# SOFTWARE REQUIREMENTS SPECIFICATIONS

Document for a

**Grocery Purchase Application** 

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## INTRODUCTION

## 1.1 Purpose

This document explains the working principles and all the necessary information needed to ensure the smooth functioning of this **Grocery Purchase Application**.

The intended audience of this portal is anyone who needs to buy grocery items, efficient delivery, search items, get discounts and manage queries. Any customer can register themselves with the portal and hence get their respective services through this application.

## 1.2 Scope

The portal is named "FreshBasket". The basic functionalities that this system will be required to perform are:

- a. Any customer can browse through the contents of the entire website.
- b. Any customer, upon login can search required items, add items to cart, buy items through online or offline payment mode, get instant or regular delivery facility and submit queries.
- c. Manager can manage stocks, can manage delivery and manage queries.

However, any damaged products, rotten products during delivery is beyond the scope of the application. It would be handled manually.

#### 1.3 Definitions

TERM	DEFINITION
User	Anyone who interacts with the portal for buying purposes.
Customer	Any user who has registered with valid information.

Web Portal	A web platform which hosts the grocery purchase system. It is managed by an Administrator.
Area Stock Manager	Area Stock Manager who has special privileges for managing the Stock in his own warehouse.
Area Delivery Manager	Area Delivery Manager who has special privileges for managing the Delivery for his own warehouse.
Query Manager	Query Manager maneges query of the customer and resolves their query.
Stock Manager	Maneges Area Stock Manager.
Delivery Manager	Maneges Area Delivery Manager.
Administrator	Control the whole system.

#### 1.4 References

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- 2. The challenges and solutions of Inventory management in Chinese food supply chains during the Covid-19 Pandemic, AUTHORS: Xingyu Liu, Yimeng Ma, Yushan Wu,Access Time: 13/11/2022 10:55 AM
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- 4. AMAZON FRESH AND THE DISRUPTION OF THE SUPPLY CHAIN, By IMD Professor Ralf W. Seifert, with Richard Markoff, EPFL, Access Time: 14/11/2022 11:10 PM
- 5. Lin Liu and Eric Yu (2003). "Designing information systems in social context: a goal and scenario modelling approach" (PDF). University of Toronto.

#### 1.5 Overview

The rest of the SRS is organised as follows – Section 2 provides a brief overview of the system and lines out the core features contained in the system. It also shows the prerequisites required from the user for suitably using this site to its full potential. It also lists out the some simple constraints that has been placed on the system and also some assumptions that have been assumed. Section 3 expands on the information provided in the previous section and details out the functions of the system based on the requirements that the system is expected to deliver. Section 4 discusses the various non-functional requirements that are essential for the system.

#### OVERALL DESCRIPTION

#### 2.1 Product Perspective

The Grocery Purchase Application is a web based software that serves the customers who need to buy grocery items, efficient delivery, search items, get discounts and manage queries. Any user can conveniently browse through these options and buy the desired product without any hassle, sitting at one place after the user has registered. This product needs to store and manipulate the data. For that, a database will be used. The web portal will communicate with a database. The web portal will add and modify data. All of the database communication will go over the Internet.

#### 2.2 Product Features

The users will be able to search the portal based on criteria and buy their product according to their need.

There will be facilities for the users to make their payment through the portal and offline.

There are several search criteria and it will be possible for the portal manager to monitor the functioning of the system and organise the data in the database.

#### 2.3 User Characteristics

Any user who intends upon using the system should be accustomed to using the Internet and should also be familiar with online purchasing and payment procedures. The portal manager will be able to oversee and go through every transaction taking place using the portal.

#### 2.4 Constraints

- 1. Any transaction taking place through the system is limited by the speed of the Internet.
- 2. Delivery speed depends on the delivery location and delivery scheme.
- 3. Delivery speed may delay the process significantly due to human factors.

- 4. The purchasing facility is only available if the customer has a registration with the application.
- 5. Product out of stock or less stock only shown when the product is less than 2.
- 6. Free delivery for orders more than Rs. 500 and the delivery type is regular.
- 7. On case of failed transactions during purchase the deducted amount will be credited back to the user within 24 hours from the transaction time.
- 8. If the product is damaged or rotten then user can manually (via call or email) register their complaint to the Query Manager.
- 9. Registered query is then verified by some internal process.

## 2.5 Assumptions

- 1. Users can Sign Up through a third party database or manually.
- 2. Users can Search the favourite product with some filter and previous purchase history.
- 3. Mode of payment can be generalised as offline(COD) and online(UPI, Credit Card, Debit Card, Net Banking, Wallet).
- 4. Before adding to cart, the system checks for availability of the product in stock.
- 5. Stock Manager can add or remove Area Stock Manager.
- 6. Delivery Manager can add or remove Area Delivery Manager.

## **FUNCTIONAL REQUIREMENTS**

The functional requirements for the system are as follows:-

## 3.1 User Signup

Any new user should be able to sign up to register themselves (2.5.1).

## 3.2 User Login

Any registered user can login to their individual account.

#### 3.3 Search

The user should be able to search through the site to search for availability (2.5.2).

#### 3.4 Previous Order

The user should be able to go through the details regarding their previous order using the site.

## 3.5 Payment

The user should be able to specify the mode of payment during purchase (2.5.3).

#### 3.6 Add to Cart

Users are allowed to choose items to purchase without actually completing the payment (2.5.4).

## 3.7 Current Delivery

Users can choose between instant or regular delivery and desired address.

## 3.8 Stock Management

- 1. The Area Stock Manager controls stock available in its assigned warehouse.
- 2. Stock Managers can control all Area Stock Managers (2.5.5).

## 3.9 Customer Query Management

Users can register queries while Query Manager can resolve them.

## 3.10 Delivery Management

- 1. Delivery Agents can be assigned by the Area Delivery Manager (2.5.6).
- 2. Delivery Managers can control all Area Delivery Managers.

#### 3.11 Administrator Control

Administrators can manage Stock Manager, Query Manager, Delivery Manager and check all reports generated through the portal.

## NON-FUNCTIONAL REQUIREMENTS

## 4.1 User Interface Requirements

The user interface of the portal must be user-friendly and easy to use. It should be easy for the user to navigate through the site. The search options should be easy to understand.

## 4.2 Performance Requirements

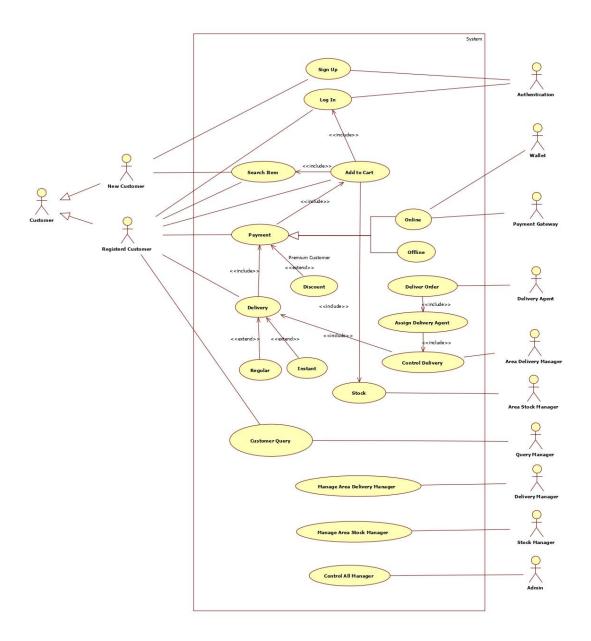
The system should function in real-time. Any transaction on the stored information, should be completed in less than 10 seconds.

## 4.3 Storage Requirements

The user can register through the help of a third party database which is secure and causes less burden on the server database.

## Appendix A

## USE CASE DIAGRAM AND DESCRIPTION



#### **USE CASE FOR GROCERY PURCHASE APPLICATION**

## **USE CASE DESCRIPTION**

#### I. Search Item

This functionality allows the customer to search through the site to search for availability of the favourite product.

## II. Sign-Up/Login

This functionality enables the customers to login into the portal. If the user is unregistered, then they have to sign up first and only then can purchase products.

#### III. Add to Cart

This functionality helps users to purchase products only after adding it to cart. Users can keep a desired item in the cart for future purpose. Users can increase the quantity of the desired product only if available in stock.

## IV. Payment

During payment, the user should be able to specify the mode of payment. In the above two types of delivery, a valid Purchase ID is generated only after payment.

## V. Delivery

Users can keep track of previous orders as well as of current orders. Users can choose between instant or regular delivery. An estimated delivery time is available to the user. Delivery Agents can be assigned by the Area Delivery Manager. He can keep track of the items out for delivery.

## VI. Customer Query

Users can register queries while Query Manager can resolve them.

#### VII. Stock

The Area Stock Manager can keep track of the current stock available and add new stock. He can keep track of the warehouse. He can generate bills for the supplier.

## VIII. Control Delivery

The Area Delivery Manager controls the delivery of each order which will be delivered from his warehouse. He generates the order bill and assigns the delivery agent.

## IX. Assign Delivery Agent

It is the responsibility of the Area Stock manager to assign a delivery agent for each delivery.

#### X. Deliver Order

Delivery agents take the order from the warehouse and deliver to the customer's doorstep.

## XI. Manage Area Delivery Manager

Delivery Manager controls all the Area delivery Managers.

## XII. Manage Area Stock Manager

Delivery Manager controls all the Area Stock Managers.

## XIII. Control All Manager

Administrator observes, monitors and rectifies the system.