

### Question 1:

To do question one, I went to the last else statement in `playerenemycollision` and removed the scheduled death. I added a variable for the health, then an if to check that the player's health was not null. Next, I went to the enemy controller and added a public variable for damage, setting it to 2 for all enemies in the inspector. Then, back in the else statement, I put `playerHealth.Decrement(enemy.damage)` so it would use the `enemydamage` int. Lastly, I went into the health script and changed the 1 in `Decrement` to the damage amount.

### Question 2:

For question two, I went into the Health script and created a function called `Immunity` which starts a coroutine. The coroutine first changes the bool `isImmune` to true and writes a debug message for "is immune." Then I used a `yield return new WaitForSeconds(amount)`, with amount currently set to one second (but it could be changed in the function call). Once the amount of seconds is up, `isImmune` is set to false. Then, back in the last if statement I was working on for question one, along with the null check for `playerHealth`, I added a check for `!playerHealth.isImmune`. If the player is immune, no damage will be dealt; otherwise, damage will go through and it will call `playerHealth.Immunity(1)`.

### Question 3:

For this question, I started with brute force. I made an object for the gun, with a fire point child and a prefab for the bullet. Then I went into `PlayerController` and made public references for the gun, float `bulletSpeed`, `bulletPrefab`, and a bool for flipped. Along with the movement logic, I added a `GetButtonDown` for `Fire1`, which, when activated, instantiated the bullet at the `firePoint` and then added a

force forward at bulletSpeed. Once this worked, I moved on to making the damage work. I made a new class for bulletememycollision. This took the enemyController and bullet GameObject. I made a variable to hold the enemyHealth, checked that bullet and enemyHealth were not null, then decremented enemyHealth by one and destroyed the bullet. Once this was working as I intended, I created a new class called PlayerShoot scheduled when the player pressed Fire1. I moved the original logic into this class, adding a bool check and reversing the bulletSpeed when the player is facing left. I also flipped the gun GameObject when the player faced left in the playerController script.

At this point about two hours had passed so I didn't tackle question 4.