Undergraduate Final Year Project Proposal

Develop Sports complex management application using React Native and Firebase

**1 Overview**

In the past few years, the emergence of mobile devices and the progress in mobile technology have changed different aspects of our lives such as the management of sports activities as well as the facilities. Apps in sports management have become the mighty weapons to deal with mundane tasks, to build up collaboration between stakeholders and deliver great experience for players, trainers, and administrators.

Mobile apps have been an important tool in automating the management of the administrative tasks related to the maintenance of the sport facilities and events management. As the study shows by Smith et al. (2018) mobile applications are tools that facility managers use to efficiently schedule facility usage, process bookings, and manage inventory. Digitizing these procedures through mobile platforms eliminates paperwork, lessens errors, and improves resource allocation.

Nowadays, using smart devices is no longer strange to current people, a typical example is smartphones for users, users can interact by touching the touch screen. Based on the development of smartphones I implemented a project called sports complex management. The application helps managers easily manage their work.

In the project, I use React Native technology to support interfaces and functions in my application. Next, because currently there are two most popular operating systems: IOS and Android. To be able to reach users of these two operating systems, React Native helps me do it more easily, without having to rewrite code many times.

**2 Aim**

This project helps managers of sports complexes more easily control assets as well as profits earned from the complex.

**3 Objectives**

Deliverables

3.1 Knowledge of application programming

3.1.1 Find out definition, types and basic programming concepts of application.

3.1.2 Study the structure and characteristics of strategy application.

3.1.3 Evaluate some Javascripts in React Native strategy applications

3.1.4 Learn deeply about using React Native for applications.

3.2 Investigation of Javascripts

3.2.1 Look for general information about Javascripts.

3.2.2 Learn carefully about state and component in Java scripts.

3.2.3 Study local storage of Javascripts.

3.2.4 Study library support in Javascripts.

3.3 Evaluation of React Native

3.3.1 Look for general information about React Native.

3.3.2 Study how to write application with React Native.

3.3.3 Search for available react Native library which support to build application with javascripts.

3.4 Implementation of the example

3.4.1 Construct application idea and flow

3.4.2 Design function in application.

3.4.3 Design application interface.

3.4.4 Implement the application

3.4.5 Test and fix bugs in application

3.5 Investigation of Firebase

3.5.1 Look for general information about Firebase.

3.5.2 Study how to connect Firebase with project.

3.5.3 Learn how to use Firebase Authentication and Realtime Database.

**4 Legal, Social, Ethical and Professional**

Legal:

Javascript is a publishing language of world

Other materials which are used in my project will come from free sources or legal copies.

This project is belong to me and University of Greenwich.

Social:

My application which is used for example will not relate to social evils.

Ethical:

This project is my own effort.

Don’t have plagiarism in the project.

Professional:

Not disclose or authorize to be disclosed, or use for personal gain or to benefit a third party, confidential information except with the permission of University of Greenwich, or as required by Legislation.

Respect and value alternative other perspective, seek and accept honest criticisms about my work.

Avoid any situation that may rise to a conflict of interest between me and relevant authority.

**5 Planning (see appendix A)**

A project planner in excel format is used to track the process of project.

**6 Initial References**

**Appendix A – schedule of work**