Requirements and Design Document

For Trip Planner Application

1. Introduction

Trip planner is a web based application designed for mobile devices.
Languages and frameworks which will be used to build it:

Back end: JavaScript, Python.
Front end: HTML, CSS, Bootstrap
Database: SQL

2. Purpose and Scope

The Trip Planner Application is a mobile application which provides the way to organize traveling activities, such as Flights, hotel reservations and sightseeing events inputed by user. It allows multiple users to access the same information, The application has the capability of outputting the live flight information and detailed information about the hotels and sightseeing events, such as address, phone number, hours etc.
Multiple users are able to access the same trip information. There user-admin can add additional users access the trip info.

The application should be free to download from either a mobile phone application store or similar services. The Application needs Internet connection to fetch and display results. All system information is maintained in a database, which is located on a web-server.

3. Product perspective

This system will consist of mobile oriented web based application. The mobile application will be used to organize travel evens inputted by the user. The mobile application will need to communicate to application's database to store user's information, information added by the user and additional information collected from the web. The mobile application will use the database to get data as well as to add and modify data. All of the database communication will go over the Internet.

4. Product functions

With the mobile application, the users will be able to create personal account, create a trip with the destination and input the travel events. All the inputted events will be sorted by the application by date and time and outputted back to the user.

There will be additional information outputted to the user on different events. Live flight information will be showed on the flight information. Address, hours, contact info will be added to the hotels and sightseeing events.

All the events will be outputted in the table organized by date and time. The detailed information of each event will be viewed in a separate window in the organized table. The application will provide functionality to manage/edit the inputted information by the admin user.

Admin user will be able to add new users to the trip. Regular user (non admin) will be able to only view the trip information.

4. User characteristics

There is only one type of users that interact with the system: users of the mobile application. Each trip though will have a user-admin and a regular user. User-admin is the one who creates the trip and has the right to add additional users. User-admin can add/edit new events to the trip. Regular user can view trip information only, not allowed to edit it.

<u>Versions</u> *(Functionalities)*:

Version 1.0:
User will be able to register and login into its own account.

User will be able to add new trips:
Inside the trip menu, user will be able to add:
- Flight details
- Hotel details
- Sightseeing details

After user enters main details of the event, the application scrapes addition details of the web. For example:
user enters: name of the hotel, city and state.
The application adds: address, phone number, amenities, photos, basic review summary.

Version 1.1:
User(admin) will be able to share the access to the trip with other users of this application by sharing the access key.
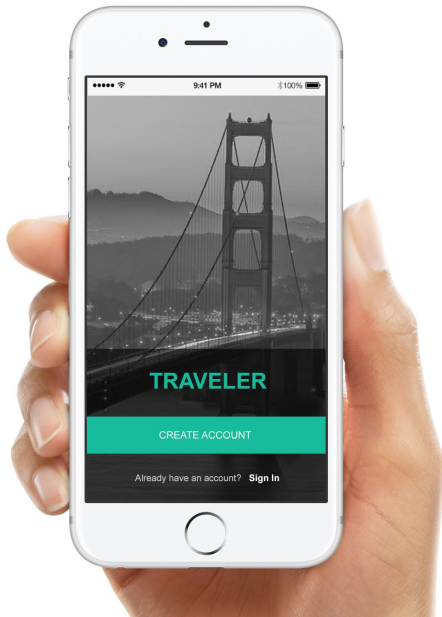*All users, who have access to the same trip will be able to add public notes to each events of the trip.*
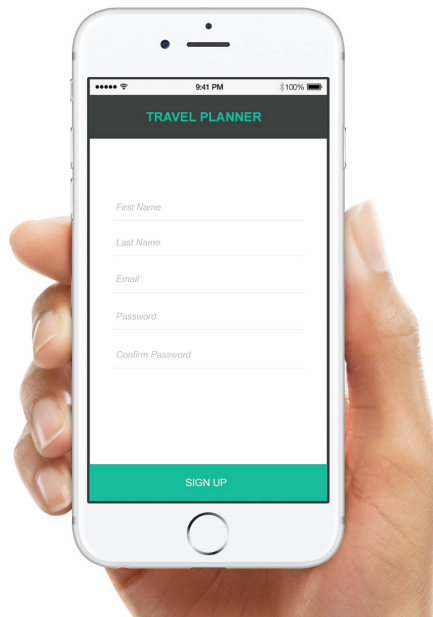
<u>External Interface Requirements</u>

5. User Interfaces -> Next Page
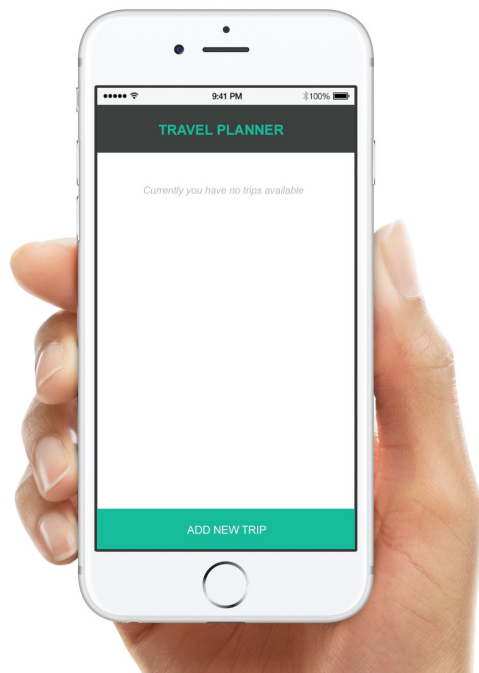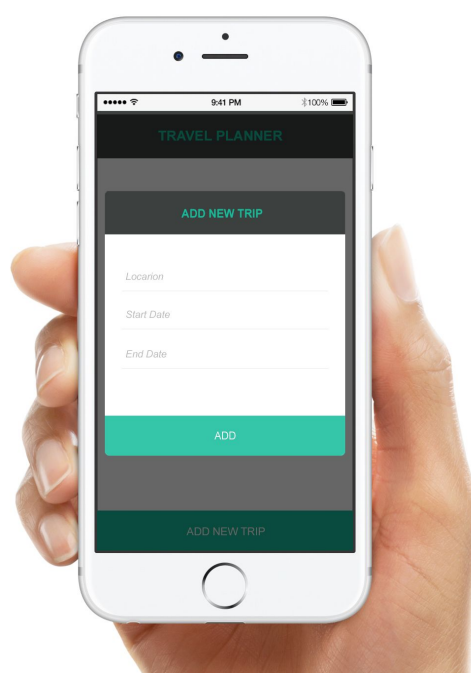
5. User Interfaces: Version 1.0
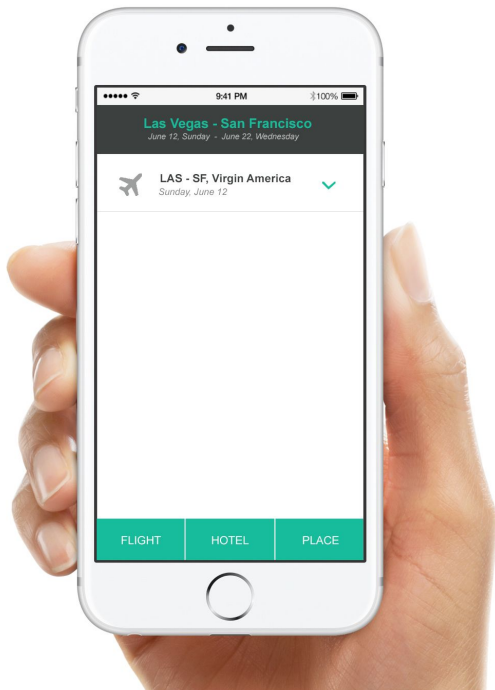
1. Home Screen
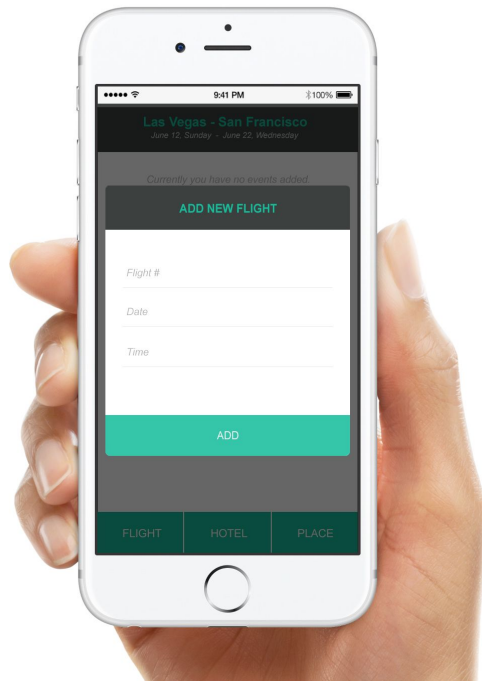

2. Create Account

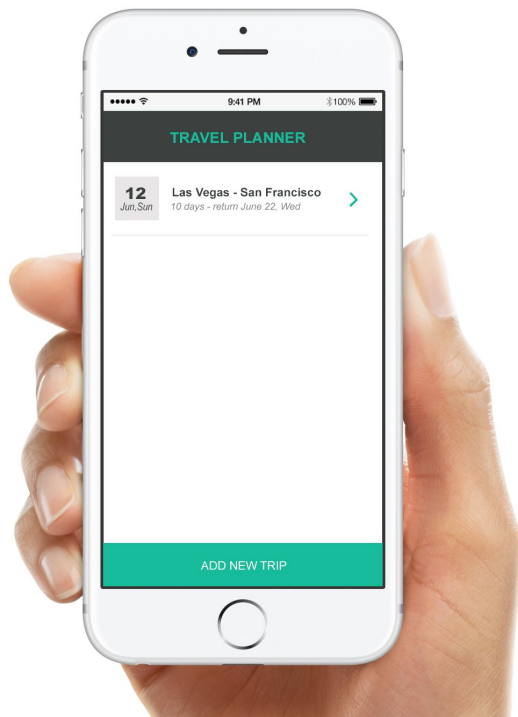### 3. Home Screen - Logged In

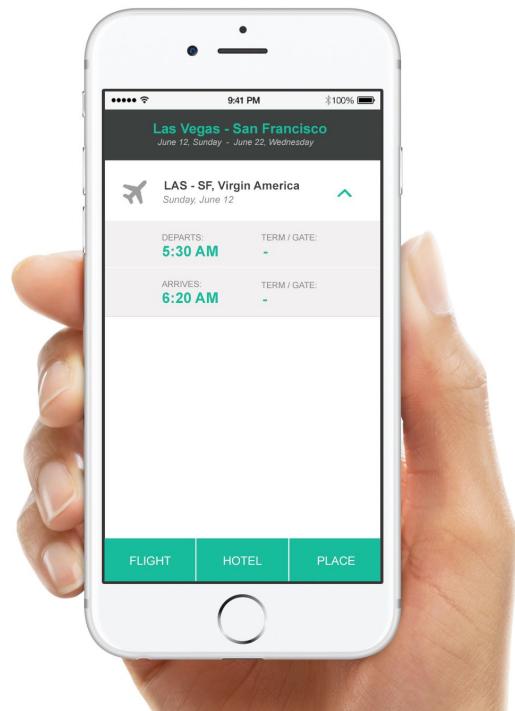

4. Add new trip

5. Home screen - Vegas Trip added

Las Vegas - San Francisco
June 12, Sunday - June 22, Wednesday

✈ **LAS - SF, Virgin America** ⌄
Sunday, June 12

FLIGHT | HOTEL | PLACE

6. Add new Flight Event to the Vegas trip

Las Vegas - San Francisco
June 12, Sunday - June 22, Wednesday

Currently you have no events added.

ADD NEW FLIGHT

Flight #

Date

Time

ADD

FLIGHT | HOTEL | PLACE

7. Vegas flight added

TRAVEL PLANNER

12
Jun,Sun **Las Vegas - San Francisco** ›
10 days - return June 22, Wed

ADD NEW TRIP

8. Vegas flight details

Las Vegas - San Francisco
June 12, Sunday - June 22, Wednesday

✈ **LAS - SF, Virgin America** ⌃
Sunday, June 12

DEPARTS: TERM / GATE:
5:30 AM   -

ARRIVES: TERM / GATE:
6:20 AM   -

FLIGHT | HOTEL | PLACE

6. Functional Requirements

1. *Inputs*
    -   *Sign In for for new users: first name, last name, email, password, confirm password.*
    -   *LogIn: email; password.*
    -   *New trip input: destination, date starts, date ends.*
    -   *New flight input: flight #, date, time.*
    -   *New hotel reservation: hotel name, hotel city, check in date, num. Of nights.*
    -   *New event: name; city, date, time.*

2. *Processing*
    -   *All the inputted information will be stored in the database.*
    -   *All the trips will be organized by date*
    -   *All the trip events will be organized by date and time.*

3. *Outputs*
    -   *New trip: all the inputted info.*
    -   *New flight; all the inputted info + live flight status.*
    -   *New hotel: all the inputted info + hotels' address, contact info, amenities.*
    -   *New event: all the inputted info + address, contact info, hours of operation.*

4. *Error Handling*
    -   *LogIn error handling*
    -   *Validation of trip event's dates, to make sure that events happening during the trip's time. Output error notice if the date is out of baudry of the trip dates.*