions. By not accommodating diverse payment preferences, restaurants risk alienating a segment of their customer base and may lose out on potential sales opportunities. Moreover, in an increasingly cashless society, relying solely on cash payments may hinder operational efficiency and increase the risk of errors or theft.

5. Difficulty in Switching Menu Interface

Mr Kiho found that switching menu interfaces presents a formidable challenge. Each time he attempts to make a transition, he encounters a barrage of error codes that disrupt the process, necessitating the involvement of technicians to rectify the issues. This not only incurs significant expenses but also results in considerable time delays, hindering our ability to adapt our menu promptly to meet customer demands or market trends. The impact of this problem goes beyond financial and operational concerns; it also affects the overall customer experience. Inaccurate or outdated menu information can lead to dissatisfaction among patrons, eroding trust and potentially driving them to seek dining alternatives. This ongoing difficulty in switching menu interfaces poses a substantial obstacle to our business's efficiency and competitiveness in the market.

4.0 Proposed Solutions

DineDart system is a solution designed to revolutionize the dining experience for both customers and restaurant owner, Mr. Kiho. With a focus on convenience and efficiency, DineDart seamlessly integrates online ordering, reservation management, delivery services, and streamlined payment options.

One of the key features of the enhanced system is the ability for customers to place their orders online, eliminating the need to physically visit the restaurant or scan QR codes. This empowers customers to enjoy their favorite meals from the comfort of their homes or offices, enhancing convenience and accessibility.

Furthermore, the integration of a reservation system adds another layer of convenience for both Mr. Kiho and his customers. By managing table bookings effectively, Mr. Kiho can ensure a smoother dining experience, minimizing overcrowding and wait times. For customers, this means they can secure a table in advance and enjoy their meals without unnecessary delays.

Recognizing the growing preference for delivery services, DineDart now offers internal delivery options. This expansion extends Mr. Kiho's customer reach beyond the immediate vicinity of the restaurant, catering to a wider audience and increasing sales potential.

In addition to enhancing the ordering and dining experience, DineDart simplifies the payment process. By offering online payment options, customers can settle their bills from their seats, eliminating the need to queue at the counter. This not only adds convenience but also enhances security by promoting cashless transactions, addressing Mr. Kiho's safety concerns.

Moreover, DineDart empowers Mr. Kiho with greater control over his menu structure. Previously, menu alterations required intervention from a programmer, incurring additional costs and delays. Now, with administrative privileges, Mr. Kiho can customize his menu effortlessly. For instance, he can introduce a new menu column called "Menu Rahmah," reflecting his personal touch and preferences. This special menu column designed to provide affordable meal options for individuals facing financial constraints, such as those in the B40 group.

4.1 Feasibility Study

4.1.1 Technical Feasibility

DineDart.com is a versatile platform accessible via mobile or PC, requiring only a gadget, server, and internet access. To ensure secure transactions, the website integrates robust payment gateways, safeguarding customer payment details. A dependable reservation system orchestrates seamless coordination between reservations and orders, enhancing customer experience. Additionally, an in-house delivery system is established, encompassing logistics setup, delivery personnel coordination, and integrated tracking features, enriching the DineDart platform.

4.1.2 Operational Feasibility

The DineDart website requires Information System (IS) support due to its extensive features such as payment gateways, reservation system, and delivery system. This support ensures vigilant supervision and maintenance, preventing bugs or glitches from affecting the seamless functioning of these critical components.

4.1.3 Economic Feasibility (CBA)

Assumptions	
Discount rate	**10%**
Sensitivity factor (costs)	**1.1**
Sensitivity factor (benefits)	**0.9**
Annual change in production costs	**5%**
Annual change in benefits	**7%**

Estimated costs	
Hardware	**RM 10000**
Software development	**RM 15000**
Maintenance	**RM 3000 per year**
Advertising	**RM 6000 per year**
Salary	**RM 31000 per year**

Estimated costs	
Increase Sales	**RM 30000 per year**
Savings	**RM 45000 per year**

Costs	Year 0	Year 1	Year 2	Year 3
Development Costs				
• **Hardware**	**11000**			
• **Software development**	**16500**			
Total	**27500**			
Production Costs				
• **Maintenance**		**3300**	**3465**	**3638**
• **Advertisement**		**6600**	**6930**	**7277**
• **Salary**		**34100**	**35805**	**37595**
Annual Production Cost **(Present Value)**		**44000** **40000**	**46200** **38182**	**48510** **36446**
Accumulated Costs		**62000**	**100182**	**136628**

Benefits	Year 0	Year 1	Year 2	Year 3
Increase Sales		**27000**	**28890**	**30912**
Saving		**40500**	**43335**	**46368**
Annual inventory costs **(Present Value)**		**67500** **61364**	**72225** **59690**	**77280** **58062**
Accumulated benefits		**61364**	**121054**	**179116**
Gain or Loss		**(636)**	**20872**	**42488**
Profitability Index	**1.55**			

Profitability index = 1.55, showing that this project is a good investment because of its index is greater than one.

5.0 Objectives

We set a handful objectives to improvise and simplify our client's difficulties which are introduced above:

1. To provide the customers with a better way to reserve a seat in the restaurant.
2. To organize the way of ordering the menu in the restaurant.
3. To give an option for a customer to have their food delivered to their home.
4. To reduce the owner's worker time for taking orders for each table.
5. To encourage clients for a cashless payment.

6.0 Scope of the Project

6.1 Project Scope

We are committed to improving the system that helps a restaurant owner for a better way of handling the premises. Aside from that, the customers also can navigate the reservation section and select the date, time, number of guests, and seating preferences. The system provides a few features to enhance the user experience for a good reason. As an example, the owner will not need to go to each table for a customer's order apart from that, the customer also doesn't need to queue up for in-store payment. In addition, there is also a delivery option for the customers sent to their destination. Finally, there are two types of clients which are owners and customers, and each of the different types of clients will have different ways of using this system.

For owner:

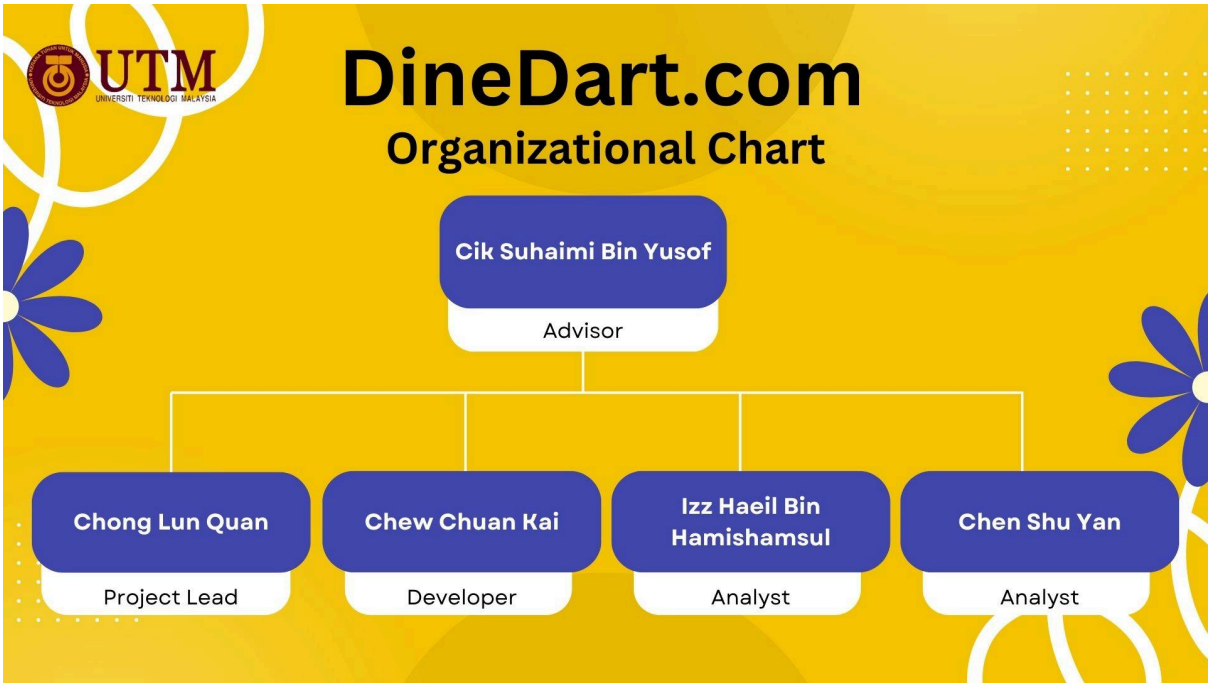
In this system, the owner is an administrator of the system have a privilege to modify the inventory data conveniently. They can list all the dishes in the menu for advertising and receiving the order from the customers. Furthermore, the orders for pick up, reservations or delivering will be separated to each of the workers who conduct their departments systematically. Last but not least, the owner can set up the time period for shipping of the order from the customers based on the order received.

For customers:

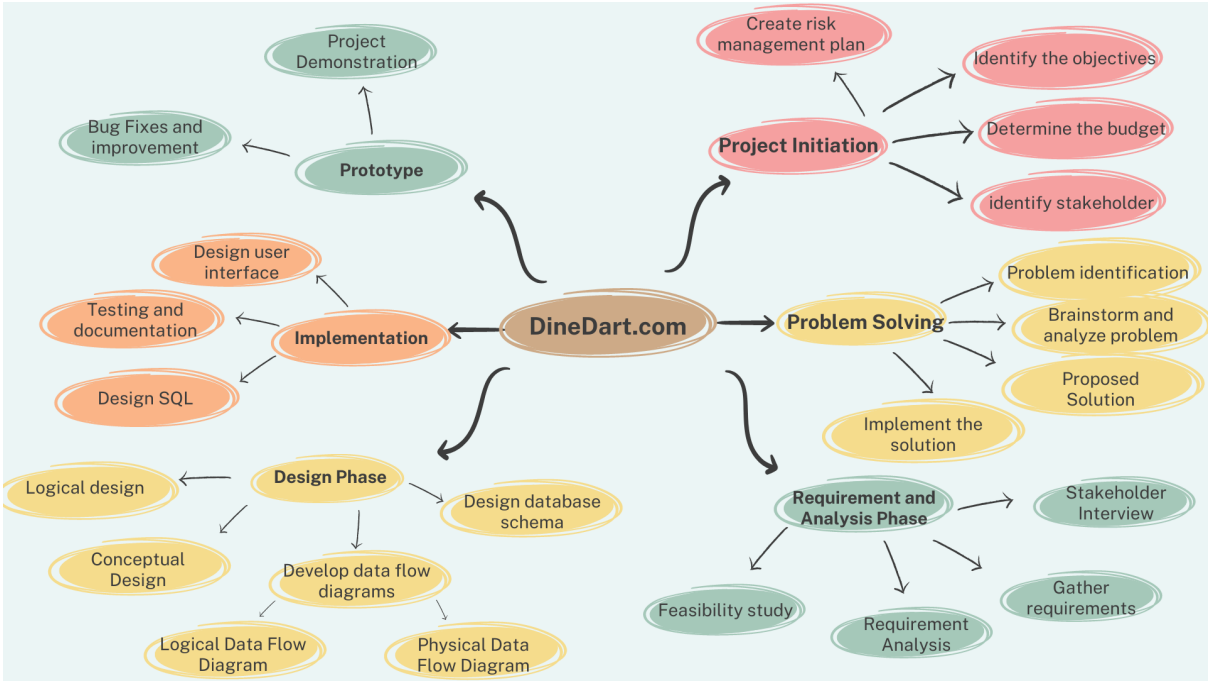
The system will need the customers to fill in their phone number and name for keep in touch with the order or reservation details. Then, the system will show all the menu in the premise with a different section for beverage and food. Besides, the customers can sort out the menu by the price range for the search of “Menu Rahmah” easily. There are options of paying provided based on how the order will be. For instance, customers who pick up the order will need to pay via online banking or in-store payment, but in-store eating will provide a QR code for payment method with a security verification which allows the customers to upload a screenshot of the payment to the system.

7.0 Project Planning

7.1 Human Resource

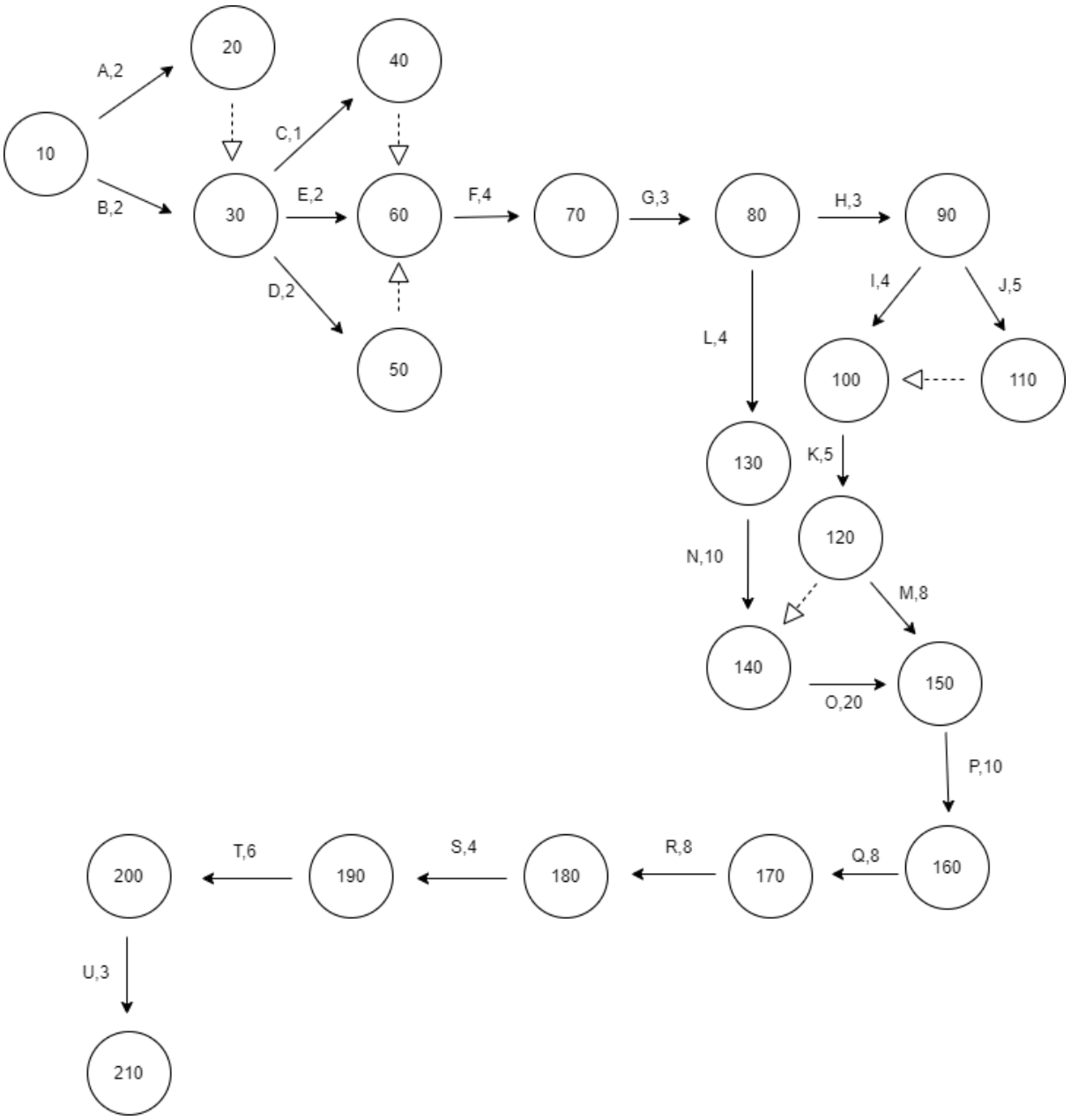


7.2 Work Breakdown Structure (WBS)



7.3 PERT Chart

Activity		Predecessor	Duration (day)
A	Identify stakeholder	None	2
B	Identify the objectives	A	2
C	Determine the budget	A,B	1
D	Create risk management plan	A,B	2
E	Problem identification	A,B	2
F	Brainstorm and Analyze problem	C,D,E	4
G	Proposed solution	F	3
H	Implement the solution	G	3
I	Stakeholder interview	H	4
J	Gather requirements	H	5
K	Requirement analysis	I,J	5
L	Feasibility study	G	4
M	Design database schema	K	8
N	Conceptual Design	L	10
O	Design data flow diagrams	K,N	20
P	Logical design	M,O	10
Q	Design user interface	P	8
R	Design SQL	Q	8
S	Testing and documentation	R	4
T	Bug fixes and improvement	S	6
U	Project demonstration	T	3



Path 1: A - C - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 2: A - C - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 69

Path 3: A - C - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 4: A - C - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 81

Path 5: A - C - F - G - L - N - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 6: A - E - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 71

Path 7: A - E - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 8: A - E - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 9: A - E - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 10: A - E - F - G - L - N - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 84

Path 11: A - D - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 71

Path 12: A - D - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 13: A - D - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 14: A - D - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 15: A - D - F - G - L - N - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 84

Path 16: B - C - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 17: B - C - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 18: B - C - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 69

Path 19: B - C - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 81

Path 20: B - C - F - G - L - N - O - P - Q - R - S - T - U

Length: 2 + 1 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 21: B - E - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 71

Path 22: B - E - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 23: B - E - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 24: B - E - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 25: B - E - F - G - L - N - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 84

Path 26: B - D - F - G - H - J - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 71

Path 27: B - D - F - G - H - J - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 5 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 83

Path 28: B - D - F - G - H - I - K - M - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 8 + 10 + 8 + 8 + 4 + 6 + 3 = 70

Path 29: B - D - F - G - H - I - K - O - P - Q - R - S - T - U

Length: 2 + 2 + 4 + 3 + 3 + 4 + 5 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 82

Path 30: B - D - F - G - L - N - O - P - Q - R - S - T - U

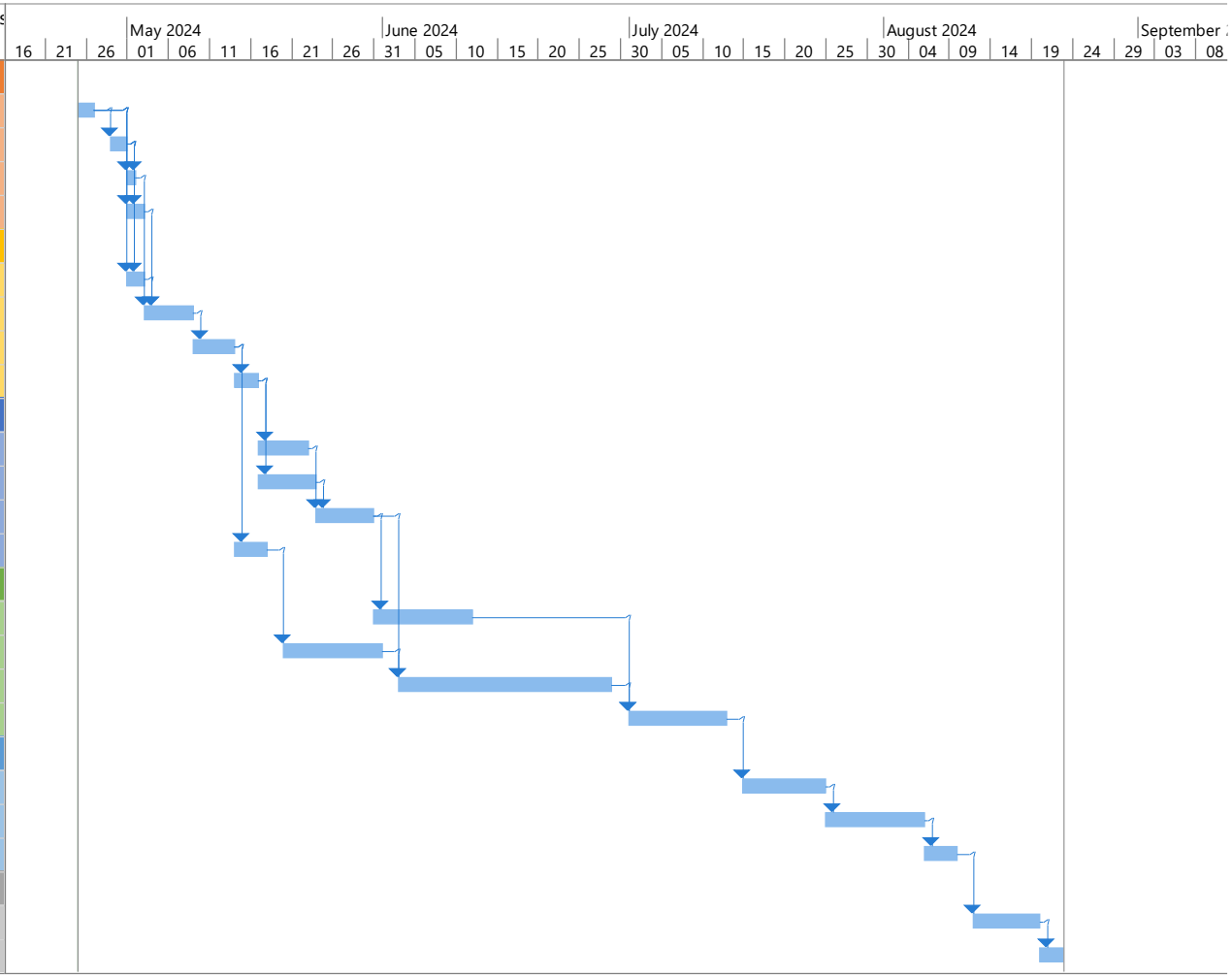
Length: 2 + 2 + 4 + 3 + 4 + 10 + 20 + 10 + 8 + 8 + 4 + 6 + 3 = 84

Since the critical path is the longest path through the network diagram, Path 10, Path 15, Path 25 and Path 30 are the critical paths for this project with a combined duration of 84 days.

7.4 Gantt Chart

Project: DineDart.com

ID	Task Name	Duration	Start	Finish	Predeces
1	Project Initiation				
2	Identify stakeholder	2 days	Thu 25/04/24	Fri 26/04/24	
3	Identify the objectives	2 days	Mon 29/04/2	Tue 30/04/24	2
4	Determine the budget	1 day	Wed 01/05/2	Wed 01/05/2	2,3
5	Create risk management plan	2 days	Wed 01/05/2	Thu 02/05/24	2,3
6	Problem Solving				
7	Problem identification	2 days	Wed 01/05/2	Thu 02/05/24	2,3
8	Brainstorm and Analyze probler	4 days	Fri 03/05/24	Wed 08/05/24	4,5,7
9	Proposed solution	3 days	Thu 09/05/24	Mon 13/05/2	8
10	Implement the solution	3 days	Tue 14/05/24	Thu 16/05/24	9
11	Requirement and Analysis Phas				
12	Stakeholder interview	4 days	Fri 17/05/24	Wed 22/05/2	10
13	Gather requirements	5 days	Fri 17/05/24	Thu 23/05/24	10
14	Requirement analysis	5 days	Fri 24/05/24	Thu 30/05/24	12,13
15	Feasibility study	4 days	Tue 14/05/24	Fri 17/05/24	9
16	Design Phase				
17	Design database schema	8 days	Fri 31/05/24	Tue 11/06/24	14
18	Conceptual Design	10 days	Mon 20/05/2	Fri 31/05/24	15
19	Design data flow diagrams	20 days	Mon 03/06/2	Fri 28/06/24	14,18
20	Logical design	10 days	Mon 01/07/2	Fri 12/07/24	17,19
21	Implementation				
22	Design user interface	8 days	Mon 15/07/2	Wed 24/07/2	20
23	Design SQL	8 days	Thu 25/07/24	Mon 05/08/2	22
24	Testing and documentation	4 days	Tue 06/08/24	Fri 09/08/24	23
25	Prototype				
26	Bug fixes and improvement	6 days	Mon 12/08/2	Mon 19/08/2	24
27	Project Demonstration	3 days	Tue 20/08/24	Thu 22/08/24	26



8.0 Benefit and Overall Summary of Proposed System

DineDart.com is a proposed system aimed at revolutionizing restaurant operations and enhancing the dining experience for customers. We propose this system in response to Mr. Kiho's observations and feedback from customers. For instance, customers often express frustration over long wait times due to limited seating, prompting requests for a delivery service in addition to the existing pick-up option. Furthermore, the restaurant's limited payment methods and lack of affordable menu options have also been noted as operational challenges. To address these issues and meet customer demands, our proposed system includes several key features. For example, a reservation system will help minimize overcrowding and wait times, while online ordering capabilities eliminate the need for physical visits or QR code scanning. Additionally, offering online payment options allows customers to settle bills from their seats, reducing queues at the counter. Menu adjustments will also be made to provide affordable meal options for students and moderate-income families. By incorporating these functionalities, we aim to streamline restaurant operations and deliver a seamless dining experience for all customers.

For Seller:

The utilization of DineDart.com yields numerous advantages. Firstly, it greatly improves the restaurant's operating efficiency. Through the optimization of many operations, including order management and table bookings, the system reduces waiting periods and eliminates crowding, ultimately improving workflow efficiency. Furthermore, DineDart.com is essential for enhancing customer satisfaction. Features including online reservations and ordering make work easier for customers, which raises satisfaction and encourages good feedback. Additionally, the system gives the restaurant access to additional revenue streams. By providing online payment alternatives and delivery services, sellers may access untapped revenue sources that will draw in more customers and accelerate his business's expansion. Finally, DineDart.com offers priceless information to help managers make wiser choices. Seller is able to choose intelligent choices that accelerate the restaurant's growth because of its data analytics and reporting capabilities, which provide him with invaluable insights into customer preferences, menu performance, and overall business strategy.

For customers:

DineDart.com transforms dining by placing accessibility and convenience first. Customers may easily and flexibly access the restaurant's offers thanks to the convenience of online ordering, reservations, and delivery options. The system's reservation system and streamlined procedures additionally make customers queue fewer hours, making for a more enjoyable and productive dining experience. Additionally, customers have more flexibility to settle their bills online, which eliminates the need for waiting in line at the counter and streamlines the payment procedure. Finally, menu changes accommodate customers with limited budgets by offering reasonably priced food options without losing quality, therefore ensuring accessibility and inclusion for all customers.

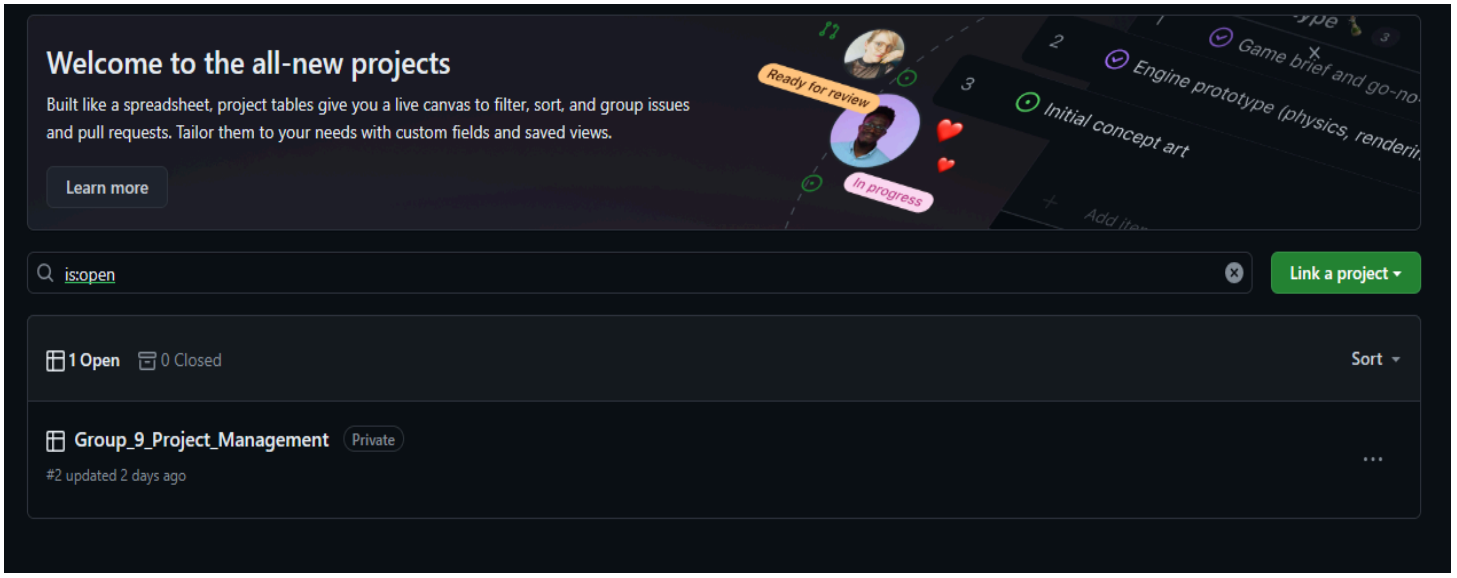
In conclusion, DineDart.com presents a comprehensive solution to revolutionize restaurant operations and elevate the dining experience for both seller and customers alike. Addressing challenges such as long wait times, limited payment methods, and the lack of affordable menu options, our proposed system integrates key features to enhance efficiency and customer satisfaction. For seller, DineDart.com offers increased operational efficiency, improved customer satisfaction, access to additional revenue streams, and valuable management insights. Meanwhile, customers benefit from enhanced convenience, reduced wait times, flexible payment options, and affordable menu choices. By incorporating these functionalities, we aim to create a seamless dining experience that caters to the needs of both restaurant owners and patrons, ultimately driving business success and customer loyalty.

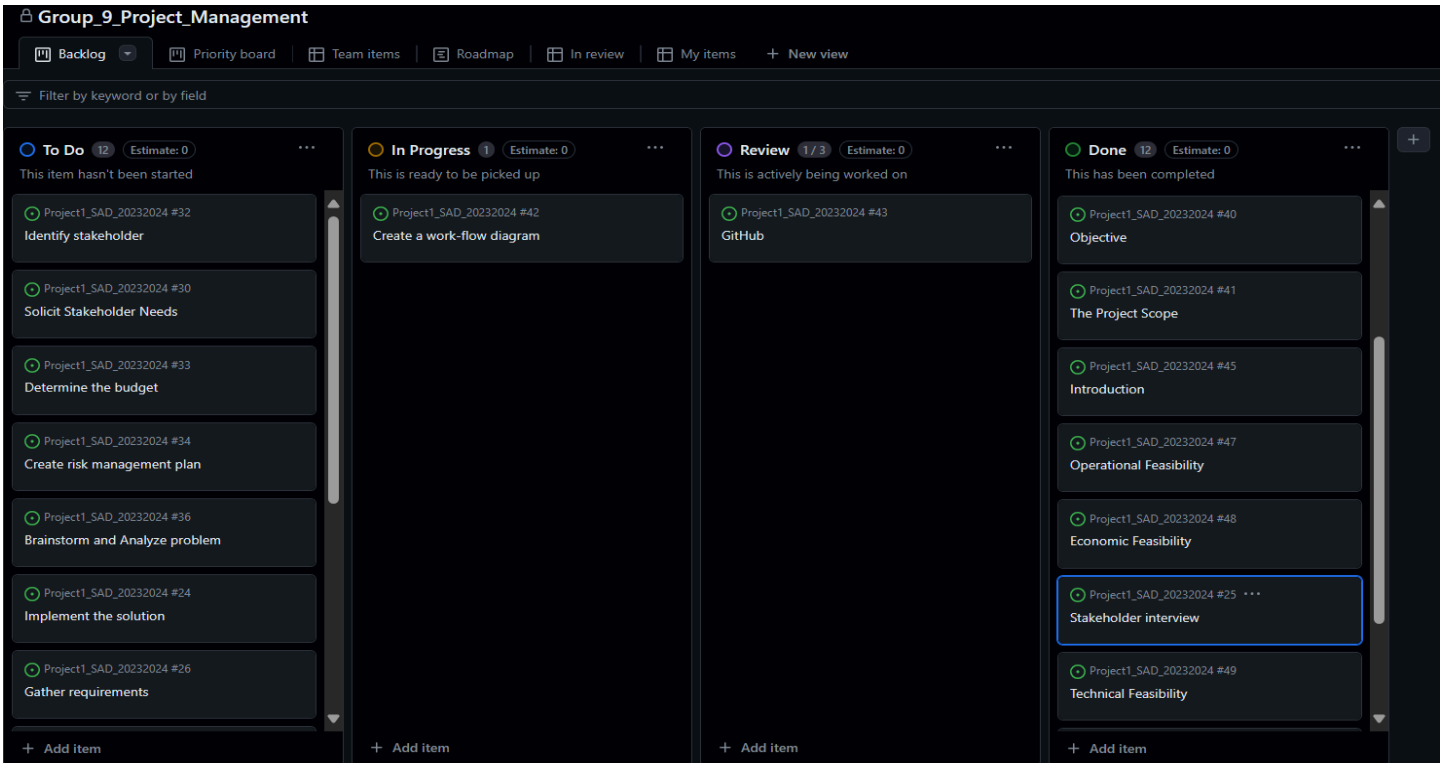
9.0 GitHub

9.1 GitHub Respository Link

https://github.com/ChuanKai1410/Project1_SAD_20232024

9.2 Respository Snapshot





9.3 Kanban Board Integration

https://github.com/users/ChuanKai1410/projects/2/views/1

9.4 Version Control Practices

Feature Branching:

The branching feature allows us to work on specific features. Each feature has their own branch without affecting the main branch. It allows for parallel development and avoids conflicts between different tasks.

Pull Requests:

Pull request is an essential tool for discussing proposed changes, providing feedback, and ensuring code quality. It also serves as a record of past code changes and discussions.

Code Reviews:

Code reviews are an essential part of maintaining code quality and encouraging collaboration among development teams. They aid in the detection of bugs, improving code readability, and ensuring compliance with coding standards.