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**Reflective Statemennt**

**Game Specialism**

**Programming**

I believe that specialising in programming was a great decision for me because I enjoy seeing and executing the back-end work in games. It was quite satisfying to see the progress after each line of code was done. No good thing comes without a price, and while I had a lot of fun working on the briefs, they did come with some issues and frustrations in terms of reaching the greatest result. I understand that the briefs I chose were for beginners, and that I may not have spent much time developing the requested outcome, but the amount of information I gained was fantastic. This knowledge will be extremely useful in the future when I am working on more difficult programming challenges and scripts.

"Instanced scrolling material" was the first brief I worked on, which was at first confusing. When I first viewed the video demonstration of the exercise, I believed we just needed to drag some pictures from the top to the bottom of the screen and then back to the top. Even though it was in the "Beginner" section, I initially thought this would be a difficult practise. The brief didn't seem too difficult when I started doing some research and reading over the resources Unity provided. This was accomplished with the help of a simple script. I made the variables (such as scrolling speed and direction) customizable in the editor and then applied them to the texture's movement. Even if we had to undertake the exercise I was considering, I believe this was a better and more efficient approach to a comparable "issue." This brief will come in handy for creating games in the future. It is preferable to move the texture on the object rather than shifting the objects in the scene. As a result, the scene would be more optimised, perhaps saving a significant amount of game resources that might be spent on more critical areas of the game.

“FPS Counter” was the second brief I worked on and before doing my research I thought this will be the most challenging. After getting to know what I needed to do I realized this will be the most easy script but useful at the same time. With a simple script attached to a canvas I just needed to create a TXT box to have where to display the FPS Counter. After learning this I will implement this script in every project I make from now on to be sure I optimise the game as much as possible.

“Speedometer was the third and final brief I worked on.” Among the exercises I completed, I believe this was the most enjoyable and beneficial. The most important aspect of making automobile games is the speedometer displayed on the user interface. A circle with an arrow on the user interface can reveal a lot of information about how the player is playing the game. This exercise was the most difficult of the ones I created, but it was also the most pleasant and rewarding. I started by creating the elements I needed for the brief in Photoshop, such as the speedometer's background circle and the needle that displays the speed on the gauge. After that, I went to the Unity forums and found some incredibly helpful articles about the exercise I'm doing. I collected measurements of the needle's rotational limitations, indicating the minimum and maximum speeds. We also need to show the speed of the moving items, so I continued the script with a method of displaying the speed figures on the meter. I calculated the angle at which the numbers should appear and divided it by 10 to create 10 identical segments with varied speeds. After that, I devised a method of estimating the angle at which the lines should appear on the clock and implemented it. The issue I ran into was that the writing denoting the speed was rotating as well, making the figures invisible in some cases. I made sure that only the lines, not the numbers, rotated in the same script. Finally, I created the bindings that control the speed so that I could test the speedometer's operation. When you press W, the "thing" accelerates, and when you press S, it breaks. To replicate the existence of an automobile, I also created a deceleration rate to represent how the car loses speed over time when not accelerating. This gauge is critical for future automobile games that I will most likely develop, and I will undoubtedly improve it by the time I use it again.

I realise the briefs I chose weren't the most difficult on the list, and the time it took to create them wasn't long, but they're a great resource for future projects. I feel like I learnt a lot about coding and unity, and my knowledge of C# has greatly improved.

My interest in programming has grown, and in order to learn more, I'll begin working on modest projects in my spare time. When it comes to designing games, a lot of people avoid the scripting section because it can be rather hard at times, and you could run into a lot of issues and anger because "something doesn't work." This is what I'm talking about. This is why I enjoy programming, since seeing the code finally work after hours of effort is the most wonderful sensation.