

Portal Gun
+ int characterID
Shoot()

Notes: shoot does a hitscan in the direction made by the vector from the gun's location to the mouse location. The gun's location is inherited from Character

Character Status
+ int characterID
+ int health
Move(keyInput)
Jump()

Notes: position and velocity is inherited from Unity's version of the Object cosmic superclass. takeDamage is called from an obstacle's onCollision function. If health is reduced to zero, the level is restarted

Obstacle
+ int type
+ int damageAmount
getGraphic(type)
lowerHealth(damageAmount, characterID)

Notes: onCollision is called when something touches this obstacle. If it is a Character, it will call the takeDamage function and that Character object will decide what happens from there. The Obstacle class can be extended for enemies and different kinds of traps later in development as the user's needs become more clear

Game Status
+ boolean levelPassed
passLevel()
updateFile()

Notes: passLevel loads the next level and updates the unlockedLevels array. restartLevel is called when the player pushes the restart button or dies. Position for goal will be inherited from Unity scene.

Save File Controller
+ Int[] unlockedLevels
+ int volume
saveFile(unlockedLevels)
changeVolume()