

## App Description

A simple app to book train rides. The user will search available destinations and be able to book tickets. The app will be simple and still provide the most crucial information to book tickets on the fly. The intended user is not shopping for deals or researching sophisticated train schedule options. Let's get a train ticket quick and easy is the moto.

## Stakeholders

- Committer – TrainHub LLC, CEO George Doitall
  - Goal: Make the breakthrough to the big boy's league
  - He staked the future of the company on this train network deal
  - This guy calls the shots but he is stretched out on a limb financially
  - Is rumored to be impatient with employees
- Owner – Board of Directors of TrainHub LLC
  - Goal: Return on investment - Long term
  - Breathing down the neck of the CEO
  - Willing to take a financial hit for 6 months, max
  - Promises \$20K dev budget for first 6 months
- Creator/Visionary – Linda Doitall, wife of Mr George Doitall
  - Goal: Creative type, wants artistic recognition
  - Trying very hard make it as artist, loves flowers
  - Strongly identified with her "big idea"
- Users – anyone one who likes to get out of the city
  - Goal: Relax and enjoy the ride in the wide-open countryside
  - Quick and easy app experience
  - Low cognitive load user interface, target audience not into tech

## Requirements analysis

The goals of the first three stakeholders are of similar nature in that good adoption of the app will be an indicator of success. Long term this is paramount.

Our most productive focus of effort should be on understanding the user needs and the composition of the targeted user base. Essentially, we have identified a NON-tech oriented, romantically inclined person looking to rekindle the simplicity of the golden days of the past as our target user group. Seniors may be a sizable portion of this group as well.

We anticipate that a simple uncomplicated look with few hidden options or “esoteric” settings will please our audience. Self-evident app navigation is also of great importance as well as large easy to click buttons. The essential logic of the app should ideally be contained on one main view with auxiliary screens used only for clearly defined functionality such as sign up or login.

With this in mind we have the following specific requirements for functionality in the app.

1. A first use Welcome Screen
2. Signup Screen
3. Login Screen
4. Main View/Search Screen
5. Book it Now Screen
6. Display Ticket Barcode Screen
7. Capability to store and access Train and User Data in some form of online Storage
8. Best in class connectivity due to remote location usage

In addition, the Main View Screen will need to incorporate the following:

- Current location - could be a dropdown list or location API
- Destinations
- Departure times
- Arriving from
- Arrival time
- Train type: Highspeed, Standard or Steam
- Search feature – based on filtering by Table Column
- Select Option by row for booking
- Book Now Button – for execution of booking

## **Application architecture**

In order to achieve an adaptable and scalable design a serverless implementation would be ideal. This would allow for rapid expansion with minimal effort. Given our financial restrictions and time sensitive launch window we only get one go at it. The stakeholders are firm in their commitment but the window of 6 months calls for rapid scalability.

With regards to time table data and related train data we have confirmed that these are already implemented by a previous project by TrainHub LLC and are available as online APIs. We can therefore limit our architecture scope to include some form of serverless data storage for user information and booking data.

We anticipate outsourcing the actual payment processing and will focus on only incorporating a visual front end for that part of the app with direct links to the provider.

The following diagram shows the preliminary structure of the application architecture.

