Presentation Script

# 1. Introduction (2:20-2:55)

## 1.1 Client

1.

Our project is to create a 3D virtual reality meditation app.

**click**

1.1

Our Client, Dr Alexandra Cristea, is a researcher at Durham University.

**click**

Her main area of research is into the evaluation and improvement of education environments using gamification taxonomy. This is done by incorporating gamification elements falling under five categories as seen in the diagram on the right: fictional, personal, social, ecological and performance.

**click**

1.1

The client’s vision for the meditation environment is for it to be used as a piece of research software. This means that it is crucial for us to create a relaxing environment and have a high framerate. This is because the program needs to run smoothly so accurate data can be collected.

**click**

It is clear from our meeting with the client that she wants a coherent game design style. She also wants the game to run smoothly with a very low error rate.

**click**

Some of the previous years’ projects had features that seemed out of place. For example, a candle and a text box superimposed onto the background. Another problem was a slightly unnerving forest environment, where the use of fog made some users uneasy. Both of these projects had good features, but they did not create a relaxing meditation environment.

Overall, the client has made it clear that when in the VR world, the world looking consistent and smooth is the most important part of our implementation.

## 1.2 Aims

## 1.3 Important Aspects

# 2. Technical Outline (4:15-5:20)

## 2.1 Hardware System and Setup

We will be using the Oculus Quest 2 VR Headset and biometrics tracking hardware to monitor the user’s biometric telemetry, which will be used to influence various aspects of the environment and aid in the client’s research. We will be running the environment on a computer connected to the Quest 2 via Oculus Link instead of running directly on the Quest 2, as that would enable us to simplify the process of intergrating the biometrics hardware with the rest of the product..

With last year’s project, the startup process required researchers to connect a Fitbit to a mobile phone, start up the Unity project, and instruct the user to manually select the desired environment and settings in VR on each setup. Our client has noted that this was too complicated and time-consuming for researchers while conducting their studies. To address this concern, we aim to allow researchers to pre-configure and save VR environment settings and ensuring that the entire enviroment can be launched in less than 30 seconds, and started without requiring the researcher to manually launch or interact with additional scriptsother than the main process.

## 2.2 Unity Game

* After completing setup, the user will enter the vr meditation environment.
* We have designed this section with one goal, relaxing and engaging the user.
* In order to do this, we have split the game into two areas, User responsive elements and passive elements.
* Our goal is that the majority of the users focus will be on growing a plant by

## 2.3 Data Gathering

Thankyou Enego

As mentioned by Tom one of the requirements highlighted by the client is for the project to be used as a resource to conduct research on the usage of VR technologies for meditation. To this end, we will be collecting and storing data from the user experiences with the software. [Click]

The data gathered will be recorded to a .JSON file in a format where it is easily accessible and usable for needed research purposes.[Click] This stored information will include the tracking data of user biometrics such as heart rate as well as the length of the meditation session. In addition, the use of any alternate meditation environment or altered parameters of that environment will be recorded alongside to provide details of that session. [Click]

[Click] Recorded data will be stored locally with all sessions available within a single file as individual objects. This will provide the ability for data analysis and research to be undertaken at a later date by the researcher.

[Click] Biometrics will be recorded at regulated intervals throughout the meditation session providing quality useable data [Click] able to be graphically represented and used for any necessary research purposes. [Click]

[Click] Any user data stored will be stored anonymously in consideration of data protection laws. This is to ensure there are no issues with safe storage of personal user data. Users will be required to consent to the storage and usage of their data for research purposes before beginning a meditation session.

I will now pass you on to Adam who will talk briefly on our plans for future work. [Click]

# 3. Future Plan (1:25-1:45)

Summarise your project plan and timeline. Identify which aspects of the system you hope to have completed and ready to test by the time you are asked to submit your test plan.

By the end of this project, we aim to produce a VR meditation environment that allows users to meditate while focusing on plant growth. There are three central systems that we aim to complete before we begin the testing phase. We aim to produce multiple meditation environments that users can select based on their preferences. A user telemetry system will be made that will anonymously log the user's heart rate to an external file. This system will need to work without an external API or intermediary device. This is to allow MeditateVR to be run from one single device. The meditation will be based on a plant growing throughout the session. The growth of this plant will be based on the quality of the user's meditation and will be calculated using the user’s recorded heart rate. Our test plan will be designed to test these three main aspects of the project.