

Character Movement in Unity without writing a single line of code!

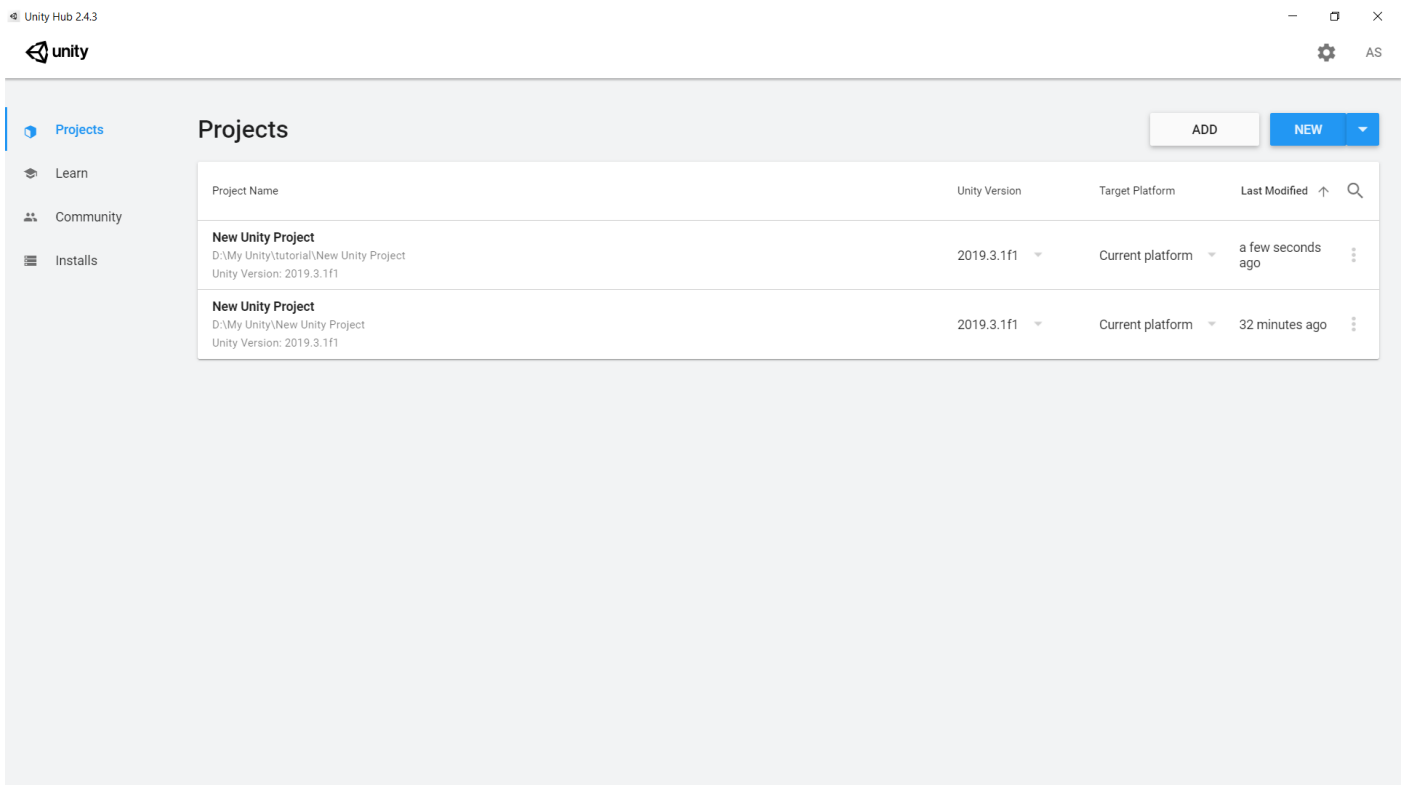
By Aaryan Shaikh

Things you will need.

1. *Unity 2017 or above*
2. *Unity Hub*
3. *Playmaker*

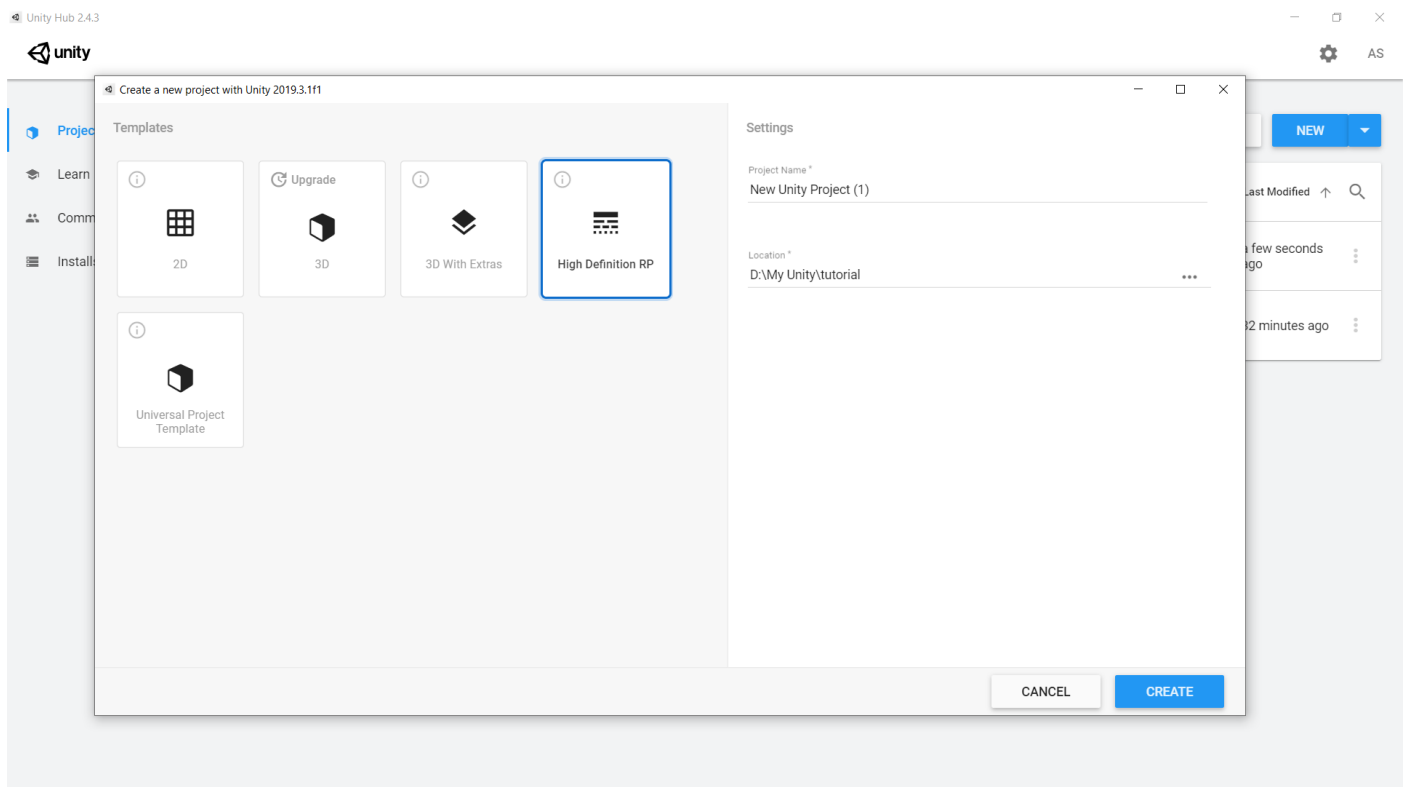
Step 1:

Open unity application by double-clicking the icon on the desktop or searching “Unity” in search bar and clicking on it.



Click on the new button a new screen will be visible in which you can select the project setting for your project. (if your PC/Laptop has Medium specs then select 3D or if you have High specs then

you can select High-Definition RP. I am using High-Definition RP for this tutorial.)

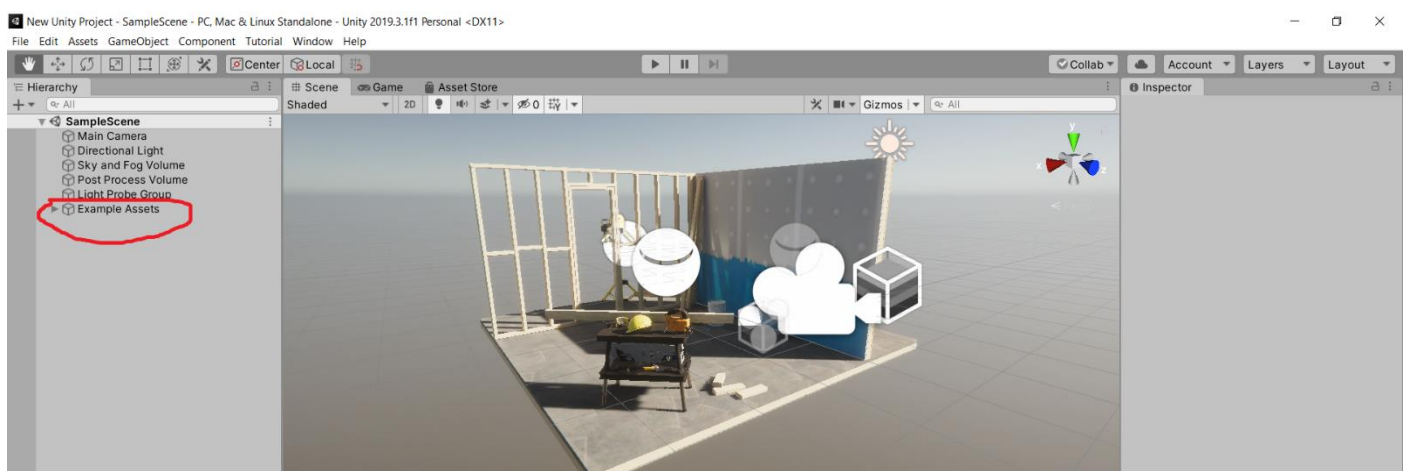


You can select the name of your project and the location and click create.

Step 2:

You will get the following screen when the unity loads up.

If you want to use the default scene you can use it or you can delete the default scene by deleting the '*Example Assets*'.



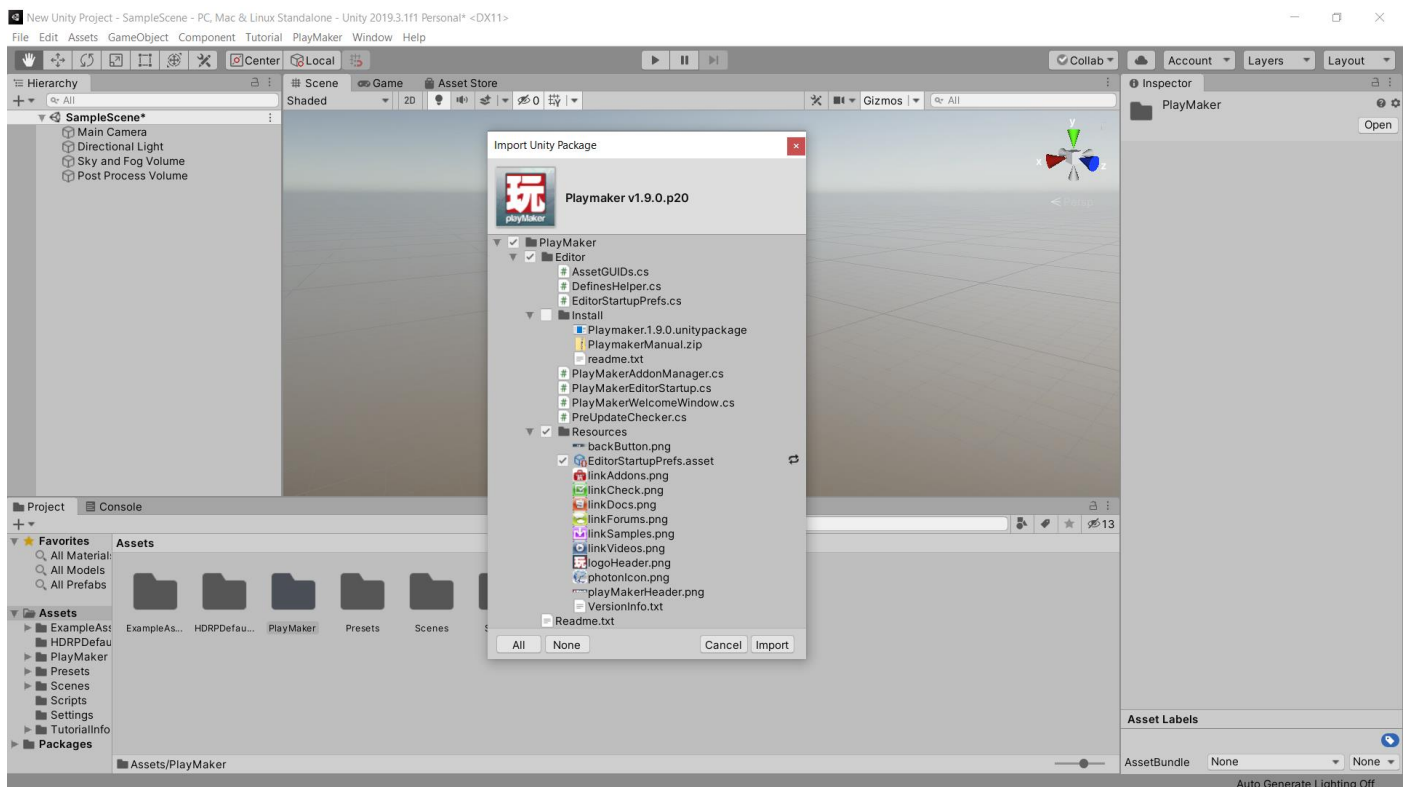
Step 3:

You will need to buy Playmaker from the Unity store (ctrl+9) or you can get it for free from here

https://www.mediafire.com/file/cvhao5ibk3zea0m/Playmaker_new.rar/file

Just drag and drop the file into the Unity and you are good to go!

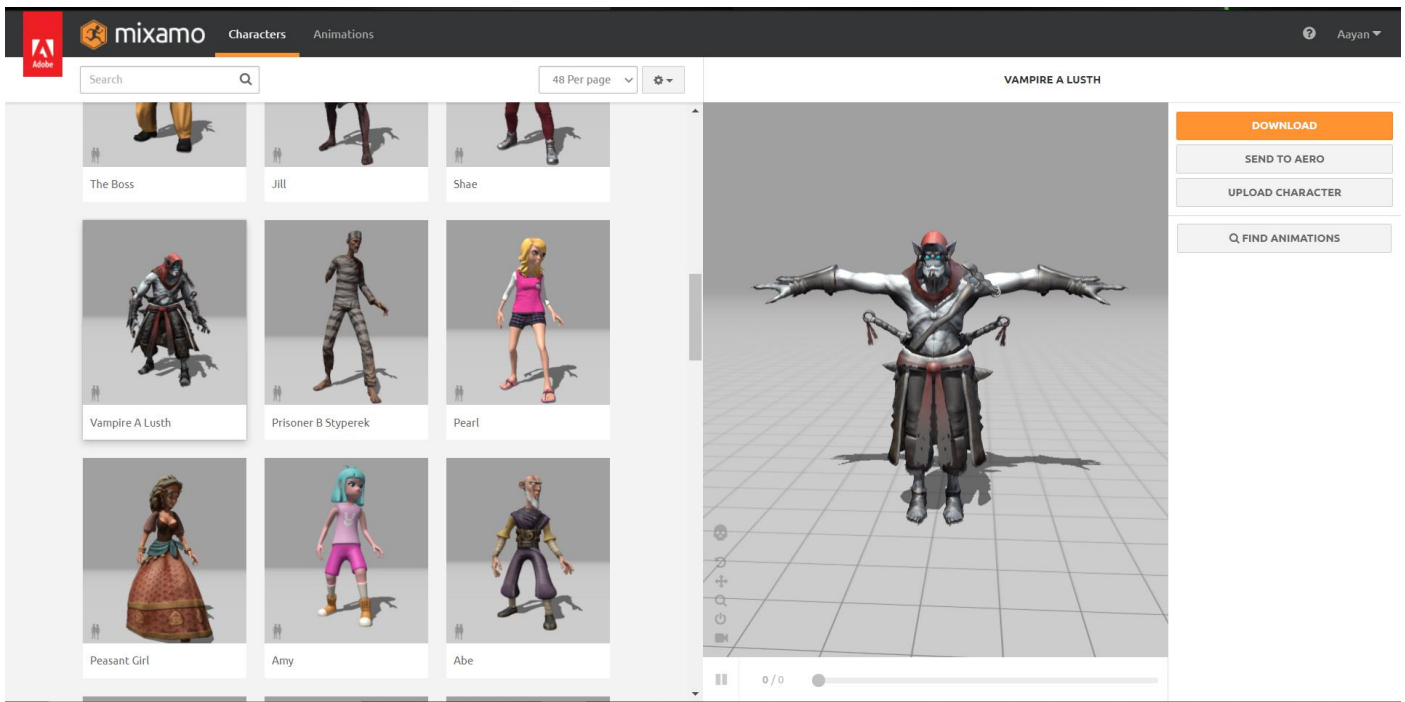
You will get the following screen just clicked on import and done!



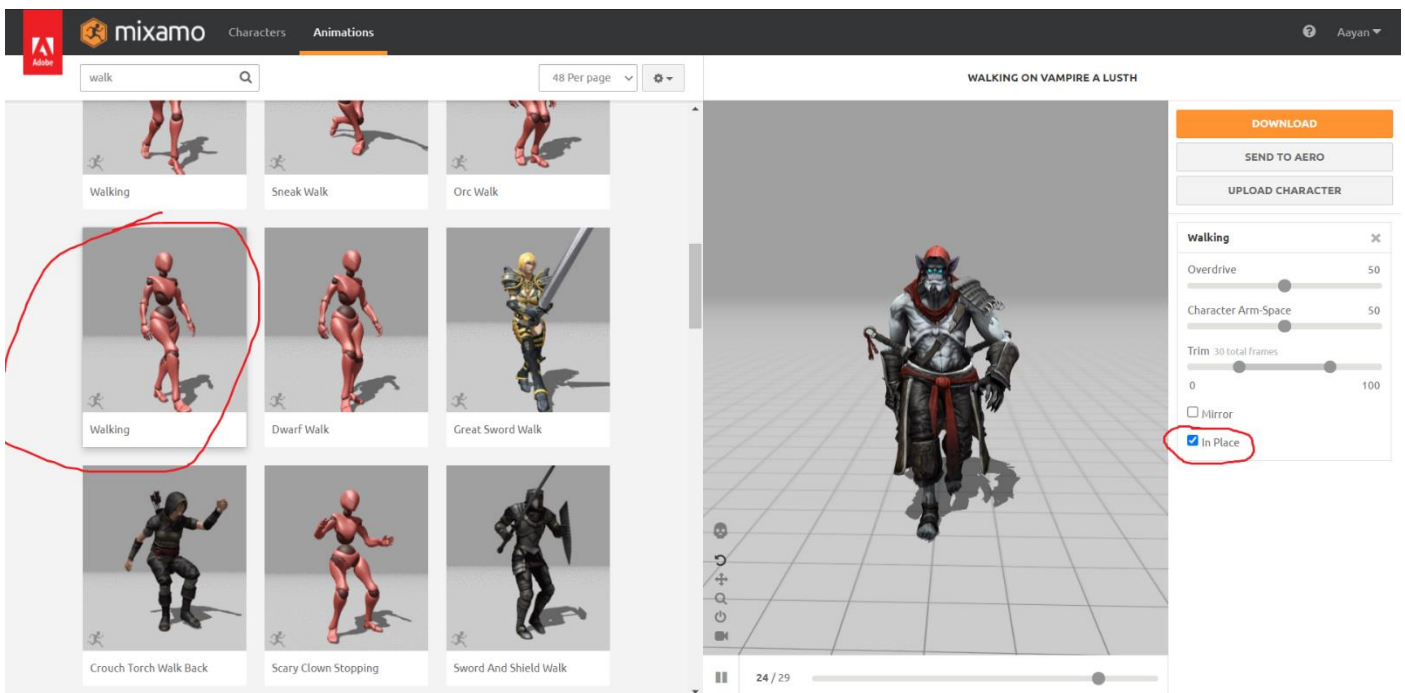
You should see the folder named '*PlayMaker*' in the assets section.

Step 4:

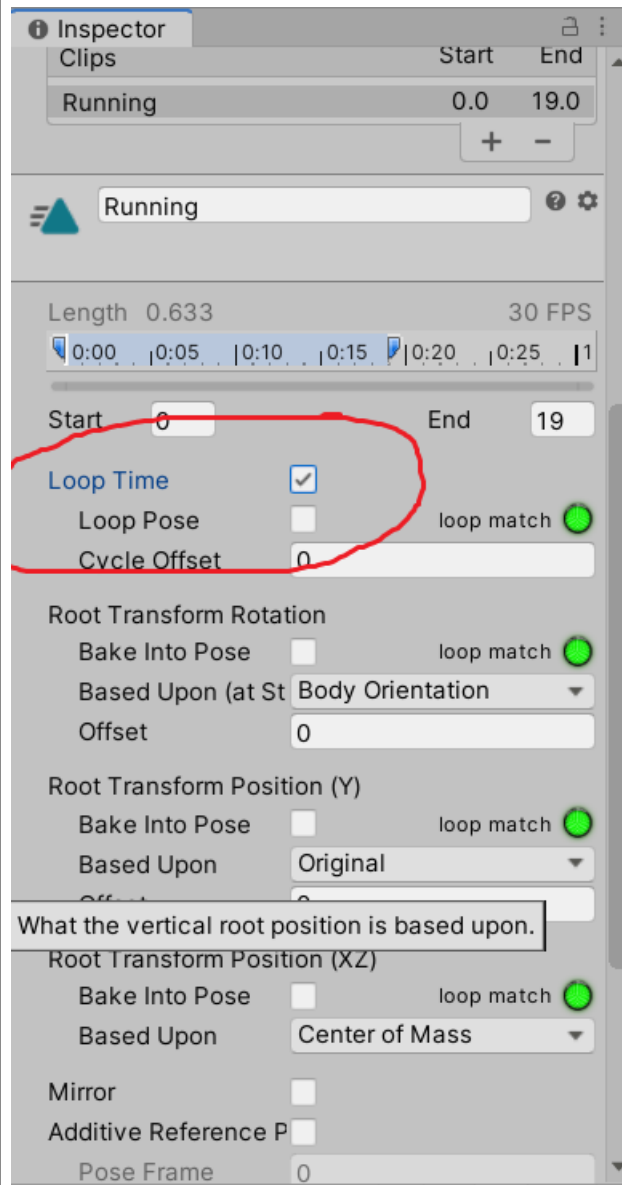
Now we will need a character which is fully rigged and has some animations. I personally prefer the <https://www.mixamo.com/#/> Site to get characters and rig them. Go to the site and click on characters and select any character for your choice.



Now click on animations and select 'Walking' animation and make sure to uncheck the in-place tick box and click download and select the 'FBX for Unity(.fbx)' in the format drop down menu.

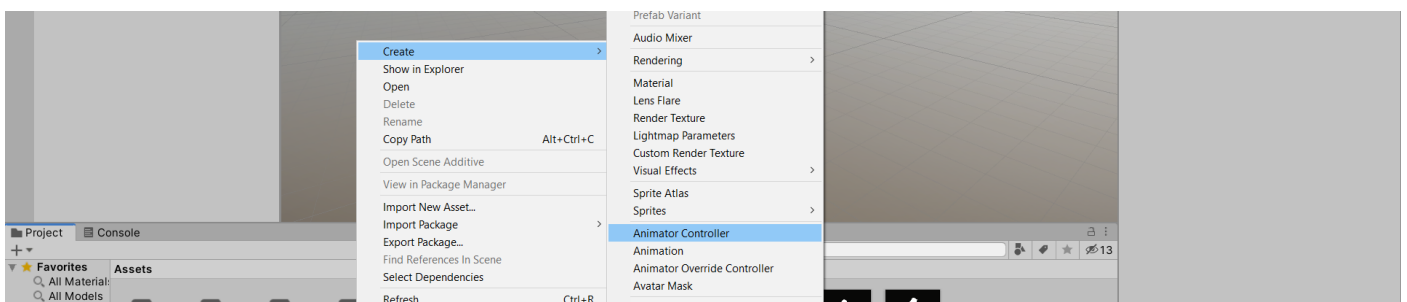


Repeat the same process for 'Running' and 'Idle' animations. Now you should have 3 fbx files, drag and drop them into unity. Now select you character in unity and in the inspector section select rig and change the animation type to Humanoid. And in the Animation section scroll down and tick loop time and click apply.

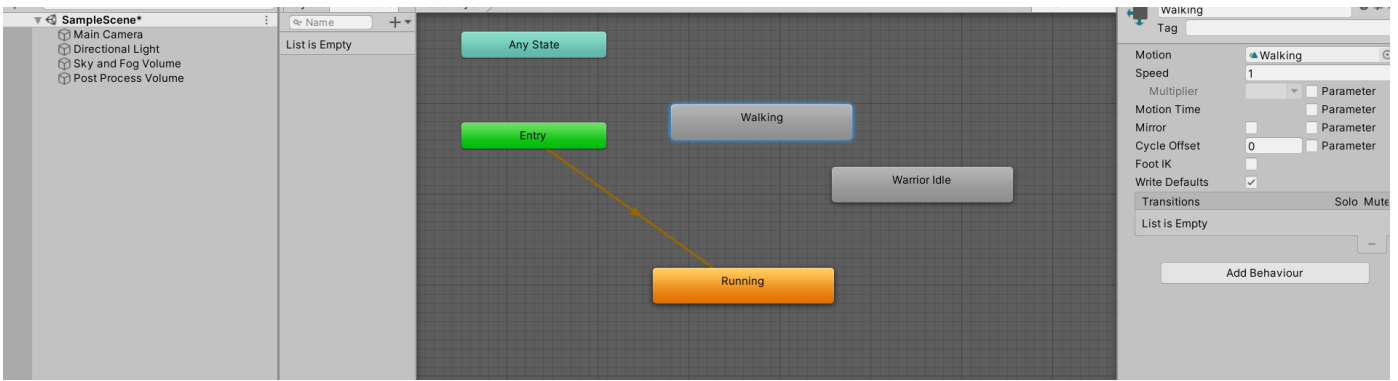


Step 5:

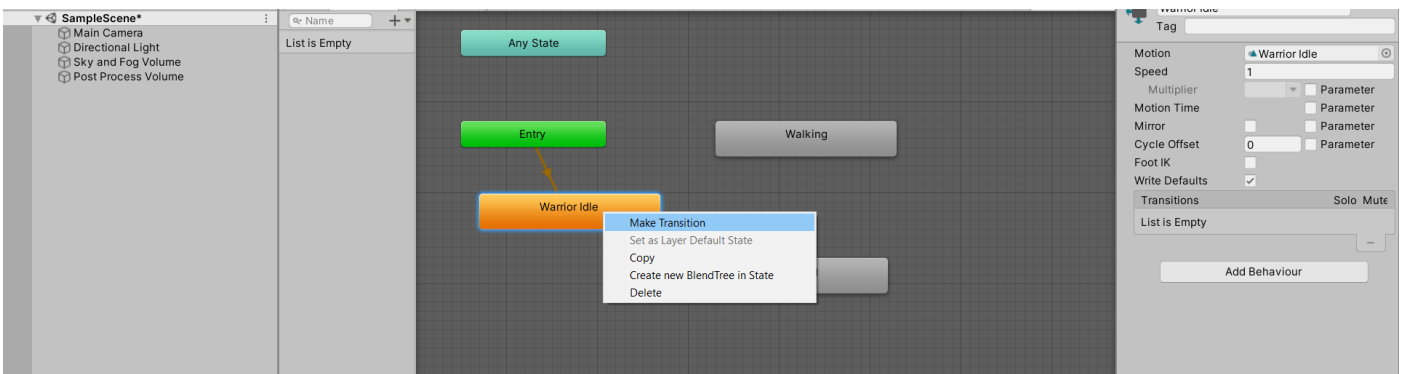
Now u need to control the animations so right click and Create->Animator controller.



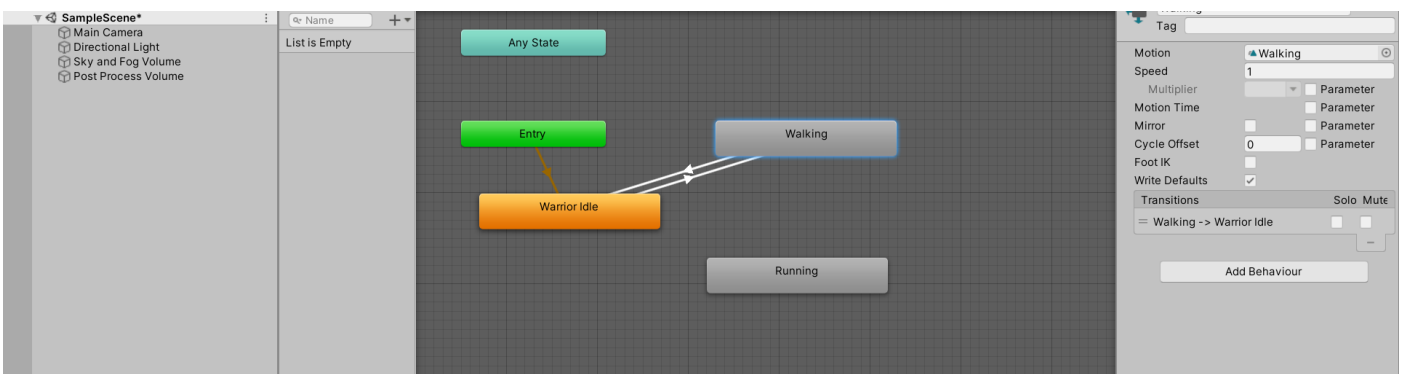
Rename it to 'Player' and double-click it. You should now see the animator screen. Now drag and drop all three-character animations on the animator plane.



If your idle state is set as orange (default) then well and good if not the right click on the idle state and select 'Set as Layer Default state'. Now we want the character to move from the idle state to walk state and then back to idle state when the player stops moving. We can do it by right clicking the idle state and selecting 'Make Transition' and selecting the walk state. And then doing the same thing with the walking state.

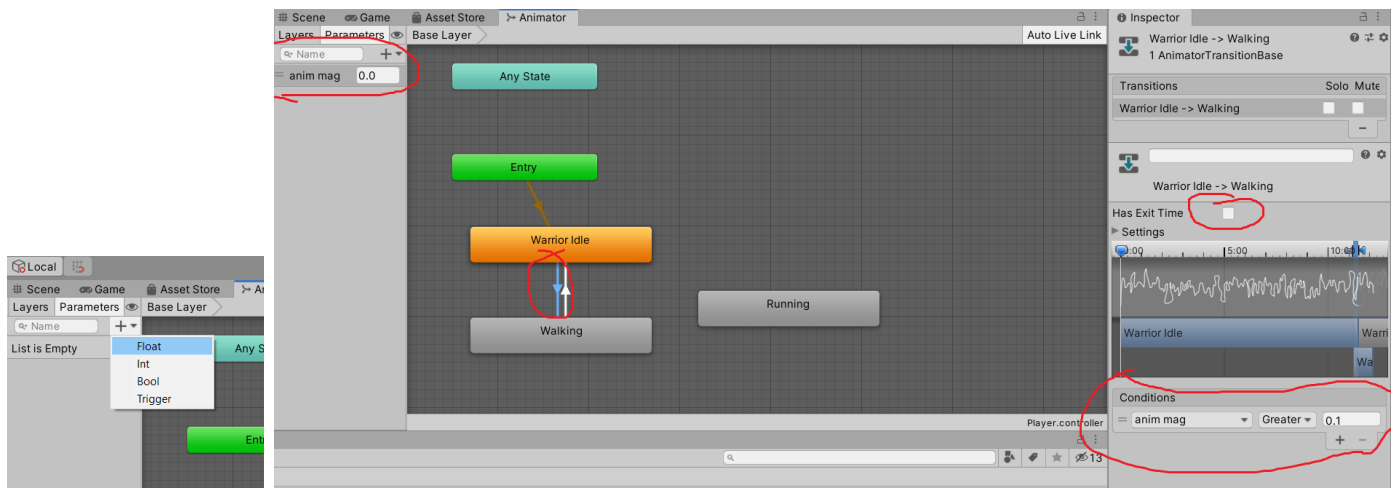


It should something like this.



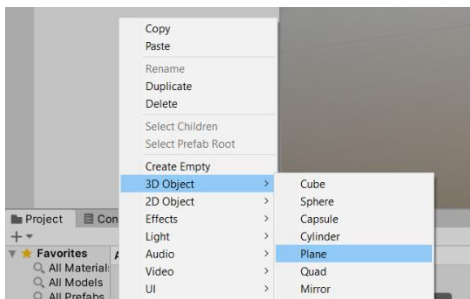
Now go to parameter and create a new float parameter called 'anim mag'. Now click on the transition and the click on

conditions and use the following settings and untick the 'Has Exit Time'.

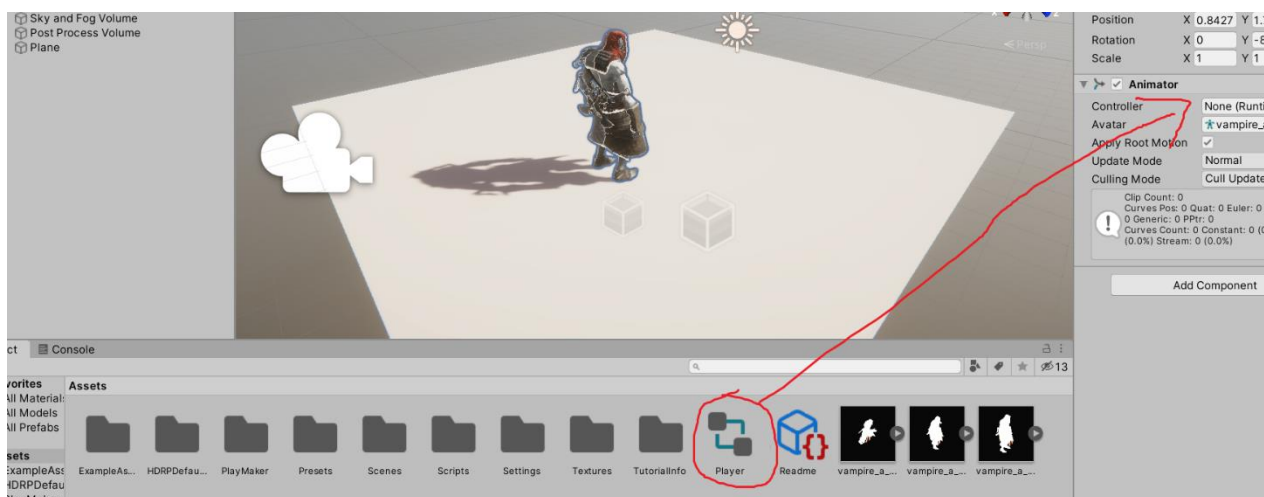


Step 6:

Now that the animation is set up we need to create the platform where the player will move. Right click->3D Object->Plane.



And then just drag and drop your player in the scene. And drag and drop the animator in the controller.



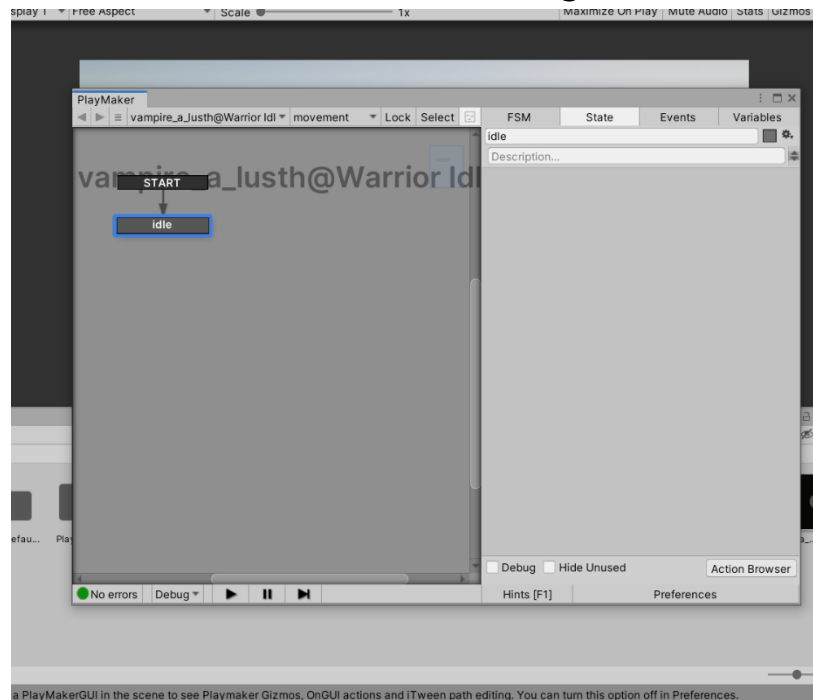
Now if you press play the character will do the idle animation!!

Step 7:

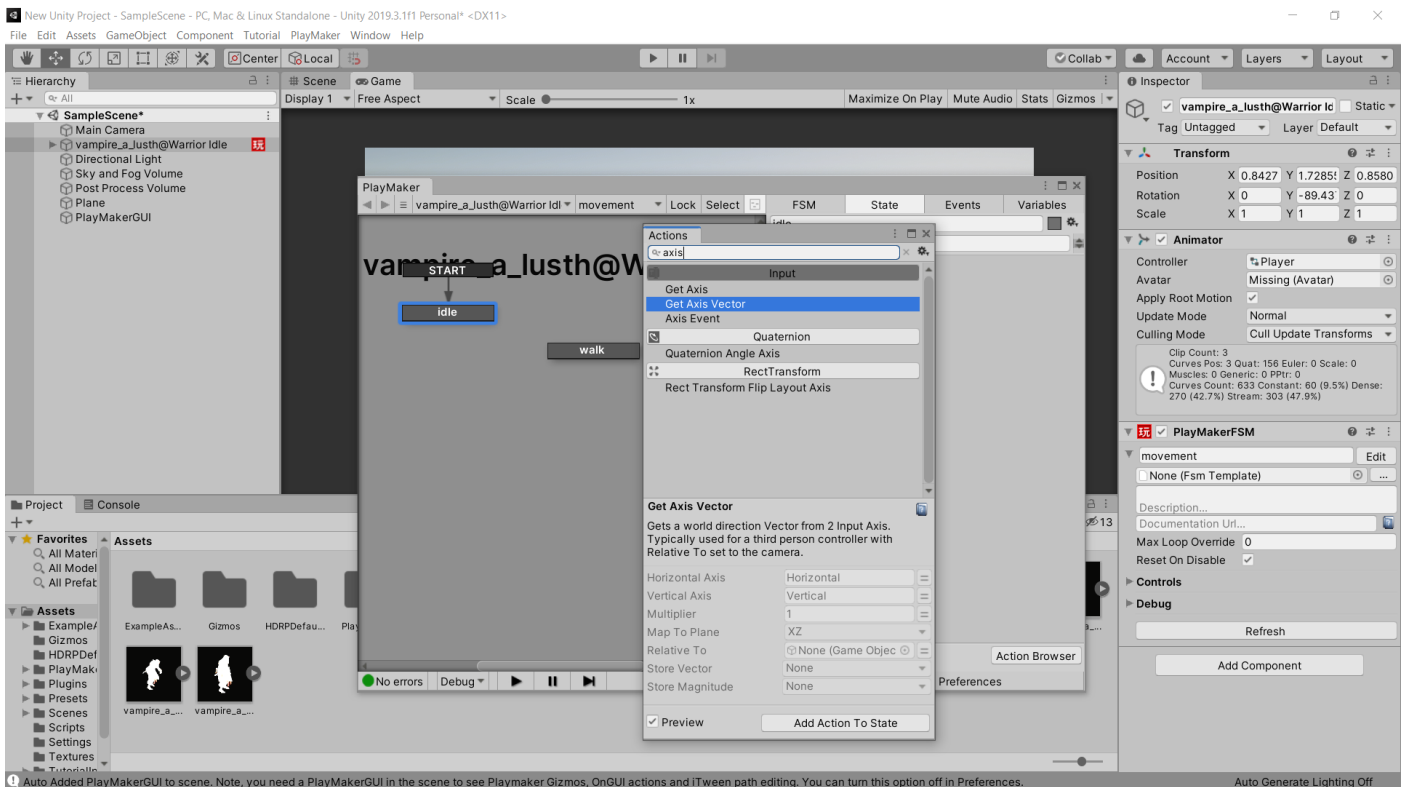
Select player->inspector->add Component->type "FSM"



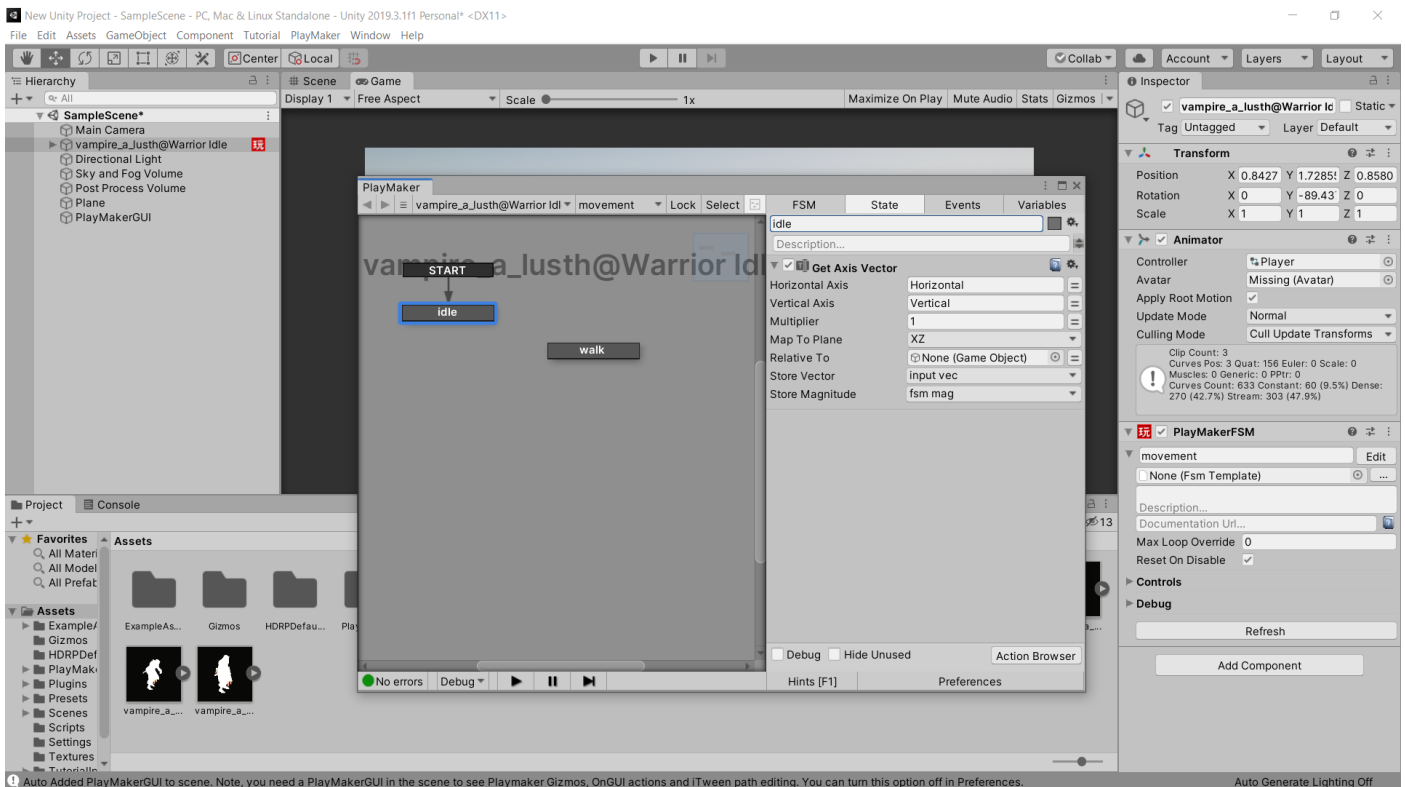
now click on edit. You will get the following screen.



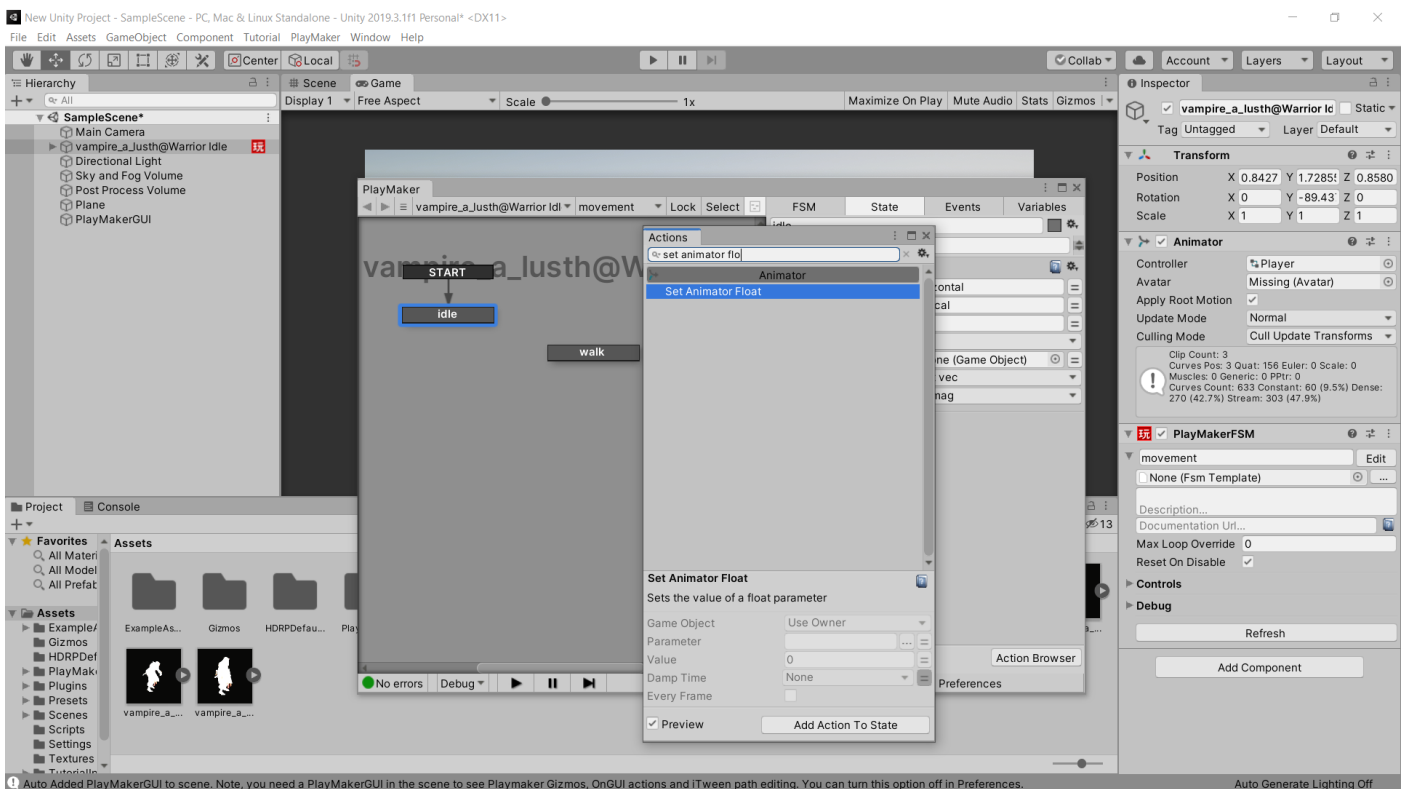
right click and select add state. Now go to idle state and double click the right side of the screen to open up the options panel and type 'Get axis vector'.



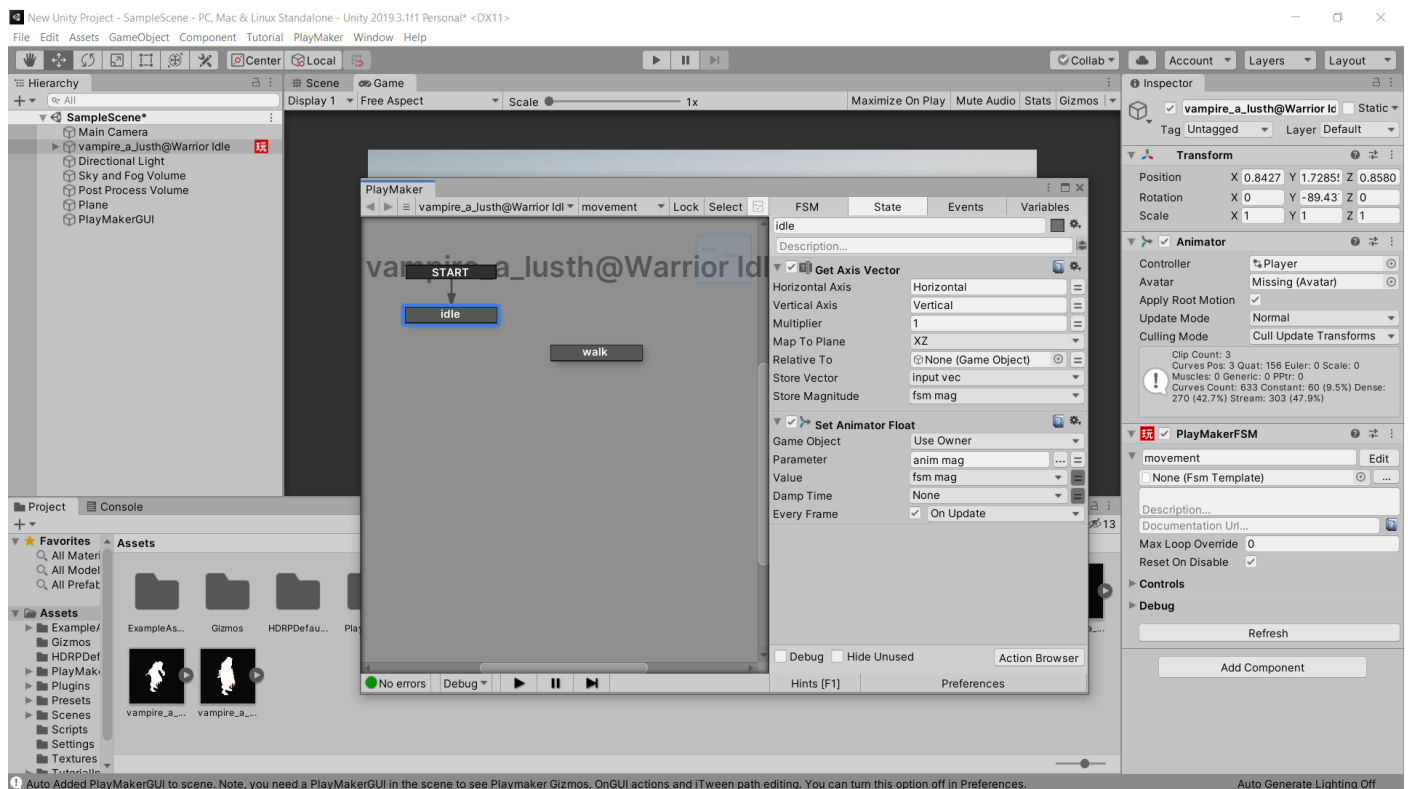
Go to Store Vector->new variable->type 'input vec' and Store Magnitude->new variable->type 'fsm mag'.



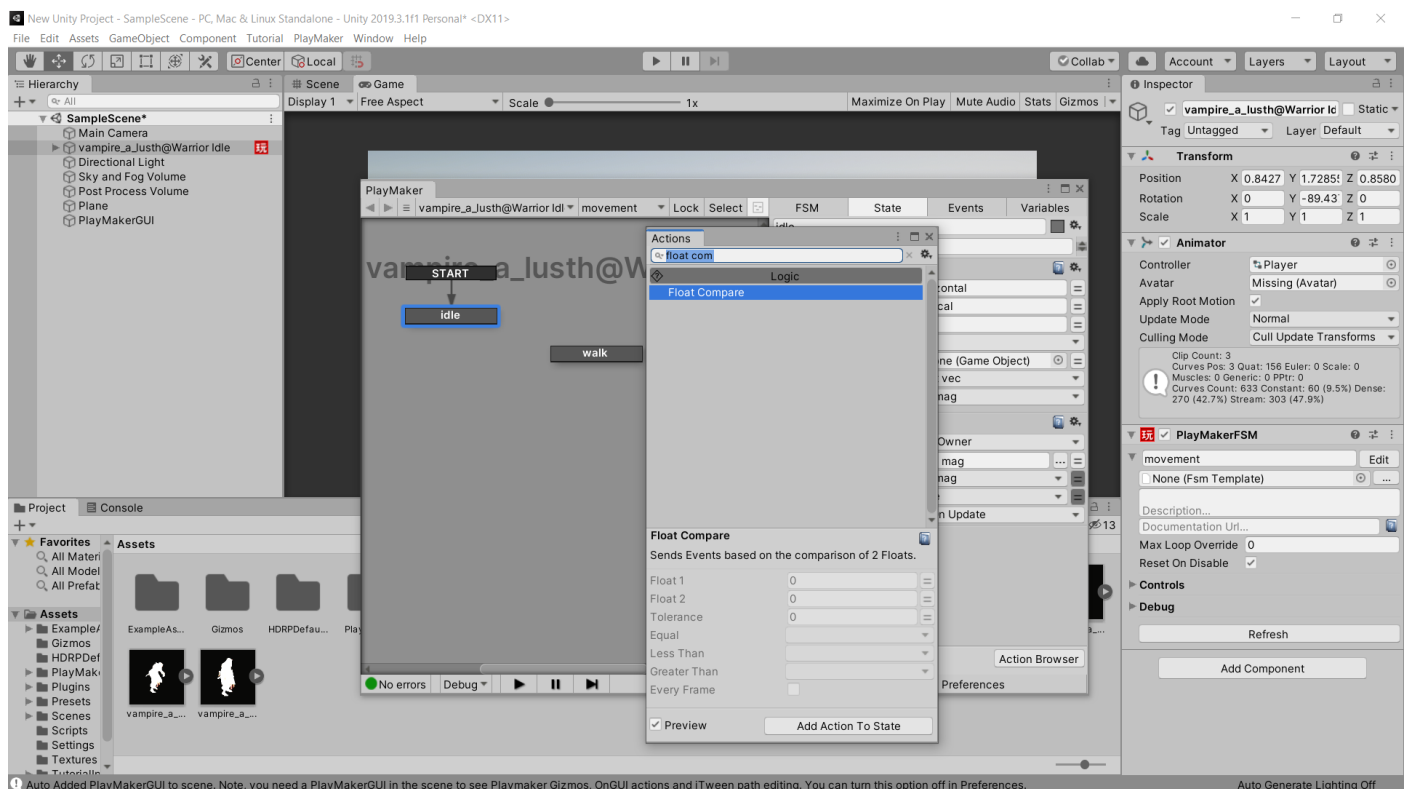
Now again double click on the right side and type 'Set animator float'



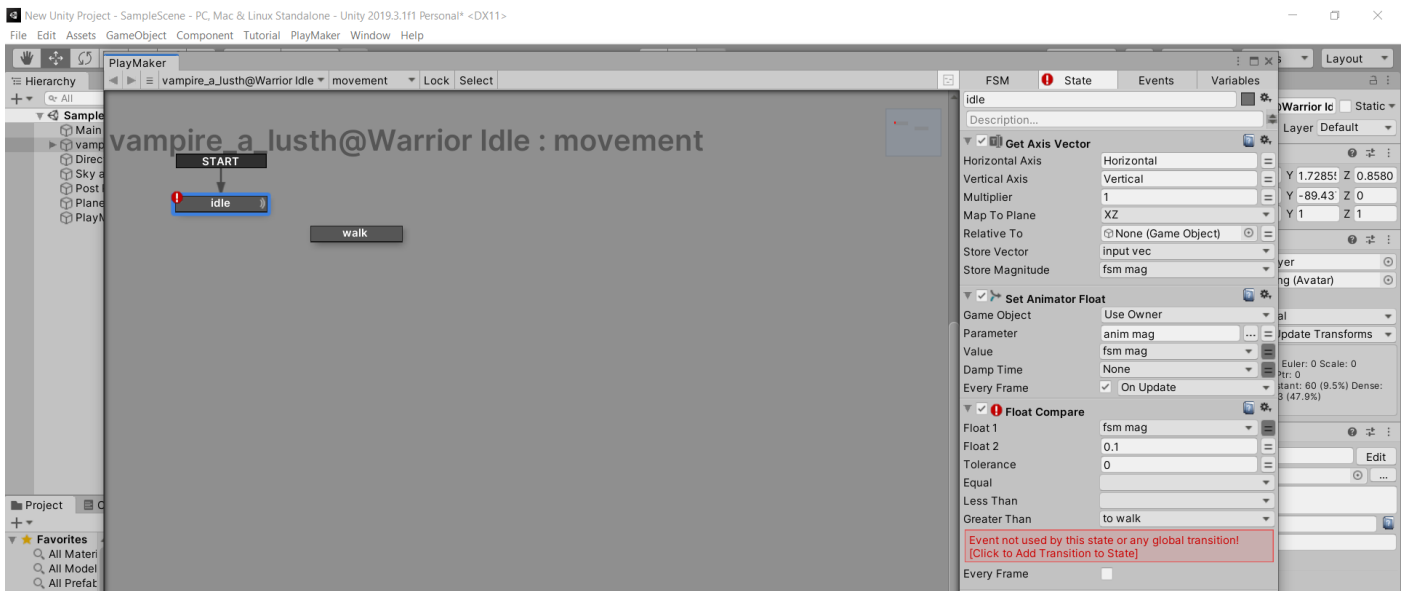
In this set the parameter to 'anim mag', Value->fsm mag and tick Every Frame.



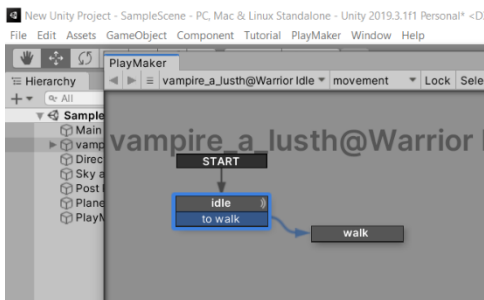
Now again double click on the right side and type 'Float compare'



In this Float1->fsm mag, Float2->0.1, Greater Than->new event->'to walk'

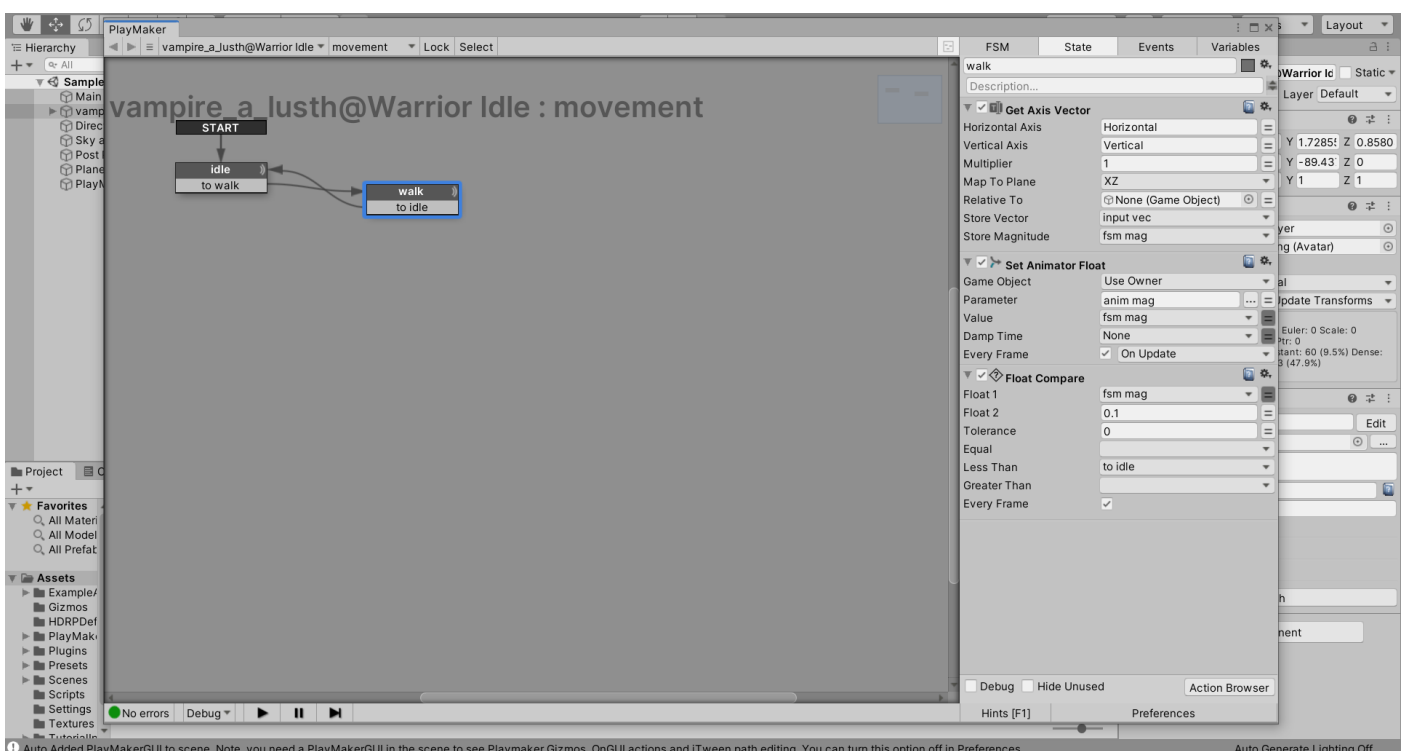


Right click on the idle state->add transition->to walk. Then while clicking on the 'to walk' drag it and attach it to walk state.



Copy all the 3 states from idle and paste it in walk state and remove the 'to walk' from Greater than and select less than->new event->'to idle'. Then right click on the to walk state and add transition->to

idle. Then while clicking on the 'to walk' drag it and attach it to walk state.



Finally double click on the right side and type 'smooth look at direction' and in this set target direction->'input vec' and done!!
You character moves in all the directions!!

Now you can experiment all the other options which you want to embed in you game!!

If you want to check out the video on the working model of this tutorial you can click here!!

<https://github.com/AaryanShaikh/MCA/blob/gh-pages/Game%20Programming/My%20Video.mp4>

Thanks for Reading!