

Rational Essay

Introduction

Framework/Library used – jQuery Mobile

After studying the module User Experience and Concept Design we put the user first in all elements of the design and development of our project. I wanted to use the knowledge I gained from UX and CD and apply it to the choice I had for library or framework in this assignment.

First I had to think of the user of this app. The primary users will predominantly use smart phones, mobile devices and be “on the go” in the busy city of Dublin. Therefore the library or framework I will use will have to be geared towards a variety of mobile devices, be easy to use, touch screen optimized and also have a feature set that will utilise small screen real-estate. From using jQuery mobile in assignment 1 I saw how efficient it is to code and how mobile user friendly the library is. The following are the advantages and some disadvantages of using JQuery Mobile for this task.

Advantages

The Task

jQuery Mobile is ideal for the task at hand. The application is a simple idea and had 2 weeks to build it. Time was an issue as I had other course work and part time work so using a framework/library that you can create an app efficiently and with time restraints was ideal. This is one of the main advantages to using jQuery mobile. It makes it easy to build and deploy an application thanks to its easy to use feature set and mix of HTML5 and jQuery easy to read and code compared to other frameworks and libraries.

Device and Platform

As I have stated in the introduction the primary users of the application will be users on a mobile device. jQuery mobile is ideal for mobile application development.

Compatibility

jQuery Mobile takes care of cross-platform and cross-device issues so you don't have to worry about writing different code for each device or resolution. This is a big advantage that results in a unique, clean code that saves time and resources.

Layout and Styling

jQuery mobiles theme roller makes it easy to add a style theme to all elements of your application. This works with original jQuery mobile CSS and any other third party or custom CSS so customisation is easy. Transitions and animation effects work well on mobile devices and are easy to add into any page transition in your application.

Resources

The jQuery Mobile website and API documentation is well documented. Forums like stack overflow have a wide array of resources and queries on jQuery Mobile also.

Disadvantages

Future possibilities & Expansion

jQuery mobile is a very powerful platform for mobile application development. However, you are restricted in what you can develop and expand in the future of the app. Compared to other frameworks such as AngularJS and React jQuery mobile is not as complex. The expansion of design possibilities are also limited. If we wanted to redesign the app with a more complex design it would be difficult if it did not match with any of the custom themes.

Extra Feature

The process that you would need to use to auto-suggest the nearest stop to the user is a combination of two APIs. The first API is to get the geolocation of the user. I would use the HTML5 geolocation API to do so. I would create a function to get the users latitude and longitude details from the HTML geolocation API. Within this function I would create two variables and populate them with the latitude and longitude results and store them in local storage for later use in the application. Once I have the user's longitude and latitude location stored in 2 variables I would then call the "bus stop information" API from data.gov.ie. This API has the latitude and longitude information on all bus stops stored in its results. I would call the API and retrieve the latitude and longitude information on all bus stops. To get the nearest bus stops I would then parse the resulting data with the information I have in my two variables containing the users current position. I would have to parse the data with an if statement to get the bus stops within a certain radius. This information would then need to be presented to the user. I would do so by populating list items on a page with the nearest bus stops via the append method in jQuery mobile.