School of Computing
CA326 Year 3 Project Proposal Form

SECTION A

Project Title: <u>ScoreCentre - Application for Basketball scores and information</u>

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Staff Member Consulted: <u>Tracey Mehigan</u>

Project Description (1-2 pages):

Our project is going to be creating an android app for the NBA league. The app will incorporate fixtures and live result updates. We will also have a feature that will predict the outcome of the matches and also have a section of the app which shows news from around the NBA. We believe that this is a good project idea as the NBA season spans from October until June with over a thousand games, which are played on a daily basis. This means that our app will take in a lot of data everyday and it will provide us with regular challenges to keep the app running smoothly.

To do this firstly we need an API. The API we have chosen is https://www.api-basketball.com. This provides fixtures, match predictions and live updates. We can use the basketball API to provide us all this data in real time and write a python script to display it on our page. We will also provide news from around the league to keep the user informed on everything that is happening in the NBA.

We also need to be able to build the project into an android app. To do this we will use the Android Studio app. This app is an integrated development environment for Google's Android operating system. We want the user to have a good experience while using the app. The UI will be smooth and easy to understand, making the user happy and have them wanting to keep using the app.

We will use the Firebase database to store the user's email, name, password etc. Firebase is useful as you can use it for user authorization as well. The database will also store teams, team rosters and past results. This will keep the user informed on the league.

Division of Work:

Cian will focus on the python side of the backend with the API's and finding the data, whilst Leigh will focus more on the Android Studio side, coding in Java. This works well as Cian is more comfortable with python and leigh is more comfortable with java. However we will both help each other along the way in both languages and oversee each other's work.

Programming Languages:

Python, java

Programming tools:

Android Studio, Postman, Firebase

Learning Challenges:

One big learning challenge will be learning to use Android Studio. Neither of us have ever designed an app for android before so we will have to learn how to use this programme tool. We will also have to relearn how to use API's as it has been a long time since using them.

Hardware / software platform:

PC, Windows

Special Hardware / Software Requirements:

None