**Build your portfolio project (Week 2): MVP**

**Project: Maze**

**1. GitHub Link**

**2. Progress**

I would rate my progress as 7/10. This is so because I got the game to work basically without textures. Movements are working, walls and floors can be rendered. What remains of the complete work are textures and sprites.

**3. Challenges**

Programming a game in and SDL API has been a bit challenging. The first problem I encountered when I was programming was using SDL\_image library. The library gets installed but during compilation errors appear that show as if it was not installed. Meaning the header files appear not to be installed after some searching, I found the problem had to do with how the code should be compiled. So, I added the necessary keywords and now my codes are compiling without errors. I have encountered the same issue for compiling with SDL header files. Both needed appropriate keywords to be used during compilation with gcc to work. Once the compilation problems were resolved what proved difficult was working with SDL\_surface struct. This is a structure which contains the data to be drawn to the screen and comprises of among other things the main pixel information in a form of void \* array, the width of the pixels and the height of the pixels to be drawn. Since the pixels data is in a single void \*array it was difficult to find a way to render a 2-dimensional array to it. In addition to that it always needs to be converted to the appropriate data type to be used. (i.e., double \*, unsigned int \*, etc.)

He most difficult non-technical challenge I encountered this week is internet outage and slow internet connection. I have searched but could not find a suitable documentation for SDL library data which I can use offline but I have managed to work on the most difficult parts of the project on the materials I printed to PDF from webpages. In conjunction to the SDL documentation there weren’t many websites and forums with in detail explanation of SDL structs and functions but the ones I found were helpful which enabled me to overcome the toughest of the challenges. The second challenge I encountered was that just like last week much of my time was spent trying to understand how the floor and wall rendering worked and less on the coding. Again, the materials I could obtain were not enough for me to fully understand how it is rendered. Lastly, it would have made everything a lot easier if I had installed gcc on windows command prompt and programmed the game from it since working on WSL and x server in addition to that have made it more difficult to work with because sometimes the app freezes and I had to recover my files if vim was opened and sometimes it had problem connecting.

**4. Share screenshots**



