
Software Requirements Specification

for

TOUR PACKAGE

Version 1.0 approved

Prepared by

Name: Md Maruf billah Id: 1530671042

Name: Azizul Hakim Tareq Id: 1711080642

Name: Md Saiful Islam Id: 1620578042

Name: Golam kibria Anik Id: 1712345642

North South University

18/10/19

Table of Contents

Table of Contents	ii
Revision History	ii
1. Introduction.....	1
1.1 Purpose.....	1
1.2 Document Conventions.....	1
1.3 Intended Audience and Reading Suggestions	1
1.4 Product Scope	1
1.5 References.....	2
2. Overall Description	2
2.1 Product Perspective.....	2
2.2 Product Functions	2
2.3 User Classes and Characteristics	2
2.4 Operating Environment.....	2
2.5 Design and Implementation Constraints	3
2.6 User Documentation	3
2.7 Assumptions and Dependencies	3
3. External Interface Requirements	3
3.1 User Interfaces	3
3.2 Hardware Interfaces	3
3.3 Software Interfaces	4
3.4 Communications Interfaces	4
4. System Features	4
4.1 System Feature 1.....	Error! Bookmark not defined.
4.2 System Feature 2 (and so on).....	Error! Bookmark not defined.
5. Other Nonfunctional Requirements	4
5.1 Performance Requirements	9
5.2 Safety Requirements	10
5.3 Security Requirements	10
5.4 Software Quality Attributes	10
5.5 Business Rules	11
6. Other Requirements	11
Appendix A: Glossary.....	11
Appendix B: Analysis Models	11
Appendix C: To Be Determined List.....	12

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) is to define and describe the functions and specifications of our project TOUR PACKAGE. It will explain the purpose and features of the system, the interfaces of the system, what the system will do. By reading this SRS document other developers would be able to modify the project if needed.

1.2 Document Conventions

Main Section Titles

Font: Calibri
Face: Bold
Size: 18

Sub Section Titles

Font: Calibri
Face: Bold
Size: 14

Descriptions:

Font: Calibri
Face: Normal
Size: 12

1.3 Intended Audience and Reading Suggestions

The SRS is intended for software developers, Software Engineers, project managers, designers, and testers. They will get a good overview of the project by reading this SRS. The document is intended to be read step by step as it is.

1.4 Product Scope

TOUR PACKAGE is a online tour package booking system with some good features, an user could know about several tour packages by chatbot. The owner wouldn't be needed to reply the users, rather the system will automatically reply when someone ask something in chatbot. Moreover, one could book a tour package, see the details including google map location of the tour packages, could search his favorite tour package, and would be able to pay online for the package. User would need to sign up and sign in to do these activities, third party log in system would be available also.

This project would be very helpful for those who want to book tour package by sitting at home. He would be able to get the answers with in a second if he has any query. The owner of the TOUR

PACKAGE business would get help from this project. He wouldn't need to hire people for replaying client's questions.

1.5 References

<https://akashbariholidays.com/europe-tour-packages-from-bangladesh/>

N.B: This site is not completely representing our project.

2. Overall Description

2.1 Product Perspective

This system will consist of two parts: one android application and one web portal. The mobile application will be used by the tourist who will be able to book a tour package. The web portal will be used by both the tourist and business owner. The tourist can book tour packages and the business owner can upload their tour packages descriptions.

The android application needs and version 7.0 or above. The mobile app will be used for booking the tour packages where he/she can chat for knowing the details about the tour, that's mean there will be a chatbot.

The mobile application and the web application will both have a database to store product data and user data. The web portal will have read, write and modify access of the database but the mobile app will only have read access. All database communication will happen through internet.

2.2 Product Functions

With the mobile application the user will be able to book a tour package. The users will also be able to search for a specific tour package with name or find it from the category menu.

The web portal will have two parts, one for the administrator and another one is for the tourist. The tourist will be able to book a tour package from here also. The website and the app will be supported the AI feature. As a result, the web portal will be accessible from any device as it won't have any hardware constrain. The admins of the portal will be able to add new tour package with details, receive booking and also get analytical data on tour package.

2.3 User Classes and Characteristics

There are two types of users of the platform. The tourist and the administrators.

The tourist will be able to use the mobile app and the web app. They can use all the features the mobile app provides.

The admin can log in into the webpage and will upload the details about the tour package on the web portal. Same for the tourist. They will also sign up or sign in into the web page to see the details about the tour packages. They will have access to the mobile application too.

2.4 Operating Environment

For Android:

Operating System: Android 7.0

RAM: 1 GB

2.5 Design and Implementation Constraints

As this an online application, internet connection is a constraint. Internet connection is crucial for the application to fetch data from the database over the internet.

Both the web portal and the mobile application will be constrained by the capacity of the database. Since the database is shared between both application it may be forced to queue incoming requests and therefor increase the time it takes to fetch data.

2.6 User Documentation

The platform is just entering development stage. Once the development is completed and a prototype released user documentation will be provided.

2.7 Assumptions and Dependencies

One assumption for the android application is the application will be used mostly on high-end or latest phones as for a few years as the hardware requirement can only be met on those phones.

A good GPS facility will be required for finding the location .

Proper browser should be used for the web app and a stable internet connection is required.

3. External Interface Requirements

3.1 User Interfaces

A first-time user of the web application should see the log-in page when he/she opens the application. If the user has not registered, he/she should be able to do that on the log-in page. Every user should have a profile page where they can view their e-mail address, phone number and password. The User can view the travel package. And they can see the details. Also, they can book the package. The Interesting part is, user can chat with a robot.

3.2 Hardware Interfaces

The mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. One API will handle the chat. Its directly run on any operating system via web. Its also a version of android.

3.3 Software Interfaces

For the front-end development of the web application, HTML 5, CSS 3, JavaScript, will be used. For the back-end development Node-Js framework and JSON will be used. And we are using AI for chatbot.

3.4 Communications Interfaces

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is important for the system. So rest API, , express, mongo DB (database), mongoose and firebase will be used for this project.

4. System Features

This section includes the requirements that describe all the essential functions of the system. The naming convention will follow the following conventions

PFRx – Primary functional requirement

SFRx – Secondary functional requirement

4.1 Functional Requirement 1

ID: PFR1

TITLE: Sign Up

ACTOR: User

PURPOSE: Register the user information

OVERVIEW: Given that a user has downloaded the mobile application, or accessed the website then the user should be able to register into the system. The user must provide Name, Password, Address, Phone Number, address .

TYPE: Primary function

PRIORITY: High

DEP: none

COURSE OF EVENTS:

I) Open the application or website

II) Enter all the information

III) Click on register

ALTERNATIVE COURSE OF EVENTS:

I) Email not match with regex, show error: "Please provide a valid email"

II) Password is less than 6 digits, show error: "Password must include at least 6 digits"

III) Any field left blank, show error: "All the fields must be filled up"

4.1.1 Functional Requirement 1.1

ID: PFR2

TITLE: Sign up with(Facebook, Google)

ACTOR: User

PURPOSE: Register the user information

COURSE OF EVENTS:

I) Open the application or website

II) Enter all the information

III) Click on register

ALTERNATIVE COURSE OF EVENTS:

I) Email not match with regex, show error: "Please provide a valid email"

II) Password does not match: "Password or email is not correct. Please retry!"

III) Any field left blank, show error: "All the fields must be filled up"

4.1.2 Functional requirement 1.2

ID: PFR3

TITLE: Sign in

ACTOR: User

PURPOSE: Login the user

OVERVIEW: Given that the user is already registered, the user will be able to login by providing the email and password.

TYPE: Primary function

PRIORITY: High

DEP: PFR1

COURSE OF EVENTS:

- I) Select “Already Registered” button from the registration page.
- II) Enter email and password
- III) Click on sign in

ALTERNATIVE COURSE OF EVENTS:

- I) Email not exist, show error: “This email is not registered yet. Please Register first.”
- II) Password does not match: “Password or email is not correct. Please retry!”
- III) Any field left blank, show error: “All the fields must be filled up”

4.1.3 Functional requirement 1.3

ID: PFR4

TITLE: Search

ACTOR: User

PURPOSE: Search for packages to buy

OVERVIEW: From the home page the user must be able to search for their preferred packages. The search will find the match the title of the package. The user will also be able to add tags to shorten their search range.

TYPE: Primary function

PRIORITY: Medium

DEP: PFR2

COURSE OF EVENTS:

- I) Type the search keywords
- II) Provide Tags (Optional)
- III) Click on search

ALTERNATIVE COURSE OF EVENTS:

- I) Search keywords are empty, show error: “Please enter a keyword”

4.1.4 Functional requirement 1.4

ID: PFR5

TITLE: Select Package

ACTOR: User

PURPOSE: Book the package

OVERVIEW: From the packages page a user will be able to click on place order. The order will be placed assuming that the payment type will be pay on delivery and address will be the address of the user.

TYPE: Primary function

PRIORITY: High

DEP: PFR2

COURSE OF EVENTS:

- I) Click on Select Package
- II) Click confirm booking or Cancel.

ALTERNATIVE COURSE OF EVENTS:

I) Address must be valid, Admins will check for the validity of the address and manually send SMS to the user regarding the issue

4.1.5 Functional requirement 1.5

ID: PFR5

TITLE: Rate Package

ACTOR: User

PURPOSE: Rate and Review previously bought package.

OVERVIEW: From the Packages page the user can click on “Review packages” button. This will pop up a window with 5 empty stars and a comment box. The user will have to click on any star which will signify the rating based on one’s index of the star. The user can additionally add a review comment into the box and submit the rating.

TYPE: Primary function

PRIORITY: Low

DEP: PFR2

COURSE OF EVENTS:

- I) Select a star
- II) Optionally type a comment
- III) Click on submit

ALTERNATIVE COURSE OF EVENTS:

- I) No stars selected, show error: “You must rate the product from 1-5”

4.1.6 Functional requirement 1.6

ID: PFR6

TITLE: Chat with us – Mobile Application only

ACTOR: User

PURPOSE: Conversation through messages for the packages in real time with chat bot.

OVERVIEW: From the Packages page the user can chat for the suitable packages. This bring the user to a Bot., where the bot reply the user most appropriate answer.

PRIORITY: High

DEP: PFR8

COURSE OF EVENTS:

- I) Select Chat with us from home page
- II) Click on close chat

ALTERNATIVE COURSE OF EVENTS:

- I) Data not downloaded properly, show error: “Couldn’t connect to server, please check your internet connection and try again later!”
- II) Wait till the environment changes.

4.1.7 Functional requirement 1.7

ID: PFR7

TITLE: Profile Page

ACTOR: User

PURPOSE: View the profile page

OVERVIEW: Show the user information to the user. This information will include, name, email, phone number, address and user type. User will be able to modify any of this information except for the mail.

TYPE: Primary function

PRIORITY: Low

DEP: PFR2

COURSE OF EVENTS:

- I) Select Profile button from home
- II) Select any field
- III) Modify the selected field

IV) Click on update information
ALTERNATIVE COURSE OF EVENTS:

I) Data not downloaded properly, show error: “Couldn’t connect to server, please check your internet connection and try again later!”
-Wait till environment changes.

4.1.8 Functional requirement 1.8

ID: PFR8

TITLE: Packages Page

ACTOR: User

PURPOSE: View the Packages page

OVERVIEW: Packages page can be accessed from various other views. It is assumed that this page is accessed by clicking on a package. The information regarding that package will then be shown here. User can view the details of a package from this view.

TYPE: Primary function

PRIORITY: High

DEP: none

COURSE OF EVENTS:

I) Select a package

II) Select any functionality provided by the package page

ALTERNATIVE COURSE OF EVENTS:

I) Package details not downloaded in time limit of 30 seconds, show error: “Couldn’t connect to server, please check your internet connection and try again later!”
-Appear retry button

4.1.9 Functional requirement 1.9

ID: PFR9

TITLE: Administrator Login

ACTOR: Admin

PURPOSE: Login the admin

OVERVIEW: Given that the admin is already registered the admin will be able to login in through a web portal.

TYPE: Primary function

PRIORITY: High

DEP: none

COURSE OF EVENTS:

II) Enter email/username and password

III) Click on sign in

ALTERNATIVE COURSE OF EVENTS:

I) Email not exist, show error: “This email/user is not registered yet. Please Register first.”

II) Password does not match: “Password or email is not correct. Please retry!”

III) Any field left blank, show error: “All the fields must be filled up”

4.1.10 Functional requirement 1.10

ID: PFR10

TITLE: Admin Dashboard

ACTOR: Admin

PURPOSE: View the admin dashboard

OVERVIEW: The admin dashboard will show sales overview and analytics, recent activity and latest orders.

TYPE: Primary function

PRIORITY: High

DEP: PFR9

COURSE OF EVENTS:

I) Change booking status

II) View booking details

ALTERNATIVE COURSE OF EVENTS:

I) No booking to view

4.1.11 Functional requirement 1.11

ID: PFR12

TITLE: Packages Menu

ACTOR: Admin

PURPOSE: Add new, remove or edit existing packages

OVERVIEW: The admin will be able to create a new package. S/He will also be able to remove or edit existing packages.

TYPE: Primary function

PRIORITY: High

DEP: PFR9, PFR10, PFR11

COURSE OF EVENTS:

I) Create a new Package

III) Remove existing Package

III) Add package description

ALTERNATIVE COURSE OF EVENTS:

I) No package to edit/delete

II) Package capacity reached: "no more packages can be added!".

4.2.1 Functional requirement 2.1

ID: SFR1

TITLE: Download mobile application

ACTOR: User

OVERVIEW: A user should be able to download the mobile application through either an application store or similar service on the mobile phone. The application should be free to download.

PURPOSE: In order for a user to download the mobile application.

TYPE: Secondary function

Priority: High

DEP: None

COURSE OF EVENTS:

I) Downloads the app from google play store

4.2.2 Functional requirement 2.2

ID: SFR2

TITLE: Check Password

ACTOR: System

RAT: Match the password

DESC: Match password entered by the user during login. The inserted password will be matched against the one stored in the database.

TYPE: Secondary function

PRIORITY: High

DEP: PFR2

COURSE OF EVENTS:

- I) Get password from user
 - II) Get password from databases
 - III) Match if both the passwords are the same.
- ALTERNATIVE COURSE OF EVENTS:
- I) The errors will be handled by the view using this function

4.2.3 Functional requirement 2.3

ID: SFR4

TITLE: Check if User is logged in

ACTOR: System

PURPOSE: Check if user is already logged in

OVERVIEW: The system may need to check if the user is properly logged in in different scenarios. The sign in state may be cached in the running device.

TYPE: Secondary function

PRIORITY: High

DEP: PFR2

COURSE OF EVENTS:

- I) Get user sign in status from device

ALTERNATIVE COURSE OF EVENTS:

- I) Couldn't access device storage, show error "Couldn't access device memory. Check the permissions for this app"

4.2.4 Functional requirement 2.4

ID: SFR3

TITLE: Chat with us

ACTOR: System

PURPOSE: Chat with a user through a chat bot

OVERVIEW: Detect the keyword of messages and then reply on basis of the words.

TYPE: Secondary function

PRIORITY: High

DEP: none

COURSE OF EVENTS:

- I) Get messages
- II) Detect the keyword
- III) Reply the answer.

ALTERNATIVE COURSE OF EVENTS:

- I) Internet Connection Problem, show error "Couldn't load messages, please try again later"
-Appear retry button

5. Other Nonfunctional Requirements

5.1 Performance Requirements

Google map API: We are going to use google map API for showing the location of tour spot.

User's rating: Users will be able to give rating on a specific tour package after taking and enjoying that package.

Desktop notification: Users who registered in the site will get a desktop notification whenever a tour package is added.

5.2 Safety Requirements

As there is a matter of paying money in online by credit card, safety issues could arise. Next developers could add other paying systems for example Bkash, Rocket etc.

5.3 Security Requirements

Admin Login Security:

If an admin tries to log in to the web portal with a non-existing account then the admin should not be logged in. The admin should be notified about log-in failure.

Admin Account Security:

An admin and IP address should not be able to log-in to the web portal for a certain time period after three times of failed log-in attempts.

User Account Security:

If a user wants to create an account and the email is occupied, the user should be asked to choose a different email

5.4 Software Quality Attributes

Reliability:

The reliability that the system gives the right booking of the user's choice.

Availability:

The availability of the system when it is used both in web app and android app.

Reusability:

The code of the system will be reusable.

Maintainability:

The application should be easy to extend. The code should be written in a way that it favors implementation of new functions.

Portability:

The application should be portable by android app and also the domain of web app would be accessible from any part of the world (just internet connection will be needed).

5.5 Business Rules

Proper tour package should be provided to the users which he/she booked. The charge of the tour package should be the same as the online. All the facilities included in web and android app should be provided.

6. Other Requirements

We will use mongoDB for the database part of the project.

Appendix A: Glossary

Definitions, acronyms, and abbreviations are listed below:

Term	Definition
User	Someone who interacts with the mobile phone application
Admin/Administrator	System administrator who is given specific permission for managing and controlling the system
Buyer	Someone who can see products and order it
Seller	Someone who gives full information about the product and deliver the product to the buyer
DEP	Dependency
PFR	Primary Functional Requirements
SFR	Secondary Functional Requirements

Appendix B: Analysis Models

we will use class diagram in future.

Appendix C: To Be Determined List

<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>