# Name of the Game:

“Ball Blast”

# Reason why I chose this game:

I chose this game because it closely resembles the games and mechanics that we have built so far. The other 2 games had things and concepts that I haven’t yet experience myself. So the decision was straight forward. The movement system, spawn manager, destroying game-objects, and similar things had been done by me before so I was more confident in selecting this one.

# What hurdles I faced:

The core mechanics including the player movement, hurdle movement, health, and fire systems, were the main things to implement in the prototype. I kept working on one thing at a time and as most of the things were done by me before, it didn’t take too much time to get those systems working. The next problem was to have the balls bounce. I tried adding a physics material with maximum bounce but it doesn’t go beyond 1. The next problem was having smaller balls instantiate when one was destroyed. The balls could also fall of sides. These were just small problems and were overcome by me using the knowledge that I already had. Nothing new needed to be learnt. Just some thinking and it was done.

# How I overcame them:

I managed the bounce by adding an impulse force in the upwards direction whenever the ball touched the ground. This created the bouncing balls. It wasn’t as efficient as the actual game as the movement is much smoother but it is working fine and we can tweak and make these small changes to make everything feel great. The core mechanic of bouncing balls was done.

I created smaller balls by instantiating the small balls prefab twice and applying impulse on opposite sides for the balls before destroying the bigger balls. This created the effect of 2 balls coming out in opposite directions, of the body of the bigger ball when it was destroyed.

Then I added walls on the sides and tweaked the balls to have opposite impulse when the collided with them. Then turned off their mesh renderers. This created the illusion of invisible walls.

I have also added random physics movement as an innovation to my game. The balls can sometimes change their direction that makes the game much more challenging. It’s much for fun to play now even though it’s just a prototype.

At last I have also learnt about Unity UI and I have implemented the Score and Health UI along with a button to reload the scene once the Game Over UI appears.

# Things I couldn’t implement:

I implemented all the core mechanics including and everything works fine:

* Player Movement
* Shooting
* Ball Physics
* Ball Spawning
* Ball Spawning from within balls when destroyed
* Collisions all around the place
* Health system for the balls
* Unity UI

So, all the mechanics were done and I haven’t left out any of them in the game play. Everything else is the polish phase and not part of the prototype.