FOODLY
APPLICATION

FINAL PROJECT

Software Project Management

CCSW 313

Products Verification Application

Z1X (18522)

Prepared by:

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2022 – 2023

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BUSINESS CASE

1.0 Introduction/Background

People usually forget the expiry date of the products, which causes them many problems, so we designed a system (Foodly) that tracks the expiration date of the product. To preserve the quality of life

2.0 Business Objective

The main reason why we chose this idea for the project and application is to protect people from being harmed when using expired products.

3.0 Current Situation and Problem/Opportunity Statement

People usually forget to keep track of the expiration date due to the busyness of life.The app basically keeps track of the product's expiration date.Prompts an alert for products that are about to expire and products that have expired. The advantage here is that it is the user who sets the duration of the alarm time, if for example the user wants the application to alert him a week before the expiration date of the product so that he pays attention and uses it. When the product is expired, the app will give you some suggestions for recycling. The application will also be designed in the simplest way to suit all users, as well as we will choose the easiest tools to enter the expiry dates of products.

4.0 Critical Assumption and Constraints

- team members should have skills that app requires such programming, analysis, design etc.
- resources that application needs.
- The data should automatically updated in the data inventory, and all information in the data inventory is synchronized.
- High efficiency, usability and reliable in terms of security and privacy.
- Available for all devices and operating systems such as Windows, Apple.

- complete the project within the specified time period.

5.0 Analysis of Option and Recommendation

1. Do not take any action and keep operating
2. Design new customer capabilities using hardware and software

After discussions with the stakeholders, we have decided that option 2 is the best option.

6.0 Preliminary Project Requirements

- According to the idea of the program, it requires a high-quality scanner so that errors and interferences do not occur.
- Design the application in a way that contributes to improving the customer's quality of life and reducing costs.
- Notify users of the time remaining for the expiration date of the expired product or product.
- Allow the user to specify the number of times to be reminded before the product expires.

7.0 Budget Estimate and Financial Analysis

- The budget estimate and financial analysis was done based on assumptions
- A preliminary estimate of the entire project costs 140,000 SR
- This estimate is based on the programming and design team working approximately 40 hours per week for 3 months.
- Employees work about 20 hours per week for six months and other internal employees work a total of about 60 hours per week for 4 months.
- The employees will work for 40SR to 50 SR per hour
- Initial cost estimates also include SR 20,000 to purchase technologies and services from supplier suppliers.
- 30,000 SR are allocated for marketing, and 7,000 SR are estimated for the cost of permits
- After the project is completed, maintenance costs of 40,000 SR per year are included, primarily for updating information, coordination, and adding features according to community demand and suggestions.
- Because the new business will be at least 20,000 SR each year. Thus,
- the total expected benefits after successful marketing are approximately 120000 SR per year, In the first year.

8.0 Schedule Estimate

The sponsor would like to see the project completed in a maximum of six months, we will assume that this schedule is flexible, we also assume that the new system will have a useful life of at least 4 years.

9.0 Potential Risks

- Response takes a long time to read barcode
- Breakthrough some barcodes are hacked and not safe
- Barcode is not safe to direct the user towards a malicious website that penetrates the security of personal data and information
- Barcodes could possibly have wrong information about the product
- Application servers goes down Barcodes compromised by the seller to ease the selling process

10.0 Exhibits

Financial Analysis for Foodly

Discount rate	8.00%					
Assume the project is completed in Year 0			Year			
	0	1	2	3	Total	
Costs	170,000	70,000	60,000	60,000		
Discount factor	1.00	0.93	0.86	0.79		
Discounted costs	**170,000**	**65,100**	**51,600**	**47,400**	**334,100**	
Benefits	0	120,000	180,000	1,400,000		
Discount factor	1.00	0.93	0.86	0.79		
Discounted benefits	**0**	**111,600**	**154,800**	**1,106,000**	**1,372,400**	
Discounted benefits - costs	(170,000)	46,500	103,200	1,058,600	**1,038,300**	←NPV
Cumulative benefits - costs	(170,000)	(123,500)	(20,300)	1,038,300		
ROI →	**311%**			↑		
				Payback in Year 3		

Figure.1

The value of NPV = 1.038.300 and because it is positive, it is a worthwhile investment And the ROI ratio is high, which indicates that there is a good investment return

Dis rate	8%					
project1	**year1**	**year2**	**year3**	**year4**	**Year5**	**total**
Ben	$0.00	$120,000.00	$180,000.00	$1,400,000.00	$1,400,000.00	$3,100,000.00
cost	$170,000.00	$70,000.00	$60,000.00	$60,000.00	$40,000.00	$400,000.00
cash flow	-$170,000.00	$50,000.00	$120,000.00	$1,340,000.00	$1,360,000.00	$2,700,000.00
npv	**$1,891,252.55**					

Figure.2

Stakeholder Register

Name	Position	Internal/External	Project Role	Contact Information
Taif	Project manger	Internal	Management	0545434240
Raneen	Software engineer	Internal	Data Engineer	0597550697
Enas	Designer	Internal	UI/UX	0558412019
Marwh	Developer	Internal	Data analyst	0512345678
Ghaidaa	Developer	Internal	Developer	0598765433
Dr. Jamilah	Investor	External	-	-

Table.1

Stakeholder Management Strategy for Project Name

Name	Level of Interest	Level of Influence	Potential Management Strategies
Taif	Medium	High	Keep the information in high quality and in good condition
Raneen	High	Medium	keep them updated at regular interval
Ghaidaa	Low	Medium	Follows the instructions
Marwh	High	High	Check the report regularly
Enas	Medium	High	Follows the instructions
Dr. Jamilah	High	Medium	Show reports weekly

Table.2

Project Charter

Project Title: Foodly

Project Start Date: 13/9/2022 **Projected Finish Date:** 29/11/2022

Budget Information: 140,000 SR

Project Manager: Taif Basheikh

Project Objectives: protect people from being harmed when using expired products.

Main Project Success Criteria: Publishing the app on the digital market Having 500 active users

Approach:

Studying and defining the most important services provided and studying inputs from consultants and clients
Reviewing project documents and reviewing examples for other projects
Finding software for managing inputs
Developing a method for measuring the application in terms of costs and project costs

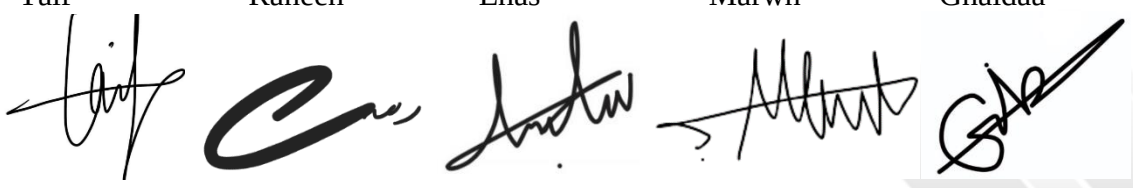
Roles and Responsibilities

Role	Name	Organization/ Position	Contact Information
Project manger	Taif Basheikh	Jeddah Universty	2005890@uj.edu.sa
Data Engineer	Raneen Alshehri	Jeddah Universty	2005560@uj.edu.sa
Data analyst	Marwh alhadi	Jeddah Universty	2007881@uj.edu.sa
Developer	Ghaidaa Almaghrbi	Jeddah Universty	191238@uj.edu.sa
UI/UX	Enas khan	Jeddah Universty	2007145@uj.edu.sa

Table.3

Sign-off:

Taif Raneen Enas Marwh Ghaidaa



Just-In-Time Training Project

Kick-off Meeting

Meeting Objective: Reviewing project goals, and discussing future plans

Agenda:

- Introductions of attendees
- Background of project
- Review of project-related documents
- Discussion of project organizational structure
- Discussion of project scope, time, and cost goals
- Discussion of other important topics
- List of action items from meeting

Action Item	Assigned To	Due Date
presentation	Raneen	25/9/2022
Discussion of project scope, time, and cost goals	Ghaidaa	25/9/2022

Table.4

Date and time of next meeting: **25/9/2022**

Scope Statement

Project Title	(Foodly) Products Verification Application
Date	1 Octobe 2022
Prepared by	Raneen Alshehri, Marwh alhadi, Project Manager
Project Justification	The main reason why we chose this idea for the project and application is to protect people from being harmed when using expired products. And addition, Help the user to know when the product end, Provides the user with ideas to recycle the product, Saves time and effort for the user through the process of accessing product dates in the easiest way, and Protects the user from health diseases when using an expired product. It will also help reduce individual costs and improve profitability by providing products for the community The budget for the project is $170,000. An additional $20,000 per year will be required for operational expenses after the project is completed. it is not important to focus on the system paying for itself in a specific year of its completion
Product Characteristics and Requirements	1. Templates and tools: The application allows the user to scan the barcode of the product either from the phone's camera or from the application itself to help the user save the products' expiration dates in the fastest and easiest way. possible. An alert will be issued when the expiry date is approaching using the electronic sound notification 2. User Submissions: Users will be encouraged to use the application to send images of the barcode and also send questions to specialists to reduce health side effects and food poisoning cases and can also reduce the disposal of expired products in waste and use for recycling 3. Search feature: The application must include a search feature for users to search by topic and keywords. 4. The intranet site must be available 24 hours a day, 7 days a week, with one hour per week for system maintenance and other periodic maintenance, as appropriate 5. The application supports a specialized question feature according to the food field or other products, so the “Ask a specialist” feature should be easy to use and indicate to the user if the message has been received or delivered. The user should be able to select the field and specialty and the system should also allow payment for advice, if appropriate

<table>
<tr><td>Product Characteristics and Requirements</td><td colspan="2">6. The application must work on IOS, Android, and Bada, Tizen, windows operating systems.
7. The application should be clear and easy for all users, even those with little technical knowledge
8. There should be a (family) or (friends) service so that alerts and products are shared to encourage and save effort for people who live in the same house.
9. Security: -The application must provide several levels of security.
10. user can add or update or delete how can access its lists of products (this user should include family or friends Members),
-It is not acceptable for anyone to access or track the personal data of the user,
-Other portions of the intranet will be available to current users based on verification with the current client database.
-Login is a must for all users. Room codes will be used for group services.
-Members can add items/ products but can't delete unexpired products without the admin being notified.(optional)</td></tr>
<tr><td rowspan="2">Summary of Project Deliverables</td><td>Project management-related deliverables</td><td>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</td></tr>
<tr><td>Product-related deliverables</td><td>research reports, design documents, software code, hardware, etc.

1. Survey: Surveying the opinions of potential customers and the target group to help add required features to the application or website.
2. initial application design : it will include a special camera (a QR Code scanner), designs and graphics suitable for both sexes and for different age groups. Taking into account the results of the survey
3. Instructions for using project management tools: The intranet will contain information on how to use several project management tools, including the following as a minimum: Work Fault structures, Gantt charts, network diagrams, cost estimates and earned value management. Where appropriate, sample files will be provided in the application software Suitable for the tool. For example, Microsoft Project files will be available to show WBS models, Gantt charts, network diagrams, cost estimates, applications Earned value management. Excel files for cost and earned value estimates models will be available management schemes</td></tr>
</table>

Summary of Project Deliverables	**Product-related deliverables**	4. **Instructions for using the application tools**: The method of use is easy and simple, as will be added to Torill for the first time, take a picture of the barcode of the product and it will be automatically added in the schedule and activate the automatic reminder about the approaching completion and upon completion and give the user the ability to modify the formats in general, delete and add Products 5. **Specialists Database:** In order to provide the (Ask Me) feature that connects the user to a competent person for inquiries, the system must include access to and access to them and their contact information. Users will be able to search for specialists and doctors in different fields and also include payment information for the service 6. **Application content:** The application will include the content of the photography section, the schedule and tools section, the alerts and reminders section, the Ask the Specialists section, the articles section, and security and payment features and the help and inquiries section , payment features. 7. **Test plan:** The test plan will document how the intranet is tested, who will perform the test, and how errors will be reported. 8. **Promotion:** An application promotion plan internally and externally will describe different approaches to soliciting input during design. The promotion plan will also announce the availability of the new intranet site. 9. **Project Benefit Measurement Plan:** The Project Benefit Measurement Plan will measure the financial value of the intranet site.
Project Success Criteria	Our goal is to complete this project within (six months) of the start date and for (no more than $111,038). The application will be successful if more people use the application and become more aware of the importance of maintaining the expiration dates of the products and paying close attention to them. To meet these goals, the application must be professionally designed and it must stay consistently dependable and secure. It must also be easily managed by the organization and its users. Product information must be checked on online shopping sites if the expiration date is cleared on the product	

Work Breakdown Structure Template for Foodly

Prepared by: Taif Basheikh **Date:** 10/25/2022

1. **Initiating**
   - 1.1. System Overview
   - 1.2. Operating Environment
   - 1.3. Prepare project chart
   - 1.4. Hold project kick-off meeting
2. **Planning**
   - 2.1. Hold team planning meeting
   - 2.2. Prepare team contract
   - 2.3. Prepare scope statement
   - 2.4. Prepare WBS
   - 2.5. Prepare Gantt Chart
   - 2.6. Prepare network diagram
   - 2.7. Create activity cost estimation
3. **Executing**
   - 3.1. Survey
   - 3.2. Application User Interface Specifications
   - 3.3. Application External Interfaces and Database Requirements
   - 3.4. Intranet site content
     - 3.4.1. Articles
     - 3.4.2. Links
     - 3.4.3. Ask the Expert
     - 3.4.4. User requests feature
   - 3.5. User inputs
   - 3.6. Application testing
   - 3.7. Application roll-out
   - 3.8. Application promotion
4. **Monitoring and Controlling**
   - 4.1 Progress reports
     - 4.1.1 Progress reports1
     - 4.1.2 Progress reports2
   - 4.2 Change requests
   - 4.3 Monthly meeting
     - 4.3.1 Monthly meeting1
     - 4.3.2 Monthly meeting2
     - 4.3.3 Monthly meeting3
5. **Closing**
   - 5.1. Prepare final project report
   - 5.2. Prepare final project presentation
   - 5.3. Lessons learne

Activity Cost Estimates

Project Name	Foodly	Date	10/29/2022
Project Number	1	Document Number	1
Project Manager	Taif Basheikh	Project Owner/Client	Bayan Abdalaziz

WBS ID #	Resource	Assumptions and Constraints	Direct Costs	Indirect Costs	Reserve	Range of Estimate	Level of Confidence	Method and Additional Information
1.1	Taif Basheikh Manager	Must obtain manager approval	0$	0$	0$	0$	90%	Parametric No add info
1.2	Ghaidaa Almaghrbi member	Start to Finish Relationship with 1.1	0$	0$	0$	0$	85%	Parametric No add info
1.3	Ghaidaa Almaghrbi member	Start to Finish Relationship with 1.2	0$	0$	0$	0$	80%	Parametric No add info
1.4	Ghaidaa Almaghrbi member	Start to Finish Relationship with 1.3	0$	0$	0$	0$	80%	Parametric No add info
2.1	Taif Basheikh Manager	Must obtain manager approval	1000$	0$	0$	1000-2000	80%	Parametric No add info
2.2	Taif Basheikh member	Start to Finish Relationship with 2.1	1500$	1000$	50$	1500-2500	70%	Parametric No add info
2.3	Enas Khan member	Start to Finish Relationship with 2.2	1200$	1000$	1200$	1200-2200	90%	Parametric No add info
2.4	Enas Khan Member Analyzer	Start to Finish Relationship with 2.3	1000$	900$	500$	1000-1900	60%	Parametric No add info
2.5	Raeen Alshehri Member Analyzer	Start to Finish Relationship with 2.4	1400$	900$	300$	1400-2300	80%	Parametric No add info
2.6	Raeen Alshehri	Start to Finish Relationship with 2.5	1300$	1000$	1000$	1300-2300	90%	Parametric No add info
2.7	Raeen Alshehri accountant	Start to Finish Relationship with 2.6	1555$	800$	800$	1555-2355	60%	Parametric No add info
3.1	Taif Basheikh Manager	Must obtain manager approval	1000$	800$	800$	1000-1800	60%	Parametric No add info

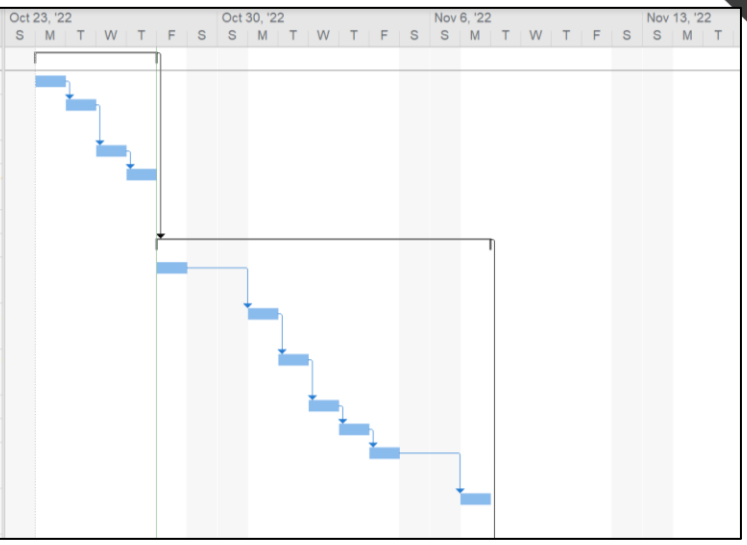
Activity Cost Estimates (cont.)

3.2	Raeen Alshehri Network Specialist for 10 hours	Start to Finish Relationship with 3.1	1000$	600$	550$	1000-1600	80%	Parametric No add info
3.3	Marwh Alhadi Lease Network Test Equipment	Start to Finish Relationship with 3.2	100$	400$	300$	1000-1400	70%	Parametric No add info
3.4	Marwh Alhadi - Programmer for 40 hours	Start to Finish Relationship with 3.4	1300$	1100$	1000$	1300-2400	80%	Parametric No add info
3.5	Marwh Alhadi	Start to Finish Relationship with	500$	400$	200$	500-900	80%	Parametric No add info
	design for 60 hours	3.4						
3.6	Enas Khan testing	Start to Finish Relationship with 3.5	1000$	800$	200$	1000-1800	60%	Parametric No add info
3.7	Enas Khan roll-out	Start to Finish Relationship with 3.6	2000$	900$	200$	2000-2900	90%	Parametric No add info
3.8	Enas Khan promotion	Start to Finish Relationship with 3.7	1000$	800$		1000-1800	80%	Parametric No add info
4.1	Taif Basheikh Manager	Must obtain manager approval	2000$	1000$	1000$	2000-4000	90%	Parametric No add info
4.2	Ghaidaa Almaghrbi	Start to Finish Relationship with 4..1	1000$	0$	50$	1000-1050	70%	Parametric No add info
4.3	Ghaidaa Almaghrbi	Start to Finish Relationship with 4..2	2000$	1000$	1000$	2000-4000	70%	Parametric No add info
5.1	Taif Basheikh Manager	Must obtain manager approval	1000$	50$	50$	1000-1100	909%	Parametric No add info
5.2	Ghaidaa Almaghrbi	Start to Finish Relationship with 5.1	2000$	1000$	1000$	2000-4000	99%	Parametric No add info
5.3	Ghaidaa Almaghrbi	Start to Finish Relationship with 5.2	0$	0$	0$	0$	99%	Parametric No add info

WBS Gantt Chart

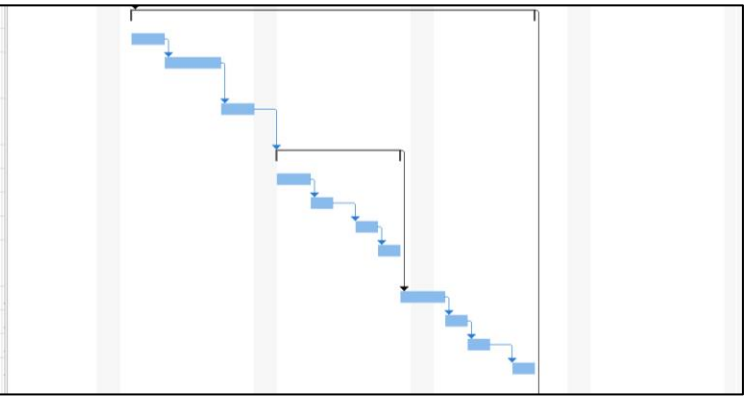
GANTT CHART

	Task Name	Duration	Start	Finish
1	**1. Initiating**	**4 days**	**Mon 10/24/22**	**Thu 10/27/22**
2	1.1. System Overview	1 day	Mon 10/24/22	Mon 10/24/22
3	1.2. Operating Environment	1 day	Tue 10/25/22	Tue 10/25/22
4	1.3. Prepare project chart	1 day	Wed 10/26/22	Wed 10/26/22
5	1.4. Hold project kick-off meeting	1 day	Thu 10/27/22	Thu 10/27/22
6				
7	**2. Planning**	**7 days**	**Fri 10/28/22**	**Mon 11/7/22**
8	2.1. Hold team planning meeting	1 day	Fri 10/28/22	Fri 10/28/22
9	2.2. Prepare team contract	1 day	Mon 10/31/22	Mon 10/31/22
10	2.3. Prepare scope statement	1 day	Tue 11/1/22	Tue 11/1/22
11	2.4. Prepare WBS	1 day	Wed 11/2/22	Wed 11/2/22
12	2.5. Prepare Gantt Chart	1 day	Thu 11/3/22	Thu 11/3/22
13	2.6. Prepare network diagram	1 day	Fri 11/4/22	Fri 11/4/22
14	2.7. Create activity cost estimation	1 day	Mon 11/7/22	Mon 11/7/22



GANTT CHART

16	**3. Executing**	**26 days**	**Tue 11/8/22**	**Tue 12/13/22**
17	3.1. Survey	3 days	Tue 11/8/22	Thu 11/10/22
18	3.2. Application User Interface Specifications	3 days	Fri 11/11/22	Tue 11/15/22
19	*3.3 Application External Interfaces and Database*	*3 days*	*Wed 11/16/22*	*Fri 11/18/22*
20	*3.4. Internet site content*	*9 days*	*Mon 11/21/22*	*Thu 12/1/22*
21	*3.4.1. Articles*	3 days	Mon 11/21/22	Wed 11/23/22
22	*3.4.2 Links*	2 days	Thu 11/24/22	Fri 11/25/22
23	*3.4.2 Ask the expert*	2 days	Mon 11/28/22	Tue 11/29/22
24	*3.4.4 User requests feature*	2 days	Wed 11/30/22	Thu 12/1/22
25	*3.5 . User inputs*	*2 days*	*Fri 12/2/22*	*Mon 12/5/22*
26	*3.6. Application testing*	*2 days*	*Tue 12/6/22*	*Wed 12/7/22*
27	*3.7. Application roll-out*	*2 days*	*Thu 12/8/22*	*Fri 12/9/22*
28	*3.8. Application promotion*	*2 days*	*Mon 12/12/22*	*Tue 12/13/22*



GANTT CHART

	Task Name	Duration	Start	Finish
29	**4. Monitoring and Controlling**	**6 days**	**Wed 12/14/22**	**Wed 12/21/22**
30	4.1 Progress reports	2 days	Wed 12/14/22	Thu 12/15/22
31	4.1.1 Progress reports1	1 day	Wed 12/14/22	Wed 12/14/22
32	4.1.2 Progress reports2	1 day	Thu 12/15/22	Thu 12/15/22
33	4.2 Change requests	1 day	Fri 12/16/22	Fri 12/16/22
34	4.3 Monthly meeting	3 days	Mon 12/19/22	Wed 12/21/22
35	4.3.1 monthly meeting1	1 day	Mon 12/19/22	Mon 12/19/22
36	4.3.2 Monthly meeting2	1 day	Tue 12/20/22	Tue 12/20/22
37	4.3.3 Monthly meeting3	1 day	Wed 12/21/22	Wed 12/21/22
38	**5. Closing**	**26 days**	**Thu 12/22/22**	**Thu 1/26/23**
39	5.1. Prepare final project report	3 days	Thu 12/22/22	Mon 12/26/22
40	5.2. Prepare final project presentation	3 days	Tue 12/27/22	Wed 1/25/23
41	5.3. Lessons learned	1 day	Thu 1/26/23	Thu 1/26/23
42				

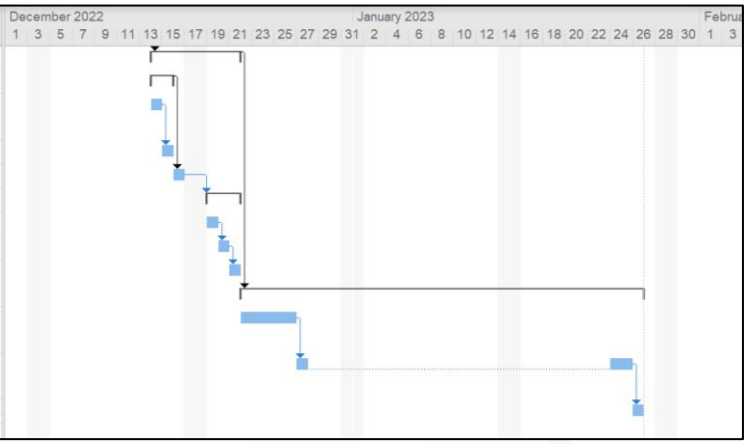


Figure.3

Network Diagram

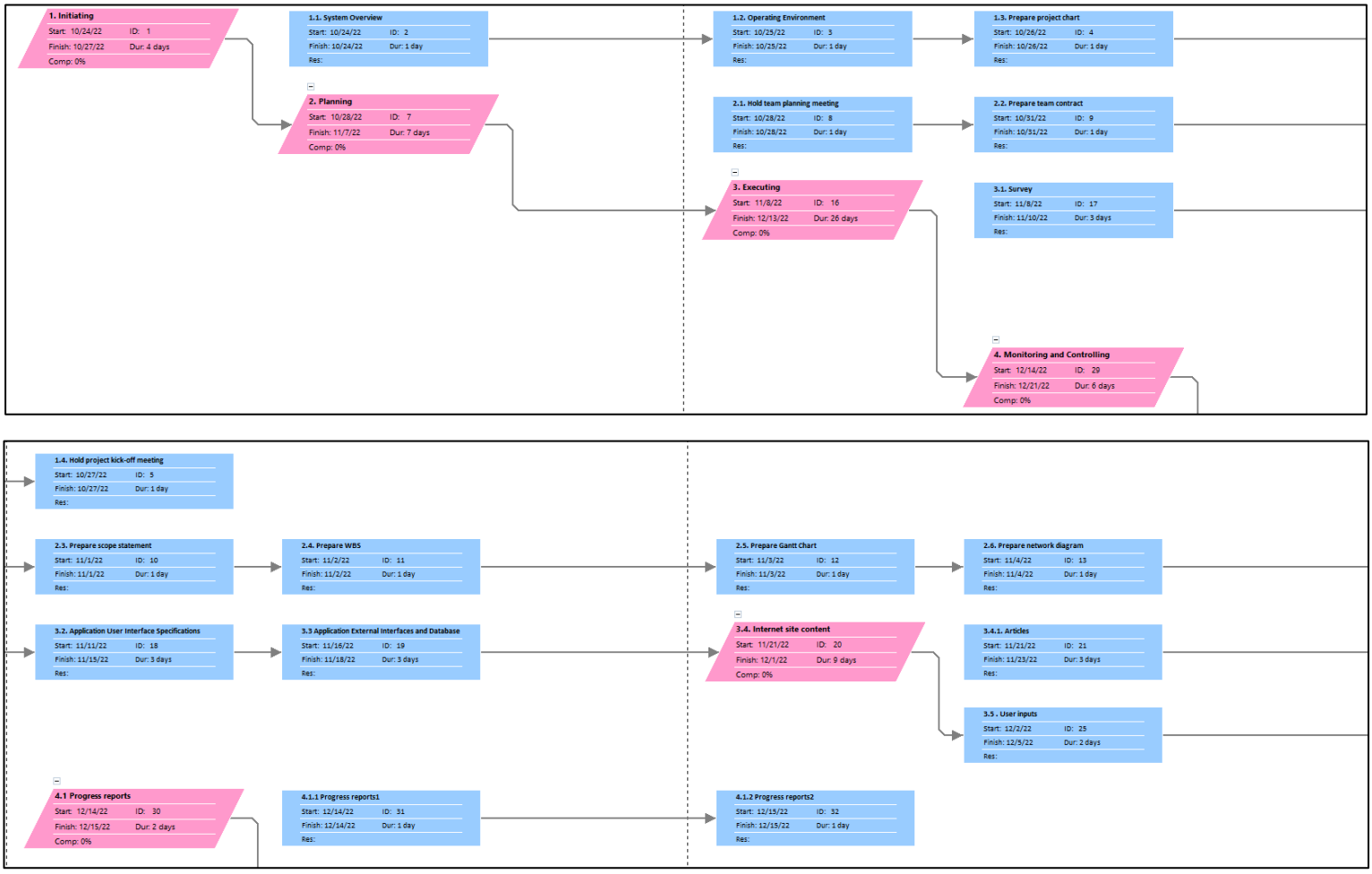
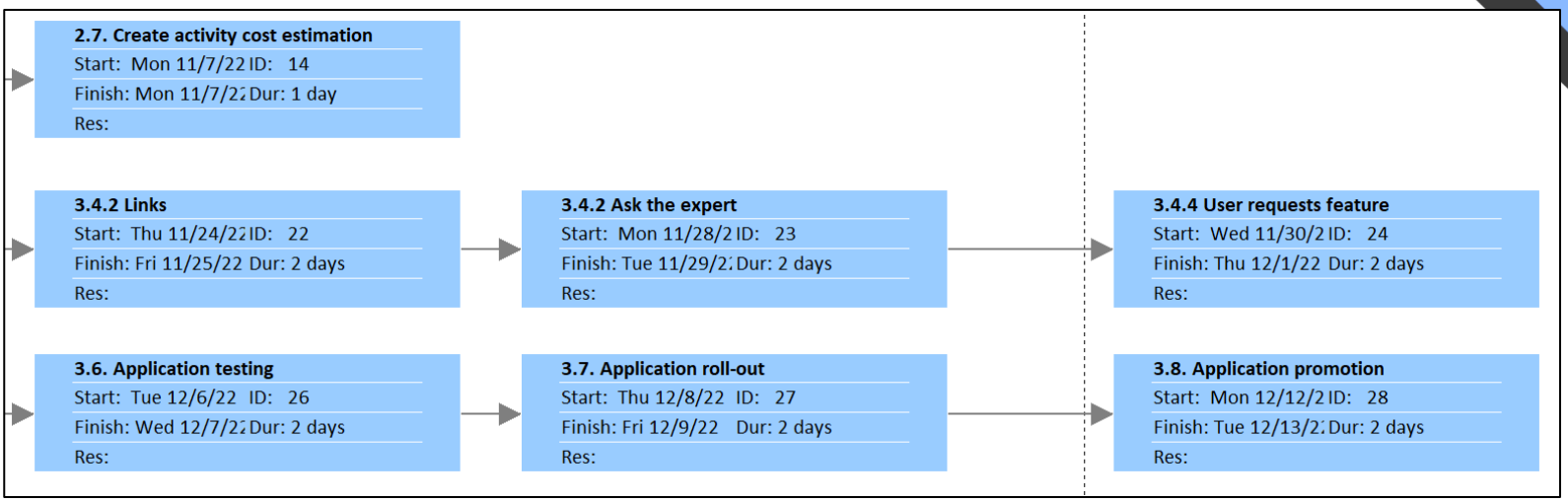


Figure.4.1



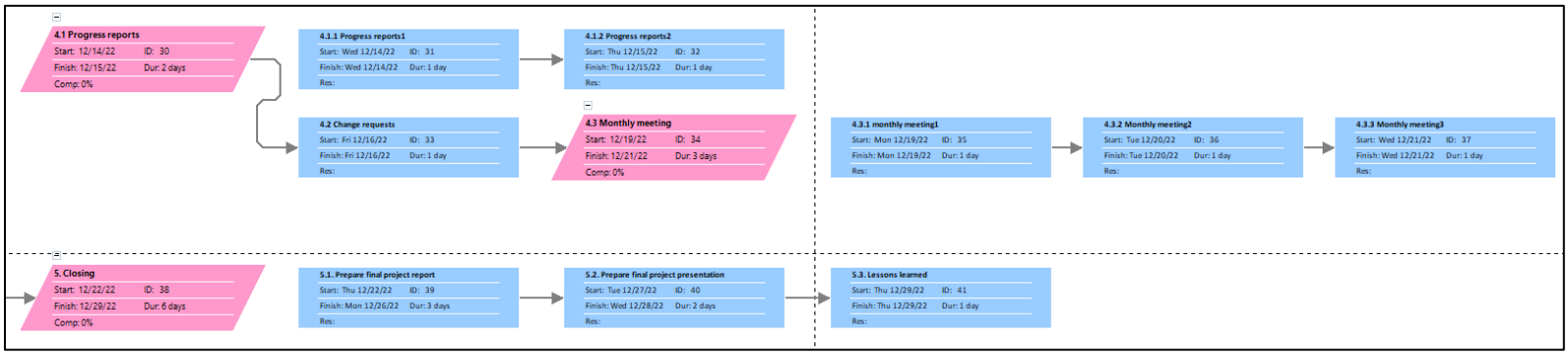


Figure.4.2:

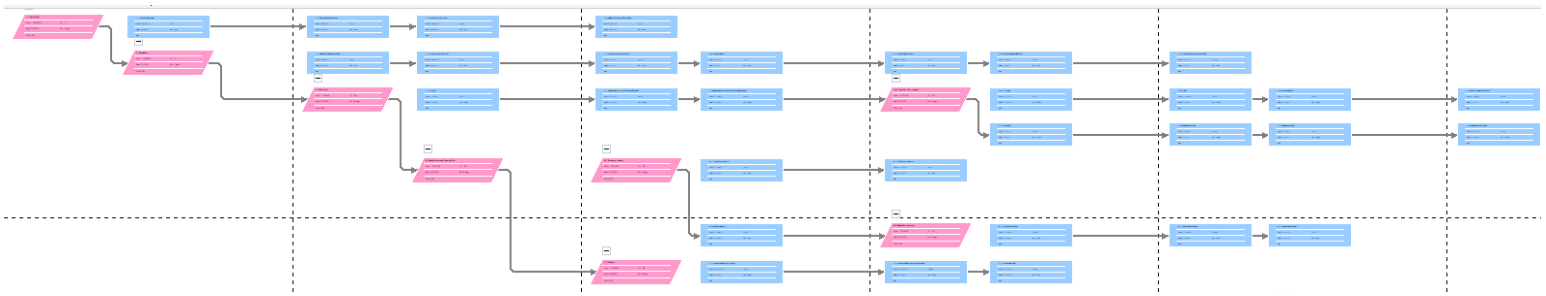


Figure.4.3: Full scree