# Software Requirement Specification Towards a Given Problem Statement (Home Industry)

# TABLE OF CONTENTS

# 1 INTRODUCTION

Home industry is a small-scale industry providing a gainful employment carried in the home. Home industry is engaged in production, processing, servicing, making and selling of goods.

**Advantages of home industries :**

- Save money by not having to rent a commercial kitchen.
- Office space or plant.
- Running a home-based business can be a great way to recoup the business expenses, reduce the amount of income tax.
- Startup cash for home industry is less.

## 1.1 Problem statement

The concept of developing an android application which offers digital platform for selling homemade spices and snacks in order to increase the reach to major consumers with marketing or promotion activities for homemade food items like ready snacks, spices. Online ordering and delivering of such goods payment ratings, review and feedback system.

## 1.2 Scope

The main scope of the given problem statement is to setup a digital environment leading towards a small-scale business-idea from home leading to the best choice for people who are capable of handling ownership. Selecting the right product and proper marketing strategy are the major deciding factors in getting success in the business and selling homemade spices and snacks is one of the most profitable small-scale business ideas for women entrepreneurs.

## 1.3 Methodology

The Methodology Adopted is "Agile Methodology".

The Agile Method and methodology is a particular approach to project management that is utilized in software development. This method assists teams in responding to the unpredictability of constructing software. It uses incremental iterative work sequences that are commonly known as sprints.

# 2. Requirements Specification

## 2.1 Overall Description

The following section presents an overall description of the subject Home industry. In particular, the product has been put into perspective through a detailed assessment of the hardware, software requirements

## 2.2 Hardware Requirements

For developing the application the following are the hardware requirements

- Processor: Intel Core i5-8400 or higher
- RAM: 8 GB minimum
- Memory:10 GB+ diskspace
- Operating Systems: Windows 10 or later (64-bit), x86-64 based.

## 2.3 Software Requirements

## Flutter:

Flutter

Flutter is one of the best solutions to develop apps for Android and iOS, without having to write in a different codebase for each platform. The smartphone versions of these apps function as true, native apps on Apple and Android devices and are compiled for the respective platform before publication. They do not need a runtime module or a browser. Using the same codebase, it is also possible to create web apps for browsers as well as native programs for Windows, Linux and macOS.

## MangoDB:

The Home industry will interface with a Database Management System (DBMS) that stores the information necessary for the Home industry to operate.


MongoDB is the database that is well suitable for home industry application known as one of the most popular NoSQL databases on the market, MongoDB offers many features geared towards the development of mobile applications. As a document-based database, MongoDB is proficient with the JSON data-interchange format, making the storage of web pages and other documents, like chat logs and messages. Through MongoDB Atlas, developers can work in a cloud-based system to build a highly complex and scalable database that has the capacity to grow with the changing needs of the application and the different types of user data that will be collected and stored**.**

# Tookan

Tookan is a delivery management platform that helps businesses streamline dispatch operations and facilitate communication between managers and delivery drivers. It comes with an administrative dashboard, which enables users to track orders in real-time and receive automated notifications about new issues. It also lets users analyze the performance of fleets and drivers using actionable analytics.

Enterprises use Tookan to assign, schedule, and monitor tasks, optimize delivery routes and manage resource allocation from a centralized platform. Using its mobile application, managers can view agent availability, as well as review task details such as delivery time, location, task description, or order type. Moreover, agents can scan barcodes, add notes or images, and collect customers' digital signatures to provide confirmation of order completion.

Tookan facilitates integration with various third-party applications such as **Plivo, Mobivate, Twilio, Wendy's, QuickBooks, Blizzfull,** and more. Businesses can notify customers about the expected time of arrival and provide them with order tracking links via email and SMS. It also helps users collect feedback and ratings from clients after order completion, allowing them to gain insight into the customer's experience with the brand.

## Typical customers

- Freelancers
- Small businesses
- Mid size businesses
- Large enterprises

## Platforms supported

- Web
- Android
- iPhone/iPad

## Support options

- 24/7 (Live rep)
- Knowledge Base
- Chat
- FAQs/Forum
- Email/Help Desk

## 2.4 Functional and Non-Functional Requirements (Business Requirements)

The following section presents the complete set of functional and non-functional requirements identified for the subject Home industry. Functional requirements are listed first, according to their relationship to the overall system, customers, Seller, delivery.

The non-functional requirements that pertain to safety, security, the interface, qualification, operation, maintenance and performance are subsequently presented.

## 2.5 Actors

There are Three actors in the Home industry

- Customer
- Seller
- Delivery person

## 2.6 Functional Requirements

This subsection presents the identified functional requirements for the subject Home industry. Initially, general requirements that pertain to the whole system are given. Where possible, subsequent requirements have been demarcated based on their relevance to the users of the system, that is, customers, deliver person, seller.

### 2.6.1 Customer

Table  presents the identified functional customer requirements that directly relate to the customers of the subject Home industry.

| Requirement | Description |
|---|---|
| 01 | A customer shall be able to register to application using **Oauth** |
| 02 | A customer shall be able to login to application |
| 03 | A customer shall be able to engage their menu |
| **04** | **A customer shall be able give dish name as input to application** |
| **05** | **A customer shall be able to get menu of spices used for dish entered** |
| **06** | **A customer shall be able to filter Spices menu with respect to dish** |
| 07 | A customer shall be able to navigate through the available items in their menu. |
| 08 | A customer shall be able to add an item to a order |
| 09 | A customer shall be able to remove an item from a order |

| | |
|---|---|
| 10 | A customer shall be able to place an order |
| 11 | A customer shall be able to cancel an order through their engaged menu if it is pending and not yet placed. |
| 12 | A customer shall be able to finalize payment through their menu. |
| 13 | A customer shall be able to drag a items into a payment or a cash payment. |
| 14 | A customer shall be able to set location and complete payment and place order |

**Functional Requirement of customer**

## 2.6.2 Seller

Table presents the identified functional seller requirements that directly relate to the customer and delivery person of the subject Home industry.

| **Requirement** | **Description** |
|---|---|
| 01 | A Seller shall be able to log into a App using their assigned username and password. |
| 02 | A Seller shall be able to log out from App. |
| 03 | A Seller shall be able add Menu to system |
| 04 | A seller assigned to a app shall be alerted alter:<br>● An order is placed from that customer<br>● Menu list |
| 05 | A app shall allow a seller to accept an order placed by a customer through a app. |
| 06 | A app shall allow a seller to indicate the delivery of an item to its customer. |
| 07 | A app shall allow a seller to process a update payment |
| 08 | A app shall allow a seller to process a payment after order. |

**Functional Requirement of seller**

### 2.6.3 Delivery person

Table  presents the identified functional delivery person requirements that directly relate to the Customer and seller of the subject Home industry.

| Requirement | Description |
|---|---|
| 01 | A delivery person shall be able to log into a app using their assigned username and password. |
| 02 | A delivery person shall be able to log out of a app. |
| 03 | A delivery person shall be able to view the current orders by customer. |
| 04 | A delivery person shall be able to get information about order, distance and location of customer |
| 05 | A delivery person shall be able to get information about order, distance and location of seller |
| 06 | A app shall allow a delivery person to accept an order placed by a customer |
| 07 | A app shall allow a delivery person to update the delivery of an item is initiated to customer. |
| 08 | A app shall allow a delivery person to process a payment details |
| 09 | A app shall allow a delivery person to take ratings |

**Functional Requirements of  delivery person**

## 2.7 Use case descriptions

Table presents the Place Order use case description to show the interaction between a customer and app when placing an order.

| | |
|---|---|
| **Use Case** | Place Order |
| **Primary Actor** | Customer |
| **Goal In Context** | Place an order for menu items from the restaurant |
| **Preconditions** | The customer has been set up the applications |
| **Scenario** | 1) The customer bring up a menu<br>2) The customer selects 'Order' from the menu<br>3) The customer navigates through the available items and adds the ones they want from the menu onto their order<br>4) The customer selects 'Place Order' from the menu and payment is done |

**Place Order Use Case Description**

Table presents the Accept Order use case description to show the interaction between a seller and delivery person when accepting a new order placed by a customer.

| | |
|---|---|
| **Use Case** | Accept Order |
| **Primary Actor** | Seller and Deliver person |
| **Goal In Context** | Accept an order that has been placed by a customer |
| **Preconditions** | A customer has placed an order |
| **Trigger** | The Actors chooses to serve the customer |
| **Scenario** | 1) The Actors selects 'Take Order' from the App menu<br>2) The seller confirms the order and selects ‘Accept’ from the app menu<br>3) The items in the order are sent to the packing<br>4) The order is accepted in customer’s UI. |

**Accept Order Use Case Description**

Table presents the order tracking use case description to show the interaction between a customer and delivery person.

| | |
|---|---|
| **Use Case** | Order tracking |
| **Primary Actor** | Customer, Deliver person |
| **Goal In Context** | Deliver a item to its customer |
| **Preconditions** | An item ordered assigned to the Deliver person is packed and assigned |
| **Scenario** | 1) A customer shall be able to track the delivery persons information and location<br>2) The Deliver person get location of customer and go to location<br>3) A customer shall be able to track live location of delivery person<br>4) The Deliver person delivers the item to the customer who ordered it<br>5) The Deliver person confirms that items are successfully delivered through the app |

**order tracking Use Case Description**

Table presents the Process of Payment use case description to show the interaction between customer and app when processing the payment of a customer bill.

| | |
|---|---|
| **Use Case** | Process Payment |
| **Primary Actor** | Customer |
| **Goal In Context** | customer finalize and complete the payment through online |
| **Scenario** | 1) The app finalize 'Bill ' from the order menu<br>2) The app wait to customer to process payment for, from a list of customers with items assigned<br>3) The customer select mode of payment<br>4) The app interfaces with the register system to process the payment |

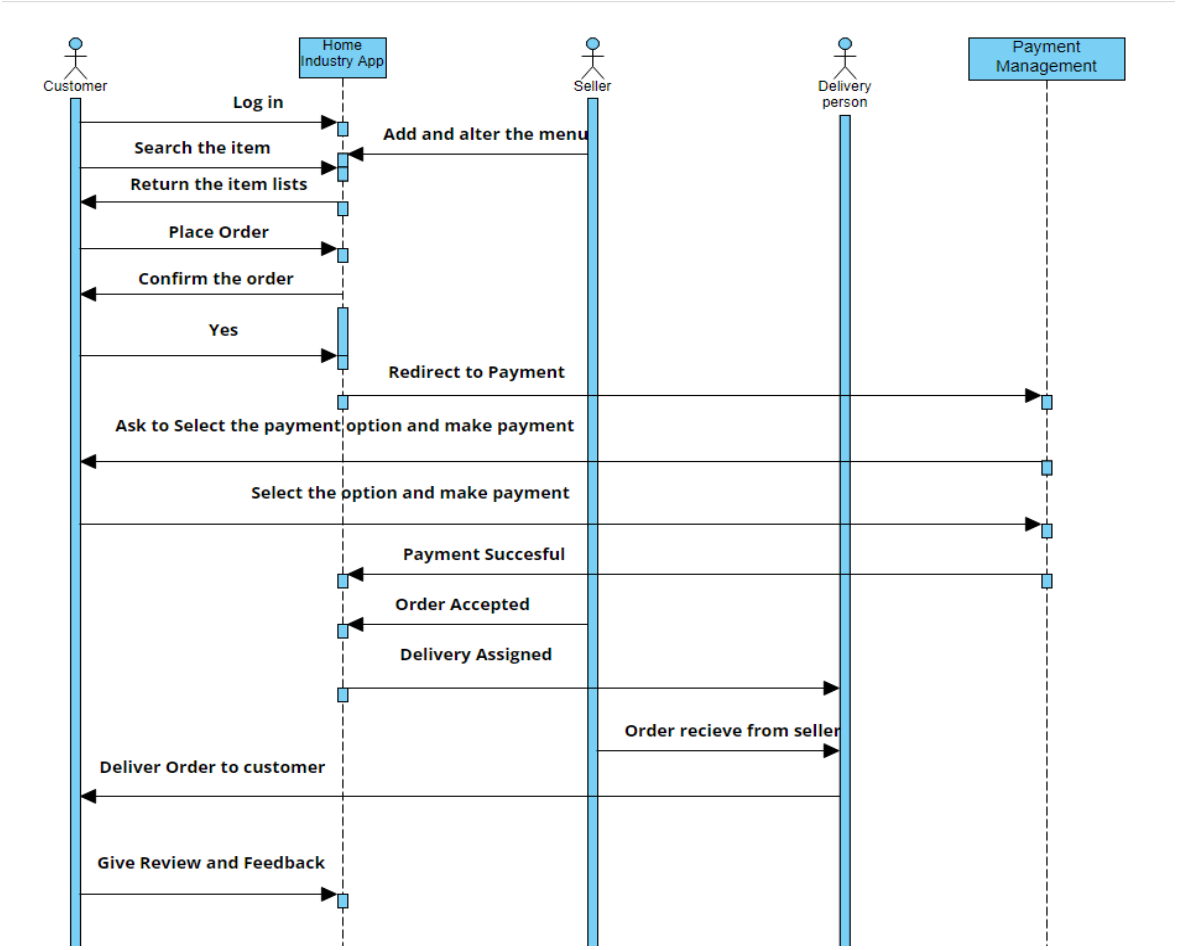
**Payment Use Case Description**

Table presents the feedback and rating use case description to show the interaction between a customer and app

| **Use Case** | Feedback and Rating |
|---|---|
| **Primary Actor** | Customer |
| **Goal In Context** | Receive rating for improvement |
| **Preconditions** | The customer should have received order |
| **Scenario** | 1) The customer should be notified for rating and feedback<br>2) The customer should give rating for both delivery person and seller<br>3) The customer should be able to mention the feedback<br>4) Customers feedback should reflect to delivery person and seller |

**feedback and rating Use Case Description**

## 2.8 Sequence Diagram:



## 2.9 Non-Functional Requirements:

**Portability**

System running on one platform can easily be converted to run on another platform

**Reliability**

The ability of the system to behave consistently in a user-acceptable manner when operating within the environment for which the system was intended.

**Availability**

The system should be available at all times, meaning the user can access app, only restricted by the down time of the server on which the system runs.

**Maintainability**

A commercial database is used for maintaining the database and the application server takes care of the site.

**User friendly**

System should be easily used by the customer.

**Performance**

Performance should be fast.

**Efficient**

System should be efficient that it won't get hang if heavy traffic of order is placed.

**Safety**

Data in the database of system should not loss or damage.

**Privacy**

Personal data of the system should not disclose to anyone.

## 2.10 Use Case Diagram: