LOVELY PROFESSIONAL UNIVERSITY

Phagwara, Punjab

ZOMBIE VILLE

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Acknowledgement

The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project. All that I have done is only due to such supervision and assistance and I would not forget to thank them.

I respect and thank Mr. Gurpreet Singh , for providing me an opportunity to do the project work in Unity and giving us all support and guidance which made me complete the project duly. I am extremely thankful to him for providing such a nice support and guidance, although he had busy schedule managing the educational affairs.

I owe my deep gratitude to our project guide again Mr. Gurpreet Singh, who took keen interest on our project work and guided us all along, till the completion of our project work by providing all the necessary information for developing a good game.

I thank the all mighty, for keeping an eye on me and helping me through my difficult times.

Game Name   : Zombie Ville

Game Category : First Person Shooter(FPS)

Introduction

About Unity Engine:

Unity is a cross-platform real-time engine developed by Unity Technologies, first announced and released in June 2005 at Apple Inc.'s Worldwide Developers Conference as an OS X-exclusive game engine. As of 2018, the engine has been extended to support 27 platforms. The engine can be used to create both three-dimensional and two-dimensional games as well as simulations for its many platforms. Several major versions of Unity have been released since its launch, with the latest stable version being Unity 2019.

We have worked Unity 3d project to develop a game in the allotted category. Game Playing is considered as the best practice for stress relief and enhancing strategy making skills. This also helps individuals to grow their mindset and helps in increasing concentration and focus.

This game is designed in unity with its coding in C# which is a client side scripting language. It is light weight and easy syntactical language used in coding for the behaviours of a character and scenario.

This game is developed as a project work in this semester. I have been allotted with the game category Adventure. My game is slightly about decision making and more about observation. It is a replica of Subway Surfer, a famous adventure plus racing game available on play store which has more than 50 million downloads.

Game Category

Shooter Game

Shooter games are a subgenre of action video game, which often test the player's speed and reaction time. It includes many subgenres that have the commonality of focusing on the actions of the avatar using some sort of weapons. Usually this weapon is a gun or some other long-range weapon. A common resource found in many shooter games is ammunition. Most commonly, the purpose of a shooter game is to shoot opponents and proceed through missions without the player character being killed or dying. A shooting game is a genre of video game where the player has limited spatial control of his or her character, and the focus is almost entirely on the defeat of the character's enemies using weaponry.

FPS (also known as shmup or STG) is a subgenre of video games within the shooter subgenre in the action genre. They are a specific subgenre of shooters wherein the player may move up and down and left and right around the screen, typically firing straight forward. There is no consensus as to which design elements compose a shoot 'em up. Some restrict the definition to games featuring spacecraft and certain types of character movement; others allow a broader definition including characters on foot and a variety of perspectives.

FPS share common gameplay, but are often categorized by viewpoint. This includes fixed shooters on fixed screens, such as Space Invaders and Galaxian; scrolling shooters that mainly scroll in a single direction, such as Xevious and Darius; top-down shooters (sometimes referred to as twin-stick shooters) where the levels are controlled from an overhead viewpoint, such as Bosconian and Time Pilot; rail shooters where player movement is automatically guided down a fixed forward-scrolling "rail", such as Buck Rogers: Planet of Zoom and Space Harrier; and isometric shooters which use an isometric perspective, such as Zaxxon and Viewpoint. This genre also includes "run and gun" games which emphasize greater maneuvering or even jumping, such as Thexder, Contra and Metal Slug.

Game Description

CHARACTERS:

1. Shooter:
   This is the main character (Player) of this game; its task is to avoid the enemies and kill them and score the highest score possible. The character comes with the Pack in asset store.

2. Enemies(Zombies):
   Their task is to attack the player and kill him.

PROPS:

1. Trigger:
   A trigger is used for the enemy to attack the player.

2. Platform(VILLAGE):
   It is the base on which whole game is designed. It has houses, barrels, ladders, rocks, crates, vegetation(trees and bushes) and containers. It is an asset pack from the YouTube channel Brackeys.

3. Health:
   It keeps the character's as well as the enemies' health.
   Initially the creature's health is 50.

   4.Gun:

   It is provided to the character so that he can defeat the enemies.There are two types of guns are provided.

   1.   one with little damage.

   2.   One with single shot death.

SCENE (LEVEL):

   Aim: The task to score the highest in the game and defeat as many zombies as possible. Each zombie give you a score of 10 .

Scripts Used :

PlayerShooting : It renders the line renderer and keeps track of the rays hitting the enemy, when the user presses left mouse button.

EnemyHealth : It keeps track of the enemies health and triggers the die animation of the enemy.

EnemyMovement : It is used to use the NavMesh component applied on the enemy to find the shortest distance between the enemy and the player until the player dies.

CameraFollow : It is used to make sure that the camera follows the player and the mouse correctly .

PlayerMovement : It is used to move the player in all direction and dodge the enemies.

Ai follow: It makes thye zombies to follow the person,automatically.

Target:It gives the damage to the zombies.

Score: It increases the score by 10 .

Weapon switching: It helps in switching between the guns.

And many more…

Scene:

TASK 1: The character will start from the center of the map and he should defeat as many enemies he can that come before him. Otherwise the enemies will kill the player resulting in game over screen.

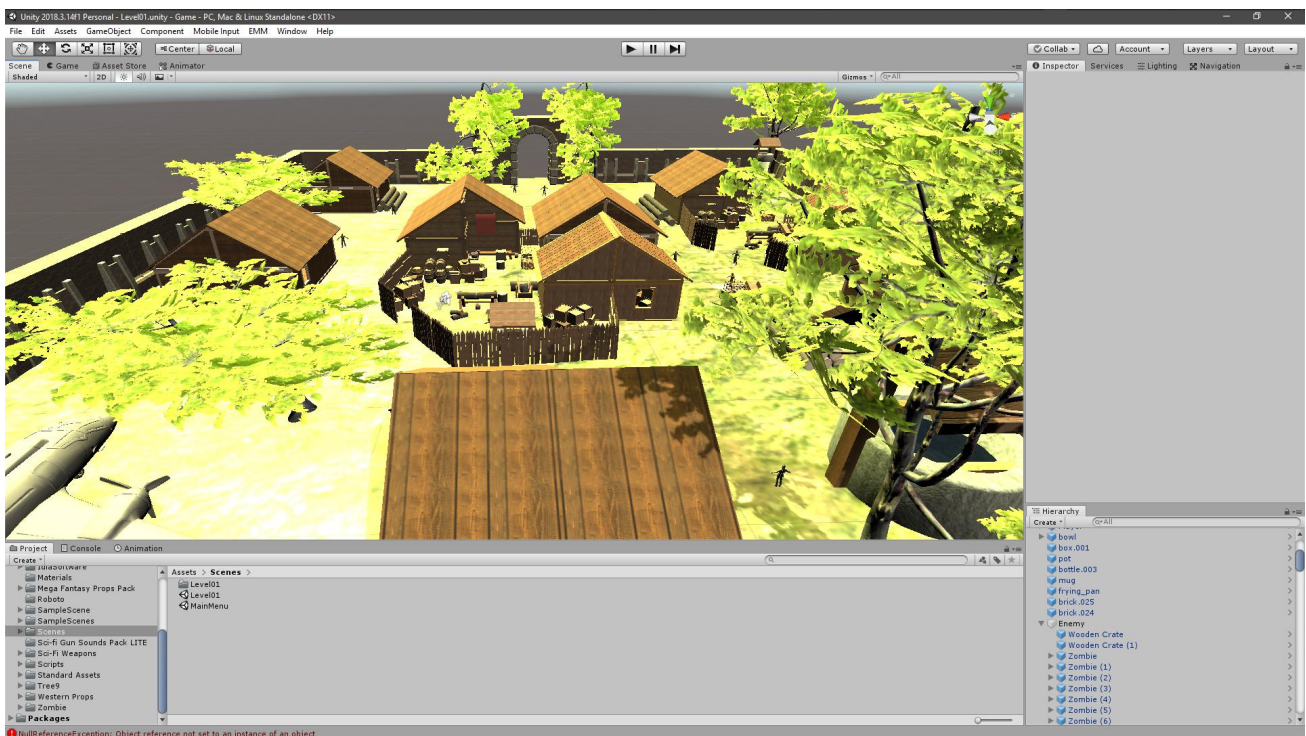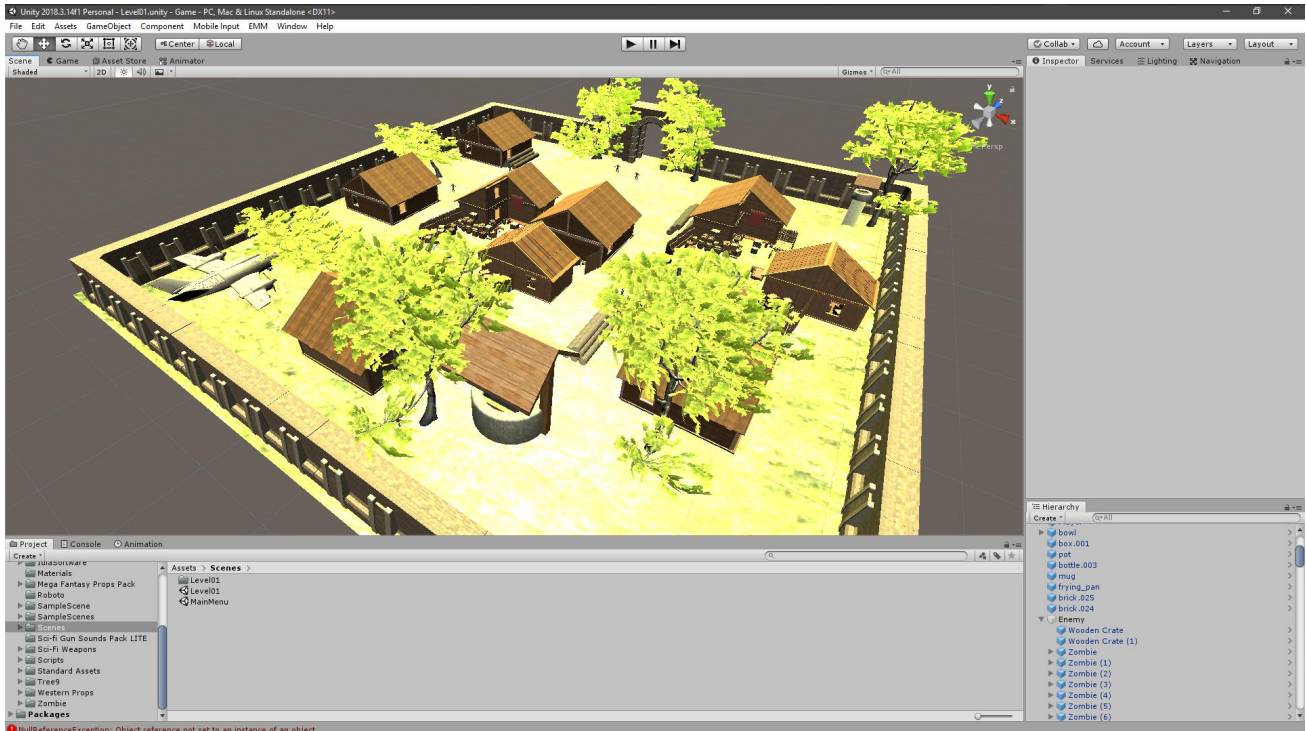TASK 2: Try to escape and stay away from the zombies as fast as you can.

TASK 3: Use right mouse button for firing the Gun provided and 'WASD' or arrow keys for the player movement.It can also jump using "SPACE BAR" and run fast using "SHIFT".
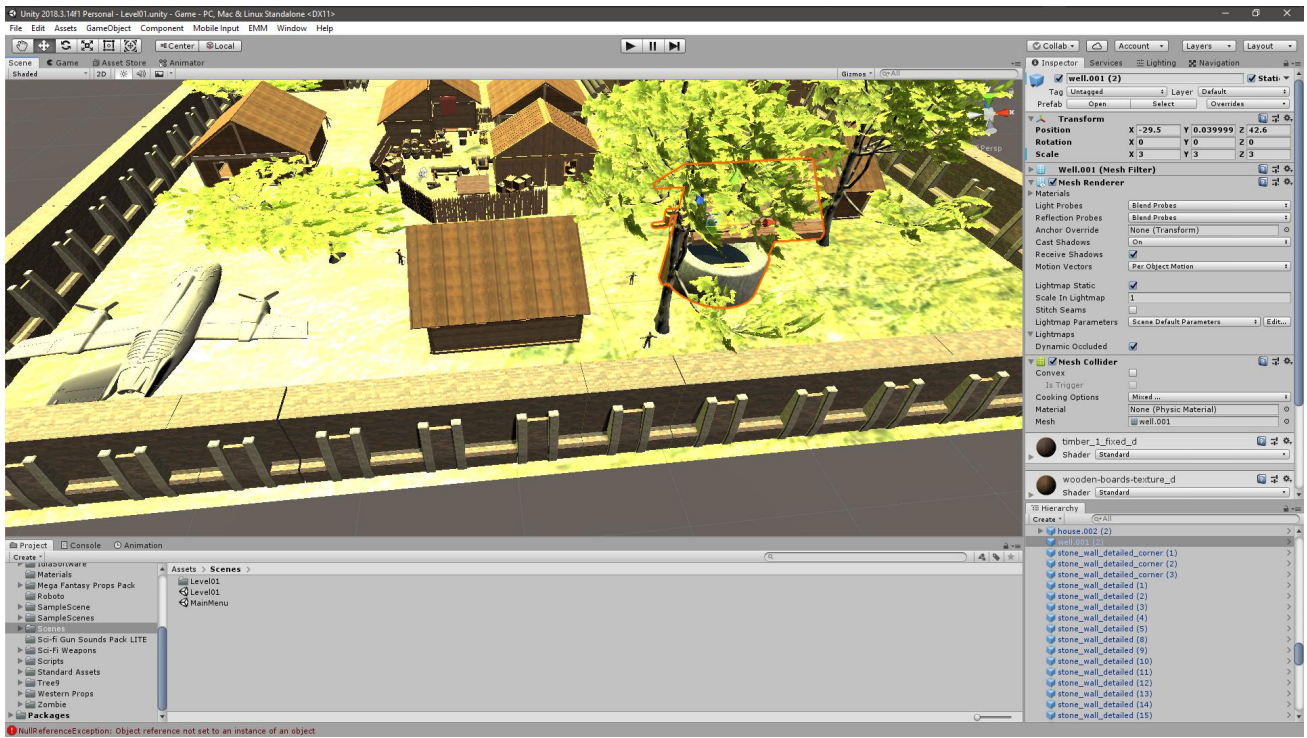
Game Playing
(Snippets)

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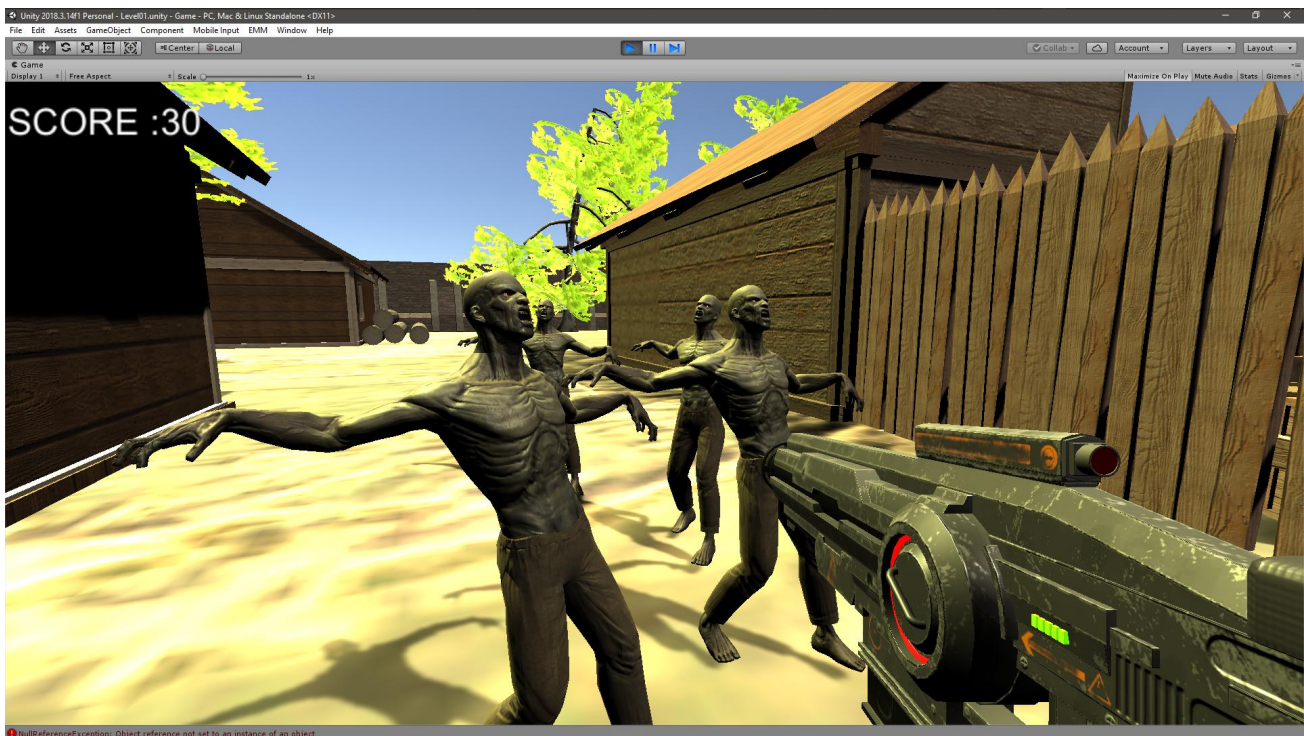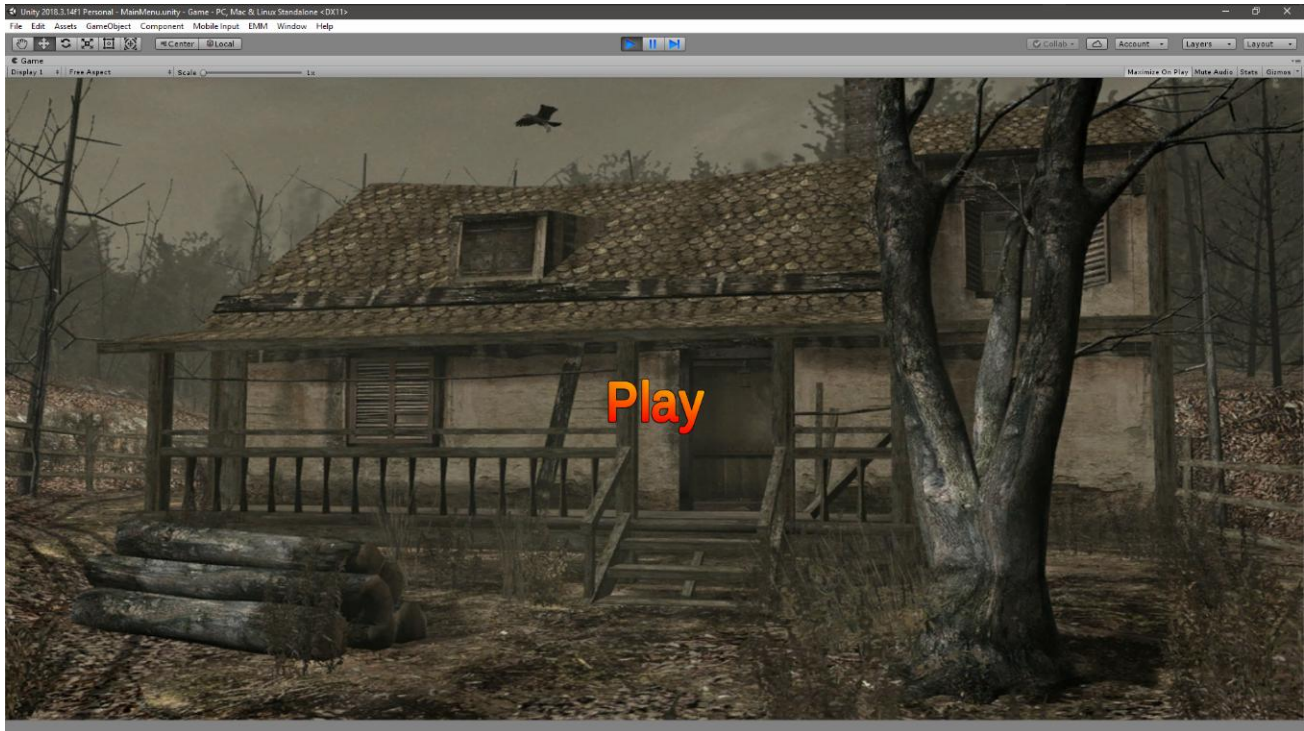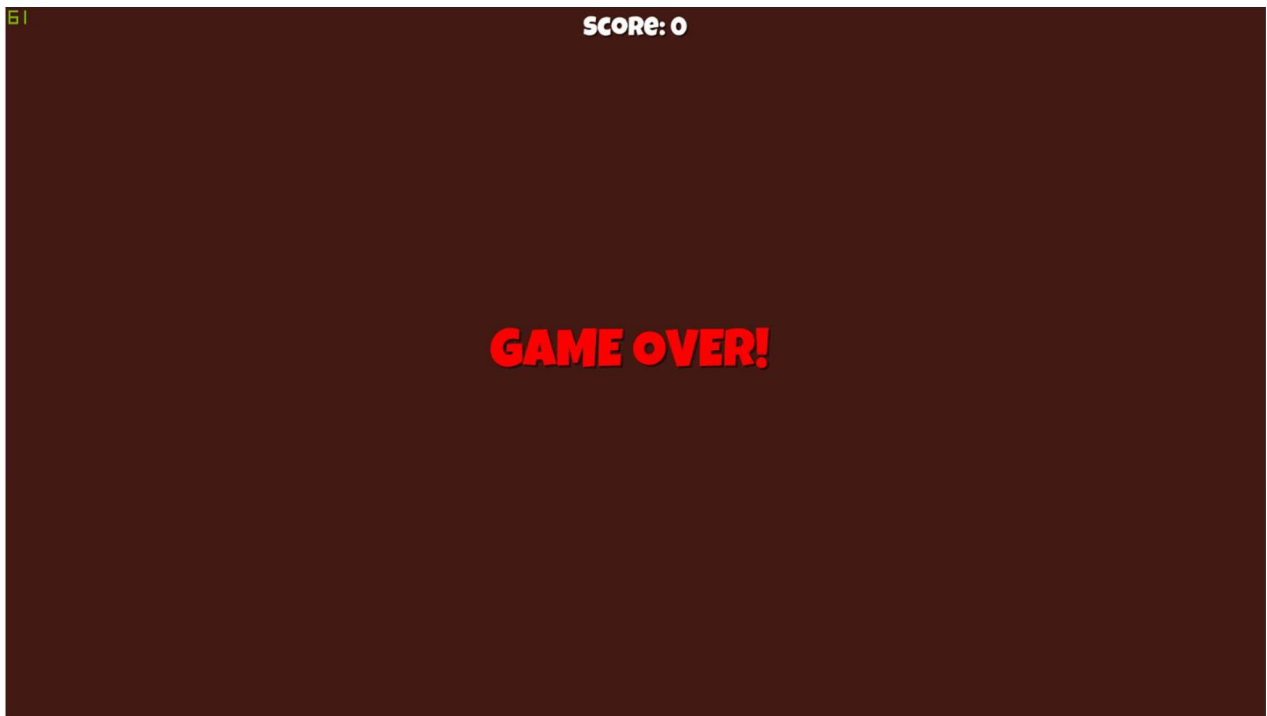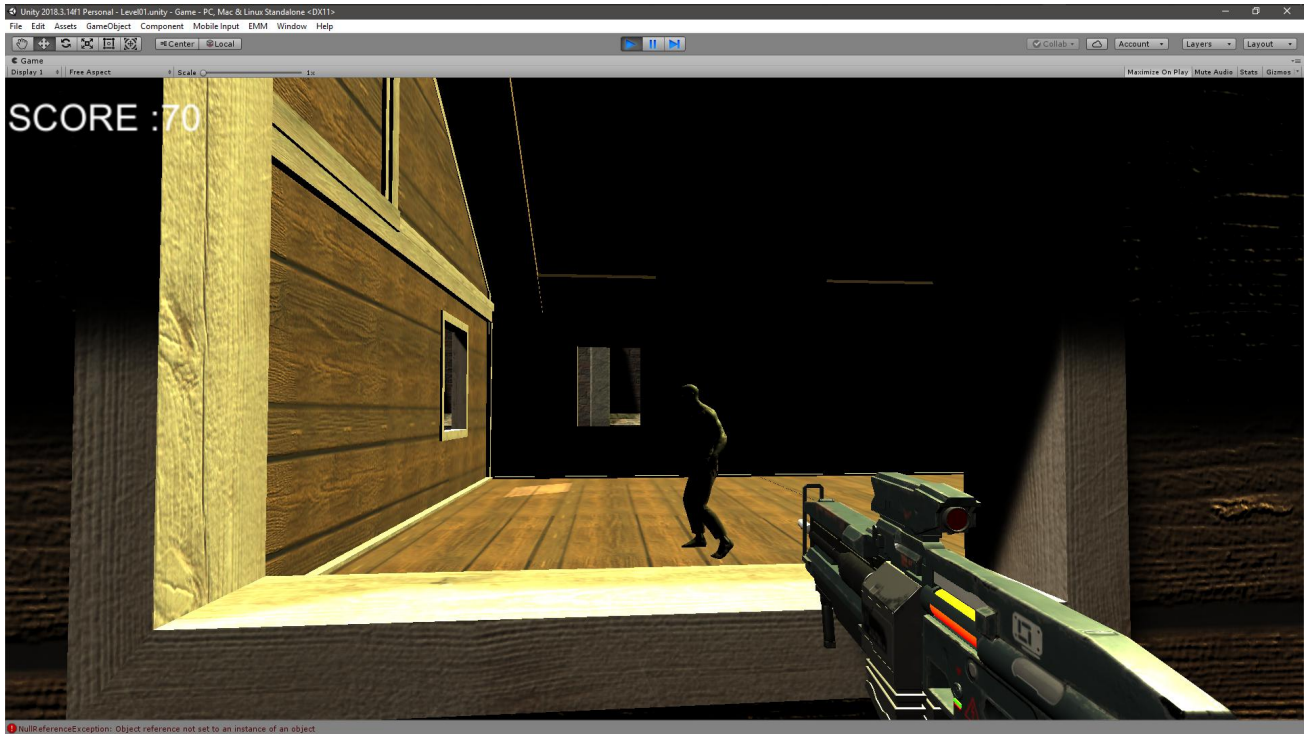
Game Edit Mode
(Snippets)

Game Features

Unity 3d game: Zombies And Soldier

It has features like:

Play:

It has a feature to start the game at any point of time. You can restart the game from the beginning from the game menu itself.

Health:

It decreases the health of the zombie with each fire and kill it.

.Shooter (Top-Down Shooter) :

In this you have to think a man trapped in a desert with infinite zombies in it and the possible solution is to avoid them and shoot them to score as much in the game.

Artificial Intelligence (AI) :

Artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and animals. Computer science defines AI research as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial intelligence" is used to describe machines that mimic "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving".

All the zombies have been provided with Unity AI by using NavMesh Component of Unity.

Triggers :

A trigger is used for the enemy to attack the player.

References :

1.Brackeys - https://www.youtube.com/channel/UCYbK_tjZ2OrIZFBvU6CCMiA
2.Unity (Survival Shooter Tutorial) -
https://www.youtube.com/playlist?list=PLX2vGYjWbI0SLoX3q1tUf3RJU_WzcLcHL

==STILL MANY FEATURES ARE YET TO BE ADDED IN IT'S 2.0 VERSION==

Remarks:

Marks:

Signature:

"PLAY IT ONCE"