

Software Requirement Specification

For

VROMON

Version:1.0

Project Submitted by:

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Table of Content

1.Introduction	4
1.1 Purpose	4
1.2 Document Convention	5
1.3 Reading Suggestion	5
1.4 Project Scope	6
1.5 References	6
2.Overall Description	7
2.1 Product Perspective	7
2.2 Product Features Functions	7
2.3 User Classes & Characteristics	9
2.4 Operating Environment	10
2.5 Hardware Requirement	11
2.6 Design and Implementation Constraints	11
3. External Interface Requirements	11
3.1 User Interface :	11
3.2 Hardware Interface:	12
3.3 Software Interface :	12
3.4 Communication Interface :	12
4.System Features	12
Functional Decomposition Of Vromon	13
4.1 Details Information Of A Spot	13
4.1.1About:	15
4.1.2 Map:	15
4.1.3 Virtual Tour	15
4.1.3 Travel Guide:	16
4.1.4 Local Guide:	16
4.1.5 Culture and specialities:	17
4.1.6 More Place Travel	17

4.1.7 Experience	17
4.2 Hotel Booking	17
4.2.0.1 Swimlane & Process Flow Diagram of Hotel Booking	17
4.2.1 Search Hotel	20
4.2.2 Filter	20
4.2.3 Hotel List:	20
4.2.4 Show Hotel Details	20
4.2.5 Input Required Informations:	20
4.2.6 Show Payment Option	21
4.2.7 Payment Confirmation	21
4.2.8 Login and Create Account	21
4.2.9 Booking Cancellation:	21
4.3 Tour Plan	22
4.3.0.1 Process Flow Diagram of Tour Planning	22
4.3.1 Show The Available Plans	23
4.3.2 Select a plan	23
4.3.3 Payment Option	23
4.3.4 Communicate With Planner	23
4.4 Transportation	24
4.4.1.Show available Roots & Vehicles	24
4.4.2 Show availableTickets and Price	24
4.4.3 Book Ticket	25
4.5 Use case Diagrams	26
4.5.1 Use case Diagrams of System	26
5.Nonfunctional Requirements	27
5.1 Product Requirements	27
5.1.1 Usability Requirements	27
5.1.2 Efficiency Requirements	27
5.1.4 Security	28
5.2. Organizational Requirements	29
5.2.1 Environmental Requirements	29
5.2.2 Operational Requirements	29
5.2.3 Development Requirements	29
5.3. External Requirements	29
5.3.1 Regulatory Requirements	29
5.3.2 Ethical Requirements	29
5.3.3 Legislative Requirements	30

1.Introduction

1.1 Purpose

This document is based on the Software Requirement Analysis(SRS) for VROMON, an android application. It includes all necessary requirements to develop this application no matter whether they are functional or non-functional. The information about the requirements here have been organized systematically so that everyone can easily figure out a summarized concept about VROMON. This SRS serves as the official means of communicating

user requirements to the developer and provides a common reference point for both the developer and stakeholder community. It will evolve over time as users and developers work together to validate, clarify and expand its contents..

1.2 Document Convention

- **User** : Traveller, Tour Planner ,Hotel authority & Local Guide.
- **SRS** : Software Requirement Specification
- **UML**: Unified Modeling Language
- **DFD**: Data flow Diagram
- **ER** : Entity Relationship Diagram

1.3 Reading Suggestion

This is a prototype for a mobile app that will serve all needed information to help people in travelling Sylhet. Some recommended topic for readers:

- **Developers**: Product feature, User characteristics, Operating environment, System features.
- **Designers**: Project scope, User characteristics, System features, External interface requirements.
- **Domain**: Product perspective, Product features, User characteristics, System features,
- **Users**: Project scope, Product features, System features.

1.4 Project Scope

Goal of **VROMON** is to access all necessary information of a tourist sight in Sylhet more easily and precisely to its users. It is an **Cross platform App** which will run both android and IOS. It will Provide a **detail view** of a sight and its nearbies. VROMON also helps in **Hotel Booking, Purchasing Ticket**. It also offer tour plan. Special Feature a **Virtual Tour** of a sight.

1.5 References

For more information visit-

- <https://en.wikipedia.org/wiki/Sylhet>
- https://en.wikipedia.org/wiki/Software_requirements_specification
- <https://www.visitsylhet.com/places-to-visit>
- <https://www.shohoz.com>
- <https://www.bdtickeys.com>
- <https://www.esheba.cnsbd.com>
- <https://www.flynovoair.com>
- <https://www.travelbookingbd.com/>
- <http://www.flyticket.com.bd/>
- <https://www.travelbookingbd.com/>
- <https://searchmobilecomputing.techtarget.com/definition/mobile-UI-mobile-user-interface>
- <https://www.metricfox.com/software-interface-designing>

2.Overall Description

2.1 Product Perspective

VROMON is a new online based system for providing information and help the Travellers.

2.2 Product Features Functions

VROMON will provide:

2.2.1 Basic Information About a Spot

- Name
- Location
- Travel Guide
- Virtual Tour
- Review
- Nearby Places to Visit
- Nearby Hospitals,Mosques & Restaurants
- Parking areas if available
- Local Guides Info
- Local Food & Culture
- Transportation
- Specialities
- Caution

2.2.2 Basic Information of Hotels

- Name
- Class

- Location
- Virtual View of Hotel
- Booking Details
- Email and Contacts
- Hotel Policies
- Additional Info
- Cost details

2.2.3 Transportation

- Ways of Transport(Air,Train,Bus,Rent a car)
- Ticket Booking
- Short Guide

2.2.4 Tour Planner

- Local Planner Packages
- System Packages
- Contact with Planners
- Customize Package

2.2.5 Local Guides

- Local Guides Groups
- Estimated Cost
- Collaborate With the Guides Groups
- Contact number, mail

2.3 User Classes & Characteristics

We have 4 User group:

- 1.Traveller
- 2.Tour Planner
- 3.Local Guide
- 4.Hotel Authority
- 5.System Admin

Traveller	<ul style="list-style-type: none">● Search a spot(Name,Location)● View Info About a spot● Share Experience(Hotel,Spot)● Book Tickets● Select Tour Package● Hotel Booking● Log in● Create Account● Cancel Booking● Rate (Hotel,Spot)
Tour Planner	<ul style="list-style-type: none">● Create Planner ID● Update Profile● Log in● Log Out● gPayment Gateway● Post Tour Packages & Offers<ul style="list-style-type: none">a.Dayb.Hotelc.Transport● Respond To Requests● Update Existing Packages

	<ul style="list-style-type: none"> ● Contact With Traveller
Local Guide	<ul style="list-style-type: none"> ● Create ID ● Update Profile ● Log in ● Log out ● Post Availability & Cost ● Contact With Traveller ● Location
Hotel Authority	<ul style="list-style-type: none"> ● Request to Create Profile <ul style="list-style-type: none"> a.Location b.Defined Policies c.Input Details of Rooms d.Special facility c.Additional Info d.Payment Gateway ● Login ● Offers ● Update data ● Contact With Planner and Traveller
System Admin	<ul style="list-style-type: none"> ● Response to Hotel Authority Request ● Create Hotel ● Suspend Hotel ● Suspend user

2.4 Operating Environment

- **Operating System:** iOS and Android.
- **Language:** Dart, Java.
- **Database:** Oracle Database and Google Cloud.

2.5 Hardware Requirement

- Android version 4.4 KITKAT (minimum, android user's)
- 1GB ram

2.6 Design and Implementation Constraints

- 1.User Transaction shall be secured
- 2.System will Cross Platformed
- 3.Ui Should be simple

3. External Interface Requirements

3.1 User Interface :

The layout of the information, commands, and content in an app should echo those of the operating system in placement, composition and colors.

Click points must be usable for touch-based selection with a finger.

Maximize the content window size. On small screens, the UI should not unnecessarily dominate screen size. It's important to recognize that the object of a UI is to facilitate use of content and apps, not just use of the interface.

The number of controls or commands displayed at any given time should be appropriate to avoid overwhelming the user or making viewing/interacting with content confusing.

3.2 Hardware Interface:

To use this app require a Phone(Android/IOS) with proper internet connection.

3.3 Software Interface :

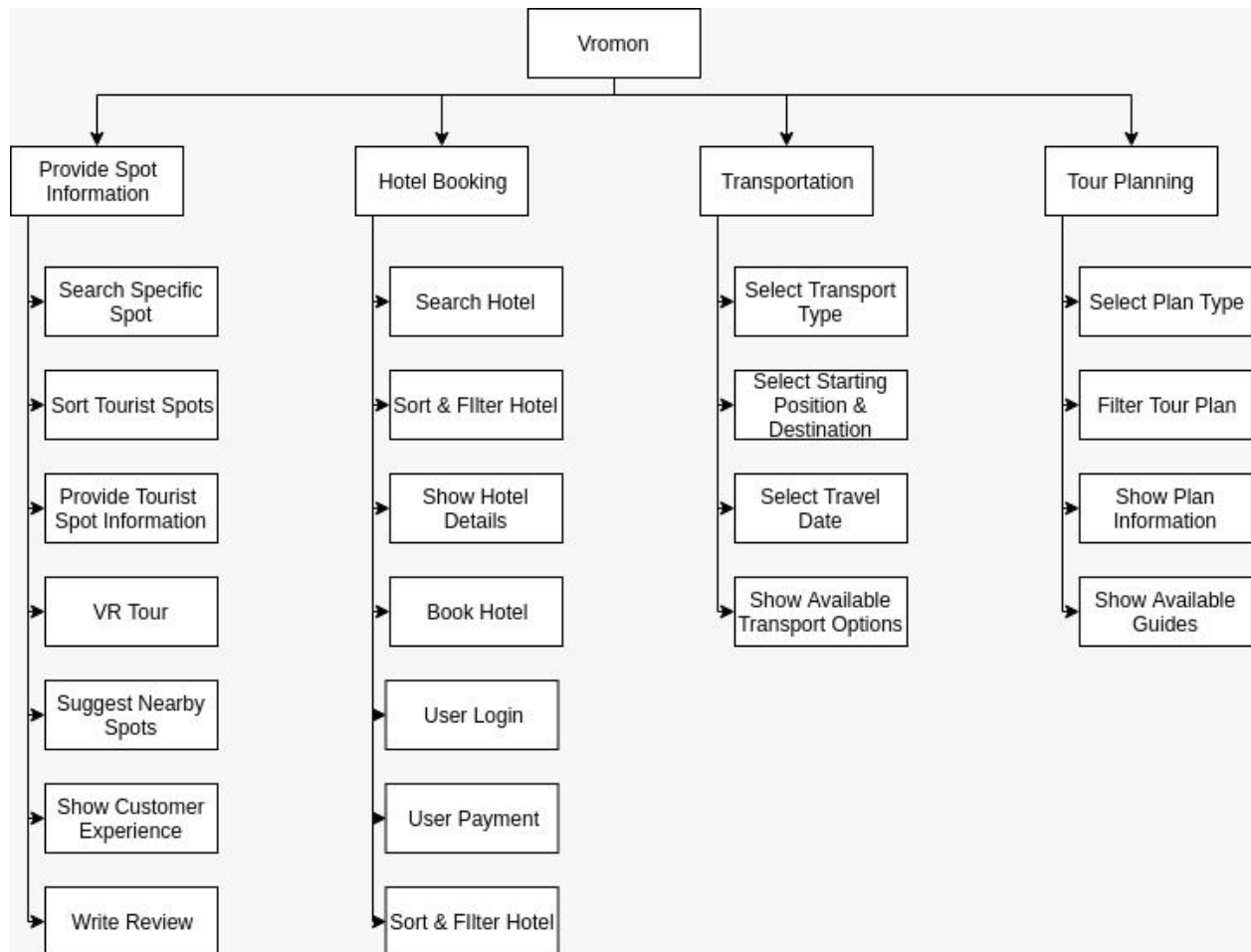
- Spot database store all information in table formation.
- Innovate software that are user-friendly and functionally smooth.
- Conduct in-depth market and competitive research.
- Optimize and customize user interfaces as per the demands from their target market.
- Design simple yet attractive layouts that is best suitable for the users.
- Provide flexible client engagement model

3.4 Communication Interface :

This system will use Flutter with common functionality, so that application will support in both Android and IOS.

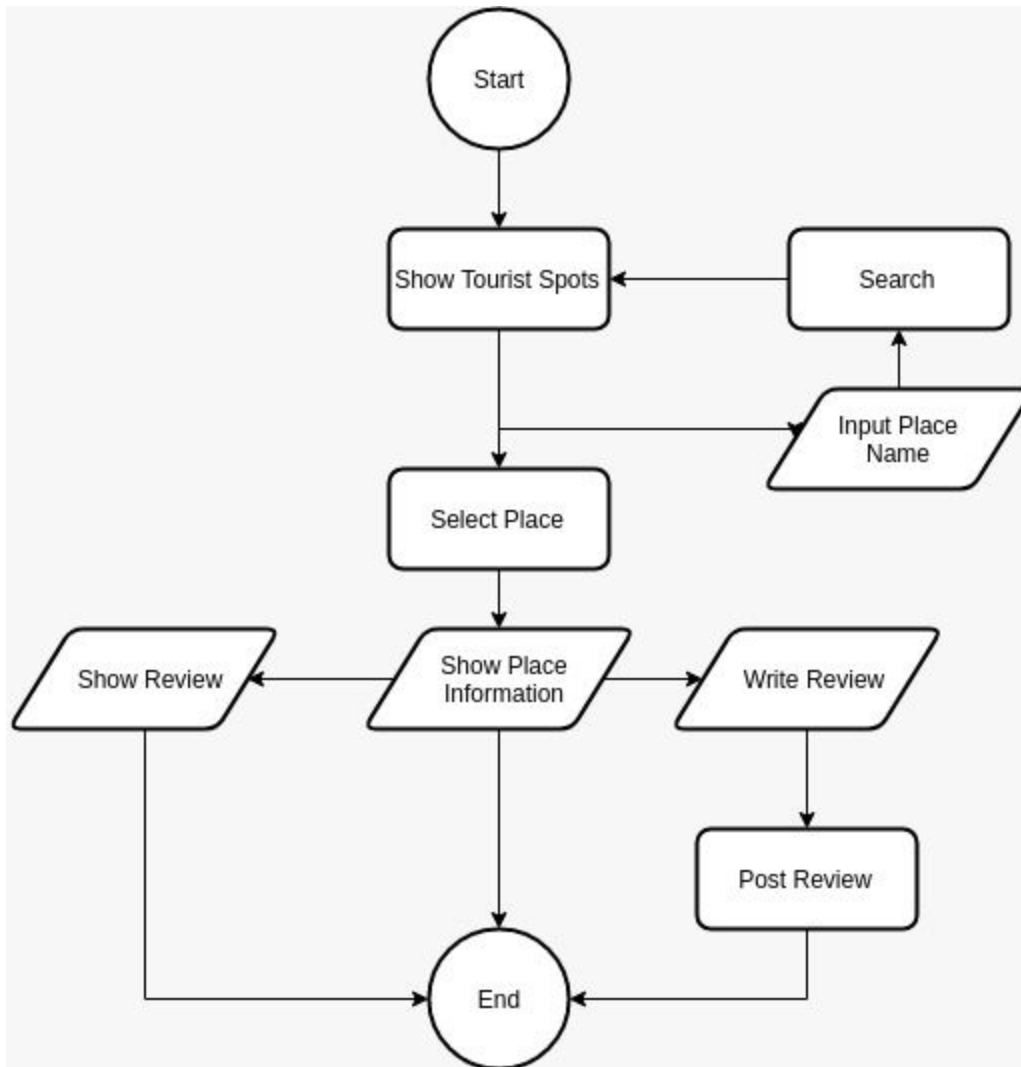
4.System Features

The main features of VROMON are given below:

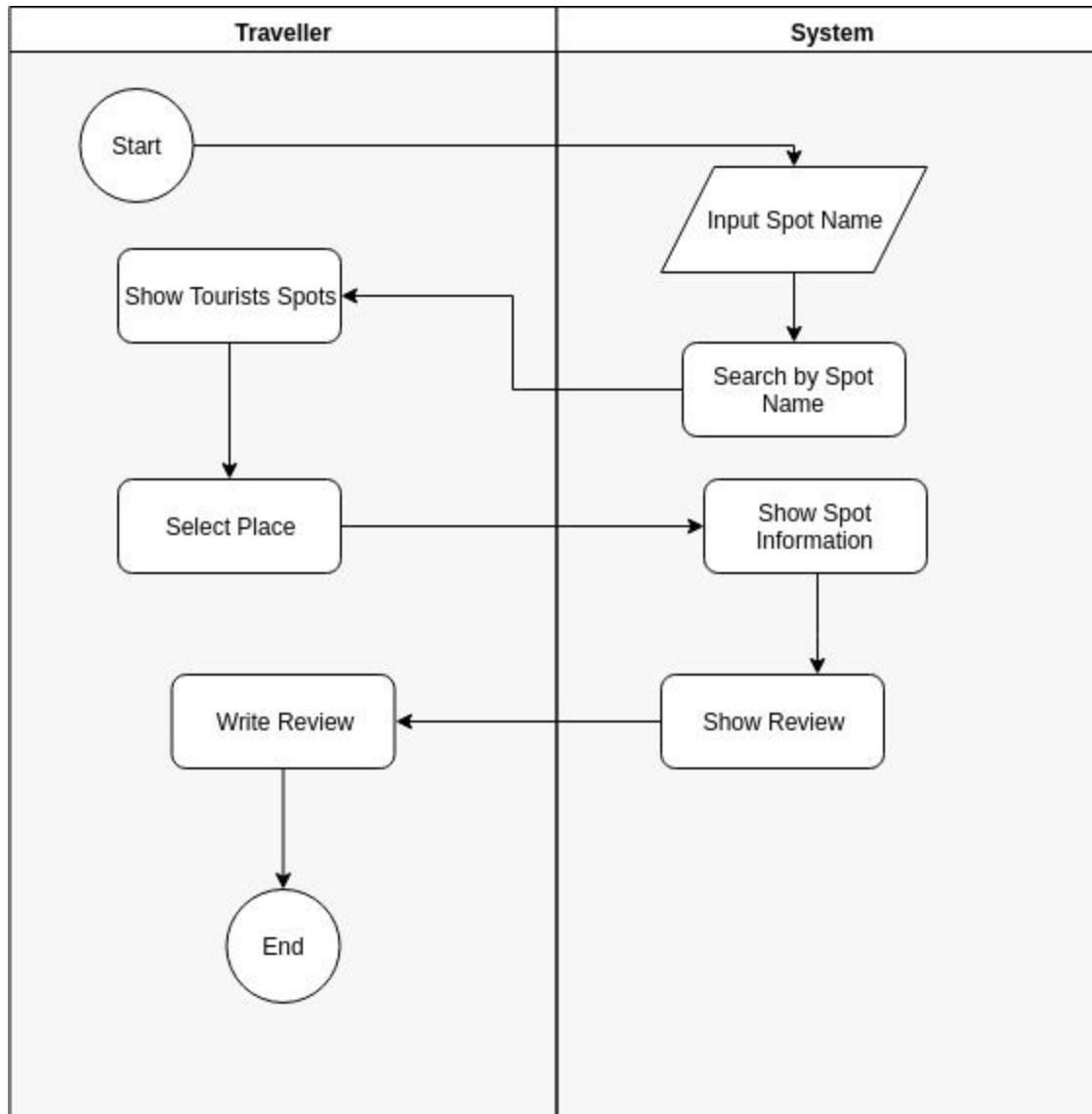


Functional Decomposition Of Vromon

4.1 Details Information Of A Spot



Process Flow of Spot Show



4.1.1About:

This section will give a short description of the sight.

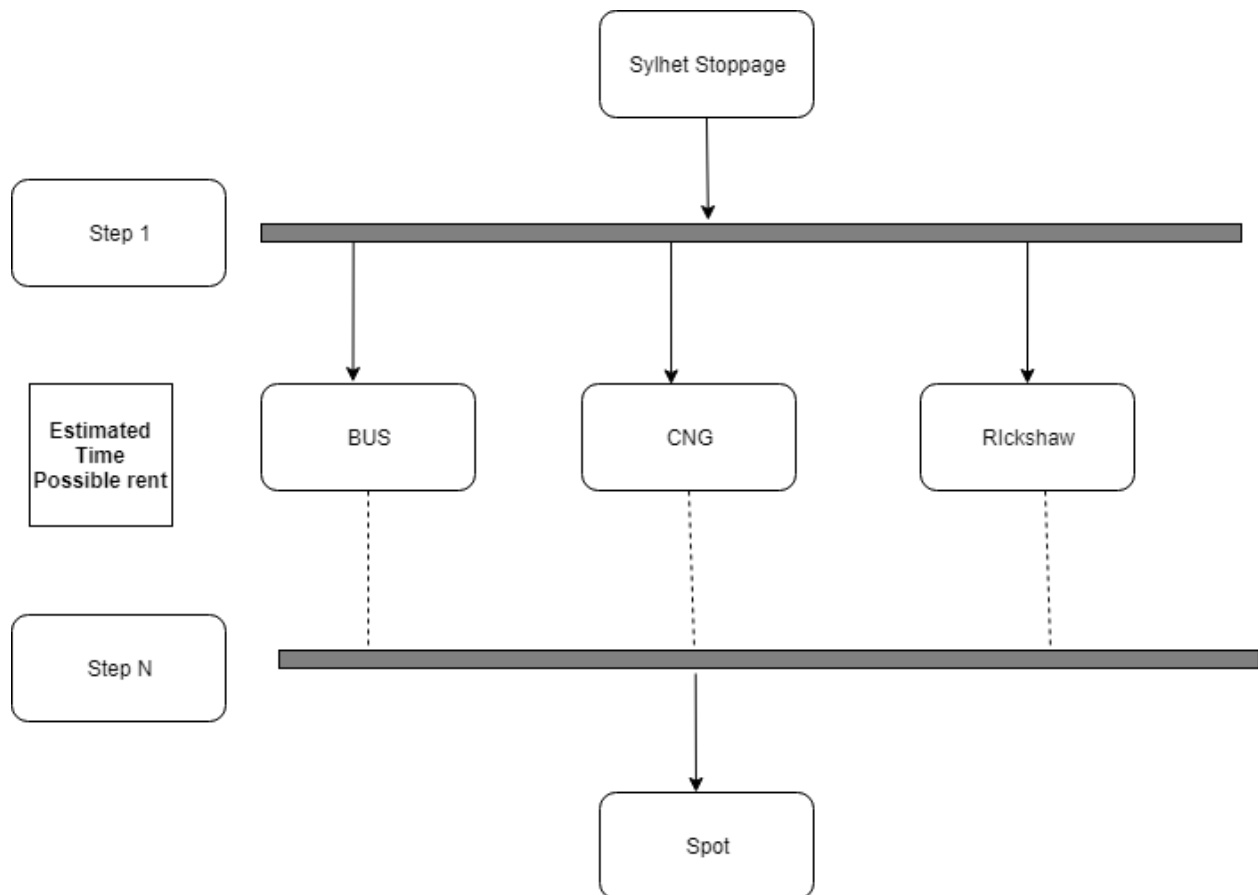
4.1.2 Map:

Location of the sight will be here.It should be display using map.

4.1.3 Virtual Tour

User will be able to have a virtual tour using Virtual Reality.

4.1.3 Travel Guide:



Here VROMON will guide the traveller how to go to the spot. It shall be stated step by step. Estimated time and transportation suggestion shall also be described. The possible rent should also be described. The paragraph should be as short as possible.

4.1.4 Local Guide:

Local guides are available. VROMON will suggest the travellers to take the help from them. It will provide local guides basic information.

Like: Name, Experience, Gender, Area, Languages, Contact etc.

4.1.5 Culture and specialities:

Every tourist sight offers different types of cultural view. VROMON shall provide this type of data. Each and every site is also special for one or more criteria. Like Srimangal is special for “7 layers Tea”. This section will show this type of facts. The cautions also be stated here.

4.1.6 More Place Travel

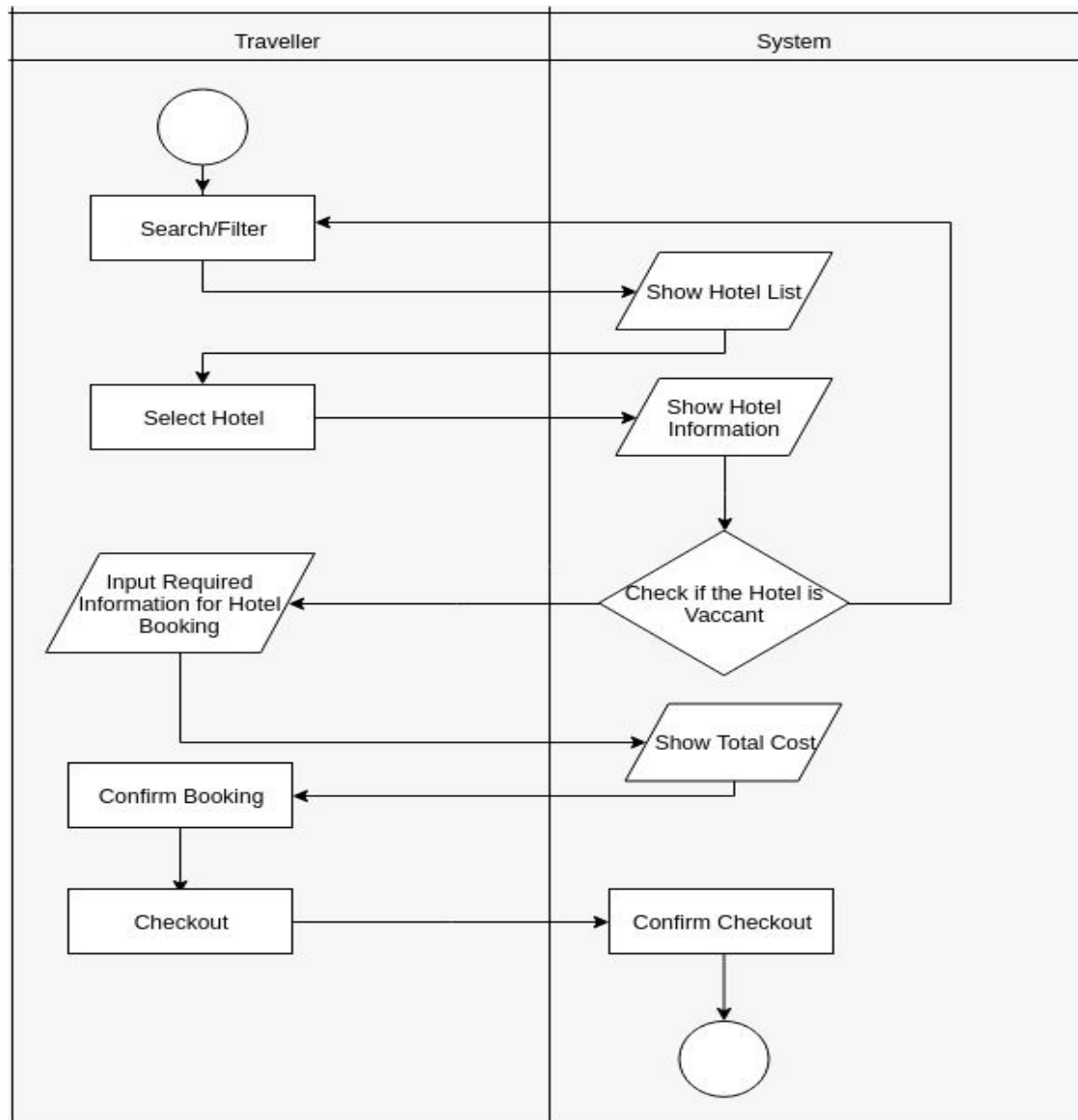
Suggest traveller more places to go nearby from the spot.

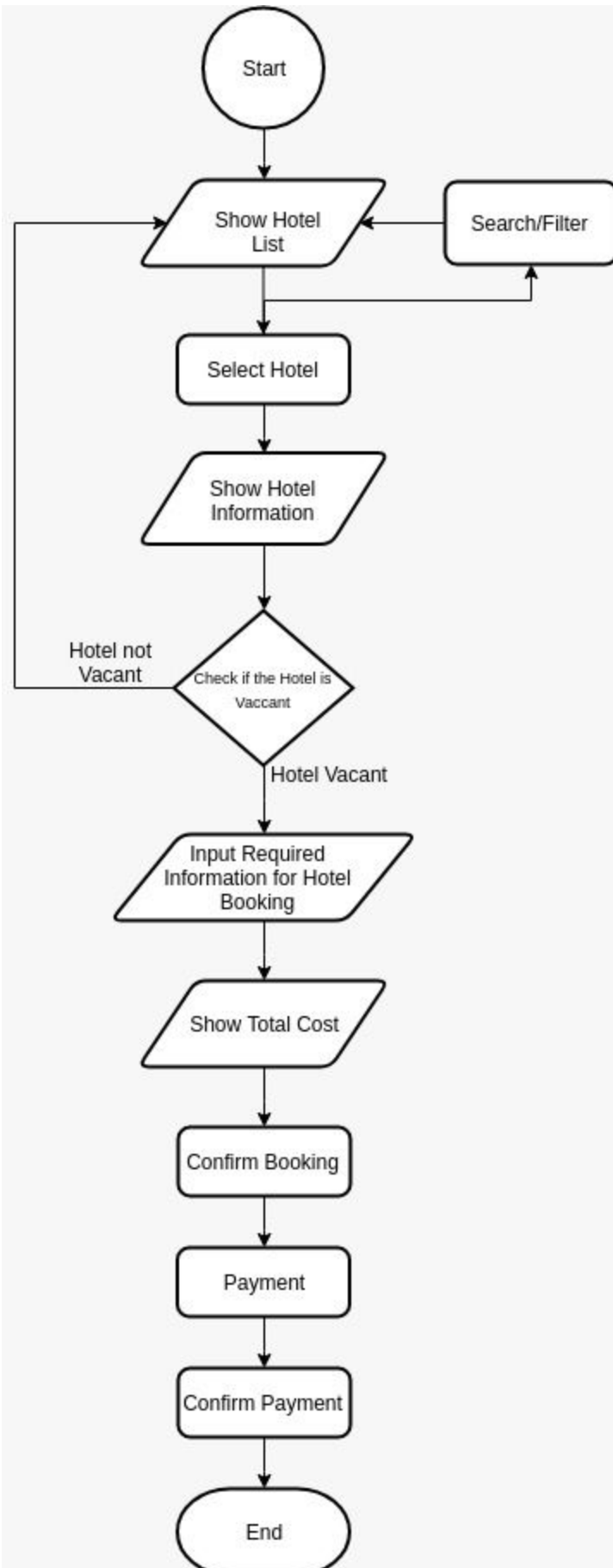
4.1.7 Experience

Travellers can see the previous shared experiences. He can also share his Experience. There shall be provide option to rate an experience.

4.2 Hotel Booking

4.2.0.1 Swimlane & Process Flow Diagram of Hotel Booking





4.2.1 Search Hotel

Hotel can be searched by name,location.The star marks will be shown one can also select this.

4.2.2 Filter

Hotel list can be filtered by:

- 1.Class
- 2.Price range
- 3.Specials: Free wifi,Non-smoking rooms,Indoor Pool
Fitness center,Wheelchair accessible & Air
conditioning etc.
- 4.Rating
- 5.Distance From City Center

4.2.3 Hotel List:

Hotel list should display according to the traveller search and filter.It will also suggest users using previous history and nearby hotels.The

hotels shall be provided by name,rating,cost,distance from city & special feature.

4.2.4 Show Hotel Details

Traveller Can show the Hotel Details

Show details of theTraveller selected hotel.This entities will such as

About the hotel,Hotel policy,Available all Rooms and description(Width,Bed,Person,AC,Bath,Cost etc) & additional Info.Traveller will select his budgeted room.

4.2.5 Input Required Informations:

User Must **Login** to insert the data.Details about will stated in

He insert required data for booking.

Fields will be:

- 1.Check in(Date)
- 2.Check out(Date)
- 3.No. of Room
- 4.No. of Nights
- 5.No. of Childs & adults

4.2.6 Show Payment Option

According to user requirement system will show the total Hotel for booking.The Payment Option Will be shown.The payment options Accepted by the system:

- 1.Visa
- 2.Mastercard
- 3.American Express
- 4.DBBL Nexus
- 5.Bkash etc.

4.2.7 Payment Confirmation

System Will email the confirmation letter of booking.

4.2.8 Login and Create Account

User will Login using their Email and password.

If he request to reset password a password reset email will be sent.

For a new user he can create a new account.Required Fields: First name,Surname,Email>Password and Confirm Password, Age,Gender & Favourite Places etc.

4.2.9 Booking Cancellation:

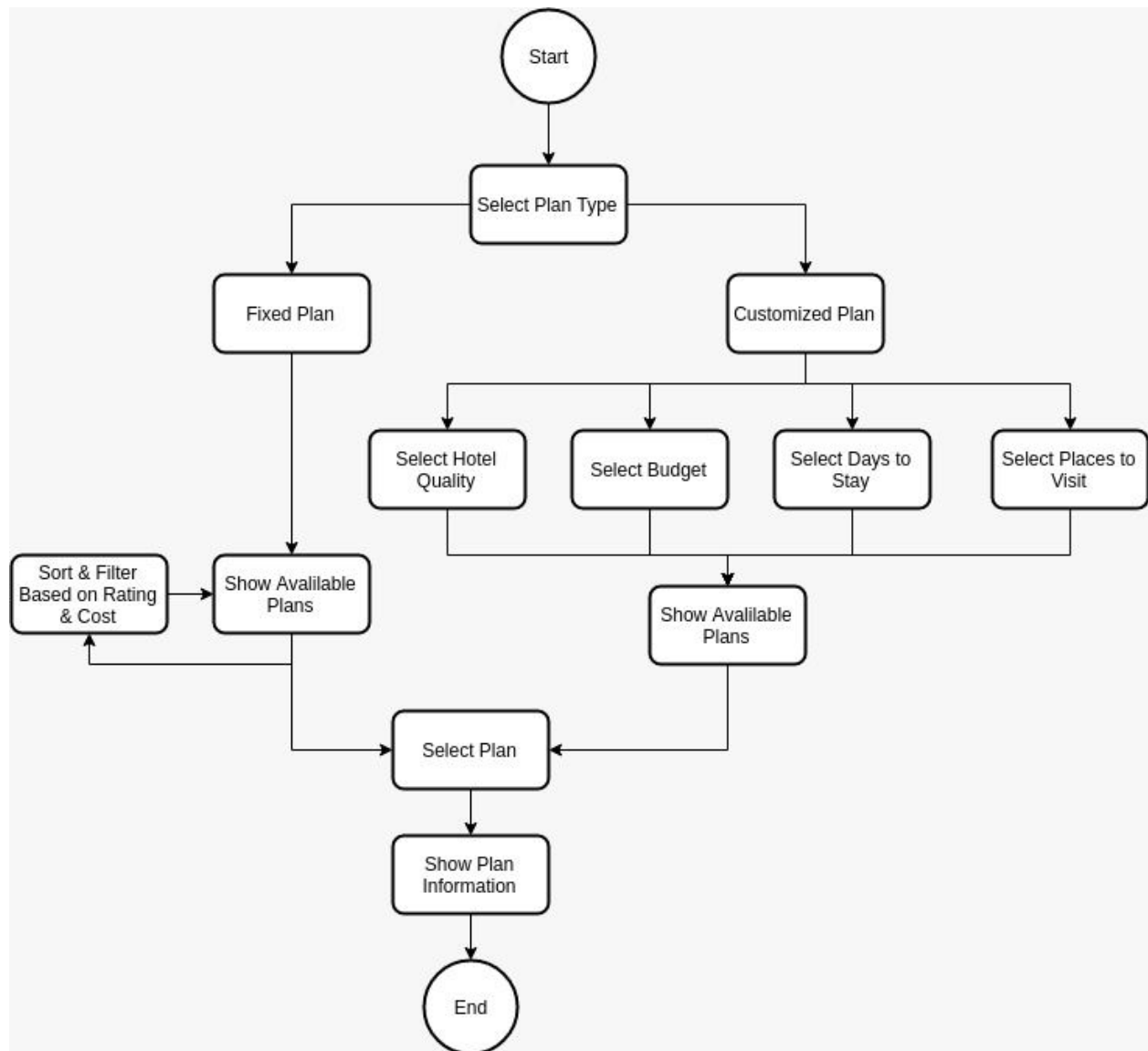
Every hotel has its own policies.Ticket cancellation will be directed by refund policy.such as:

- 1.10% refund before 30 hours

2.20% refund before 36 hours
3.35% refund before 48 hours
4.50% refund before 72 hours
5.75% refund before 85 hours
6.90% refund before 96 hours

4.3 Tour Plan

4.3.0.1 Process Flow Diagram of Tour Planning



Process Flow of Tour plan

4.3.1 Show The Available Plans

Plans should be sorted according to (Cost,Time,Type)

Type: 1.Luxury

2.Standard & 3.Less Cost

Plans Should Included with:Hotels ,Transportation,Guides and
Payments etc.

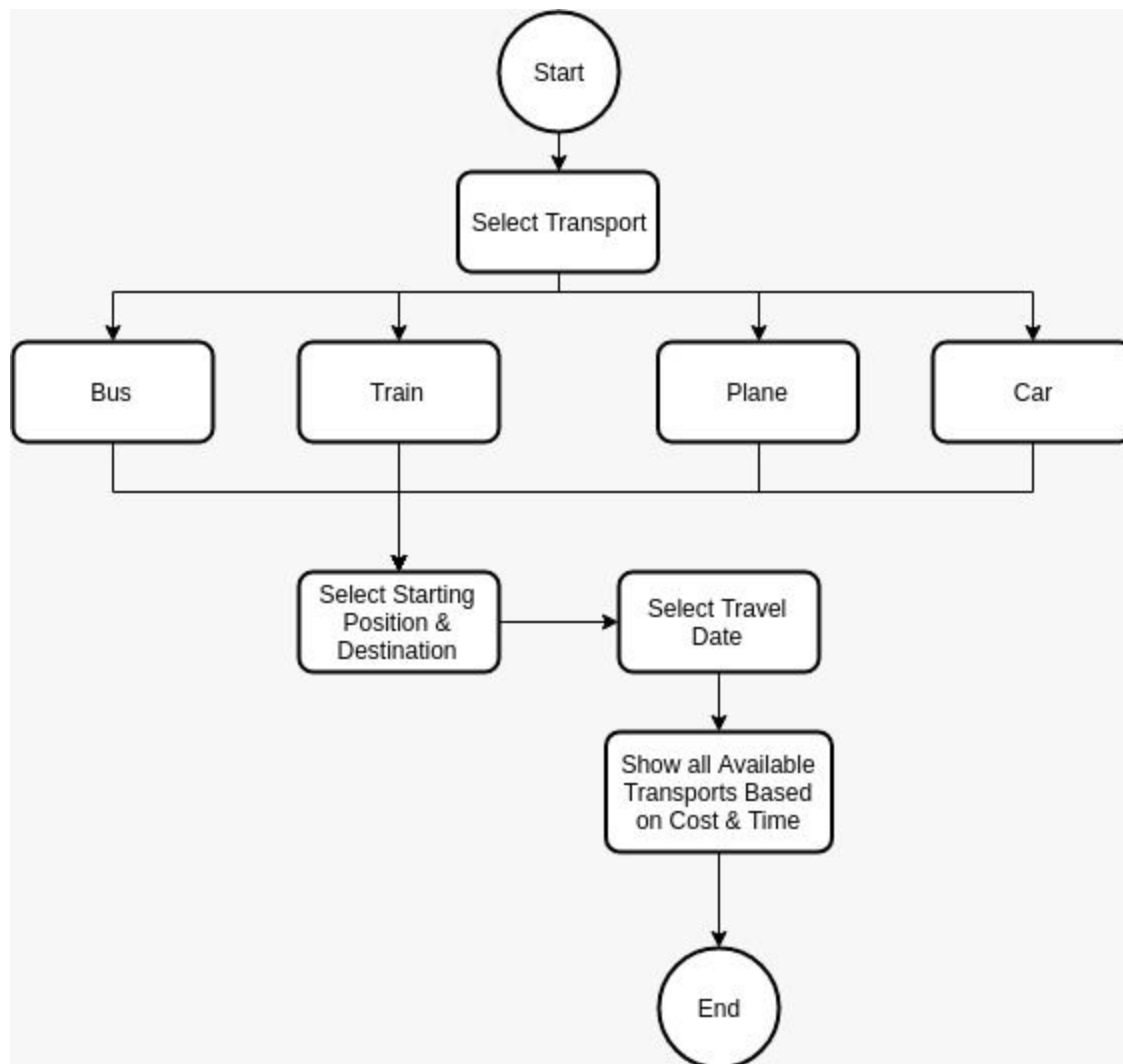
4.3.2 Select a plan

4.3.3 Payment Option

4.3.4 Communicate With Planner

Using email,Facebook,Contact Number etc.

4.4 Transportation



Process Flow of Transport

4.4.1. Show available Routes & Vehicles

Bus, Train, Plane & Rent a Car

4.4.2 Show available Tickets and Price

According to user trip date and filtering Show the available tickets and the prices.

Filtering:

1. Bus

a. Ac

b. Non Ac

2. Train

3. Air

4. Rent a car

Type:

1. Luxury

2. Standard &

3. Less Cost

4.4.2. Select Vehicle

4.4.3 Show all The Websites for Each vehicle

a. For bus:

● <https://www.visitsylhet.com/places-to-visit>

● <https://www.shohoz.com>

● <https://www.bdtickeys.com>

b. for Train

● <https://www.esheba.cnsbd.com>

c. for air

● <https://www.flynovoair.com>

● <https://www.travelbookingbd.com/>

● <http://www.flyticket.com.bd/>

● <https://www.travelbookingbd.com/>

d. For Car

Rent a car association Contacts.

4.4.3 Book Ticket

4.4.4 Payment Option and Confirmation

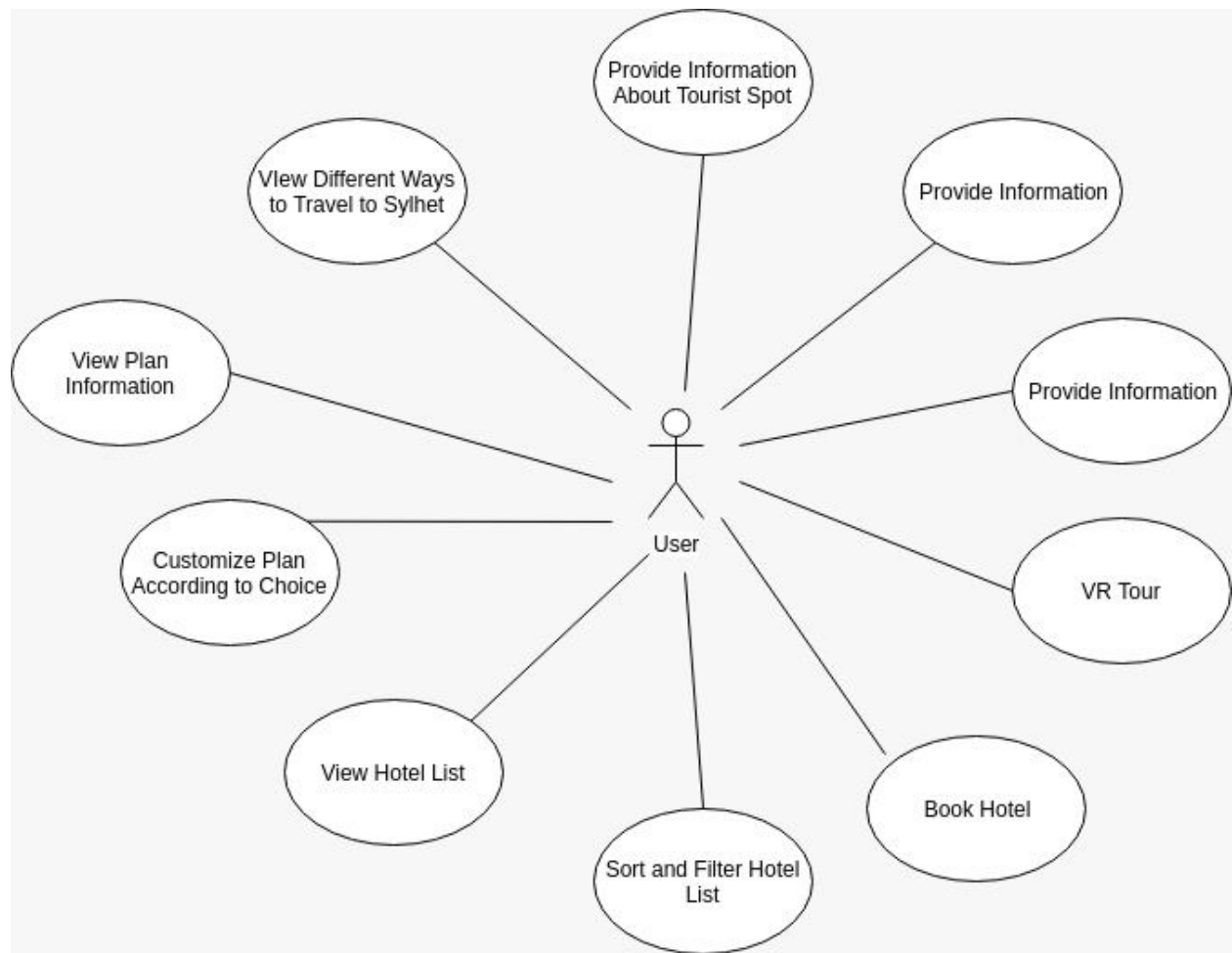
Same as Hotel Booking(4.2.6,4.2.7)

4.4.5 Ticket Cancellation

Same as Hotel Booking Cancellation(4.2.9).

4.5 Use case Diagrams

4.5.1 Use case Diagrams of System



5.Nonfunctional Requirements

5.1 Product Requirements

5.1.1 Usability Requirements

5.1.1.1 Graphical User Interface

Interface should be as easy as possible.

The system shall provide use of **icons and toolbars**.

5.1.1.2 Accessibility

The system shall provide **multi language support**.

5.1.2 Efficiency Requirements

5.1.2.1 Performance Requirements

The app should use as **less animations and pop ups** as possible to lessen the pressure on client's device. The first page shall take initial load time depending on internet connection strength which also depends on the media from which the system is run.

5.1.2.2 Space Requirements

The images on the app should be **compressed** to lessen the memory usage. Every Hotel should have a **limited number of storage** for free.

5.1.3 Dependability Requirements

There should be described **terms and conditions** page, open for everyone, so that users can depend on the system.

VROMON should display the **disclaimers, copyright & word marks** etc.

5.1.4 Security

5.1.4.1 Data Transfer

The system shall use **secure sockets** in all transactions that include any confidential user information.

The system shall **automatically log out** all users after a period of inactivity.

The system shall confirm all transactions.

5.1.4.2 Data Storage

VROMON shall always **encode password** with special characters representing typed characters.

The system's back-end servers shall **never display user's password**. The customer's password may be reset but never shown.

The system's back-end servers shall only be **accessible to authenticated administrators**.

The system's **back-end databases** shall be **encrypted**.

It should encrypt the data using **SHA256HASH**.

5.2. Organizational Requirements

5.2.1 Environmental Requirements

This App should run responsively on Android and IOS Device.

5.2.2 Operational Requirements

As the VROMON should be used by mass people, every page should be as simple as possible.

There should be a technical team to answer the questions asked by the user in the FAQ page.

5.2.3 Development Requirements

5.2.3.1 Standard Development Tools

The system development shall be built using a standard app building tool that conforms to a common standard.

5.3. External Requirements

5.3.1 Regulatory Requirements

The system should have a well-planned Terms and Conditions Policy.

The policies should be open to users.

5.3.2 Ethical Requirements

User should be ensured that his data will not be sold to third parties.

There should be one or more than one lawyer to keep an eye on the behavior of the system.

5.3.3 Legislative Requirements

5.3.3.1 Accounting Requirements

A user account should have the privacy option, so that users can have a choice who can see which part from his/her account.

User account should have a list of user's recent history.

According to user's history, user will get suggestions.

5.3.3.2 Safety Requirements

All the users' data will be safe and secure.

The system will not use user's microphone, camera or any extra computational power without his/her permission.

No user can see other users private info.