GNG 1103

Deliverable E

Project Schedule and Cost

Team #F3.3

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Introduction

After the previous task of creating our three rough sketches for our detailed design, and having met with the client to discuss our design. Based on the client's suggestions, we have created our final detailed design drawing. From this drawing, we are able to gather all information for our prototype such as the cost estimate/bill of materials and create our prototype test plan. The future weeks will consist of refining this design and testing our prototypes to prepare for design day.

Detailed Design Drawing

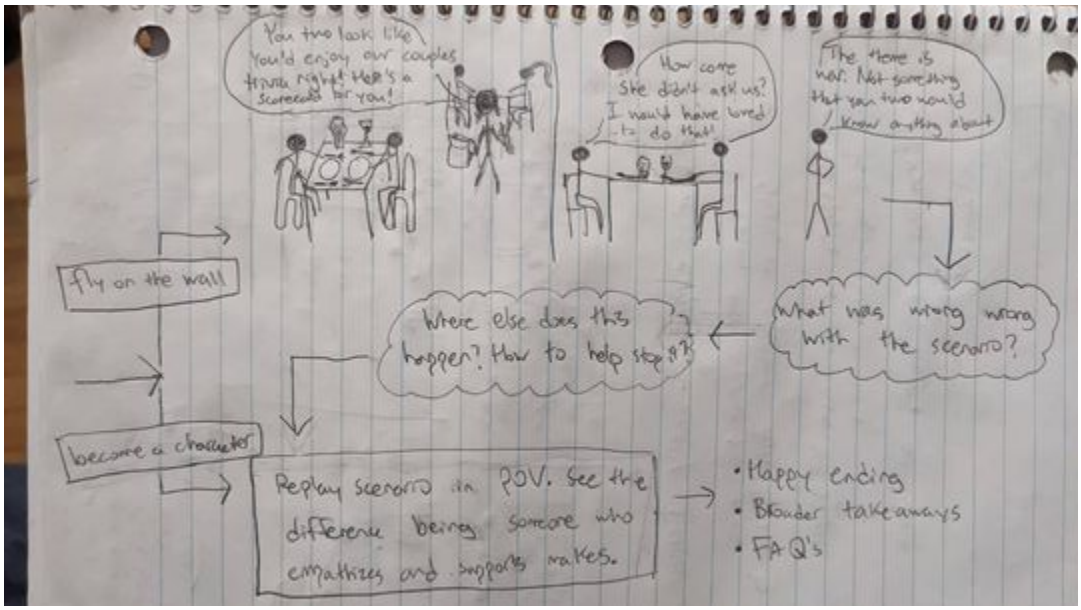

Image 1.0 - Two guys are going on a date at a restaurant. The waitress invites the hetero couple to join the restaurants' couples trivia night, but she doesn't ask the gay couple (either assumed not a couple or excluded because of sexuality). They talk about it, and how they are both a little confused and a little offended. A man next to them overhears them and tells them that they wouldn't have been good at the trivia night anyways because of its theme (either war or sports) being something they aren't knowledgeable on. This scene can be played out as a fly on the wall or as a character POV where you can experience the difference having someone show empathy can make. Questions and lessons are shown to the user to enhance the experience.

Key takeaways:

- Don't make decisions in assuming one's sexuality
- Don't discredit the efforts of closeted LGBTQ people
- Think about why those people didn't feel safe coming out
- Be empathetic! Don't be afraid to step up to defend yourself or others

Cost Estimate

Table 2.0 - *Preliminary Bill of Materials*

Item name	Description	Quantity	Cost	Link
VR Headset	head-mounted device providing virtual reality for the user	1	$0 (provided)	https://www.oculus.com/quest-2/
Touch controllers	Track the hands of the user as virtual	2	$0 (provided)	“
AA Batteries	Store energy	2	$0 (provided)	“
Charging Cable	provides power to the VR headset	1	$0 (provided)	“
Power Adapter	power supply for our devices	1	$0 (provided)	“
UNITY software	Cross-platform game engine	1	Free + up to $50 if we want to buy any additional updates	https://unity.com/
PC	Personal laptop	1	Already have	N/A

List of Equipment

- VR headset
- Two Touch Controllers
- Charging Cable
- Two AA Batteries
- Glasses Spacer
- Power adapter
- PC
- UNITY software

Prototyping Test Plan

Test	Test Objective	Description of the prototype used and of Basic Test Method	Description of results to be recorded and how these results will be used	Estimated test durations and Start date
1	Testing the inputted setting/background	Running the Unity game Focus testing	An initial test that will allow us to get a greater understanding of how unity works and how to improve from the get-go before things get too complicated.	March 4, 2022
2	Testing characters movement	Running the Unity game Focus testing	This will test the movements of the characters. The results of this test will allow us to understand the motion that we can use in unity and how we can improve the motion, for example, to make it look more realistic.	March 8
3	Testing characters dialogue	Comprehensive/ physical testing	After inserting all dialogue into the simulation, it will be tested for grammar and the realism of the conversation. This will allow us to see the character development in the simulation.	March 11
4	Testing characters depth from POV	Focused/physical testing	Testing the spatial awareness of the simulation. Ensuring the movement can be seen, and dialogue is in a good range of the POV.	March 12
5	Testing order of events	Running Unity Software	Testing for how quickly and appropriately the game responds to the actions of the user	March 14
6	Testing accessibility	Run through the whole game simulation with a real VR headset and controllers	Observing and experiencing if the game movement makes the user dizzy or have motion sickness.	March 15

7	Testing realism	Running Unity Software	Observing if the game depicts real-life people and objects well (people's behaviors and movement of objects)	March 18
8	Testing overall user experience/functionality	Run through the whole game simulation with a real VR headset and controllers	Testing all aspects of the code - error detection, load speed, time of simulation. Focus on ensuring empathy is generated	March 23

Project Risks and Emergency Plan

- Unexpected software issues (ex. coding issues, software crashing, etc.) that can delay prototype production.
- Unexpected costs for UNITY software add-ons exceeding our budget.
- Truckers protest in Ottawa preventing us from testing the simulation in person with a VR headset

Emergency plan:

Reduce how much we are putting into the simulation. We would cut down on the accessory visuals and focus on the important information that needs to be portrayed. In short, if anything was to happen we would remove aesthetics and focus on the content (dialogue, movements and specific visuals).

Conclusion

To conclude, we now have an updated, refined detailed design sketch. We will use this moving forwards as a rough template for our VR game when we start coding. We have created a prototyping plan of when we will have different checkpoints for our final design completed, and how we will test to ensure the goals at that checkpoint are met. We have assessed the risks of the project and have an emergency plan in place. We have accounted for all of the project costs and made sure that they are less than our project budget. We can now start with the coding.

References

https://www.oculus.com/quest-2/