

# **Business Case:**

## **Project Title: Online food Delivery System.**

### **Organization and department:**

Since Covid-19 era the food and restaurant business has taken massive hit because, in the covid time people were scared and at the same time they were under lockdown due to which they were not allowed to go outside and eat. This reasons, has left big scar on food and restaurant industries who did not provided facility of delivering food to their customer's home. The restaurants who do not use mobile application, e-commerce websites, home delivery or social media to promote their products are still suffering from massive business loss. Nowadays, after covid effect majority of the people still likes to sit in their home and order food online, this option is very useful and preferable by the customers especially, in the winter time because, people avoid going out in cold and severe snowfalls. Moreover, the restaurants which take orders on the phone are not able to meet the customer's demands and as a result they are not able to deliver food on time due to lack of workforce. The restaurants which take orders on phone are willing to improve their mechanism because, it is not possible to fullfill customer's orders in larger scale. Further, they want to develop full fledge e-commerce website and mobile application with all the details about the restaurants, the food items they are serving along with their ingredients and price and also with home delivery option or pick-up option. For, home delivery facility they are approaching external delivery contractors to partner with them, so they can deliver food to multiple locations at one time and most importantly, to fulfill their promise of delivering fresh food on time to customer's door-step. By this way, people will be able to order food from the comfort of their home.

### **Requirements and Justification:**

The mobile application and e-commerce website can be used by people to order their their favourite delicacy from their favourite restaurant. Nowadays, people prefer more to order food online and enjoy their food with their family in the comfort of their own home. Therefore, they need to update their sales policy and they are willing to provide far more customer friendly facilities by developing online food delivery mobile-application and e-commerce website. Through this application and e-commerce website they will be able to provide detail information about their restaurants to customers. Furthermore, for this restaurant owners need to make investments in development of mobile application and e-commerce website of their restaurants to boost their business. They, also need to make investment in hiring technical experts to maintain and to update this mobile application and e-commerce website in timely manner, so that the customer's should not face any incovienency due to technical faults. Additionally, this technical experts will also be responsible to address customers queries and to provide solutions regarding their queries.

## **Functional Requirements:**

- The mobile-application and e-commerce website should have a description page that should include the detail information about their restaurant, their vision, goals and the food items they are intended to sell.
- It should have a login and sign-up page to register the customer in restaurants database and after registration they can again login using their specific credentials.
- Both mobile-application and e-commerce website should have a dynamic database to save customers details, to manage inventory, to save customers previous orders in order to give them quick suggestions.
- Mobile-application and e-commerce website should have a function of adding or deleting food items from their existing cart.
- Both platforms must consist of a payment mechanism that allows customers to pay their bill through various options such as, credit card, debit card or an option of cash on delivery. In addition to this, they must make sure to provide secure transactions.
- Both platforms must have a log-out mechanism after placing order and successfully completing payment.
- These platforms have to include receipt generation system that contains the information of their food orders, total amount, and payment details. These platforms must have a function which automatically sends receipt to their email or registered contact number.
- These platforms will run on client-server architecture, and they will be developed by using Python and PHP programming. Additionally, mobile-application and e-commerce website should easily run on all types of browsers and mobile phones.

## **Non-Functional Requirements:**

- Both mobile-application and e-commerce website must be fully available during the working hours of the restaurant, so that the customers can order the food at any time in any browser and any mobile-phone.

- Both platforms should use Secured Socket Layer (SSL) in all payment methods, including any customers' sensitive information.
- A database will be used to maintain the customers and food product details.
- Backup facility should be provided in case of any technical failure.
- It should include a log-out system for all the customers after a period of inactivity.
- Functions of both mobile-application and e-commerce should be developed so that, they will be able to run better even in peak busy time.

### **Solution and cost estimation:**

Resources	Cost
Mobile Application	60,000 USD
E-commerce Website	70,000 USD
Hardware	10,000 USD
Server Installation	20,000 USD
Database	15,000 USD
Training	20,000 USD
Implementation	30,000 USD
Testing	30,000 USD
<b>Total Estimated Cost = \$255,000 USD</b>	

### **Benefits of this solution:**

- Customers' time will be saved while ordering their favourite food through a website or mobile application.
- Easy for customers to order food from the comfort of their home.
- Availability of various types of food items.
- Discounts and offers on ordering food online.
- Description of each food item is provided.
- Facility of tracking their order while it is in delivery process

# PROJECT CHARTER

**Project Title:** Online Food Delivery System.

**Project Sponsor:** Restaurant Owners.

**Date Prepared:** 9/11/2022.

**Project Manager:** \_\_\_\_\_

**Project Customer:** Owners.

## Project Purpose or Justification:

Since, covid era the restaurants who did not had food delivery system faced major blow in their business as people were scared to go out and eat, so they preferred to order their food from the comfort of their home. Even, nowadays majority of the people order their favourite food online from their preferred restaurants. Further, the main objective of this project is to boost the business of restaurants by introducing them to mobile application and e-commerce website. This two platforms can really help restaurant owners to have successful business in food industries. This platforms will be the beneficial to the owners as it will be the great source of revenue generation.

## Project Description:

The detail information about this project is mentioned in this document. The project owner and the stakeholders can track the development of this project by reviewing this document, by this they will have complete knowledge about the progress made in the project. This document will define each and every milestones of the project at each level. This mobile application and e-commerce website will be compatible to the browers of mobile phones and computers. Furthermore, technical development team will look after the development of mobile application and website and this both platforms will be available country-wide to use. Any restaurant owner can make use of this platforms to boost their business and it will also provide employment to the external delivery contractors.

## High-Level Requirements:

Following are the some of the high-level requirements of this project:

- 1) Registration Form. 2) Product Add, Edit, Delete modules. 3) Members Add, Edit, Delete modules. 4) Customer Information. 5) Customer's Order Management. 6) Payment Management. 7) Tracking of Customer's Order.

## High-Level Risks:

There are two high level risks in this project one of them is the functionality of mobile application and e-commerce website, because whole business idea depends on it if this platforms broke down due to technical fault than whole business can be in jeopardy. The another risk factor is the secure payment transactions. All, the transactions should be done securely without any breach of privacy.

# PROJECT CHARTER

Project Objectives	Success Criteria	Person Approving
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**Scope:**

This project will create both mobile application and e-commerce website with all the proper functions.	This will be a successful project if it will be done within time and budget and at the same with all the functions working properly.	Client or Manager
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**Time:**

Estimated 3 months	To complete whole project in a given time	Client or Manager
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**Cost:**

The approximate cost is \$255,000	To complete project within budget.	Client.
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**Other:**

Quality should be maintained.	To complete project with best quality.	Client.
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Summary Milestones	Due Date
Project Initiation	Oct 15
Project Planning	Oct 25
Project Executing	Nov 10
Monitoring & controlling	Dec 5
Closing	Dec 15

### **Estimated Budget:**

The estimated budget of the entire project is around \$255,000 if any new addition would be made than the cost of the budget is going to increase according the new changes made.

<b>Stakeholders</b>	<b>Role</b>
Developers	Responsible for developing mobile-application and website according to clients demand.
Team Leader	Responsible for guiding group of employees.
Client	Approves plans, provide funds, request changes and approves final deliverables of the project.
Project Manager	Responsible for Planning, Organizing, and directing the whole project and ensuring the project is on time, on budget and within scope.
Support Team	Supports in every aspect of the project and helps in reducing and solving issues.
Testing Team	Responsible for making sure that every function is working properly and according to the requirements before delivering the final project to the client.
Restaurants Owner	They are going to use this project to increase their business.

### **Project Manager Authority Level:**

### **Staffing Decision:**

The project manager can hire, fire or select the number of employees that are going to be involved in the project. Project manager can also assign specific roles to all the employees.

### **Budget Management and Variance:**

The Project Manager has the responsibility to complete whole project within budget and if the client demands for additional features than the manager can also demand for extra budget from the clients.

# PROJECT CHARTER

## Technical Decision:

The Project Manager has to take all the technical decisions along with hiring technical experts to carry out the technical part of the project. Project Manager will approve the technology that is going to be used in the project.

## Conflict Resolutions:

The Project Manager has the most important responsibility of carrying out the project. He/She is going to make every decision regarding the project so, if there is any conflict either between the staff or between staff and clients it's his/her responsibility to resolve conflict to carry out the smooth conduct of the project.

## Approvals:

**Project Manager Signature:** \_\_\_\_\_

**Project Manager Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Sponsor or Originator Signature:** \_\_\_\_\_

**Sponsor or Originator Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## **Sample of Requirement gathering:**

People can utilize the mobile application and the online store to order their favourite treat from their preferred restaurant. Nowadays, many individuals prefer to place online food orders and have a home-cooked meal with their family. As a result, they must alter their sales policy and are ready to offer far more customer-friendly facilities by creating an e-commerce website and mobile meal delivery application. They would be able to give clients detailed information about their restaurants through this application and an e-commerce website. Additionally, to increase their business, restaurant owners must engage in the creation of mobile applications and e-commerce websites for their establishments. Additionally, they must engage in employing technological specialists to promptly maintain and update this mobile application and e-commerce website so that customers won't experience any inconsistencies due to technological issues. Additionally, it will be the duty of these technical specialists to respond to client inquiries and offer answers.

## **Functional Requirements:**

- The mobile-application and e-commerce website should of a description page that should include the detail information about their restaurant, their vision, goals and the food items they are intended to sell.
- It should have a login and sign-up page to register the customer in restaurants database and after registration they can again login using their specific credentials.
- Both mobile-application and e-commerce website should have a dynamic database to save customers details, to manage inventory, to save customers previous orders in order to give them quick suggestions.
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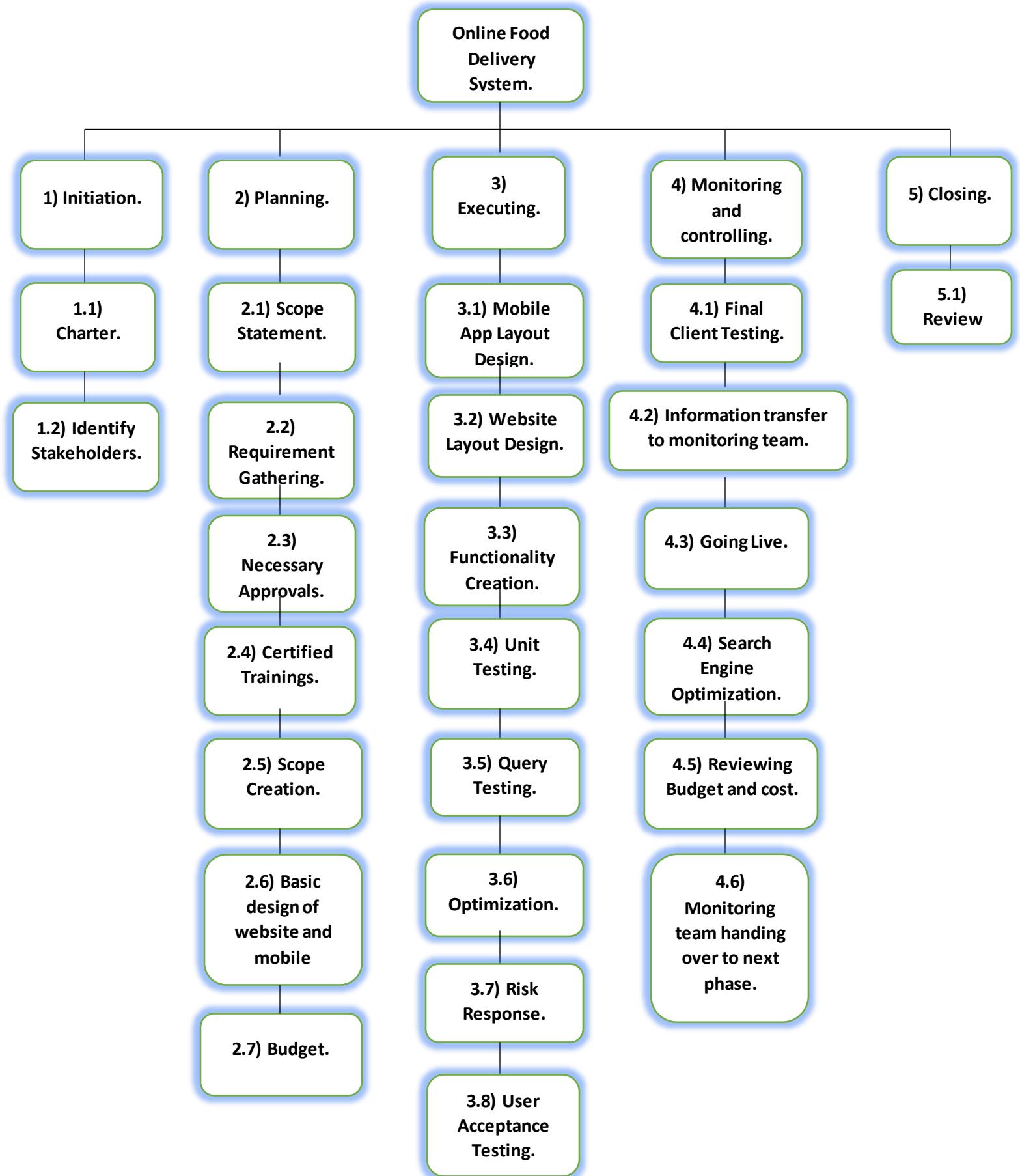
platforms must have a function which automatically sends receipt to their email or registered contact number.

- These platforms will run on client-server architecture, and they will be developed by using Python and PHP programming. Additionally, mobile-application and e-commerce website should easily run on all types' browsers and mobile phones.

### **Non-Functional Requirements:**

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- Both platforms should use Secured Socket Layer (SSL) in all payment methods, including any customer's sensitive information.
- A database will be used to maintain the customers and food product details.
- Backup facility should be provided in case of any technical failure.
- It should include, a log-out system for all the customers after a period of inactivity.
- Functions of both mobile-application and e-commerce should be developed so that, they will be able to run better even in peak busy time.

## WORK BREAKDOWN STRUCTURE FOR ONLINE FOOD DELIVERY SYSTEM.



# RACI MATRIX

	Developers	Team Leader	Client	Project Manager	Support Team	Testing Team	Restaurant Owners
Project Deliverable							
Initiation Phase Activity							
Create Project Charter	C	C	C	R/A			
Planning Phase Activities							
Requirement Gathering	C	A/C	C/I	R/A	C		
Necessary approvals							
Certified trainings							
Scope creation	I	A	R	R/A	I	I	
Basic design of website and mobile application	I	C	C	R/A	I		C/I
Budget	I	I	R/A	R/A	I		A/C
Building/Execution Phase Activities							
Website and mobile application layout design	I	C	C	R/A	I		C/I
Functionality creation	I	C	C	R/A	I		
Unit Testing	I	I	C	R/A	I		A/C
Integration	I	A/C	I	R/A	I		
Query Testing	I	I	C/I	R/A	I		A/C
Optimization							
Risk response	I	R	R	R/A	I		
User Acceptance Testing							
Buffer Time							C/I
Monitoring/Controlling Phase Activities							
Final Client Testing							R/A
Information transfer to monitoring team							
Going live	I	C/I	A/C	R/A	I	C/I	
Search Engine Optimization	I	I	C/I	R/A	I	I	
Reviewing Budget and costs	I	I	R/A	R/A	I		
Monitoring Team handling over to next phase	I	I	C/I	R/A	I		
Closing Phase Activities							
Review Meeting	C/I	C/I	R/A	R/A	C/I	C/I	

Responsible   Accountable   Consulted   Informed

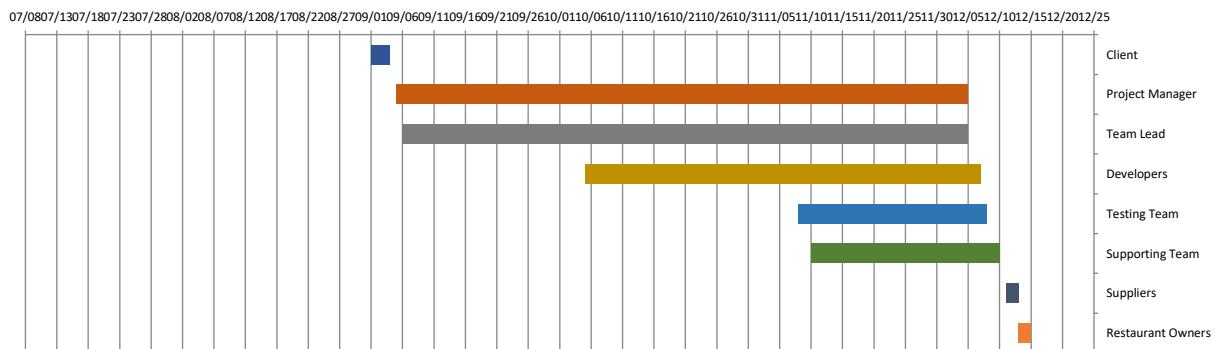
## **Cost And Budget Estimation:**

<b>Resources</b>	<b>Cost</b>
Mobile Application	60,000 USD
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<b>Total Estimated Cost = \$255,000 USD</b>	

<b>Project Tasks</b>	<b>Cost</b>
Initiation	\$51000
Planning	\$60000
Building and Execution	\$75000
Project going live	\$42000
Monitoring and controlling	\$27000
Total Budget	\$255,000

# RESOURCE WORK ACTIVITIES CHART

RESOURCE	NAME	STATUS	START DATE	END DATE	DURATION in days	COMMENTS
Client	Staff 1	Complete	09/01	09/04	3	
Project Manager	Staff 2	Complete	09/05	12/05	91	
Team Lead	Staff 3	Complete	09/06	12/05	90	
Developers	Staff 4	Complete	10/05	12/07	63	
Testing Team	Staff 5	Complete	11/08	12/08	30	
Supporting Team	Staff 6	Complete	11/10	12/10	30	
Suppliers	Staff 8	Complete	12/11	12/13	2	
Restaurant Owners	Staff 9	Complete	12/13	12/15	2	



## CHANGE LOG

Project Title: **Online Food Delivery System.**

Date Prepared:

Change ID	Category	Description of Change	Submitted by	Submission Date	Status	Disposition
1.)	Scope	Changes in the scope creation.	Client	21/11/2022	Progressing	Deferred
2.)	Quality	Changes in the mobile application.	Client	21/11/2022	Open to change	Approved
3.)	Quality	Changes In the design of the website.	Client	21/11/2022	Open to change	Approved
4.)	Quality	Requesting changes in the layout of the website.	Restaurant Owners	21/11/2022	Changing	Approved
5.)	Cost	Adding more functions in the website and application.	Client	21/11/2022	Critical	Approved
6.)	Cost	Request to add more security in payment method and risk response.	Client and Restaurant Owners	21/11/2022	Critical	Approved

# CHANGE REQUEST

Project Title: Online Food Delivery System. Date Prepared: \_\_\_\_\_

Person Requesting Change: Client Change Number: \_\_\_\_\_

Category of Change:

Scope

Quality

Requirements

Cost

Schedule

Documents

## Detailed Description of Proposed Change

The clients are requesting changes in the category of Scope, Quality and Cost. They want changes in the scope creation, in the design of mobile application, in the layout design of website, they want to add more functions in both of website and application and most importantly they want to add more security in the payment methods and risk response.

## Justification for Proposed Change

The changes requested by the clients are valid in our point of view as they want increase in quality of the product. They want minor changes in scope as they want to add more functions and members, the change proposed by them in the design of mobile application is more user friendly, the proposed changes in the layout design of the website is approved because, this changes will make website more appealing to the customers. Further, they want modifications in the functionality of the application and website to make it more customer friendly and dynamic. The most important change proposed by them was in the payment methods and to the capacity of response to the risks, this change is very critical as it involves payment done by the customers, so to make all the payment methods as secure as possible they want to add more security patches in the payment methods.

## Impacts of Change

Scope	<input checked="" type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description: The changes proposed by the clients will increase the scope. It will impact the scope as they want to add more functionalities in the middle of the project.			

Grade	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description:			

## CHANGE REQUEST

<b>Requirements</b>	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input checked="" type="checkbox"/> Modify
Description: There will be modifications in the requirements as the clients are requesting changes in the design and the layout of the mobile application and website.			
<b>Cost</b>	<input checked="" type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> Modify
Description: As the changes proposed by the clients to add more functions in the mobile application and website and to add more secure patches for the payment methods. This proposed changes will result in slight increase of the budget.			
<b>Schedule</b>	<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input checked="" type="checkbox"/> Modify
Description: There will be minor modifications in the schedule of the completion of project due to the proposed changes that has to be implemented in the project.			
<b>Stakeholder Impact</b>	<input type="checkbox"/> High risk	<input checked="" type="checkbox"/> Low risk	<input type="checkbox"/> Medium risk
Description: The changes proposed by the stakeholders was done in time and all the changes proposed by them will be completed on decided modified scheduled.			
<b>Project Documents</b>			

### Comments

Project Documents is important to make as this documents helps us to track the progress

of the project and it also helps us to complete our project on time and on decided budget.

## CHANGE REQUEST

**Disposition** Approve Defer Reject**Justification**

We are approving all the proposed changes made by the clients as we feel, that this changes will benefit this project and eventually it will be beneficial to all the customers and users. With the help of this changes this project will be more user and customer friendly. The mobile application and website will have modern features and functions. Further, most importantly after implementing those changes they payment method used in both of the mobile application and website will be more secure.

**Change Control Board Signatures**

Name	Role	Signature

Date: \_\_\_\_\_

## STAKE HOLDER REGISTER

Project Manager: GROUP-03

Project Name: Online Food Delivery System.

Role	Contact	Category	Interest	Influence	Expectations	Common Requirements
Column1	Email					
Developers	<a href="mailto:Vaibhav@gmail.com">Vaibhav@gmail.com</a>	Internal			Develops User friendly website and mobile application	Video Call and Conference
Team Lead	<a href="mailto:Kush@gmail.com">Kush@gmail.com</a>	Internal			Make sure to deliver project on time	Email and Telephone
Client	<a href="mailto:Akshar@gmail.com">Akshar@gmail.com</a>	External			Expects project completion on time according to requirements	Email and Telephone
Project Manager	<a href="mailto:Hiren@gmail.com">Hiren@gmail.com</a>	Internal			Schedule and Budget Management	Email and Telephone
Support Team	<a href="mailto:Haleem@gmail.com">Haleem@gmail.com</a>	Internal			Supports in every aspect of the project	Email and Telephone
Testing Team	<a href="mailto:Rahul@gmail.com">Rahul@gmail.com</a>	Internal			Make sure to deliver project error free	Email and Telephone
Restaurant Owners	<a href="mailto:VeggieKing@gmail.com">VeggieKing@gmail.com</a>	External			Expects project to be user friendly and also as major source of income	Email and Telephone



Represents moderate level of interest and influence

Medium level of Interest and Influence

High level of interest and influence

# Communication Plan

Communication Activity	Method	Frequency	Purpose of Communication	Audience
Project Planning Meeting	Video Conference/ In-Person	Once	Depicting client goals, deciding budget and timeline, assigning first milestone.	Team members, stakeholders, project manager
Team Daily Strategy	In-Person	Daily	Setting daily goals, updating project manager on milestone status.	Team members and project manager
Team Status Report	E-Mail	Weekly/Milestones	Summarizing daily strategies, showing the successful achievement of the week and setting goals for next week	Team members and project manager
Stakeholder Status Report	E-Mail/Video Conference	Bi-Weekly	Look after the progress and updates for the following phases in the project	Project manager and stakeholders
Review Meetings	Meeting	At the completion of milestones	Checking with client on progress, assign next milestone and assessing timeline and budget	Team members, stakeholders, project manager
Lessons Learned Meeting	In-Person Meeting	At the end of the project	Assessment of success and failures of the current project and collect information to improve future projects	Team members and project manager

## LESSONS LEARNED

Project Title: Online Food Delivery System

Date Prepared: \_\_\_\_\_

### Project Performance Analysis

	What Worked Well	What Can Be Improved
Requirements definition and management	The requirements provided by the clients were clear and easily understandable.	We as a team could have had a more dynamic approach for the client requirements.
Scope definition and management	Scope creation was on point and client provided us with the clear scope requirements so it worked well for us.	We as a team could have suggested more proactive features according to the client's requirements.
Schedule development and control	We developed schedule according to the client's requirements and we were on course to complete project on time even after making proposed changes.	We could have set buffer time better with all changes in mind to complete project with best quality and on decided time period.
Cost estimating and control	We almost got the cost estimation on point on the basis of the scope definition and we calculated cost and budget to near perfection.	The room for improvement in this section is that, for the future projects we can have some buffer in budget to approve and complete proposed changes in buffer.
Quality planning and control	We were able to meet all the requirements and complete this project as the same quality we planned to achieve prior starting this project. Our developers, were experienced and they developed both mobile application and website with great quality.	Initially we were not able to achieve for desired quality with the proposed changes but, our developers somehow managed to achieve it but, for the future reference we would like to make our projects with best quality even after making last moment changes.

Human resource availability, team development, and performance	We had ample amount of human resource with assigned roles available for this project and the team bonded well and developed well while working on this project and the whole team maintained high standard of performance throughout the project.	For the future project we would like to have a team with blend of both youth and experience and the required tools, so they can work well together to achieve desired results.
Communication management	All the project documents were drafted and were sent to all the concerned stakeholders. There was clear communication between us Project Managers, team members and all the stakeholders involved in this project.	Though we feel that there could be some improvement in the communication with all the stakeholders especially at the time of requesting changes. With this improvement we can have better quality of projects in the future.
Stakeholder management	All the stakeholders were correctly identified for this project and with the help of all the stakeholders we were able to complete project on time.	We could have a bit better understanding among all the stakeholders to avoid any last moment changes made to the project.
Reporting	All the departments that worked on this project made all the reports accurate and they were all on time.	For the future projects we would like to have more meeting time among all the stakeholders to analyze reports of the project and to plan further phases of the project according to the reports.
Risk management	We were able to identify the risks that occur during the development of this project and we were able to handle all the risks and complete whole project on time.	For the future projects, when we will identify risks, we would like to make enough analysis on that identified risks before coming to conclusion.
Procurement planning and management	All the projects' documents were well drafted and includes all the detail information about the whole project.	All the steps right from the start to the end of the project was well defined. But we would like to have minor changes in the schedules to add more

		buffer time to complete the project on time.
Process improvement information	Throughout this project we maintained our best standards to improve quality of the project and to deliver project on time.	We would like to upgrade our quality of service after making the final deliverables.
Product-specific information	We have created mobile application and e-commerce website for online delivery of the food. In this our project sponsor will collaborate with other restaurant owners and external delivery partners to come on board to deliver food to customer's home.	We would like to improve the layout of the website and application where top rated restaurants will be at top where worst rated restaurants will be at the bottom of the list.
Other	Our team performed well throughout the project.	For the future projects we would like to do our project well within budget and before decided time period.

## LESSONS LEARNED

### Risks and Issues

Risk or Issue Description	Response	Comments
Layout of website	We accepted proposed changes from stakeholders.	Changes were necessary to improve the website to make it more user friendly.
Layout of Mobile Application	We accepted proposed changes from stakeholders.	Changes were made to application by keeping customer's benefits in mind.
Payment Methods	We accepted proposed changes from stakeholders.	It was necessary to make changes in payment methods to make it more secure. So, the customers can easily use online payment methods without any worry.

### Quality Defects

Defect Description	Resolution	Comments
Functions and features in mobile application.	We acknowledged that functions of mobile application need changes as it was not dynamic and user friendly.	We acknowledged proposed changes made by the stakeholders and we decided to approve those changes.
Online Payment methods.	We decided to make changes in payment methods to make it more secure.	It was necessary to make payment methods more secure to earn customer's trust.

### Vendor Management

Vendor	Issue	Resolution	Comments
Restaurant Owners	Not convinced to come on board.	We resolve this issue by explaining the whole project details to our restaurant partners.	It was necessary to resolve this issue because without restaurants this system would fail.
External Delivery Partners	Demanding more wages.	We compromised with delivery partners to resolve this issue by giving them incentives.	It was important to resolve those issues as delivery partners is one of the main factors.

<b>Areas of Exceptional Performance</b>	<b>Areas for Improvement</b>
Development Team	Scheduling
Testing Team	Cost and Budget