Tutorial #2 Mov 2D space.

**Setting up the scene**In this tutorial, we’ll be doing the same thing as we did last tutorial with movement, if you haven’t read into it then first things first make a 2D project from the unity hub. You should see the screen below once the project is open.

Graphical user interface, application

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Next what we want is to do the same thing as before and make two squares so right click in the hierarchy and click 2D Object>Sprites>Squares. One square be big and stretched out as our ground seeing as we’ll be needing one and one a standard size as our player. You should have something that looks like this. Graphical user interface, application

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Once we have this be sure to add a Rigidbody 2D to the player as well as a Box Collider 2D component to both objects in our scene so they function well. To do so just select an object and go into the object’s inspector on the right and click Add Component, once that’s done add a “RigidBody2D” and a “Box Collider2D” to the player sprite and a collider.   
  
  
Next we’ll make a script. Go into Assets and create a new script. Let’s name this “Jump”. First thing’s first let’s declare some variables.

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First things first we’re going to be adding on Movement speed, declaring movement make sure you also call the Rigidbody component, create a jump force component the number dictates the jump height and the force. The “isgrounded” variable helps with seeing if the object is touching the ground. WhatIsGround, helps as a way to identify what the ground object is.   
  
  
Text

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rb=GetComponent<RigidBody2D helps to call on the Rigidbody component stuck on the player object in our scene.   
isGrounded=Will show where the ground is, and checks the feet position of our character and the ground object.   
the “if” statement is there to help us press the space key to jump when the floor is detected by Unity.   
  
  
Save the scene and go back to unity. Next drag the script to the character that we made, it should appear in the Inspector.   
  
Graphical user interface, application

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Now you may notice something wrong, there’s no FeetPos nor is there any “WhatIsGround” so in order to fix that we’re going to create two separate empty objects. Go into the Hierarchy and right click<Create Empty. This creates our first Empty Game object. We’re going to name this “FeetPos” this is our feet position. In order to see our empty object, select the object and click on the cube in the inspector.  
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Chart

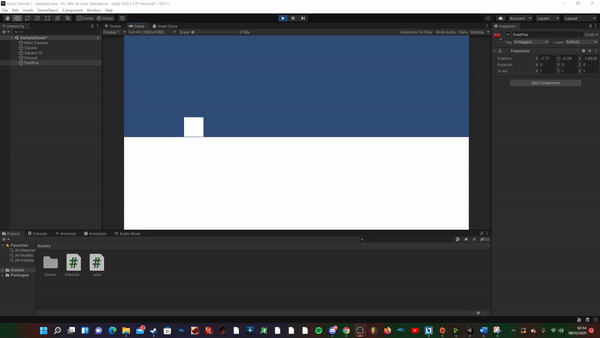
Description automatically generatedPress the W key and move it directly underneath the bottom of the player.

Next what you need to do is do the same thing, and put it on the floor of our scene and name the empty gameobject “Ground”. Now we have one of our missing components. Next we need to tag the ground. Click on the ground object and click on “Layer”. Graphical user interface, application

Description automatically generatedOn the drop down, go to “Create Layer” and make WhatIsGround Layer.   
  
  
Now let’s go back to our Main character object, in the FeetPos let’s drag our empty game object that we made and put it into that slot.



In the Ground layer, select the tag we just made.

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Let’s change the jump value and force and see how it fairs.   
  
  
Looks like it works!