Time Complexity of Scripts

PerlinNoiseTerrain.cs - overall O(n)

Start() - O(n) due to the for loop

+ Update() - O(n) due to updating every frame

+ swapRight() - O(1) due to making a simple decisions based on locations

+ swapLeft() - O(1) due to making a simple decisions based on locations

+ applyPerlin(float \_x) - O(1) due to doing simple calculations

+ spawnCoin(int choice) - O(1) due to instantiating coins

+ spawnSpike(int direction) - O(1) due to instantiating spikes

+ OnGUI() - O(1) due to simply displaying quit button

DamageAndScore.cs - overall O(1)

OnCollisionEnter2D(Collision2D collision) - O(1) due to simple if statements

+ OnGUI() - O(1) due to simply displaying score

+ Start() - O(1) due to simply saving scene and setting score

DestroySpike.cs - overall O(1)

OnCollisionEnter2D(Collision2D collision) - O(1) due to a simple if statement

DestroyCoin.cs - overall O(1)

OnCollisionEnter2D(Collision2D collision) - O(1) due to a simple if statement