Software Requirements Specifications for TravelBook

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1. Introduction:

1.1 Purpose:

In this project, I have proposed an system to recommend travel places to the user. System will allow users to share their travel experiences and rate the places. All the information is stored in database. If any user is looking for travel suggestions system will analyze the user's information and generate their preferences. Based on preferences, system will select places from the database and recommends the same to the user.

1.2 Scope:

Nowadays people travel around the world but no application available to share their experiences and no recommend system present online to suggest places to the users based on their preferences. I proposed to develop a recommendation system in which users can create profile to share their travel experiences with others and rate the places as well. System will allow users to enter their preferences about the type of places they would like to visit like adventurous, sightseeing etc in specific location or near by location.
System will use those preferences to suggest or recommend places they might be interested in. Will develop the system using php and mysql. PHP to design user interface to allow user’s interaction with system and mysql database to store the information. Will incorporate concepts like authentication, sessions and all other protection techniques learnt in class to make the system secure. It is designed to ease the process of user's searching for a travel places.

1.3 Definitions, Acronyms and Abbreviations:

- PHP - Hypertext Preprocessor
- HTTP - Hyper Text Transfer Protocol
- HTTPS - Hyper Text Transfer Protocol over SSL
- SSL - Secure Sockets Layer

- SQLi - Structured Query Language Injection
- SHA - Secure Hash Algorithm

1.4 Technologies propose to use:

- PHP - User interface of the system will be developed using PHP. I will use html forms for better display and interaction between user and system.
- Database - I will use MariaDB to store user's information. It will be easier to connect PHP to mariaDB to get and store required information.

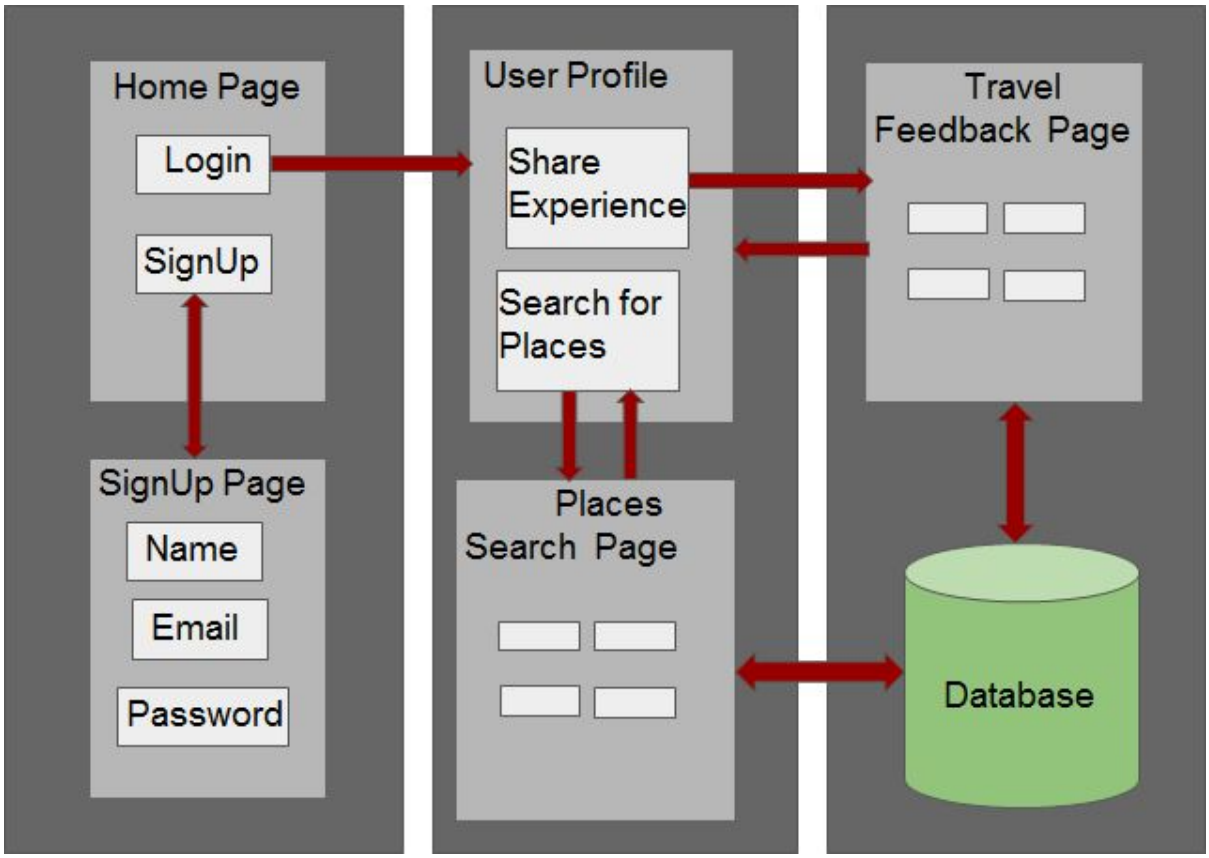
1.5 Overview

Internet plays key role in everybody's life. Just having internet is enough to get what you are looking for without any delay. Imagine when you are looking for a good restaurant to have lunch then you just need to check online for that. There are so many recommendation systems available online. But no recommend system present online to suggest places to the users based on their preferences. Nowadays people travel around the world but no application available to share their experiences or suggest places to the users. So I have proposed an recommendation system that will help to overcome problems users face to search for travel places and allow them to share their travel experiences.

2. Overall description:

2.1 Product Perspective:

Product perspective is shown in below diagram.



2.2 Product functions:

- Use sessions and authentication to restrict services to registered users and make system secure.
- Store user specific information in databases using prepared statements to prevent SQLi attacks.
- Get the user preferences and process it against data available in the databases to retrieve the required information.

2.3 Constraints:

- GUI designed is represented only in English.
- Authentication with Login and password details is used for the identification of users.
- Only registered users will be authorized to use the services of the system.
- Limited to HTTP/HTTPS.

3. Specific Requirements:

3.1 Functional Requirements are listed below.

- Allow user to login to share their travel experiences and requires user authentication.
- I will use SHA256 with salt to store passwords in database to prevent any attacks on sensitive information.
- Will make use of sessions after user is authenticated to securely transfer data from one page to another and to avoid attacks.
- Once user is logged in collect the information from them including ratings of the places and store it in the database.
- While storing or retrieving data from the database, check inputs for any type of injection attacks and will use prepared statements to eliminate SQLi.
- Homepage of the system will not only allow user to share their experiences but also allows them to get suggestions on places.
- Any user can search for the places they would like to visit and system will generate user preferences based on the information entered by user.
- Based on the preferences, will process the data in database and suggest the places to the user.
- Will make the system or web app secure by using HTTPS requests with SSL certificates.

3.2 Use cases for login and signup cases are described below.

Use Case List

Use Case ID	Primary Actor	Use Cases
UC-1.1.1	General User	Register
UC-1.1.2	General User	Sign In

Use cases

Use Case ID:	UC-1.1.1		
Use Case Name:	Register		
Created By:	Alimulla Shaik	**Last Updated By:**	Alimulla Shaik
Date Created:	Mar 28, 2016	**Last Revision Date:**	Mar 28, 2016
Actors:	General User (Any User)		
Description:	This use case allow a user to register for a new account		
Frequency of Use:	Once per User		
Preconditions:	User does not have an account		
Postconditions:	User has an account		
Normal Flow:	1. User visit the register page 2. User provide valid email address 3. User create valid password (at least 8 digits) 4. Provide contact information (Mandatory/optional) 5. User click on register button		
Exceptions:	1. E-mail address is invalid 2. Password is invalid 3. Account Already exist		
Includes:	Provide Valid Email Address Create Valid Password Provide Contact Information		
Special Requirements:	None		
Assumptions:	User has internet access		
Notes and Issues:	None		

Use Case ID:	UC-1.1.2

Use Case Name:	Sign In		
Created By:	Alimulla Shaik	**Last Updated By:**	Alimulla Shaik
Date Created:	Mar 28, 2016	**Last Revision Date:**	Mar 28, 2016

Actors:	General User (Any User)
Description:	This use case allow a user to sign in with his/her account
Frequency of Use:	Every time switch account or sign in to a new device
Preconditions:	User was logged out
Postconditions:	User is signed in
Normal Flow:	1. User visit the Login page 2. User provide valid E-mail address 3. User provide valid password 4. User click on sign in button
Exceptions:	1. E-mail address is invalid 2. Password is invalid
Includes:	Provide Valid E-mail Address Provide Valid Password
Special Requirements:	None
Assumptions:	User has internet access
Notes and Issues:	None

3.3 Sequence diagram for Sign In case is shown below.

Sign In Sequence Diagram