2024

Sprint Retrospective for Sprint 2

Vic Health - Virtual Reality

ITECH 7415 | MASTERS PROJECT

Federation University Australia

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Team Members

Name	Student ID	Role in the Project	Estimated Work Time in Sprint 2
Tamim Hasan	30432576	Scrum Master | 3D Modeler & Developer	**195 Hours**

Project Information

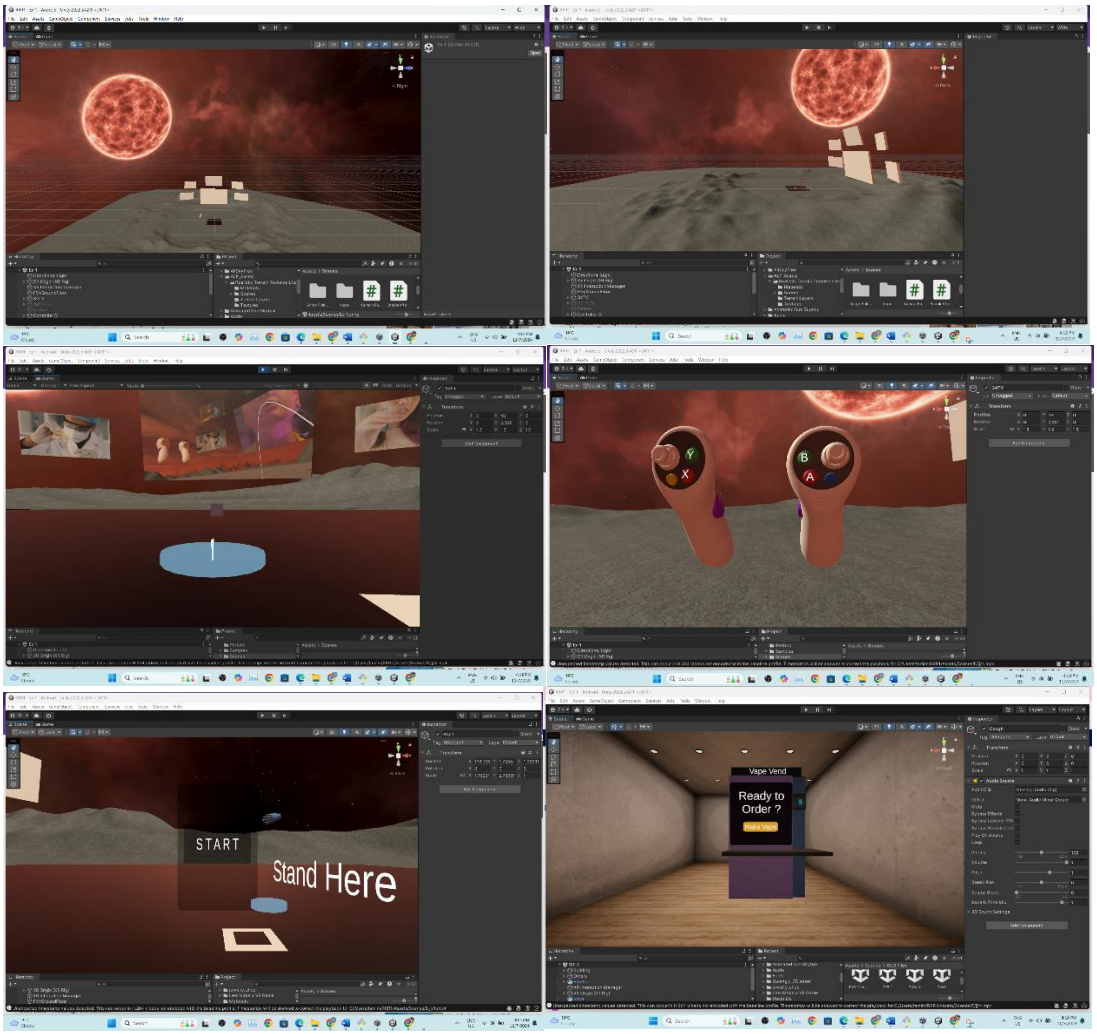
Project ID & Title	Business Process Automation
Project Client	**Client organisation –** Federation University **ABN -** 51 818 692 256 **Address –** University Drive, Mt Helen VIC 3350, PO Box 663, BALLARAT VIC 3353 **Website -** federation.edu.au **Contact details -** carol.quinn@federation.edu.au **Client engagement preferences (**e.g. e-mail, face-to-face, on-line collaboration tool**) and client confidentiality requirements. -** Online **Tools to be provided by the client should also be noted (**e.g. access to in-house software**) –** Meta Quest 3

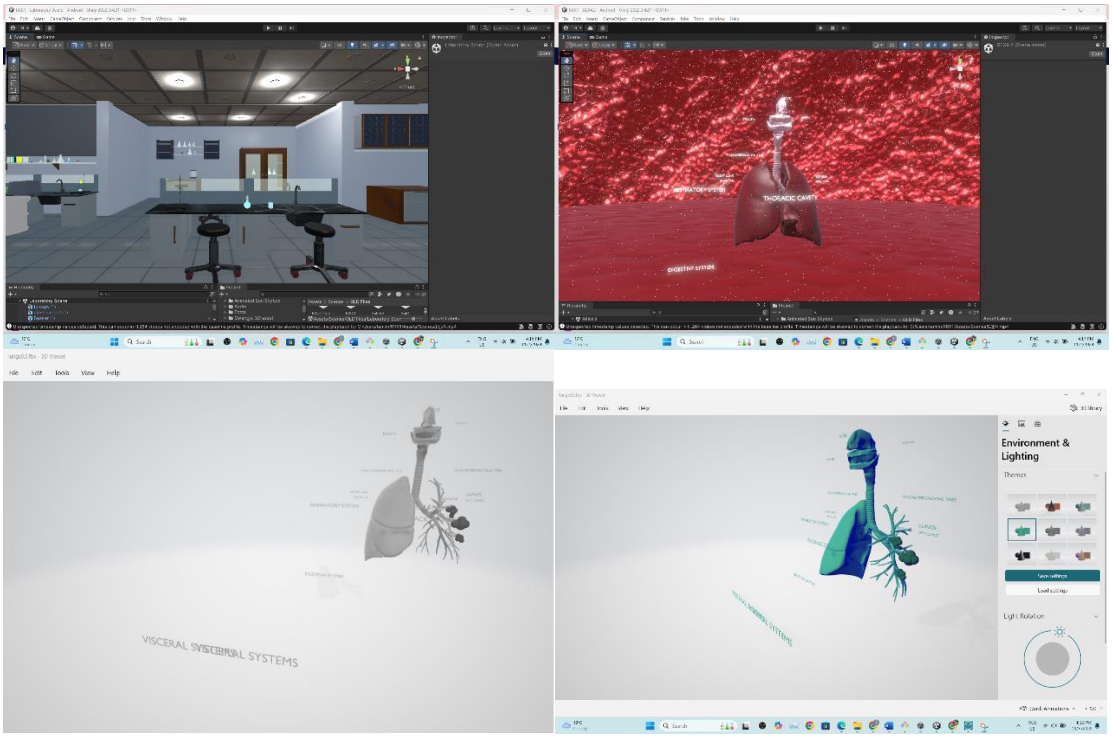
User Stories in the Sprint Backlog

- As a young adult, I want to understand how nicotine affects my heart and blood vessels so that I can be aware of the cardiovascular risks of vaping.
- As a young adult, I want to see how addiction affects my central nervous system so that I can understand the changes in mood, behaviour, and the potential for withdrawal symptoms.
- As a young adult, I want to understand the benefits of quitting vaping so that I can be motivated to seek help and improve my health.

Evidence of Work Done

- **Images:**





- **OneDrive**:

  https://federationuniversity-my.sharepoint.com/:u:/r/personal/thasan_students_federation_edu_au/Documents/RRR1(VicHealthAntiVapingVRProject-by%20Tamim%20Hasan).zip?csf=1&web=1&e=C4ohhP

Client and Supervisor Feedback

The feedback I received from the client was both encouraging and constructive, especially considering the challenges I've faced working independently after my surgery. The client was impressed with the progress on the updated models, noting that they looked much improved in terms of design. However, they recommended adding colours to the models, as the current versions are uncoloured, which impacts the visual appeal. Additionally, after discussing my overall vision for the project, the client suggested that I focus on creating the main scenes first, especially those that are essential to the core user experience. They expressed particular appreciation for the introductory scene, describing it as impressive and well-executed.

From my supervisor's perspective, the feedback was equally valuable. He acknowledged that my approach to the project was solid but cautioned that completing everything as initially planned might be challenging within the given timeframe. He advised me to prioritize the key components, ensuring the foundational elements are functional before adding additional scenes or features. He also provided specific feedback on the vending machine model I presented, noting that only one of the machines was fully functional. He recommended either making all the vending machines interactive or removing the non-functional ones to prevent user confusion. Overall, my supervisor appreciated my work and the steady progress I've made under the circumstances.

Changes to be Carried Forward into the Next Sprint

In the upcoming sprint, my priority is to complete all 3D models and set up each scene, adding background music and voice narration to enhance immersion. I'll finalize animations for the heart, lungs, and brain, as well as create the concluding scenes and connect all transitions to ensure a cohesive flow. My goal is to make the experience captivating and engaging for young adults, so they remain interested and connected throughout

Calculation of Hours Worked (Sprint 2)

As the Scrum Master and Developer for our VR project, I estimated my hours worked during Sprint 2 based on various intensive activities and responsibilities. Despite facing setbacks that limited my availability for around a month and a half, I was highly committed to catching up and worked extensively, often up to 15 hours daily. There were days when I worked late into the night and a few instances where I was unable to contribute due to part-time work obligations and health issues. Based on this, I estimate I completed around 195 hours during this sprint. Below is a breakdown of my time allocation by task:

A. **3D Model Creation and Sourcing**
    a. Dedicated substantial time to designing custom models and searching for high-quality, free-to-use 3D assets online to enhance the VR environment.
    b. Estimated Total: 40 hours.

B. **Intro Scene Development**
    a. Developed an engaging intro scene with background music and voice narration, setting the immersive tone for the VR experience.
    b. Estimated Total: 25 hours.

C. **VR Scene Setup (Vape World and Vape Store)**
    a. Built and structured the main VR environments, creating pathways for users and optimizing transitions for an engaging and educational experience.
    b. Estimated Total: 30 hours.

D. **Learning Blender and New Tools**
    a. Invested time in learning Blender for efficient model manipulation, including extracting and adapting a heart model from Z-Anatomy for accurate educational content.
    b. Estimated Total: 35 hours.

E. **Troubleshooting and Testing**
    a. Encountered several technical challenges with VR rendering and Unity integration, requiring extensive troubleshooting and testing to ensure quality.
    b. Estimated Total: 30 hours.

F. **Scripting and Logic Implementation**

a. Worked on scripting logic to manage interactive elements, scene transitions, and user feedback mechanisms within the VR experience.

b. Estimated Total: 15 hours.

Total Hours Worked: **195 hours**

Though I couldn't track each hour precisely, these estimates reflect my intense efforts to make up for lost time. My primary focus was on asset creation, scene development, and continuous learning to elevate the VR experience. Despite challenges due to part-time commitments and health issues, I dedicated myself fully to the project during Sprint 2.

Individual Component

What did I accomplish in the past sprint?

- During this Sprint 2, I made substantial progress on the project despite working independently after my surgery. I focused on creating and sourcing 3D models, including custom assets and high-quality free resources to enhance the VR environment. Additionally, I developed an engaging introductory scene, incorporating background music and voice narration to set an immersive tone for the experience.
- I also built and structured the main VR environments, focusing on the vape world and vape store scenes, ensuring smooth pathways and seamless transitions for the users. A significant portion of my time was spent learning Blender to improve my 3D modelling skills, particularly adapting the heart model from Z-Anatomy for educational content.
- Technical challenges with VR rendering and Unity integration required troubleshooting and testing, but I ensured the project remained stable and functional. Lastly, I worked on scripting the logic for interactive elements and scene transitions, ensuring smooth user interactions within the VR experience.

How did I apply stream-specific knowledge to my project?

In Sprint 2, I applied my stream-specific knowledge to several aspects of the project. Building on my recent experience from Sprint 1, I focused on learning Unity animation, sound integration, cutscenes, and loading the app on Side Quest. My background in computer science and programming was invaluable, as it enabled me to quickly grasp the technical aspects of the project and apply my existing skills to efficiently work with Unity.

Since I am working alone, I also dedicated time to learning Blender to create all the 3D models necessary for the VR experience. This required me to build new skills in 3D modeling, as I needed to handle all aspects of asset creation myself. My previous project management experience from earlier semesters also played a crucial role in managing the workload. It helped me organize tasks, set priorities, and ensure that I stayed on track despite the challenges of working independently.

What did I learn from the past sprint?

- In Sprint 2, I learned a great deal about both the technical and personal aspects of working on a project independently. On the technical side, I deepened my understanding of Unity, particularly in animation, sound integration, and creating cutscenes. I also gained hands-on experience with Blender, which was essential for creating the 3D models required for the VR

experience. This was a challenging yet rewarding learning curve, as I had to adapt quickly to new tools and techniques.

- Additionally, I learned how to manage my time and tasks more effectively. Working alone required me to balance multiple responsibilities, from asset creation to troubleshooting technical issues. My previous project management experience proved invaluable in keeping everything organized and ensuring that I met key milestones. I also learned the importance of adaptability, as I had to continuously adjust my approach based on the project's evolving needs. Overall, Sprint 2 reinforced the importance of self-discipline, time management, and continuous learning in a solo project.

What could have gone better in the sprint?

While I made significant progress during Sprint 2, there were areas where things could have gone better. One challenge was the steep learning curve with Blender, as creating 3D models from scratch required more time than anticipated. Although I was able to make progress, I struggled to meet the desired level of detail and quality in some models, which impacted the overall visual consistency of the VR experience.

Another area for improvement was the integration of sound and animations within Unity. While I managed to add basic animations and audio, fine-tuning these elements to create a seamless, immersive experience took longer than expected. Additionally, testing and troubleshooting technical issues, such as VR rendering and Unity integration, sometimes delayed progress, especially when I encountered unfamiliar problems.

Overall, despite the challenges, I made strides in learning new tools and techniques. However, better time management and earlier preparation in certain areas, particularly with Blender and Unity animation, could have improved the efficiency of the sprint.