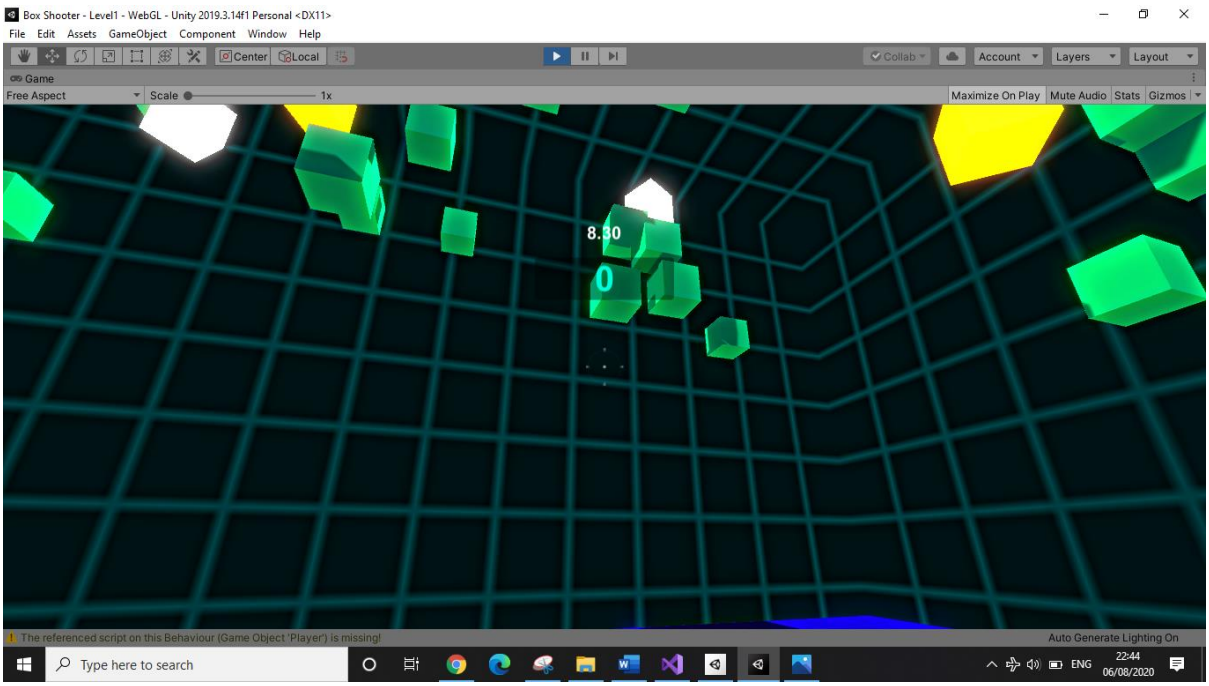
Development of First-Person Shooter Game on Microsoft Windows 10

❖ ABSTRACT



The basic idea of our project is to build a First-person shooter (FPS) game in Unity engine using C# programming language. The player can move the camera in the game using the mouse and can shoot the enemy game object with the help of projectiles or bullets using left mouse click. It will be a casual game where you have to score points by destroying the game object in specific amount of time.

➢ PROS

1) <u>Inventive 3D representation of programming</u>

   The player can move from point A to point B using a build-in function in Unity3D called Vector3(x, y, z) where x stands for distance covered in x axis; y stands for distance covered in y axis; z

stands for distance covered in z axis which allows user manipulation of the environment. Through this manipulation the game focuses on an inventive way of showing 3D representations of the mechanics of programming.

2) Helps you learn how 3D game geometry works

While the 3D programming language in the game doesn't have much scripting or logic in it, it does teach you about how 3D geometry works through concepts like scaling, translating, and transforming objects and vectors.

3) Non stress environment

The music in the game will be very simple and relaxing thus creating an atmosphere which is pretty stress free. Our idea would be to either create the music which would be relevant to the game using Adobe Audition.

- **CONS**

Map design is harder

Many FPS games have some predefined spawning points for each object. Every object spawn in the game world has a high percent chance to collide with other object being spawn. This may result as a disturbance in the virtual environment.

❖ OBJECTIVES

i. To create a game world and background for the player to do battles in real time in a virtual environment.

ii. To create game objects as per the requirements of the game.

iii. To use and explore Visual Studio 2019 as the Development Kit for our project.

❖ BENEFITS FOR THE SOCIETY AND ENVIRONMENT

Hand-eye coordination

Gaming can benefit the individual's hand-eye coordination in different sectors. If a gamer plays WII Sports he may be simulating real-world hand and body movements related to the sport that they play in real life. Pilot or driving games are quite advanced and are used to train pilots and drivers in virtual environments. The benefit from this would be learning the skills needed to drive or fly a plane without endangering the lives of others.

Brain Training

Gaming can be used as a way to make learning more enjoyable. There are certain games that can be played that are specifically designed to teach you something, however it is possible to learn something from most games that you play. Brain training games have been released for portable devices like the Nintendo DS. These brain training games can train both your mental awareness and your memory. Puzzle games can help you in real life situations with puzzle and problem solving.

Future Impact

Games have a massive effect on how society has looked ant things such as training and education. Gaming technology constantly evolves continuously setting a bench-mark for helping people develop skills by allowing them to practice both theoretical and practical skills in a virtual environment.