**Player movement & attacks**

Moving with “wasd” gives horizontal and vertical axis values. Those values are turned into a normalized vector.

Then taking the player’s current position and his projected position which is something like: Current position + Normalized input movement vector \* Run speed \* Time.deltaTime.

Based on those values it checks for collisions and adjusts the player to the correct position.

If I wanted to move the player without the inputs (knockback) I could take his current position and calculate his projected position based on an outside input. The outside input would be, just like the movement input, represented by a vector. Something like: Current position + External force vector. Then using these inputs check collisions as it is done when walking using movement inputs.

I could try to apply this in the same frame as the movement inputs and see what happens. Depending on which one is run last.

To adjust the speed when attacking it could just set the run speed to another value for an amount of time. It could even make the player move in the direction of the attack.

Some attacks could move the player in the direction of the attack others in the input direction or no movement.