

Software Requirements Specification
for
Online Store-House Booking System

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Revision History

This is our first version of the application.

Revision	Date	Author(s)	Description
1.0	05.07.2019	Al Musabbir	Chapter 1 - Introduction
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Chapter 1

Introduction

1.1 Purpose

Nowadays, the small businesses and start-ups are growing at a large scale. But the capacity, space is a major concern in this kind of businesses. They need to store their necessary products somewhere else. But going to store by store without knowing the capacity and other information regarding the store-house is a problem for the businessman. Moreover, many store owners can't get enough customers by traditional methods.

Our purpose is to create an app that can solve this problem by connecting the store-owners and the businessmen. Basically, we are building this application focusing all kind of criteria regarding this scenario. We are also building this application on the basis of users' requirements.

1.2 Intended Audience

In this application we are focusing on mainly 2 types of users:

- a) Businessman: They are the users who need to store their products efficiently, spending a little time and without any concerns.
- b) Store-Owner: They are the user who have their own store which can be used to storing others' products efficiently, at lower time and without any problems.

By doing so, one other type of users arrives:

- The Shipping Guy: To make this process more efficient, the shipping system needs to be more dynamic. Here the 'Shipping Guy' arrives who are willing to do the shipping of the products.

1.3 Intended Use

For the audiences the main uses are as follows:

- Businessman
 - Can register (one time) or log into the application.
 - Can go through all the store and able to choose one and place an order to store his products.
 - Have to pay for the storing time basis
- Store-owner
 - Can register (one time) or log into the application.
 - Can add necessary information of his/her store.
 - Can hire a shipping guy
 - Get paid by the businessmen.

- Shipping guy
 - Can register (one time) or log into the application.
 - Can confirm a shipping.
 - Get paid by the store-owner.

1.4 Product Scope

Products scope refers to the details of the products features and goals regarding to marketing strategies. This application should have the following scopes:

- Target the users and understand their needs.
- Build the user-stories and build the app likewise.
- Understand the market demands.
- Focus on existing same kind of application.
- Add all the features the users prefer to survive in market.
- Introduce the app through ads and online abs.
- Make the application available.
- Make the product efficient.
- Make the product secure.

As nowadays, many small businesses and start-ups are entering the market, they are very much needy of a system that can reduce their products' storing problem efficiently. So, by following the scopes and developing this app accordingly, this application can solve the storing problem that many people facing.

1.5 Risk Definition

Two kind of risk definition are given below:

System Risks:

- The UI (User interface) can be complex to use for general people.
- The application can be leggy.
- The system may crash frequently.
- The battery consumption by using this app can be high.
- The OS requirement can be high that cancels many users to use this app.
- The security can be compromised.
- Efficiency of the online payment method can be affected.
- The application may need much more internet speed then is supplied across the whole country. That results serious performance drop.

Market Risks:

- There may be already an existing application.
- Introducing a new application to the user can be costly.
- Make the people use this app can be tough.
- Reliability issues may occur for using this app.

Chapter 2

Overall Description

We are building Online Store-House Booking System application to help the users and the store owners to connect through this app. By doing so, we have to keep in mind about the characteristics, needs of the users we are focusing on, and operation environments, assumptions for building this application.

2.1 User Classes and Characteristics

The application will support 4 types of user privileges:

- a) Businessman,
- b) Store-owner,
- c) Shipping guy,
- d) Admin.

The Businessmen should be able to do the following functions:

- Look through the details of available store-houses:
 - See the locations of the stores
 - Types of materials/goods the store-houses can allow to store
 - The quality of the stores both by ratings and store-house owners
 - Can rate a store and give feedbacks
 - The available spaces of the stores
 - The prices for storing according to duration of the product to be stored
 - Do the businessmen have to ship their products by themselves?
 - If the store-houses have their own shipping system, what are the shipping costs?
 - If the businessmen want to return their products before the duration, given at the time of placing an order, will the store-houses give any refund? If the store-houses give refund, what will the amount of it?
 - If the businessmen want to extend the duration they placed at the time of the order, what will be the prices at that condition.
 - If they want to add/take back more quantity of the products what will be price?
 - Are the store-houses giving any guaranty in the case of products damage during the storing periods.
 - Get confirmation messages when the products reach the stores.
- Get auto-suggestions by their needs
 - Can look which stores are nearby
 - Can look which stores are cheap in price
 - Can look which stores maintain highest quality
 - Can select the options as their preferences and get search results according their needs

- Can place the order and make online/offline payments
 - Place an order for their products store
 - Can select the payment method, online or offline
 - Online payment method should include most of the payment methods available, such as, Visa Card, Master Card, DBBL, Rocket, Bkash, Ucash etc.
 - For offline payments cash or checks are available
- Can know the user agreements policies and licenses
 - Look through the policies and licenses of both the application and the Store-House they are placing the order
- Get notifications
 - Get push notification about their products conditions.
 - Get push notification as soon as the shipping guy reach to the business-location for picking up the products.
 - Get push notification as soon as the products arrive the store-house
 - Get approval push notification every time a payment is made.
 - Get mails every time an order is placed.
 - Get notification about new discounts

Store-Owner should be able to do the following functions:

- Add/modify necessary information
 - Add/modify store's location
 - Add sub-stores or another branch of their stores in different locations
 - Can add their business bank ac to get paid from the businessmen
 - Can go through different subscription method and select one as their needs.
 - Can renew their subscriptions
 - Add their methods of get paid from the customers
 - Can give discounts to the customers
 - Get the list of all the customers according to the usage of their stores
 - See the customers feedbacks and ratings to maximize their services
 - Can see the customers' locations for shipping
- See the shipping guy's information
 - Can look for a shipping guy
 - Can hire a shipping guy for their stores
 - See the shipping guys locations
 - Can see the shipping guys vehicle information (What kind of package the guy can ship)
 - See the shipping guys status (Working on a delivery/free/On leave etc.)
 - See the confirmation on the cash/check from the offline customers
 - Get the confirmation on delivering a package back to the customers
 - See the shipping guys estimated arrival time
 - Salary giving options

- Get notification
 - Get push notifications as soon as a new order is placed.
 - Get notifications as soon as payment completions
 - Get notification about the products location and status.
 - Get notification for confirming the subscriptions
 - Get notification as soon as payments happen.

Shipping-Guy should be able to do the following functions:

- Know the shipping information
 - Can see the location from where he/she has to pick up the package
 - Can see the weight, size of the package
 - Can update his status
 - Available
 - Already working on a package
 - Package's location reached
 - Package reached to store
 - Confirm on taking cash/check from the offline customer
 - Confirm on reaching a package to the store.
 - Confirm on delivering a package back to customer
- Know about their all deliveries
 - Know the number of delivery he/she has made
 - Get payments based on the delivery, work load during a whole month
 - Can get online or offline payments

Admin should be able to do the following functions:

- Can see/edit/delete all the information of businessman, store-owner, shipping guy
- Can interact with the stores' subscriptions
- Add or delete a store/customer/shipping guy in the system

And of course, all kind of users can register/create account, sign in any time.

2.2 User Needs

- User-Stories: User stories can give a vivid description of the user needs. We have four kind of users. Their user-stories are as follows:
 - *Businessman:*
 - As a businessman,
I want to go through the stores' information (location, pricing, payment-methods etc.) and compare between the stores,
So that, I can make appropriate choice for storing my products.
 - As a businessman,
I want the ability to extend/reduce the time of storing my products,
So that, I can store the products for more times or get back my product early as the duration given at the time of the order place.
 - As a businessman,
I want to select the payment and shipping methods,
So that, I can place a booking as my demand.

- *Store-owner:*
 - As a store-owner,
I want to add all kind of information (price, locations, sub-branch, payment-methods, shipping methods, shipping price etc.),
So that, the customers/businessmen are able to place the orders as their needs.
 - As a store-owner,
I want to choose the subscription options as my needs,
So that I can keep up my store running on the system.
 - As a store-owner,
I want to hire shipping guys and know their status, information etc.
So that, I can fetch or deliver the customers' products efficiently.
- *Shipping guy:*
 - As a shipping guy,
I want to know the packages' information (location, type, size, weight etc.) before I approve the delivery,
So that, I can do the shipping according to my vehicle ability.
 - As a shipping guy,
I want the ability to update my status (Working on a delivery, available),
So that, I can do the shipping without any delays.
 - As a shipping guy,
I want to know the payment I will get regarding my shipping,
So that, I can estimate my salary.
- *Admin:*
 - As an admin,
I want the access of all the users' information (types of user, location, payments, feedback etc.),
So that, I can monitor the activities easily.
 - As an admin,
I want the access to add, modify, delete any user's account if necessary,
So that, I can keep the system secure.
 - As an admin,
I want to add, modify the subscriptions options and get track of the subscriptions,
So that, the store-owners can choose and maintain their subscriptions as their needs.

2.3 Operating Environment

Operating environment for the Online Store-House Booking System is given bellow:

- OS: Android
- Android based client/server system
- Distributed database: sql + DB
- Platform: Android Studio, Java, PHP, mysql

2.4 Constraints

The constraints are as bellow:

- ER diagram for the proper implementation of the application
- Proper SQL commands for such complex functions
- The global schema, fragmentation schema, and allocation schema.
- How the functions and response for User Classes and Characteristics will be implemented.
- Implement the database at least using a centralized database management system.

2.5 Assumptions

The assumptions for the Online Store-House Booking System is as bellow:

- The offline payments may not be possible for reliability issues
- Giving checks for payments needs to verify. That's why it is not that efficient, which is the main reason for developing this application.
- The application can be crashed at some critical time such as, during payment
- The database management for this kind of complex function-relationship and make it work fluently can be tough.
- Lessen the response time for application-based database is pretty tough
- Approximation of the package arrival can be tough because of the traffic condition
- The safety and security of online payment methods can be compromised

Chapter 3

Requirements

The requirements that should be kept in mind during the creating and development of the application is given below:

3.1 Functional Requirements

Functional requirement describes what a system should do. So, our application should be able to do the following functions:

- Application must be able to search efficiently through the database for desired results.
- Application must be Google-Map based so that the real-time location can be displayed.
- Application should be able to generate the minimum route for all kind of shipping regarding the traffic condition.
- Application must store sign in status so that the users don't have to log in every time they open the app.
- Application should interact with online payment method effectively and successfully.
- Application must send emails to the users every time any kind of payments happened.
- Application must fulfill the **User Classes and Characteristics** functions, along with the **User Needs**.
- Application must maintain users' privacy and security.
- Response Time, Throughput, Utilization, Static Volumetric should be maintain
- Any devices with minimum requirements should be able to run this application
- The power consumption of this application should be as less as possible.
- The UI (User Interface) should be as simple as possible for the sake of easy usability.

3.2 Non-Functional Requirements

- Performance
 - The application should be designed such a way that it can work on a minimum specification device
 - The response time should be as little as possible
 - The debugging/fixing should be well concerned
- Safety
 - All kind of information about the users should be kept safely that other person can't access it
 - The username and password should be well reserved
 - Unnecessary access should be restricted
 - If there is any kind of abnormal behaviors, the system should be capable to handle it

- Security
 - As the application is online payment-based, the security should be strong enough to prevent any kind of leak or hack.
 - The payment method should be implemented carefully
 - The banking information should be reserved with high security
- Quality
 - The UI of the application should be user friendly so that anyone can use it easily
 - UI should be well designed
 - Release update to keep pace with the modern UI
 - Get feedbacks from the users and work accordingly to maintain the quality
- Extensibility
 - Documentation is required for developing the app to further modify or release an update
 - Same kind of convention should be used to reuse the application codes.

Appendices

Appendix A

Glossary

Businessman: In this SRS 'Businessman' word is used as a user term. This kind of users are mainly the person or organization who are willing to store their products. Somewhere in this content they are also called by the name 'Customers'. They are the type of user who want to store their products using this application.

Shore-owner: In this SRS 'Store-owner' word refers to the user who have their store houses. They are the person or organization who have the capability to store others' products in their store house and by doing so get paid by the businessman.

Shipping Guy: In this SRS 'Shipping Guy' term is used for that type of users who have the ability to do the shipping or delivering products. They are mainly drivers of some particular vehicles compatible with delivering the products.

Admin: In this SRS 'Admin' word refers to the persons or employee who keeps eye on all kind of activity of this application.

DB: Database

UI: User Interface

GPS: Global Positioning System