



Prepared for: Course project for Software project Management - CCSW 313

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Table of Contents

STAC	GE ONE	2
Busin	ess Case for Ghost Kitchen	2
1.	Introduction/ Background	2
2.	Business Objective	2
3.	Current Situation and Problem/Opportunity Statement	3
4.	Critical Assumption and Constraints	3
5.	Analysis of Option and Recommendation	4
6.	Preliminary Project Requirements	4
7.	Budget Estimate and Financial Analysis	5
8.	Schedule Estimate	5
9.	Potential Risks	5
10.	Exhibits	6
Stake	holder Register for Project Name	7
Stake	holder Management Strategy for Project Name	8
Projec	ct Charter	.10
Kick-	off Meeting	12
STAC	GE TWO	13
SCOF	PE STATEMENT	13
Pro	ject Justification:	13
Pro	duct Characteristics and Requirements	13
Sur	nmary of Project Deliverables	.14
Pro	duct-related deliverables	.14
Pro	ject Success Criteria:	15
Work	Breakdown Structure Template for Ghost kitchen	.16
Gantt	Chart	.18
Netwo	ork diagram	19
Refe	rence	20



STAGE ONE

Business Case for Ghost Kitchen

Prepared by: Raneem Mohammed, Lama Alghamdi, Mariyyah Samarin

Date: 1/4/2023

1. Introduction/ Background

Ghost Kitchen is a food delivery app that specializes in delivering orders exclusively from ghost/cloud kitchen restaurants. Ghost kitchens are delivery-only restaurants that operate out of commercial kitchen spaces and do not have a physical storefront. As the popularity of ghost kitchens continues to grow, Ghost Kitchen aims to become the go-to app for customers looking to order from these unique dining establishments. By partnering with the most popular ghost kitchens in each market it operates in, Ghost Kitchen aims to provide customers with a wide range of food options at competitive prices. The company's objective is to provide a superior user experience that makes it easy for customers to browse menus, place orders, and track their deliveries in real-time. By achieving these business objectives, Ghost Kitchen can establish itself as a leader in the ghost kitchen delivery space and capture a significant portion of the food delivery market.

2. Business Objective

One of our objectives is to Expand market share, Ghost Kitchen wants to take a sizable chunk of the meal delivery business by working only with restaurants affiliated with their brand. The startup hopes to establish itself as the go-to app for clients wishing to place an order from a ghost kitchen. We would also want to Expand restaurant partner network Ghost Kitchen wants to broaden its network of restaurant partners to provide consumers more dining alternatives. The company's goal is to collaborate with the most well-liked ghost kitchens in each of the markets it serves. In addition to that we aim to Deliver a great user experience, Ghost Kitchen strives to offer users a smooth and simple interface. Customers should find it simple to explore menus, place orders, and follow the progress of their delivery, according to the firm. Also Maintain competitive pricing, Ghost Kitchen hopes to provide consumers with more cheap costs than typical restaurants by collaborating with ghost kitchens. The firm wants to keep its prices low while yet providing a high-quality product. Finally Increasing income and cutting expenses in order to optimize profitability is the main goal of Ghost



Kitchen by achieving these business objectives, Ghost Kitchen can establish itself as a leader in the ghost kitchen delivery space and capture a significant portion of the food delivery market.

3. Current Situation and Problem/Opportunity Statement

Current Situation: Ghost Kitchen is a food delivery app that specializes in delivering orders exclusively from ghost/cloud kitchen restaurants. As the popularity of ghost kitchens continues to grow, there is an opportunity for Ghost Kitchen to establish itself as a leader in the ghost kitchen delivery space.

Problem/Opportunity Statement: While the demand for food delivery services is growing, traditional restaurants are facing increased competition from ghost kitchens that operate out of commercial kitchen spaces and offer more affordable prices. Ghost Kitchen has the opportunity to capture a significant portion of the food delivery market by partnering with the most popular ghost kitchens in each market it operates in and providing a superior user experience that makes it easy for customers to browse menus, place orders, and track their deliveries in real-time. However, in order to achieve its business objectives, Ghost Kitchen must maintain competitive pricing while still offering a high-quality product and maximize profitability by controlling costs and increasing revenue.

4. Critical Assumption and Constraints

The application must contain an interface that shows a list of several ghost kitchens, provides customers with the ability to place orders, track their delivery status, and provide feedback on their experience. Current customers must actively support the application. The application must pay for itself within one year by increasing various ghost kitchens and reducing internal operating costs. The new system should not rely on any specific hardware interfaces and must run on existing hardware and software. It must be compatible with the operating systems and devices used by both users and delivery partners, requiring minimal technical assistance. Additionally, it must be reliable, efficient, cost-effective, and secure from unauthorized users.



5. Analysis of Option and Recommendation

There are two options for addressing this opportunity:

- 1. Third-party delivery apps: These apps like Hunger Station, ToYou, and Jahez have a vast customer base and can help ghost kitchens reach more customers. However, they charge high commission fees that can eat into profits.
- 2. Hire our own drivers or use a third-party logistics provider to handle deliveries and implement an application that offer features like order tracking, management, and customer support.

After careful consideration of these options, we have decided that the second option is the best choice for us. It gives us more control over the delivery process and allows for better customer service. Additionally, it will reduce fees and increase profits.

6. Preliminary Project Requirements

App Development: The development of a user-friendly and efficient mobile application that allows customers to browse and order from a variety of ghost/cloud kitchens.

Ghost Kitchen Partnerships: Establish partnerships with a variety of ghost/cloud kitchens to offer a diverse range of cuisine options to customers.

Delivery Logistics: Develop a delivery logistics system that ensures timely and efficient delivery of orders to customers.

Payment Processing: Implement a secure and reliable payment processing system that allows customers to pay for their orders through the app.

Marketing and Promotion: Develop a marketing and promotion strategy to increase brand awareness and attract new customers to the app.

Customer Service: Establish a customer service team to handle inquiries, complaints, and feedback from customers.

Data Analytics: Implement a data analytics system to track customer behavior and preferences, as well as monitor the performance of ghost/cloud kitchens on the app.

Legal Compliance: Ensure compliance with all relevant laws and regulations related to food delivery and online transactions.

Scalability: Develop a scalable business model that can accommodate growth and expansion into new markets.

Cost Management: Develop a cost management strategy to ensure profitability while maintaining competitive pricing for customers.



7. Budget Estimate and Financial Analysis

\$200,000 is the estimates renovation cost for Ghost Kitchen Application. This includes \$30,000 for services from suppliers and infrastructure to store and manage data, server costs, and network costs, and \$40,000 for rent and Utilities. Company employees work for 30 hours per week which cost \$80,000, each employee will earn about 30\$ to 45\$ per hour. However, \$10,000 are allocated for marketing and advertising, and legal fees and taxes will approximately cost \$25,000. Furthermore, after the app is released, we need regular maintenance to keep up the quality of our service and to add futures according users' feedback. This expense about \$20,000 monthly. Finally, the budget estimate and financial analysis was done based on assumptions.

8. Schedule Estimate

According to the stack holders, the project should be completed within 8 months. We will publish a trial version as we develop the application so we can enhance the user experience and deliver the application at the desired date. However, the schedule estimation is only intended as a starting point, it is crucial to review and update the schedule frequently throughout the project.

9. Potential Risks

Competition: The market for food delivery apps is highly competitive, with established players like hungersation, and jahez already dominating the market. It may be difficult to gain market share and establish a loyal customer base.

Dependence on Partnerships: The success of the business is heavily dependent on partnerships with ghost/cloud kitchens. If these partnerships fall through or if the quality of food and service provided by these kitchens is not up to standard, it could negatively impact the reputation of the app.

Delivery Logistics: The delivery logistics system is critical to the success of the business. If there are issues with delivery times, order accuracy, or customer service, it could lead to negative reviews and a loss of customers.

Cybersecurity: The app will be handling sensitive customer information, including payment details and personal information. If the app is hacked or if there are data breaches, it could lead to a loss of customer trust and legal repercussions.



Legal Compliance: The food delivery industry is heavily regulated, and there are many laws and regulations that must be followed. Failure to comply with these regulations could result in fines, legal action, and damage to the reputation of the app.

Financial Risk: The business model may require significant upfront investment in app development, marketing, and partnerships. If the app fails to generate enough revenue to cover these costs, it could lead to financial losses and potentially bankruptcy.

Reputation Risk: Negative reviews, poor customer service, or food quality issues could damage the reputation of the app and lead to a loss of customers. It may be difficult to recover from a damaged reputation in the highly competitive food delivery market.

10. Exhibits

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5	Costs	\$	200,000.00	\$	90,000.00	\$	100,000.00	\$	90,000.00	\$	90,000.00	\$	100,000.00		
ŝ	Discount factor		1.00		0.91		0.83		0.75		0.68		0.62		
7	Discounted costs	\$	200,000.00	\$	81,900.00	\$	83,000.00	\$	67,500.00	\$	61,200.00	\$	62,000.00		555,600.0
8															
9	Benefits		1.00	\$	380,000.00	\$	203,000.00	\$	380,000.00	\$	100,000.00	\$	100,000.00		
10	Discount factor		1.00		0.91		0.83		0.75		0.68		0.62		
11	Discounted benefits	\$	1.00	\$	345,800.00	\$	168,490.00	\$	285,000.00	\$	68,000.00	\$	62,000.00		929,291.0
12															
3	Discounted benefits - costs		(199,999)		263,900		85,490		217,500		6,800		-		
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	cost	\$	200,000.00	\$	90,000.00	\$	10,000.00	\$	50,000.00	\$	80,000.00	\$	10,000.00	-	440,000.0
-	cash flow		(200,000.00) 1.470.52	5	290,000.00	\$	193,000.00	2	330,000.00	\$	20,000.00	\$	90,000.00	\$	723,000.0
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26	which indicates that there						-,								
7															



Stakeholder Register for Project Name

Prepared by: Maryam aldahri Date: April 7, 2023

Name	Position	Internal/	Project Role	Contact Information
		External		
Raneem Aljehani	CEO	Internal	Approve Decision, Sponsor	Raneem@gmail.com
Layan Alsaud	Project Manager	Internal	Project Planning, Progress Monitoring	LayanAli@gmail.com
Mariyyah Samarin	Finance Director	Internal	Approve Funds	Mariyyah@gmail.com
Lama Alghamdi	Developer	Internal	Managing Software Program	Lama@gmail.com
Maryam Aldahri	Interface Developer	Internal	UI Developer	Maryam@gmail.com
Rola Aloafi	Business Analyst	External	Advisor	Rola_@gmail.com
Rasha Alomari	Consultant	External	Advisor, Sponsor	Rasha@gmail.com



Stakeholder Management Strategy for Project Name

Prepared by: Maryam aldahri Date: April 7, 2023

Name Level of		Level of	Potential Management Strategies			
	Interest	Influence				
Raneem	high	high	Raneem favors staying on top and			
Aljehani			observing the project and managing the overall			
			operations and adding to it, concentrating on			
			achieving the goals of the project. So consult			
			and engage her regularly.			
Layan Alsaud	high	high	Layan makes sure to delegate tasks to			
			project team members, supervise those			
			employees, ensure the project is completed on			
			time, and appoint meetings throughout the			
			project. Involve her in decision-making.			
Mariyyah	high	high	Mariyyah oversees the financial aspects			
Samarin			of the project and assesses financial			
			performance as well as the possible risks and			
			investments that make the most profitable			
			decisions. So consult regularly and keep her			
			satisfied.			
Lama	high	high	Lama is responsible for developing,			
Alghamdi			coding, installing, maintaining, testing, and			
			evaluating the project software program. So			
			consult her regularly.			



Maryam	high	Low	Maryam designs and creates a software
Aldahri			interface by prioritizing users and project
			requirements and ensuring that the software is
			presented attractively. Make use of her interest
			through involvement.
Rola Aloafi	Low	high	Rola assists in determining the project
			needs and improving the systems by analysis
			to come up with solutions to business
			problems. Does not seem excited about this
			project so meet her needs and show her how
			this project will help her.
Rasha	high	Low	Rasha offers advice and expertise to the
Alomari			project to help improve it and detect issues and
			investigate ways to solve them but has a lot of
			things on her plate. So consult her on the areas
			of interest



Project Charter

Prepared by: Layan Alsaud Date: 6/4/2023.

Project Title: Ghost Kitchen

Project Start Date: 4/4/2023 Projected Finish Date: 4/12/2023

Budget Information: The project has a budget of \$200,000. Most of the budget will be on the implementation and testing process, and the primary estimation will be 30 hours per week.

Project Manager: Layan Al-Saud, (+966)501488282, LayanAli@gmail.com

Project Objectives: Simplifying delivery for ghost kitchens to meet customers' needs by creating an application that customers can view ghost kitchens with a few taps on their screens, providing faster and safer delivery to the customers, easy to order anytime and anywhere, providing real-time updates on order status and estimation delivery time. Ghost Kitchens Delivery will be understandable, useable, and compatible with other applications that customers use as well as customers, and ghost kitchens' data will be secure.

Main Project Success Criteria: The application ends on time. It is reliable and safe for users. Customer overview is positive within 4-5 rating.

Approach:

- Gather and analyze information about target customers to know what they really need.
- Gather and analyze information about application requirements, and survey similar delivery applications.
- Generate a questionnaire containing a simple introduction about Ghost Kitchens
 Delivery and the most important features that it provides to know advisor opinion.
- Looking for suitable software to garnet data security for customers and ghost kitchen providers.
- Modify the software to be more convenient, suitable, and simple to use.



Roles and Responsibilities

Role	Name	Organization/	Contact Information
		Position	
Managing Software	Lama Alghamdi	Developer	Lama@gmail.com
Program			
Project Planning,	Layan Alsaud	Project Manager	LayanAli@gmail.com
Progress Monitoring			
Approve Funds	Mariyyah Samarin	Finance Director	Mariyyah@gmail.com
UI Developer	Maryam Aldahri	Interface Developer	Maryam@gmail.com
Approve Decision,	Raneem Aljehani	CEO	Raneem@gmail.com
Sponsor			
Advisor, Sponsor	Rasha Alomari	Business Analyst	Rasha@gmail.com
Advisor	Rola Aloafi	Consultant	Rola_@gmail.com

Sign-off:

Lama Alghamdi, Raneem Aljehani, Layan Alsaud, Maryam Aldahri , Mariyyah Samarin, Rasha Alomari, Rola Aloafi.

Comments:

"The application should apply in a way that changes are easy to implement. Also, it should maximize the use of resources as well as responsiveness. " - Lama Alghamdi



Kick-off Meeting

Prepared by: Layan Alsaud Date: 6/4/2023

Meeting Date 4/4/2023

Project Name: Ghost Kitchen

Meeting Objective: clarifying the project objectives and goals, building a relationship between team members, determining responsibilities for team members, and planning to the next step.

Agenda:

- Introductions about project for team members.
- Project background overview.
- Establish project purpose.
- Determine main services that project provide and constraints.
- Define main required functions and suitable technology to use for project.
- Discussion of project cost, schedule estimation and budget.
- Discussion of project plans and potential changes.
- List of action items from meeting.

Action Item	Assigned To	Due Date
Stakeholders register and strategy	Maryam Aldahri	7/4/2023
Project charter	Layan Alsaud	7/4/2023
Analyze project resources and requirement	Raneem Aljehani	9/4/2023
Analyze project cost and potential risks	Mariyyah Samarin	10/4/2023
Search and analyze for similar project	Lama Alghamdi	6/4/2023

Date and time of next meeting: 11/4/2023, at 9:00 am.



STAGE TWO

SCOPE STATEMENT

Project Title: Ghost kitchen

Date: 4 May Prepared by: Rannem Mohammed, Mariyyah Essam

Project Justification:

Ghost Kitchen is a specialized delivery application that serves cloud kitchens. The main reason to focus on cloud or ghost kitchens is the lack of cloud kitchen logistic services in Saudi Arabia so, our app will increase the profit of cloud kitchens through high-speed delivery and advertisements via the app. On the side, the Ghost Kitchen app will reserve all customer rights. However, \$200,000 is the estimated renovation cost for Ghost Kitchen Application. Furthermore, after the app is released, we need regular maintenance to keep up the quality of our service this expense about \$20,000 monthly.

Product Characteristics:

-App Features:

- A user-friendly interface that enables customers to easily browse menus, place orders, and track deliveries in real-time
- A search function that enables customers to find the ghost kitchen restaurants that offer the food they want
- A rating system that enables customers to rate their experience with the ghost kitchen restaurants
- A notification system that enables customers to receive updates on their orders

-Partner Features:

- A dashboard that enables ghost kitchen restaurant partners to manage their menus, orders, and deliveries
- A reporting system that enables ghost kitchen restaurant partners to track their sales and performance

Requirements:

-Technical Requirements:

- A mobile app for both iOS and Android platforms
- A web application for restaurant partners
- A cloud-based database for storing menus, orders, and customer data
- Integration with third-party logistics providers for order delivery



-Business Requirements:

- Partnerships with the most popular ghost kitchen restaurants in each market
- Competitive pricing that offers customers more affordable prices than traditional restaurants
- A financial model that balances the costs of operating a delivery app with the revenue generated from commissions and fees
- A marketing strategy that promotes the app to potential customers and ghost kitchen restaurant partners

Summary of Project Deliverables

Project management-related deliverables

business case, charter, team contract, scope statement, WBS, schedule, cost baseline, status reports, final project presentation, final project report, lessons-learned report, and any other documents required to manage the project

Product-related deliverables

research reports, design documents, software code, hardware, etc.

- 1) User surveys: enhance useability of app by using the survey to understand user needs, results to guide product decisions.
- 2) User Interface Design: An intuitive and visually attractive user interface that makes it simple for users to utilize the app, explore menus, place orders, monitor delivery, and submit payments.
- 3) Database design: This comprises the design of the database that will keep all of the app's data. The database design needs to be effective and scalable so that the app can support a big volume of customers and orders.
- 4) Delivery Tracking System: A system that keeps users updated on the estimated time of arrival (ETA) and allows them to track their orders in real-time.
- 5) Payment Gateway Integration: Secure payment gateway integration that accepts a variety of payment methods, including credit/debit cards, net banking, e-wallets, etc.
- 6) Order Management System: Restaurants can efficiently receive and manage orders with the help of an order management system. Features like order confirmation, order tracking, and shipping status updates ought to be included.
- 7) Analytics and reporting: enable the app to monitor user activity, such as past orders, preferences, and feedback. The analytics and reporting system ought to offer perceptions into user activity and ought to aid the app's continual development.
- 8) Performance testing: The performance of the app can be optimized using the findings of the performance testing to make sure it can support a big number of users.



9) Bug tracking: The goal of bug tracking is to ensure that the app is as bug-free as possible and that any issues are immediately fixed. It involves identifying and tracking any bugs or issues that occur within the app.

Project Success Criteria:

The success of the Ghost Kitchen project will be measured by the following criteria:

- 1. Market share: Increase Ghost Kitchen's market share in the food delivery industry by 10% within the first year of operation.
- 2. Partner network: Expand Ghost Kitchen's restaurant partner network to include at least 50 ghost kitchens in each market it operates in within the first year of operation.
- 3. User engagement: Achieve a user engagement rate of 50% within the first six months of operation, as measured by the percentage of users who place at least one order per month.
- 4. Customer satisfaction: Maintain a customer satisfaction rating of at least 4.5 out of 5 stars, as determined by user ratings and reviews.
- 5. Revenue generation: Generate at least \$10 million in revenue within the first year of operation, with a profit margin of at least 10%.

By achieving these success criteria, Ghost Kitchen can establish itself as a leader in the ghost kitchen delivery space and capture a significant portion of the food delivery market.



Work Breakdown Structure Template for Ghost Kitchen

Prepared by: Maryam aldahri Date: 4/20/2023

1.0Initiating

- 1.1Project definition
 - 1.1.1 Scope and goal setting
 - 1.1.2 Preliminary project requirements
 - 1.1.3 Budget estimate
 - 1.1.4 Schedule estimate
 - 1.1.5 Potential risks estimate
- 1.2Identify stakeholders and their requirements
- 1.3 Develop project charter
- 1.4 Hold a project kick-off meeting

2.0Planning

- 2.1 Team Meeting
- 2.2 Develop project management plan
- 2.3 Develop communication plan
- 2.4 Develop scope statement
- 2.5 Create WBS
- 2.6 Develop project schedule
- 2.7 Develop resources plan
- 2.8 Develop quality control plan
- 2.9 Identify project risk
- 2.10 Develop risk management plan
- 2.11 Gain approval for project plan

3.0Executing

- 3.1 Team Meeting
- 3.2 Conduct user survey
- 3.3 Conduct requirements gathering
- 3.4 Develop software design
- 3.5 Develop software functionality and features
- 3.6 Testing phase
 - 3.6.1 Software testing
 - 3.6.2 UAT testing
- 3.7 Conduct new solution
- 3.8 Improve performance
- 3.9 Update the project plan
- 3.10Launch software



- 4.0Monitoring and Controlling
 - 4.1Provide ongoing maintenance
 - 4.2Monitor project
 - 4.2.1Progress report
 - 4.2.2Progress performance
 - 4.2.3 User feedback
 - 4.3Risk management
 - 4.4Change requests
 - 4.5Conduct status meetings for stakeholders

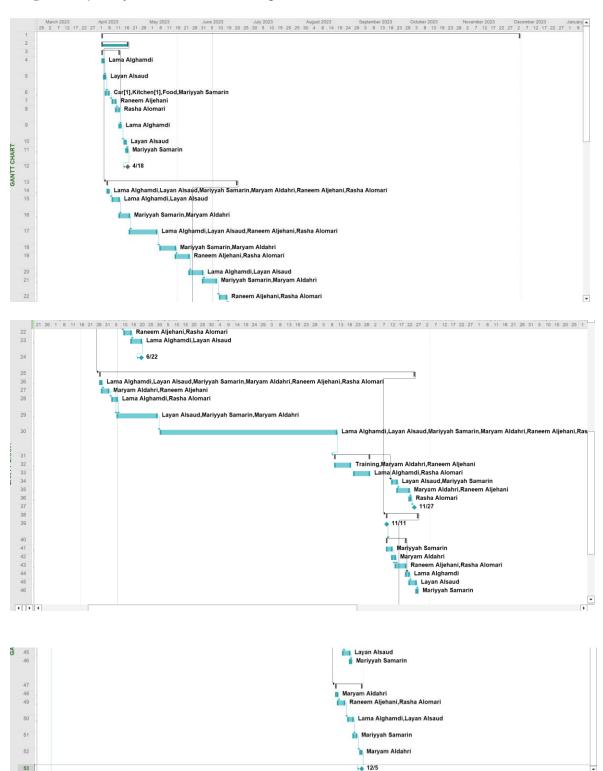
5.0Closing

- 5.1 Project evaluation
- 5.2 Prepare project final report and presentation
- 5.3 Gain formal acceptance from stakeholders
- 5.4 Prepare Lessons Learned file
- 5.5 Archive project documentation
- 5.6 Close Project



Gantt Chart

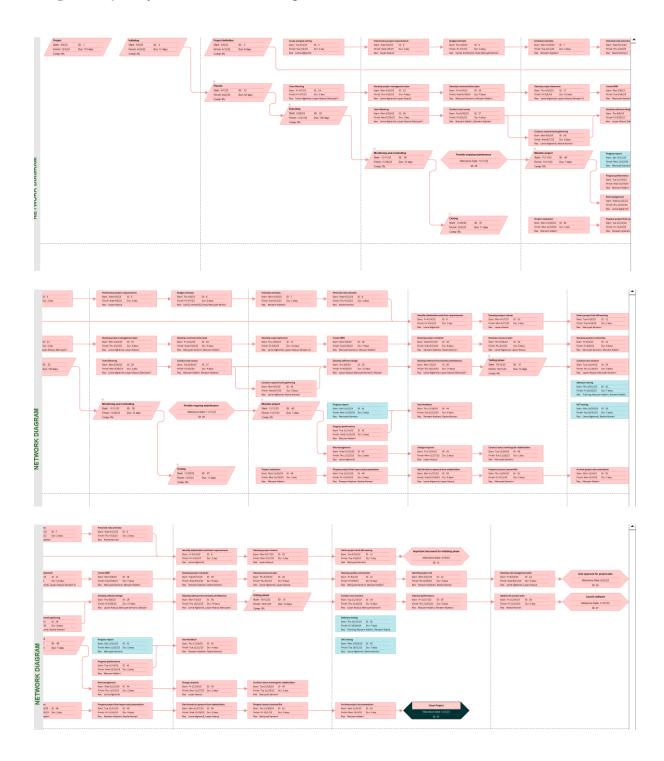
Prepared by: Layan Alsaud – Lama Alghamdi Date: 5/22/2023





Network diagram

Prepared by: Layan Alsaud – Lama Alghamdi Date: 5/22/2023





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