**SNEKX EVALUATION-TECHNICAL REPORT**

This project used mostly inbuilt unity features and one external plugin for particles and sound effects.The project utilized 7 scripts created with performance and extendibility in mind for future project expansion.

**Overview of codes and how they were optimized**

1) GameManager code

This code was used to control the main game outcome logic such as game over actions,menu actions and ingame actions.It also housed sound effects which other scripts could access to provide necessary sound feedback.

2)Snake code

This code was used to move the snake and spawn snake segements during the gameplay.It is also used to detect segments multiplier along the way which on collision adds more segments to the snake.The code was well performant considering it can handle a lot of snake segments at a time.This was by ensuring all the segments were updated under one snake update loop.The snakes segments also on destruction causes a sound effect to happen.

3)Spawner code

This code was used to spawn waves of enemies after successful completion of current wave.It was also used to create different types of enemies after each wave.This code also had all the enemies in a list on which it updated all of them under one loop saving on performance.This code can be easily be extended to support more enemy types.On wave completion this code makes the enemy spawner move to new random place where it can start another wave.

4)Enemy Code

This code housed the different actions of different types of enemies.

5)Bullet Code

This code was added to the bullet prefab I created which specific enemies could fire.This code was used to cause a reaction on collision such as destroying snake segment on collision.On collision bullet hit particles are activated and hit sound effect played.

6)Bomb Code

This code was added to the enemy which explodes on collision with the snake.On explosion this code causes more damage to the surrounding snake segments.Explosion particle and sound effect is played on explosion.

7)Part code

This code was added to the snake segments prefab.This was useful as it opens future possibilities for more features added to the snake segments such as it having cannons to fire bullets at enemies.

**Conclusion**

This project was a success for a prototype standard as it was able to implement all the features required in the design document.The project also can be scaled exponentialy as the code can be easily be manipulated outside the code editor(the unity engine inspectior panel for the script component on gameobjects) thereby enabling level designers to easily manipulate the game feel and add more features without a having to go into the code editor.