

# Network programming course assignment

I made 2D top-down shooter game with a chat for two players. The other player being the host of the server.

I started by implementing network manager to the project and script for network managers UI. It having buttons for functions host, join and quit. I made the player prefab with network behavior. Player has move and shoot functions that it is getting from the server as well as the mouse position. The server handles taking damage and deactivating the player. I put the rigidbody2D to the bullet and box collider2D that is set to be trigger. The player is rotated with the mouse position which we set to the server if it's the local player.

I had bit of struggle at first understanding the host and client connection. I also had struggle with understanding/getting confused the setting and getting things to/from the server.

Second thing I made was the chat prefab that is also a network object. It has input field and two text fields. I set the input field text as a string message. I'm using two functions for setting the message to the text fields. I send it to "not me" as the left text field and "to me" as the right text field. Meaning each player's own text stays on the right while seeing the other one's text on the left.

The bullet prefab for shooting has its own script being a network object. It has a move and destroy function. Getting the move value

from the server and destroying bullet that is colliding with a player prefab. The bullet keeps a variable of its creating owner player.

I had bit of trouble with getting collision to happen but it was just needing rigidbody to the other one and forgetting I had it as trigger and not collider.

I have a bug where the shooting player deactivates from the other players side on the second shoot. I tried putting a check of not taking damage if the bullet colliders owner is the shooting player.

However, it did not help and it is confusing that it, would cause the deactivating since it doesn't happen at the first shoot.