SOPHISTICATION VALUE OF THE PROJECT

PREPARED FOR

Software Engineering (CS 301)

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SOPHISTICATION VALUE OF THE PROJECT

This android application created in unity will enable the members of NIIT University to navigate around the hostels of the University on their android devices. Every building being a maze in itself, finding it hard to locate a particular room even by following the room numbering orders. But now with this application we aim to reduce the difficulty in finding every room possible present in the hostel buildings, making it easy to book rooms for allocations every year.

This application has the following features

- ❏ An authorized member can freely roam inside a virtual environment, search for a particular room and teleport to that particular room. Or search for a particular room based on the vicinity, providing a list of room numbers based on the filter.
- ❏ The authorized member can view each room either in a 3D model state or a photosphere state.
- ❏ Gaining information about vicinity for each room.
- ❏ Able to submit Bug report and Feedback to the developers.
- ❏ Hence this android application aims to support each member of the University with the hostel surroundings.

Unity3D Approach and Firebase

The task of providing a virtual environment for every authorized user to roam freely was possible because of Unity Engine, as unity supports android platform it became our primary choice to begin our development. As Unity provides freedom to design and develop the UI uniquely with the help of animators and eventsystems. As Firebase has an online database and authentication module ready for integration, making it ready to implement.

Compatibility Issues

Using the existing standard assets for first person controller and dual touch controls works perfectly with editor build has complications when it's build for android, like certain canvas and panel stops reacting to the inputs we give them, Certain animators fails to take over and freezes the application.

Our main tool that we used for development is Unity but unity does not have proper support for RAW modelling or CAD designing. So we designed our whole model in Autocad 2019 with proper dimensioning. But the major problem we faced was exporting a CAD .dwg file in unity. Because Autodesk in their

2019 release removed support for .FBX file which is mainly used for exporting in Unity. So converting .dwg to .FBX was challenging.