# 1. Identify project scope and objectives

## 1.1. Identify objectives and measures of effectiveness in meeting them :-

The scope of the project :

Healthy food delivery app that helps people of different age groups to form a nutritional diet. It is an app that helps in ordering all kinds of healthy foods and meals that can not be found in the common delivery apps in the current market. The application allows users to specify their nutritional requirements so that it provides them with suggestions on healthy meals and also nutritional facts of each meal.

The overall objectives of the study are to assure that :

- There is an increased demand for delivery amid to meet COVID-19 pandemic.
- The healthy food-delivery market has the potential to flourish in the near future.
- Provide healthy food options and customized meals.

Measures of effectiveness :

- If the application launched within a budget and assigned period.
- If the number of downloads would be at least 3 million users over two years after launch.
- If the Retention Rate would be between 40%-60%.
- If the stakeholders are satisfied.

### 1.2. Establish a project authority :-

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### 1.3. Identify stakeholders :-

The stakeholders for this project are :

- Customers (restaurant owners & their clients)
- Human Resources department
- Investors
- Chief Executive Officer
- Project Manager
- Developers
- Customer support center
- IT support
- DevOps engineers
- Marketing department
- Finance department

The following stakeholder map helps visualize how each stakeholder gets impacted by the project as well as their influence on it. (figure 1)


Figure 1

## 1.4. Modify objectives in the light of stakeholder analysis :-

We can ask questions that will help us satisfy our stakeholders and by using the stakeholder map we can prioritize these questions :

- How can we win the support of the Stakeholders ?
- What are the expectations of our Investors ?
- What would interest our Investors the most ?
- Will the Customers have issues learning how to use the system ?
- What would mostly concern the Customers ?
- What will motivate the Customers to keep using the system ?
- If the Stakeholders are not satisfied, what could satisfy them ?

### 1.5. Establish methods of communication with parties :-

Using Slack for daily communication.

Using email to send important reports and updates to all stakeholders.

Using zoom/MS teams for online meetings.

Face to Face meetings in the office.

Web chat / call center for Customer.

Social media for Customers.

## 2. Identify project infrastructure

### 2.1. Establish relationship between project and strategic plan :-

Strength
1. Wide range of healthy meals
2. User-friendly app
3. Nutritional facts
4. Pocket-friendly

Opportunities
1. Marketing to the users / influencers who are not using the app to generate more referrals
2. Improve customers' awareness of healthy lifestyle/diet.
3. Growth of the healthy food market
4. COVID-19

Threats
1. Strong competitors
2. Hesitant social adoption to healthy eating
3. Imperfect standards and legal issues
4. Economic Downturn

Weaknesses
1. Need to manage rapid growth.
2. Lack of past projects to learn from.
3. High Turnover
4. Lack of Trust among public

## 2.2. Identify installation standards and procedures :-

1) Comply with the requirements: application procedures must adhere to the stated specifications.
2) Flexibility of use: the application should be utilized in the manner in which it is intended to work.
3) Quality management: ensuring that the application will meet the requirements for which it was designed.
4) Processes include:
   Quality planning: identifying how to satisfy the standers relevant to the application.
   Quality assurance: reviewing overall application performance on a regular basis to ensure that the appliance meets the required quality standards.
   Quality control: monitoring unique application outcomes to ensure they respond to the associated quality measures.

### 2.3. Identify project team organization :-

A project team is a formed group of individuals who work together to complete their project's shared and distinct roles, as well as to achieve their project's objectives. We have the project sponsors (investors, human resources) as the group's formation's leader, and just behind them, the project manager who is accountable for the submanagers and will be accountable for their team members. Furthermore, due to the need for their expertise, some of the personnel will be software engineers.

## 3. Analyze project characteristics

### 3.1. Distinguish the project as either objective or product-driven :-

The project is product-driven as the desired end result for the project is to create a functioning healthy food delivery app with clear specifications.

### 3.2. Project characteristics analysis :-

A food delivery app is certainly not a unique idea, but what is different about this one is the focus on healthy foods. The app will not allow processed foods to be sold on the platform. And since the app’s user base are sensitive to what is in the food they are consuming, the app will help them by providing detailed nutritional information of each meal. This allows the users to monitor how many calories they are intaking, as well as what vitamins and nutrients their diet might lack.

### 3.3. High-level project risks :-

In any software project, there is ought to be risks involved. One way to help reduce the severity of these risks is to have a plan in place to deal with them. And the plan goes as follows:

- Identify the risks.
- Analyze the risks.
- Plan how to handle them.
- Monitor the risk during development.

Here are some risks facing this particular project and some mitigation methods we can take to reduce either the severity or the probability of the risk:

- Unrealistic time and cost estimates: Include all stakeholders in communication and set up feasible time and cost estimates.
- Using the wrong user requirements: Sometimes what the users say they want is not what they want. So, a careful analysis of the requirements should be put in place.
- Lack of enough healthy food suppliers: If there are not enough cuisines willing to use the platform, then the platform would be useless and would not have a positive return on investment.
- Food prices above the buying power of the users: A thorough market research should be done before development.
- Performance issues: The app needs to function fast on mobile devices. Thus, choosing the right technologies to use is vital.
- Designing the wrong user experience: Users should not worry about how the app works, but rather about the food and nutritional facts. So, a great user experience should be put in place by a professional.

### 3.4. Requirements concerning implementation :-

Users of this app value their health and need an app that would facilitate the process of getting healthy food to eat delivered to their doorsteps. These are some of the user requirements that these types of users would need:

- Clean user interface.
- Clear nutritional facts are shown for every meal.
- An unambiguous process for how the delivery process will go (include time duration for delivery).
- The app will be downloaded on mobile phones. So, the appneeds to function efficiently, while not taking much storage.
- Since the app is mobile, some mobile users will be using 3G or 4G data. The app should consume the least amount of data possible for it to function well.
- The app need not be battery draining.
- There should be an algorithm that suggests new restaurants for the user based on their previous patterns.

### 3.5. General life-cycle approach :-

Evolutionary delivery (prototyping) would be a suitable life-cycle approach for this particular project. This is due to multiple factors:

- Prototypes allow for getting better feedback from the users during development.
- Maintenance costs will decrease after development.
- Less documentation.
- Visualization helps stakeholders better understand the end product before the development is done.
- Less ambiguity and misunderstandings when discussing features.

### 3.6. Overall resource estimates review :-

The project will need enough resources for it to be feasible and at the desired quality. The estimates for these resources are:

• Labor: UI/UX designer, 2 developers, 1 IT staff (servers & databases work), product manager.
• Equipment: A computer and its accessories for each employee.
• Space: A leased co-working space will be sufficient for this project.
• Services: AWS servers, Google Workspaces, Apple & Google licenses to publish on their stores.

Depending on the salaries of the mentioned needed personnel, the cost of the equipment, and the prices of the needed services, we can come up with a relatively good estimate of needed resources to complete this project.

## 4. Identify project products and activities

### 4.1. Identify and describe project products (including quality criteria) :-

Purpose

- Provide a helpful and easy application to use for healthy food options.
- Start to provide customized meals to attract all kinds of people
- Attract more people to the application.

Customer Quality Expectations

- Create an online and easy app to use for helping people to eat nutritionally rich and healthy food.
- The app allows users to specify their nutritional requirements so that it can suggest healthy meals based on what and how much they are consuming.

### 4.2. Document generic product flows :-

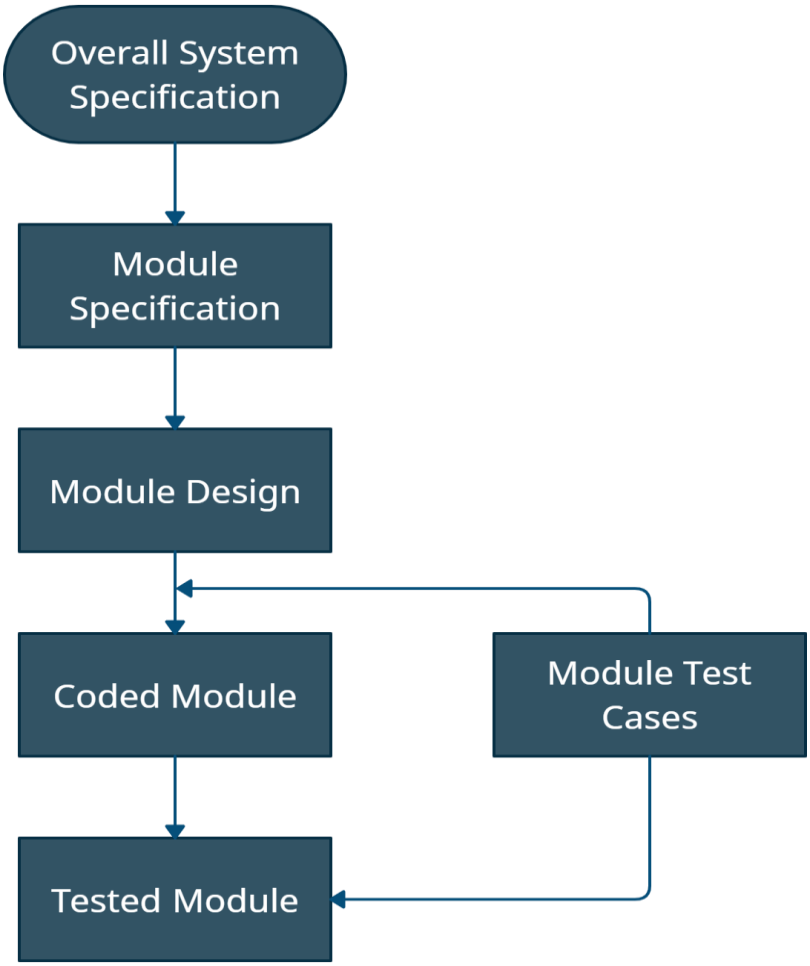



Figure 2

### 4.3. Recognize product instances :-

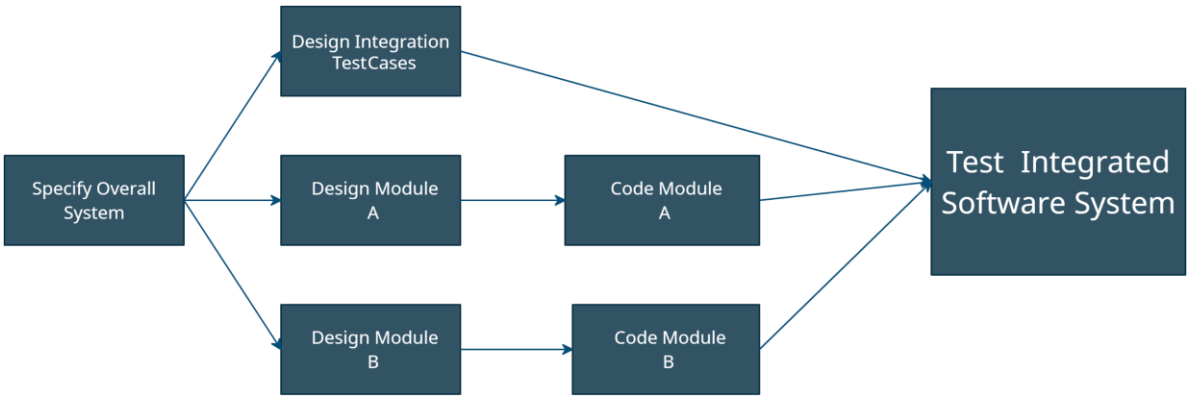



Figure 3

### 4.4. Produce ideal activity network :-

Step Description

| | |
|---|---|
| A | Requirements Gathering |
| B | Requirements Analysis |
| C | Conceptual Design |
| D | System Design |
| E | User Interface Design |
| F | Documentation |
| G | System Development |
| H | System Testing |
| I | Implementation |

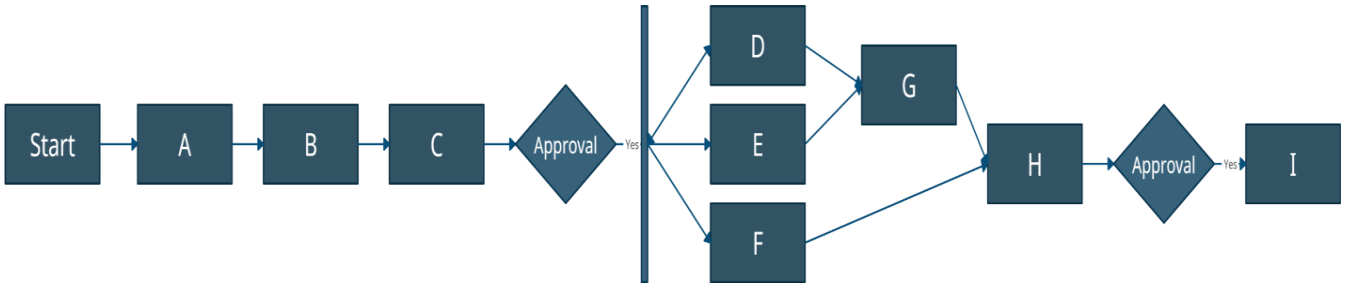



Figure 4

## 4.5. Modify ideal to take into account need for stages and checkpoints :-

Injecting checkpoints in the Activity Network

- To ensure the quality of the products produced and to keep controlling the project, checkpoints should be placed after a sequence of activities forming a milestone.
- Checkpoints are delusory activities with no duration.
- Having passed these checkpoints, implies that the previous activities behind the checkpoint are complete properly.

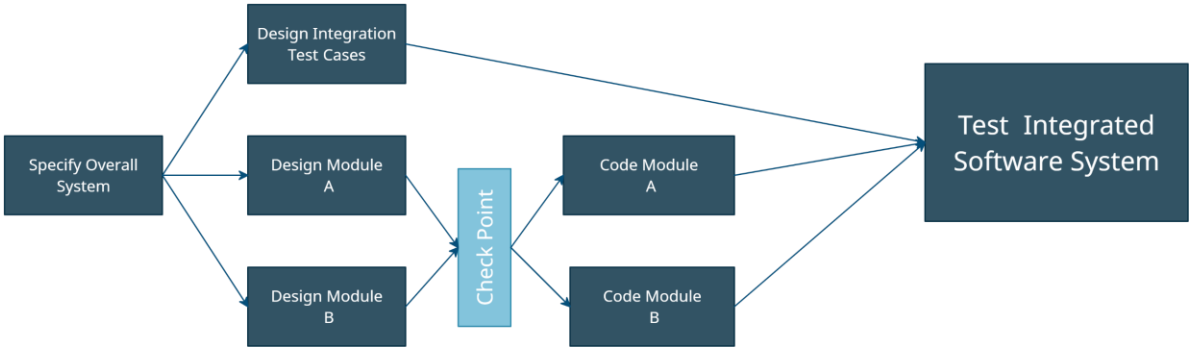



Figure 5

# 5. Estimate effort for each activity

## 5.1. Carry out bottom-up estimates :-

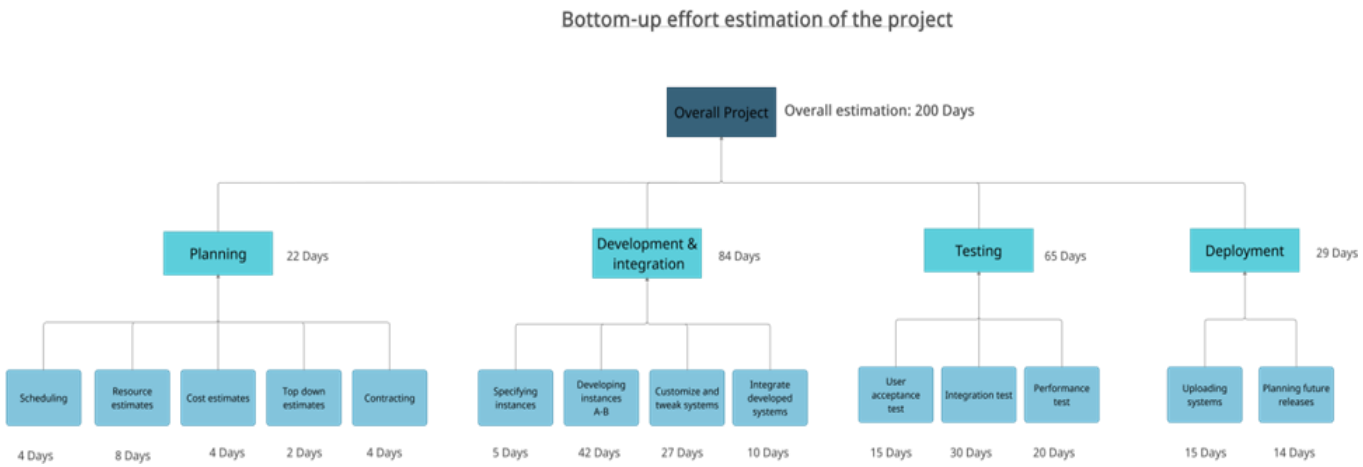



Figure 6

Bottom-up effort has been introduced to all activities and tasks. This concluded in an expected: total project time of 200 days.

- 22 days planning time
- 84 days development and integration time
- 65 days testing time
- 29 days deployment time

This may not be the true timeframe of the project because various activities and tasks may be completed simultaneously when possible.

### 5.2. Revise plan to create controllable activities :-

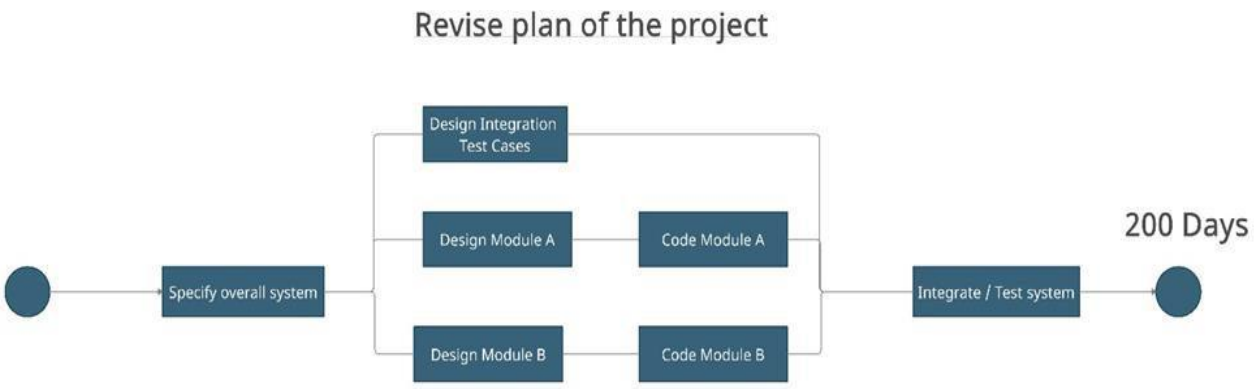



Figure 7

## 6. entify activity risks

### 6.1. Identify and quantify activity-based risks :-

| Task | Risk | Impact level |
|---|---|---|
| Daily meetings | Ineffective communication system | Moderate |
| Assigning roles | Bad management | High |
| User involvement | Low key user involvement | Moderate |
| System developing | Poor project team skills | High |

## 6.2. Plan risk reduction and contingency measures where appropriate :-

1-Daily meetings can always be effective if only the necessary things are discussed in the shortest time possible.

2-When assigning roles, the manager should look up which experiences and skills each person has and should ask which roles each person is comfortable with.

3-The key user should be more involved to get accurate user requirements.

4-Researching and testing the project team depending on their experiences before the development phase.

## 6.3. Adjust plans and estimates to take account of risks :-

| Task | Risks | Mitigation |
|---|---|---|
| Requirements Gathering & Analysis | • Missing stakeholders<br>• Incomplete requirements | • Have a stakeholder checklist (RA)<br>• A meeting to check if the requirements are complete (RR) |
| System Designing | • Inability to design the user interface | • Hiring a third party to design the user interface (RT) |
| System Development & Testing | • Budget overrun<br>• Schedule issues | • Budget should be well estimated (RR)<br>• Tasks should be timed properly and risks should be avoided (RR) |
| Implementation | • Deployment failure | • The system should be tested by different individuals to avoid more issues before deployment (RR) |

## 7.Allocate resources

### 7.1. Identify and allocate resources :-

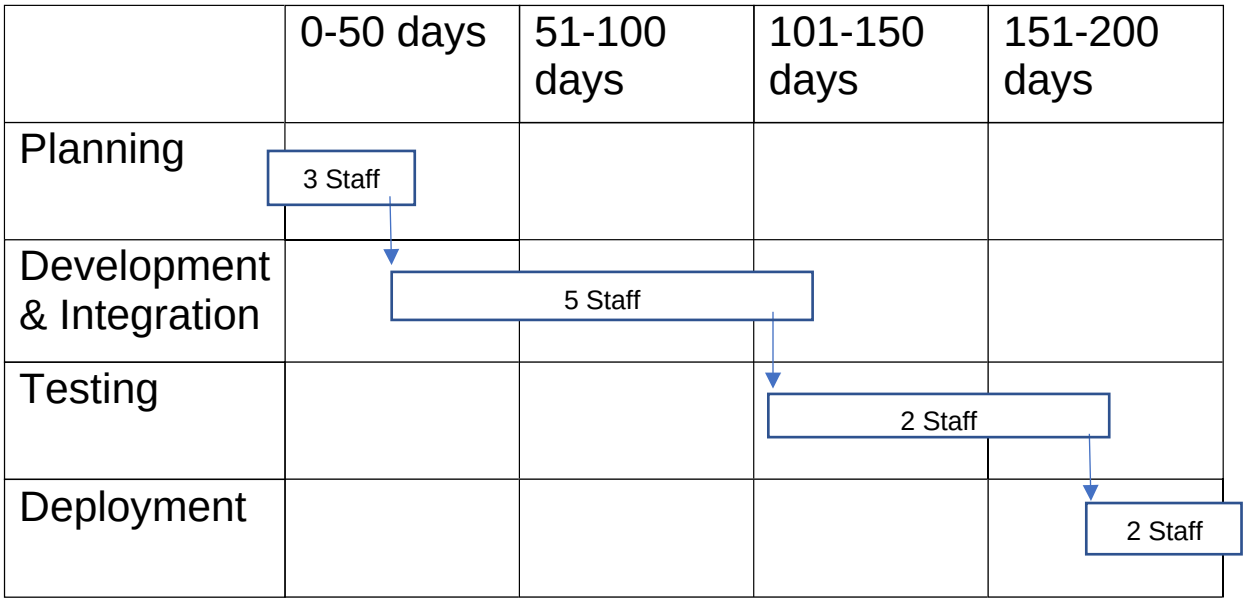
Planning : 22 Days, 3 Staff required

Development & Integration : 84 Days, 5 Staff required

Testing : 65 Days, 2 Staff required

Deployment : 29 Days, 2 Staff required

### 7.2. Revise plans and estimates to take into account of resource constraints



## 8.Review / publicize plan

### 8.1 Review quality aspects of project plan :-

According to organization standards and ISO 9001:2000 principles this project achieved a good quality control according to proficiency deduced in understanding the requirements of the customer, leadership, Involvement of staff, continuous process improvement, decision-making based on factual evidence, and mutually beneficial relationships. Moreover, quality management plan procedures parts were completed during this report, where:

- Scope of the plan was achieved in part one.
- Standards, practices, and conventions in part 2 with the identification of the project infrastructure.
- Produce document generic product in part 4 of the plan.
- Reviews, audits, and problem reporting in part 5.
- Risk management in part 6 of the step wise approach.
- References to other documents, tools, techniques, and methodologies in part 7 (resources allocation).

In addition to testing, training, coding, media and supplier control.

The quality was improved by incorporating a meeting whenever a problem deduced to discuss the next steps. Furthermore, each team member has to submit copies of his completed work to his/her co-workers.

## 8.2 Communication/Document plans :-

| Name of Meeting | Due Date/Freq | Delivery Method | Objective's description | Responsibility | Target audience |
|---|---|---|---|---|---|
| Obtain agreement task (Kick off-meeting) | November | Documents via Email | Submitting project documents and getting the agreement from project member/owner (before starting the project) | Project manger | Employee |
| Product announcement | October | Email/ social media | Inform customers about the new product | Customer marketing manager /project manger | Customer |
| Updated pricing | Weekly in Friday 10am | Zoom meeting | Update the pricing page on the website/ application | Project manager /marketing manger | Customer |
| Product growth catch | Monthly in Monday 9am | Face to face on the office | Pitch product milestones and existing media | PR manger | Media/PR |