# Requirements

## Introduction

The following document will highlight the requirements that will be necessary for the application to function. Over the course of this chapter, I will go into detail about how the requirements were gathered such as similar applications and surveys. I will also highlight example personas for users that might want to avail of the web application as well as also detailing the functional and non-functional requirements. Finally, I will discuss the technologies I would like to see implemented into the application.

### Research Question

The following question I have for Sprint 1 is: What websites possess similar traits to the one I wish to build and how can I put my own unique spin on it?

## Requirements gathering/Research

### Similar applications

#### Ticketmaster

The first application that would be like my application would be ‘Ticketmaster’. As you can see from the screenshots it has a very simple UI with large icons/text so users know exactly where each link would be taking them.

Graphical user interface, website

Description automatically generated

Figure 1: Ticketmaster Homepage

Graphical user interface

Description automatically generated

Figure 2: Ticketmaster 'My Tickets' Page

#### DICE

The second application that I like the look of and see as like my application is ‘DICE’. DICE is another ticket website that distributes tickets for shows and also for festivals, something Ticketmaster doesn’t offer as much. The homepage and MyTickets section are below so you can compare the UI of each.

Graphical user interface, website

Description automatically generated

Figure 3: DICE Homepage

From the initial view you can see that DICE tries to take on a more minimalistic approach compared to Ticketmaster and as a result it is slightly more difficult to find links that you’re looking for e,g My tickets and Log Out in the top right appears washed out.

Graphical user interface, application

Description automatically generated

Figure 4: DICE MyTickets page

The MyTickets page on DICE appears more simplistic than TicketMaster and keeps the user focused on what’s in front of them rather than distracting them with Sidebars and extra links etc.

#### Viagogo

Finally, the third website I want to compare is ‘Viagogo’. This website has a more clunky appearance compared to TicketMaster and DICE and a user may appear the most confused on this website as it’s notorious for popups when purchasing tickets to ‘panic’ a user into making a purchase.

Graphical user interface, website

Description automatically generated

Figure 5: Viagogo Homepage

Graphical user interface, text, application, chat or text message

Description automatically generated

Figure 6: Viagogo purchases page

### Interviews

### Survey

## Requirements modelling

### Personas

### Functional requirements

* Users can Register and Login to view personal Dashboard
* Users can ‘purchase’ tickets to generate a QR code (Nayuki QR Code Generator)
* Users can search through a database of festivals/shows.
* Users can edit account details
* CRUD functionality for Festivals/Shows

### Non-functional requirements

* Form Validation when registering
* API for Festivals (PredictHQ API, SongKick API)
* User can have custom profile picture
* Request Refund for ticket? Receive automated email from Application
* Recommender system i.e Recommend shows based on music taste

### Use Case Diagram

Diagram

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Figure 7: Use Case Diagram

The following Use Case Diagram highlights some of the features that will be available to both users and administration

## Feasibility

There are several technologies that I will use and like to use during this major project. The main application will be React as I will be developing a web application, and this will act as my front-end developer environment. Secondly, I would like to use Python to introduce a recommender system to the user to suggest concerts/shows they may like depending on their music taste. I will also use Photoshop and Figma to design my prototypes and wireframes as well as Miro to act as a drawing board for ideas. For my application design I will use Material UI as the CSS framework. The overall goal for this project is to attempt to use technologies that I have only recently been introduced to rather than use what’s familiar to me.

## Prototypes

The following are some sample pages I designed using Figma: The logo was created using freelogodesign.org

A crowd of people in front of a stage with lights

Description automatically generated with medium confidence

Figure 8: Prototype Landing Page

Graphical user interface, application

Description automatically generated

Figure 9: Prototype Search Results

## Test Plan

To test my project, I will need an environment in which I can host and record user interaction. For last years project my partner and I used Loop11 to host and test our application for users to interact with. It lets the host set out and provide tasks that the user must complete to highlight whether a website can be navigated smoothly. This method worked very well last year with myself and my partner able to obtain very useful information that comes with a fresh pair of eyes testing your application.

## Conclusion

In Conclusion I believe the research I have obtained will come very useful over the course of this Major Project. Not only has it provided me with a foundation to build from but also has given me key resources that I can reference over the various sprints that will no doubt benefit me in the long term. Researching has also sprouted new ideas for the project with the idea of a recommender system now on the cards for my application.