# Travel Advisor Group 20 - Hongcheng Wu, Spancer Guo, Jiajie Lin, Zachary Flebbe

This is a mobile application that provides users satisfaction when traveling nation park, this application aims to become the fully functional travel guide application. It included a schedule of different parks, ratings, weather notification, history, and photo galleries, and it has a navigation system that helps you to find the direction you are looking for.

## **Functional Requirements**

Since functional specifically deals with the system behaviors, and are generally derived directly from the user. The functions are required fully tested, because the user does not know the processing behind the screen, by avoiding triggering some unexplained program crash or exit, every functional method needs to be carefully and completely tested. For example, when the user is planning a route to their destination, some exceptions are: if the destination does not exist, if the destination exists but the user enters a similar destination which is thousands miles away, or the user enters something that might crash the program.

### **Data Requirements**

When we are considering data transmission, the most concerning things are connection security and internet usage. Especially when a user is using Emergency Rescue, we want data to be communicated with minimum data usage and maximum data quality. Then on the data layer, we might consider using a compressing algorithm to achieve that goal.

### **Security Requirements**

Security requirements are one of the most important parts of an application, we have to make sure all the data from the users will not be shared or used by a third party. We must ensure application information can only be accessed by only the administrator or emergency services. And only the developing team can access the application data of the user.

We also have to protect the users' privacy, any data used should be asked for the user's permission and written in the user agreements. Any change in the privacy policy will notify the users immediately and ask for permission again.

The server of the application should always be running to ensure proper usage.

#### **Usability and Humanity Requirement**

The application should be usable for anyone, all the operations should be simple and direct. It also has to be a multiple language system, and it helps different users to use it in their preferred language.

The communication system has to make people live in peace, all the verbal language should be blocked by the automatic language filter. Then users could get a good experience using the application and in order to share their travel experience.

The application software will be open for anyone, people who are interested can download it directly in the app store.

#### **Look and Feel Requirements**

Since different features would have a different layout display, the application has to handle the different layout. The User Interface of the application should keep it clean and simple. Anything in the application should look professional, simple but innovative, and it leads the users more comfortable with using the application.

### Performance & Dependability Requirements

Since most emergencies require immediate response the emergency call service should have the fastest speed, and the location of the user needs to be accurate in order for the rescue team to search the target. All generated routes should be done in a reasonable time and it must be accurate and instructions to navigate should be easy to read and follow. Travel Advisor should be able to handle 10,000 users connecting all concurrently.

Since application crashes can result in bad user experience, Travel Advisor should not fail more than once per day, and no data shall be lost or damaged in an event of failure. When the application crashes, proper error messages shall be displayed to instruct the user to restart the application. Travel Advisor contains features that users can use any time of the day even during parks' closing time, so the application shall be available during any hours of the day. And the application shall have 99% uptime.

This application shall not cause any damage to the user's devices. And Travel Advisor does not need the user's personal information in order to provide service to users.

#### **Maintainability and Supportability Requirements**

Travel Advisor shall be available to the user as long as the national parks are open for visitors. Maintenance will be available through the help section, email or phone, and all maintenance requests should be handled by the maintenance teams in a reasonable time. Small issues that can be handled on the spot would be requested in the help section, bigger issues would be requested through email. For those maintenance which would affect the normal usage of the application, the maintenance must be done at midnight, unless the maintenance requires immediate maintenance.

#### **Operational and Environmental Requirements**

The application must comply with several different types of Operational and Environmental requirements. With the expected physical environment the application must be usable as long as the device running it is usable. It also must offer an offline mode in the event cellular service is unavailable. When interfacing with adjacent systems, the application must be available in both app stores and comply with their terms of service. The application must also offer different modes for different types of users, including emergency services, administrator or a basic user. For production requirements, the user must provide regular updates via the app store. These updates will be free. For political requirements, the application must comply with all terms of service in the app store. The administrator will have access to all user information; emergency services will have access to only user location.