School of Computing

Year 4 Project Proposal Form

SECTION A

Project Title MovieCenter

Student Name Anas Alagtal

Student ID 14511433 Stream _____

Project Supervisor Name Alistair Sutherland

[Note: It is the student's responsibility to ensure that the Supervisor accepts your project and this is only recognised once the Supervisor assigns herself/himself via the project dashboard. Project proposals without an assigned Supervisor will not be accepted for presentation to the Approval Panel.]

SECTION B

Proposal Description – using the following headings:

- **General area covered by the project**
    1. Front-end development
    2. Back-end development
    3. API Implementation
    4. Android development
    5. Database and server Integration
- **Outline of the proposed project**
    - **Background - where the ideas came from**: Everyone watches Movies and TV shows. This entertainment is enhanced with the availability of an application that shows all the necessary information regarding upcoming and past Movies including the plot, trailer, reviews and ratings etc. Although an app like that exists(iMDB), I thought I could provide simplicity that iMDB doesn't, along with a recommender system that provides the user with a list of movies that the user might like rather than the way iMDB does it which is show "movies like this" when a user searches a movie. "Films like this" would only provide movies similar to the one the user is looking at. It might show a lot of romance "Films like this" for example if the user has watched "Romeo and Juliet" even though the user was only interested in watching Leonardo DiCaprio. Whereas my application would know that the user likes Leonardo Di DiCaprio by noticing that he has liked a lot of his movies. "Films you might like" is a lot more tailored to the user rather than just giving the user similar movies to the one he watched.
    - **Achievements - what functions it provides, who the users will be**: The app provides a single location for all the movies that existed and lays them out in a simple fashion along with each movie plot, rating, reviews, trailers etc. The users can be anyone of any age, race, gender etc. who watches movies on a somewhat regular basis provided they have a google or Facebook account.
    - **Justification - why/when/where/how it will be useful**: The app, like said above, is useful for anyone who watches movies. It can be used by anyone who has an android device and internet access. They can use their google or Facebook account to register or log in and Use the app. Once they are in they can write reviews, give ratings on previously watched content or simply choose a potential movie to watch by looking at the trailers, reviews or their recommended list.
- **Programming language(s)** – JAVA, SQL, Python, XML
- **Programming tools / Tech stack** – Android Studio, Microsoft SQL server, AWS, Junit, py.test,, Robotium

- **Learning Challenges - List the main new things (technologies, languages, tools, etc.) that you will have to learn**: Creating The Android application (Android Studio) is totally new to me as well as Implementing an API. Using AWS for my server is something I haven't done before either. Writing code in python especially the machine learning algorithm is going to be a big learning curve. Testing will also require some research. Example using Robotium for Android studio and py.test for my python code. Although I used databases for my 3rd year project it was not connected to a server. Something I will need to do this year.
- **Hardware / software platform - State the hardware and software platform for development**: I will be using Android Studio for the smartphone application UI, Microsoft SQL for the database, AWS for my server, ATOM text editor to write my python code, Robotium to test android studio code(JAVA) and XML and properties files. This will be done on a windows 10 laptop.
- **Special hardware / software requirements - Describe any special requirements:** Download and install Microsoft SQL Server, Android Studio, Robotium and ATOM and sign up to AWS

Make use of figures / diagrams where appropriate.

Note: The final revision of your proposal form should be converted to a **PDF** in your GitLab repo from where it will be automatically collected.