BSc in Software Development

Year 3

***PROFESSIONAL PRACTICE IN IT***

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# Introduction

My Application is an event planner application that allows users to create an account, log in to this account once successfully set up and add, delete and edit their events. This application was designed using the ionic framework. I decided to use this framework as I had previous experience using it from my second year module Mobile Applications Development and I enjoyed working with the framework.

**Aims:**

* My aim for this project was to create an application that accessed an SQLite database and synced with a Couch DB data. I wanted this application to have CRUD functionality and I believe I succeeded in this.

**Objectives:**

* Learn more about Ionic.
* Learn more typescript.

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# System Requirements

* Node Js Installed version 4.2.6
* NPM Version 4.2.0
* Ionic Version 2.2.1
* Cordova Version 6.5.0
* After installing the above run the following commands in a command window
* npm install @types/pouchdb --save --save-exact
* Open a command window in the server folder and type npm install
* Have couch db set up and running on port 5984
* Then finally in a command window type : npm install -g add-cors-to-couchdb
* add-cors-to-couchdb

# Technologies used

I used the following technologies:

* Visual Studio Code
* Ionic 2 Framework
* Couch DB
* SQLite

**Visual Studio Code:**

I decided to use Visual Studio Code as although I had no prior experience with it, from a quick google search it seemed to be best code editor for Typescript. I was happy I decided to use it as it was very easy to use and had a very clean interface

**Ionic 2 Framework:**

I decided to use the Ionic 2 framework for a number of reasons. I had prior experience with the framework in my Second Year Module Mobile Applications Development. I enjoyed the framework and although I had previously only worked with Ionic 1 I decided to give Ionic 2 a try as it seemed the most popular framework for developing mobile applications in HMTL 5.

**SQLite:**

I decided to use SQLite as it appears to be one of the most popular no sql databases currently used. I found the SQLite statements very easy to understand and had prior knowledge of working with SQLite from my third year modules Data Representation and Querying and Mobile Applications Development 2.

**Couch DB:**

I decided to use Couch DB as the server the SQLite database synced with. Couch uses an HTTP REST-based interface. This is very intuitive and very well designed. This allows you to write JavaScript-based apps that call directly into the DB from the client's browser. This worked perfectly with my application

# Known Bugs

The main bug I noticed in this project where that the Couch dB server can sometimes be slow in replying to the requests made to it. This is a big problem as it can negatively affect the users experience when using the application.

# Conclusions

I believe that this project was a good learning experience for me as I have improved my problem solving skills, research skills and built confidence in my ability to work as an individual on a project. I have also gained knowledge in how a client server application works and the technologies necessary to create an application like this.

I have also learned how to create appealing interfaces using HTML 5 and SCSS. The research and problem solving skills that I have gained through the development of this project will benefit me on future college projects and assignments.

# Recommendations

For the most part I am happy with this project. However I do have some recommendations. If starting again I would concentrate more on the home page once you log in. I feel I have made two very good pages in the login page and the sign up page. However I feel once the user is logged in the add event page is quite bland and is a let-down. If starting again I would concentrate more on this page although I feel the CRUD functionality on this page does work well. I feel I spent too much time figuring out how to set up the SQLite database and sync it with the couch db server. If starting again I would not of spent so much time doing this.