# Game Development: Lesson 1

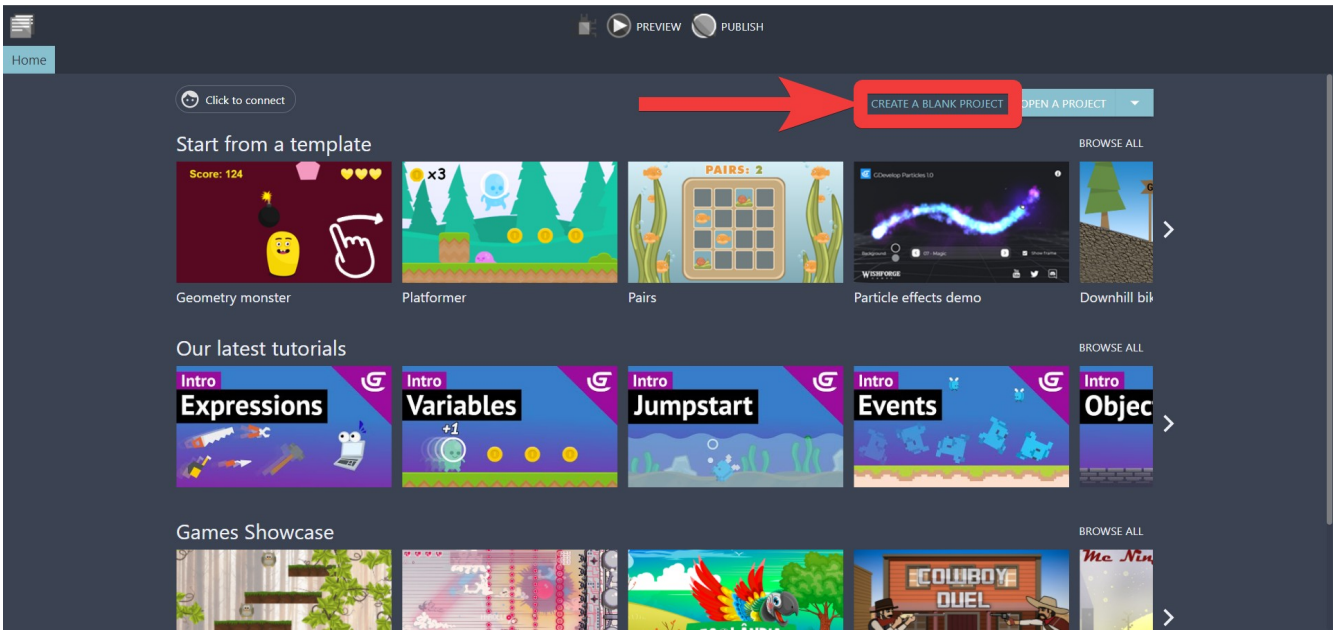
## Introduction to GDevelop

### *What is GDevelop?*

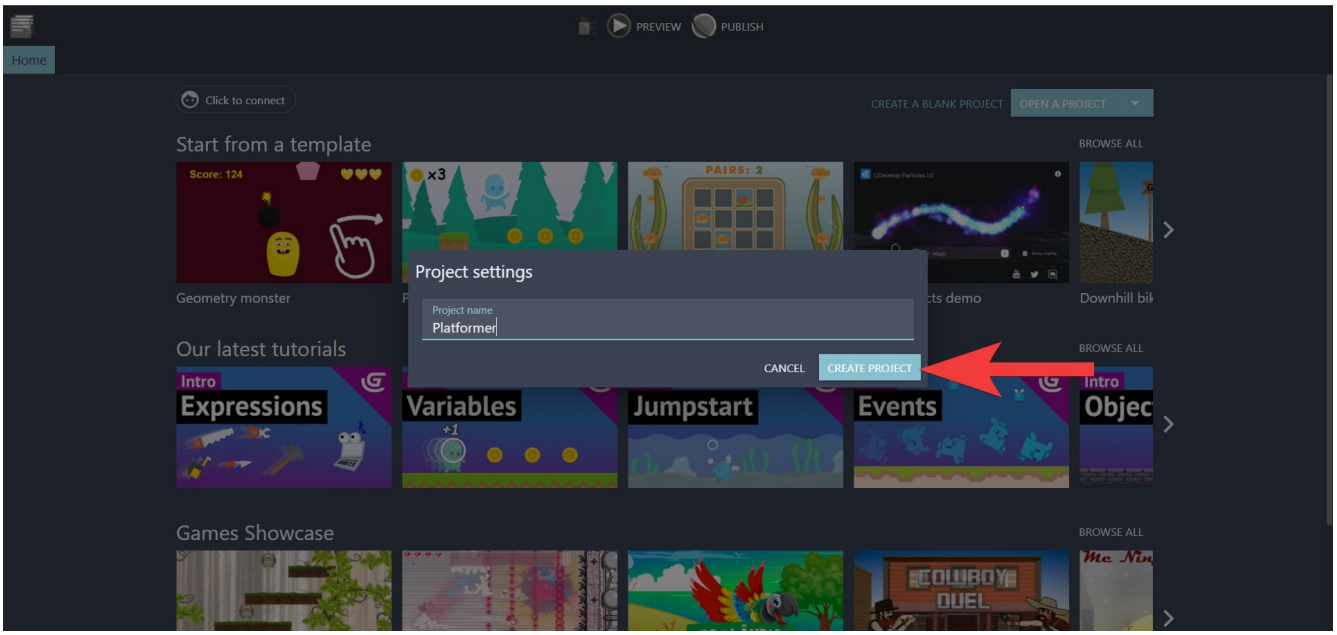
**GDevelop** is the program we will be using for making games, it is completely free and uses a visual programming language, just like **Scratch**. Let's start by making a **new project**!

Start by closing the default project:

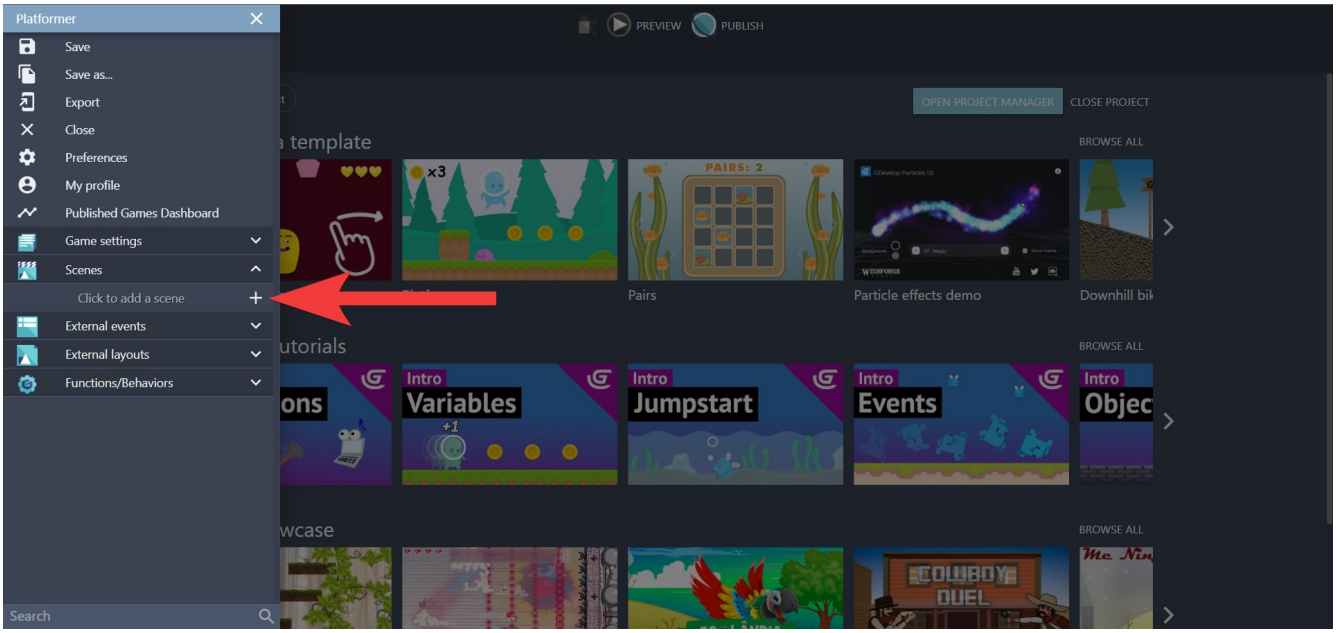

And then click on “**Create a new blank project**”:

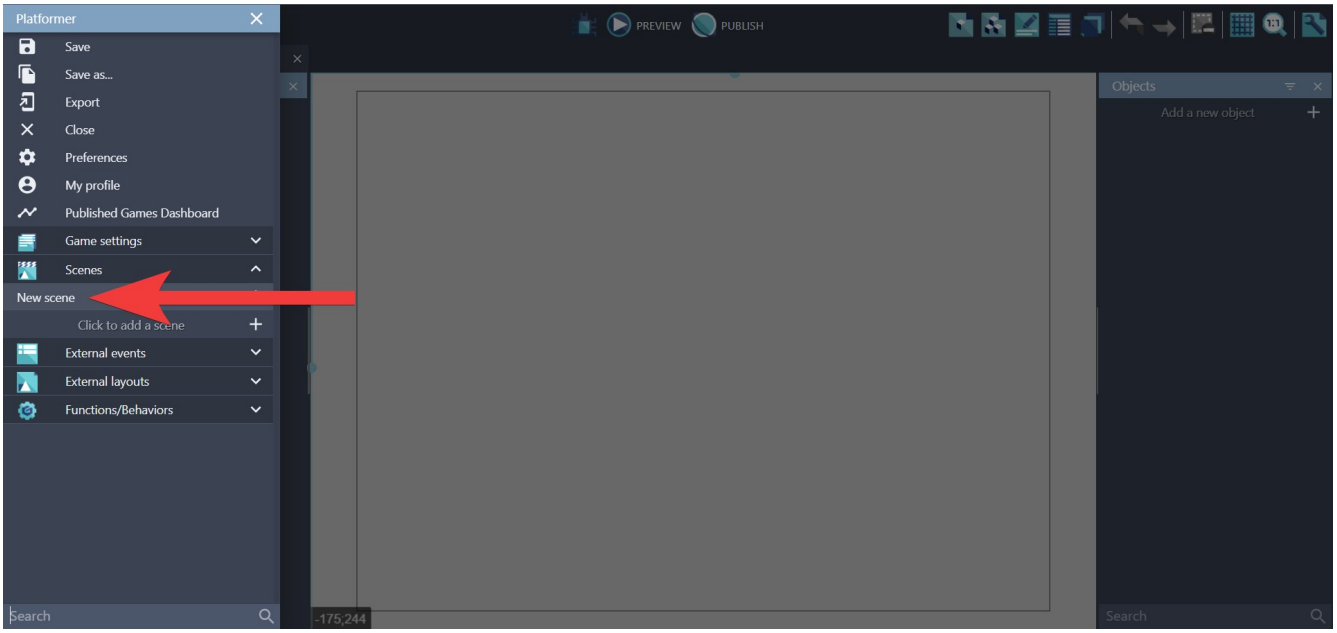



Since we will be making a platformer game like Super Mario, let’s call it “**Platformer**” and click on “**Create project**”.




All we need to do now is add our first scene, simply click on “**Click to add scene**” on the panel on the **left of your screen** and then **click on the scene** you just created.

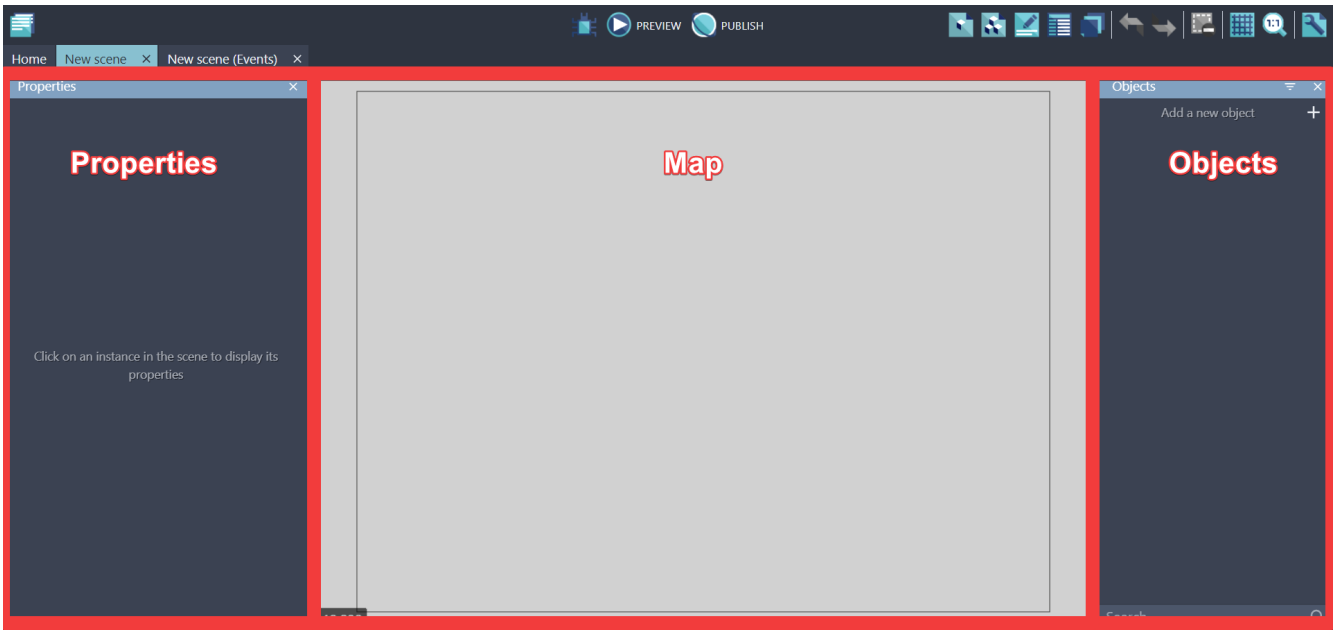



Congratulations! You now have your own game ready to be worked on!

### *The Editor*

The editor is split into 3 different sections: the **properties** panel, the **map** and the **objects** panel.

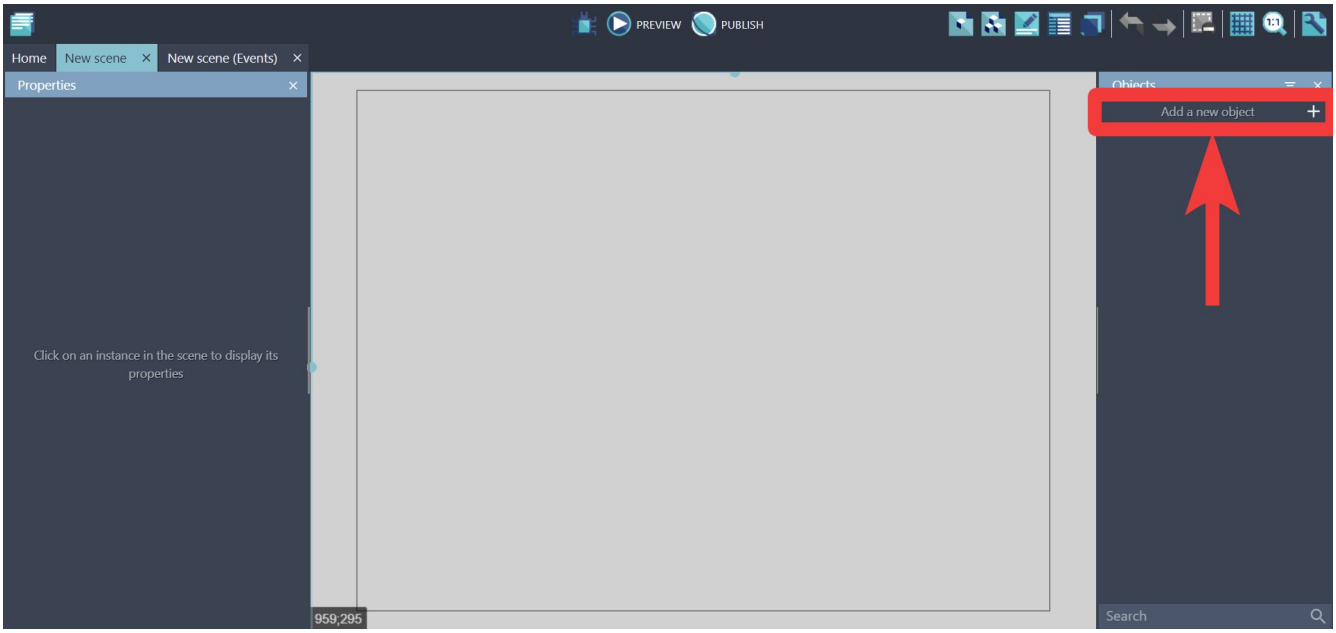



Today, we will focus on the **map** and the **objects** panel.

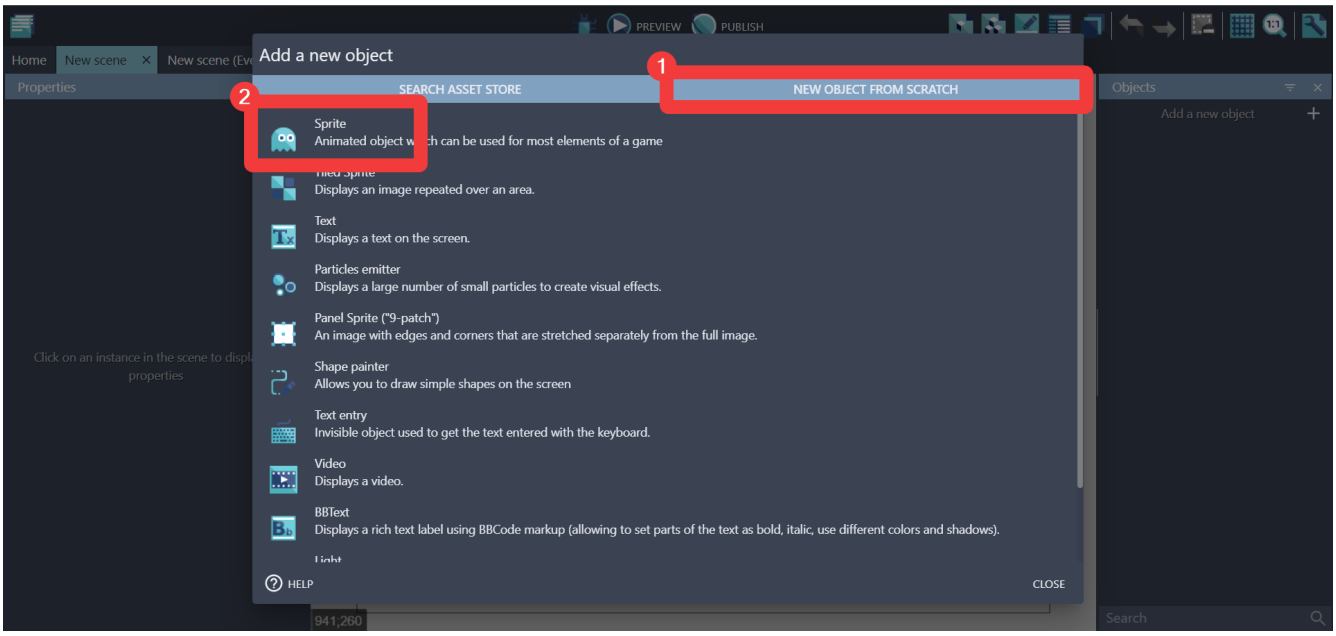
### *Objects, Sprites and Behaviors*

The **objects** panel is what we will use to **add anything** to the game. The character, decorations, walls, coins, everything will come from this panel.

Let’s start by adding our character! Click on “**Add a new object**”.

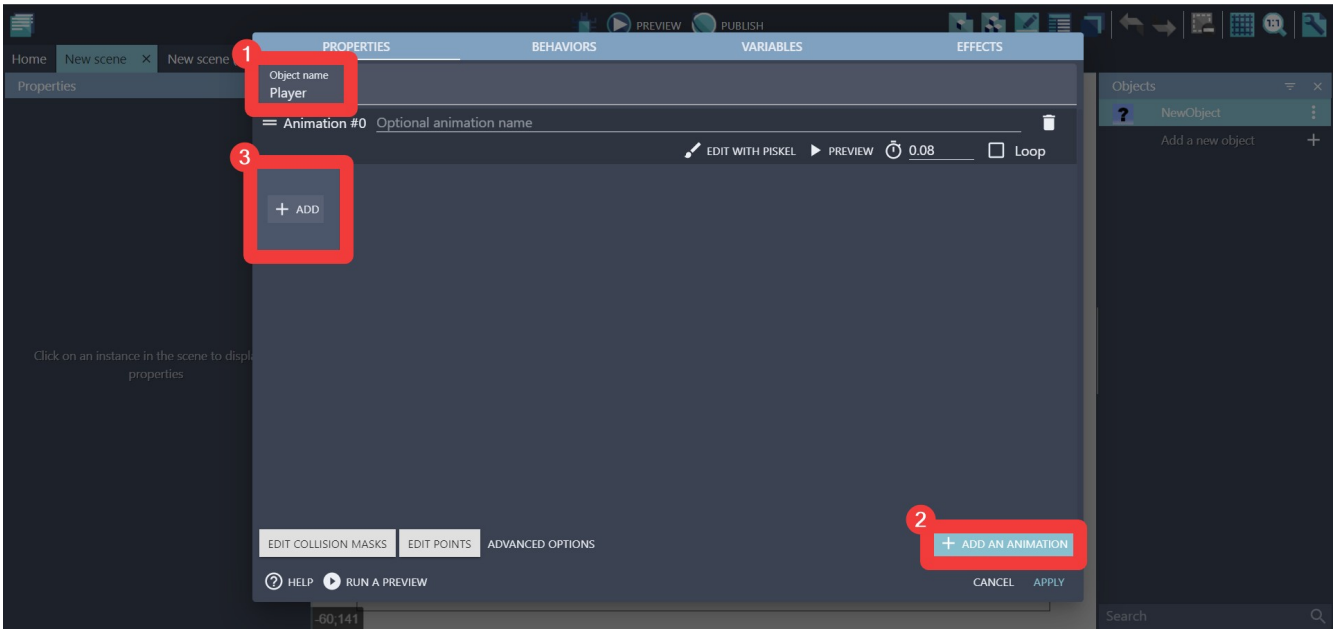


Since we want to make our own character, click on “**New object from scratch**” and then click on “**Sprite**”.



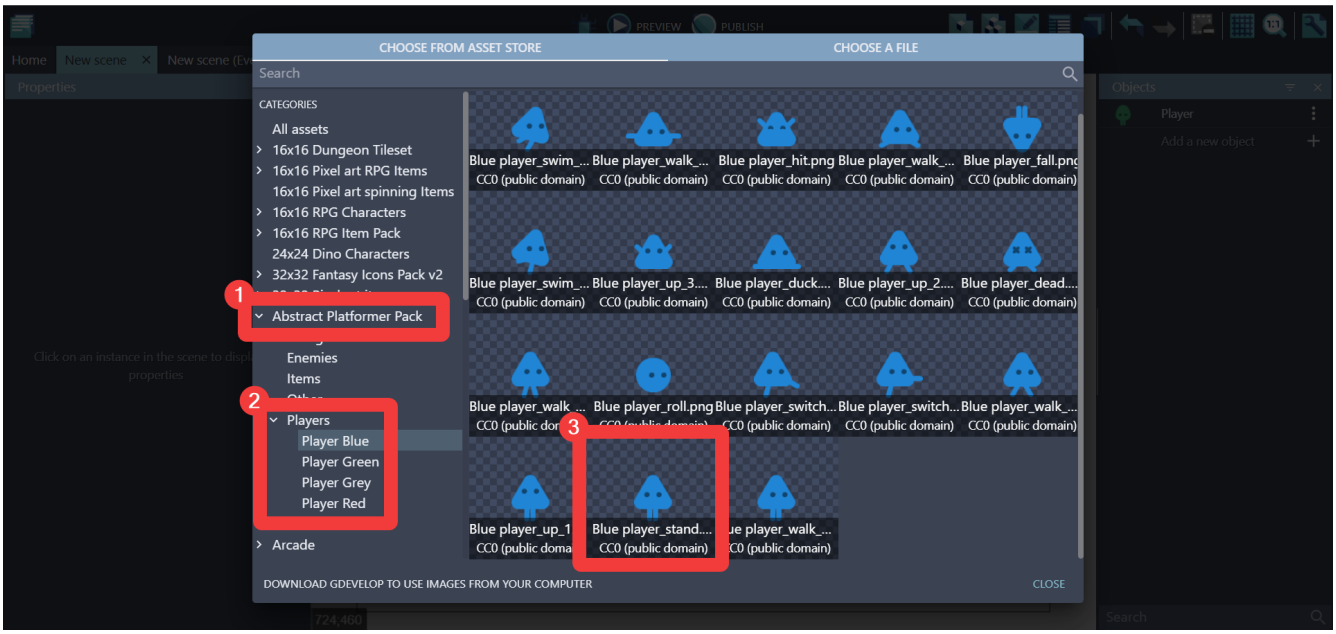

This will create a new empty **Sprite**. **Sprites** are what we will be using for most of our images in the game.

Right now this Sprite is empty, let’s **name** it “**Player**” and **add an image** to it. Every image in GDevelop is an animation, so let’s click on “**Add an animation**” and then click “**Add**” on the new animation we created.

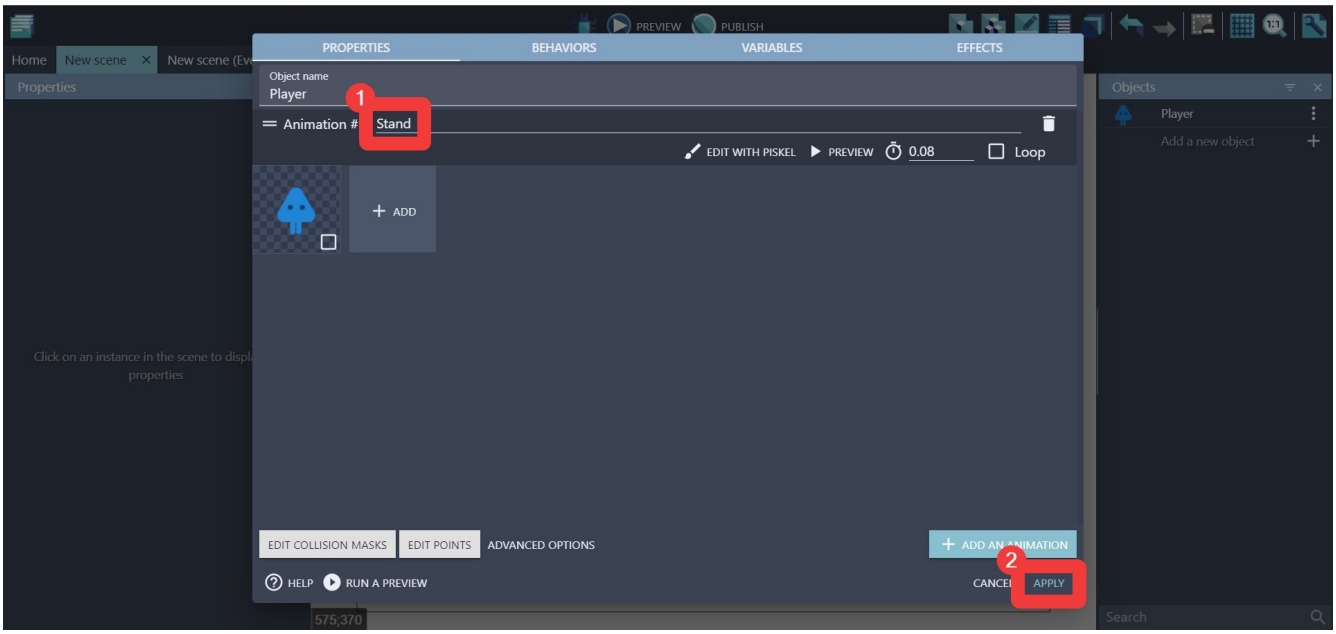



We could use our own images, but today will be using some characters from the asset store. Click on

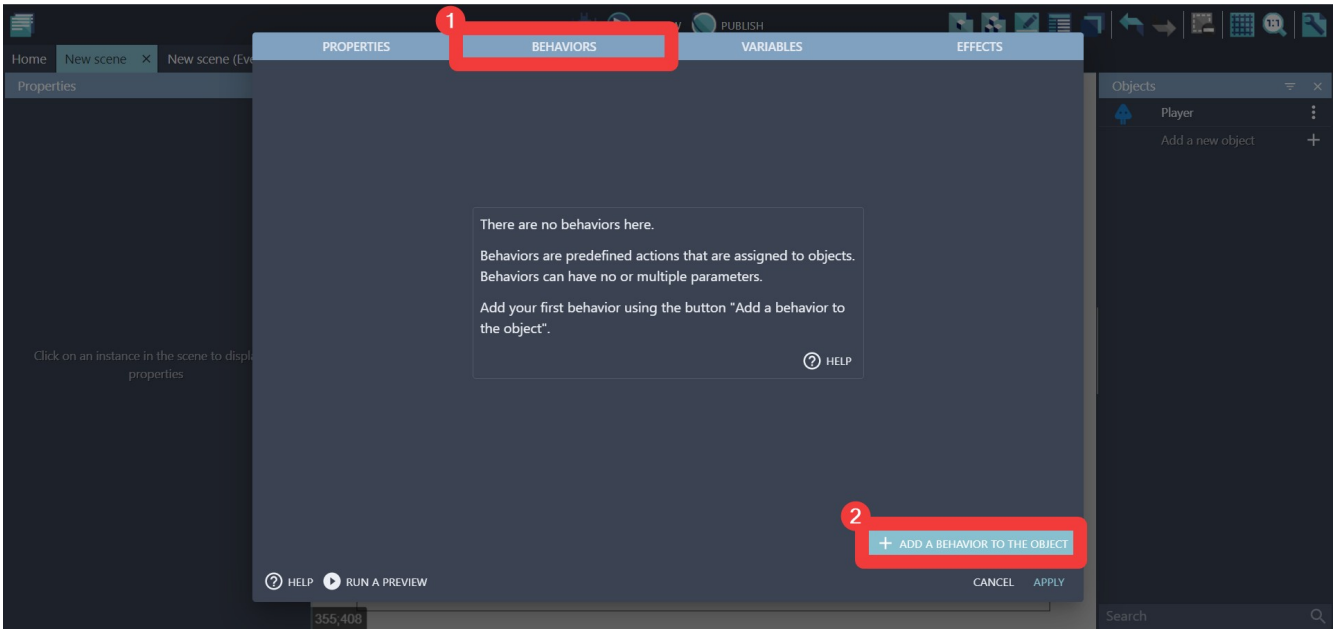
the “**Abstract Platformer Pack**”, then “**Players**”. You can choose any color. Then select the image called “**player_stand**”. This will be the base image of our character when it is not moving.



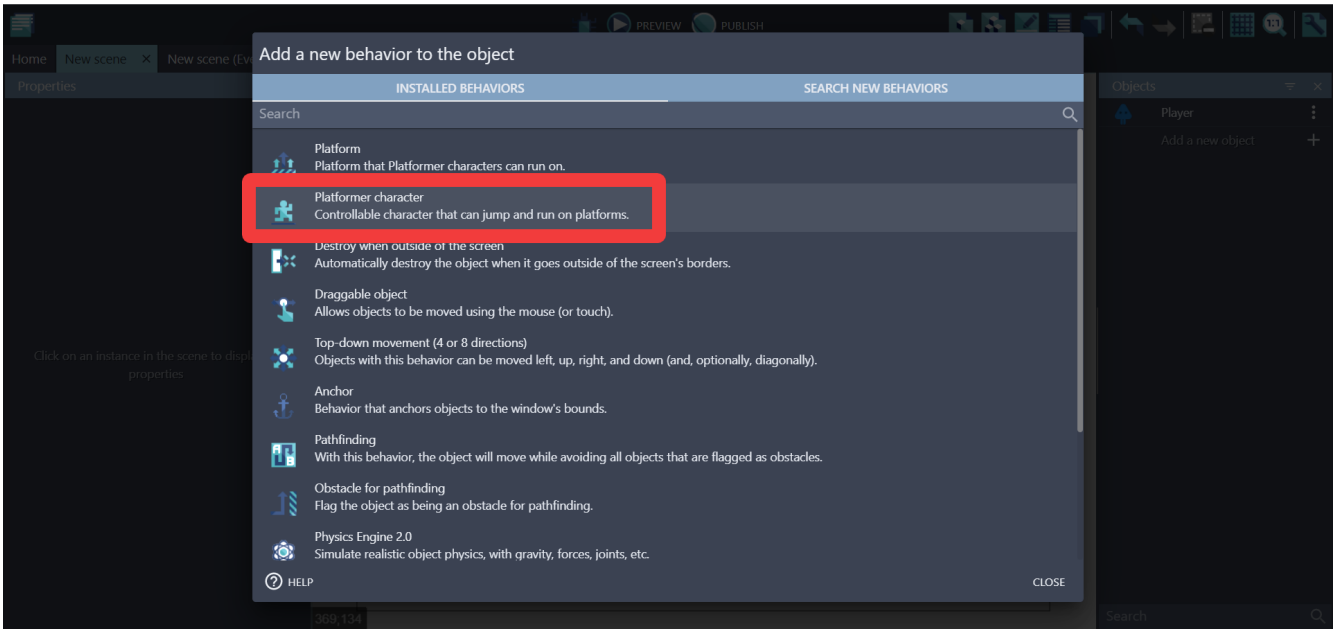

To help us later on, name this animation “**Stand**” and click on “**Apply**” to save your object.




Congratulations, you now have a **player object**! But it’s only an image, we need to make it move now! Let’s go back to the **player object** by clicking on it twice. Then, go to the “**behaviors**” panel and click “**Add a behavior to the object**”.



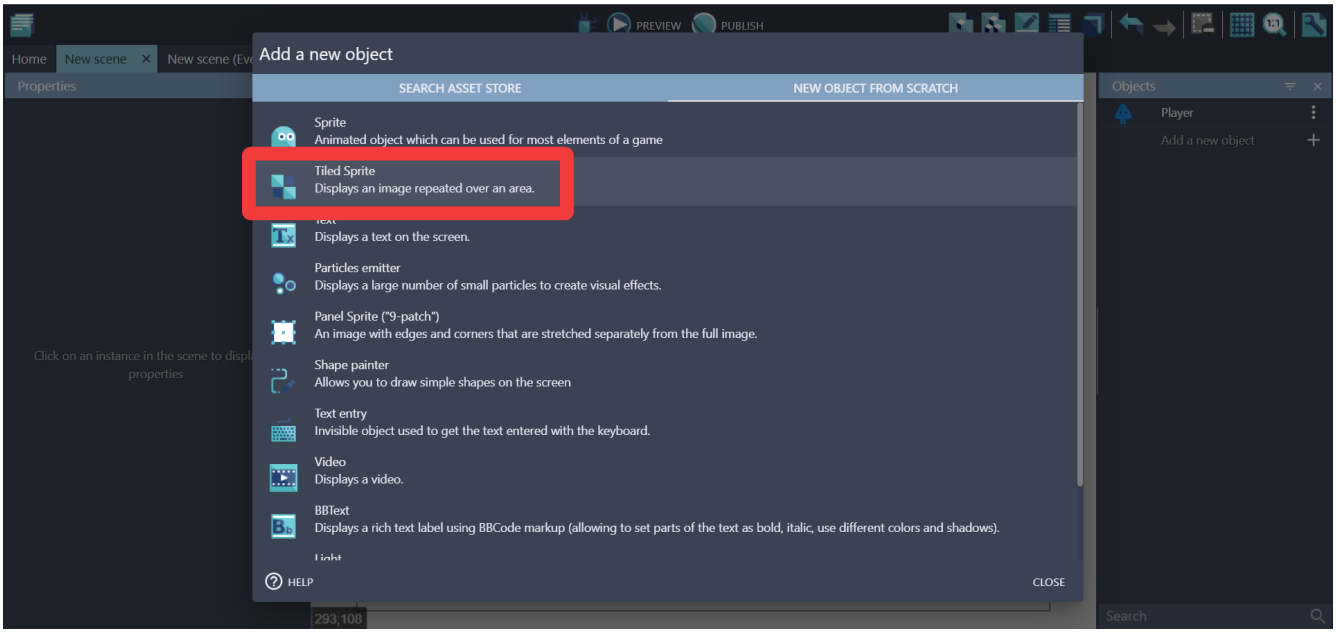

Since we are making a platformer game, select "**Platformer character**".



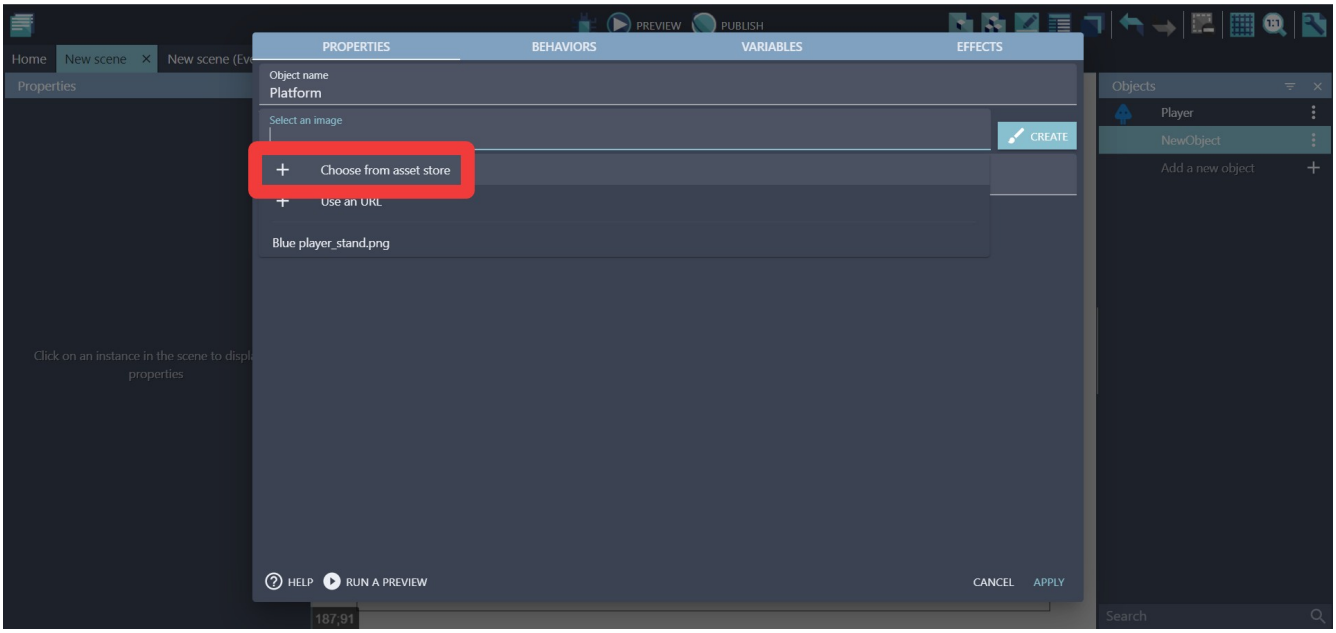

You can now click "**Apply**" again and our player should now have the "**Platformer character**" behavior. This mean that we can move left and right with the **arrow keys** and jump with the **space bar**!

Before we can try this, we need one more very important thing... **A platform**!

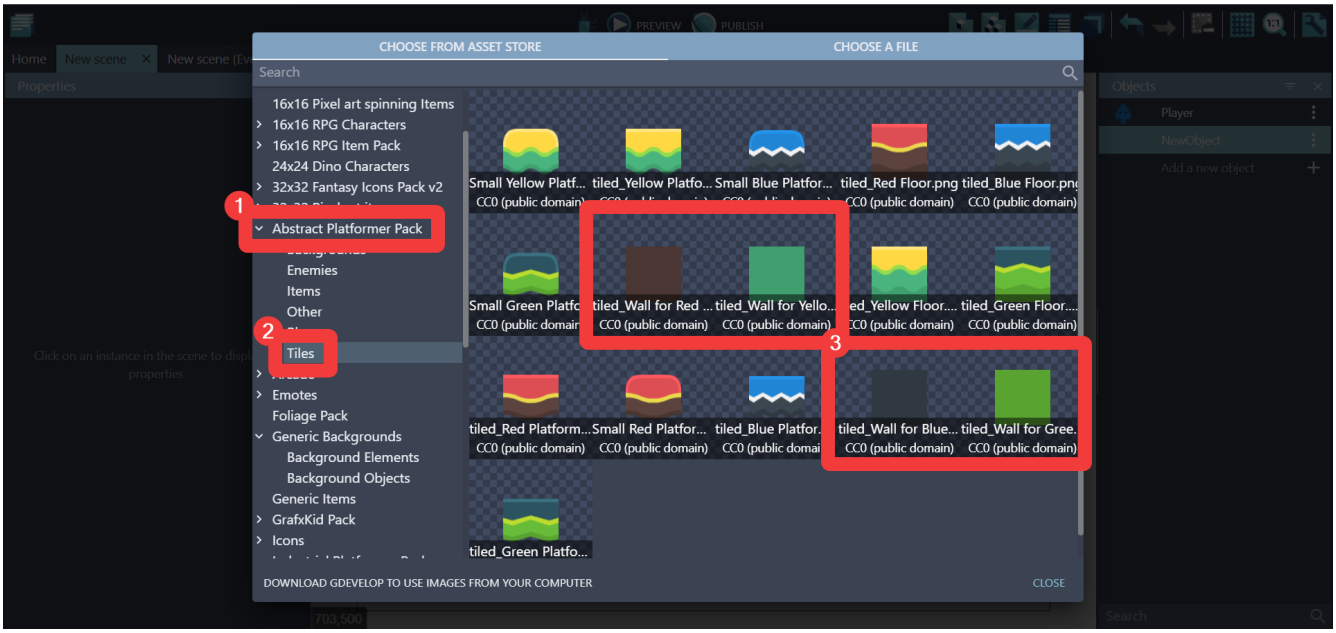
Let's add a new **object** and select "**Tiled Sprite**".



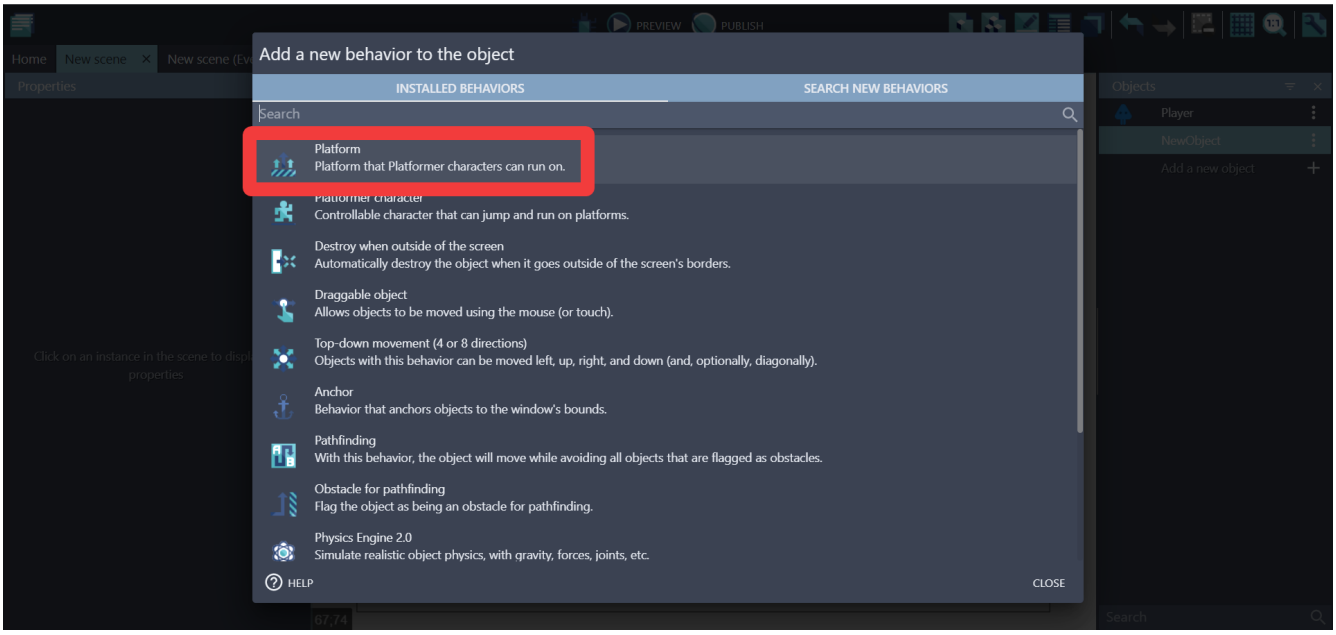

Change it's name to "**Platform**" and click on "**Select an image**" then "**Choose from the asset store**".




Just like before, go to "**Abstract Platformer Pack**", then "**Tiles**" and select one of the tiles called "**Tiled_wall**".

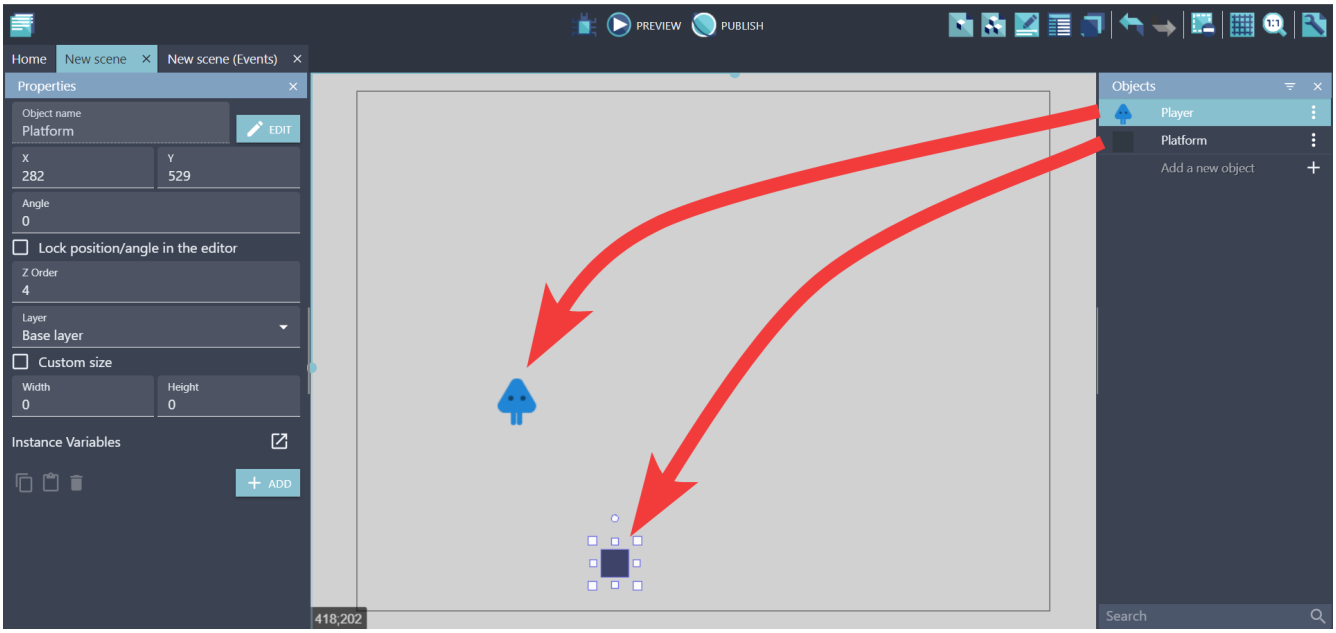



Before clicking on “Apply”, go to “**Behaviors**” and add the behavior “**Platform**”. This will make sure the game knows that the player can stand up on this object and not just fall through it.

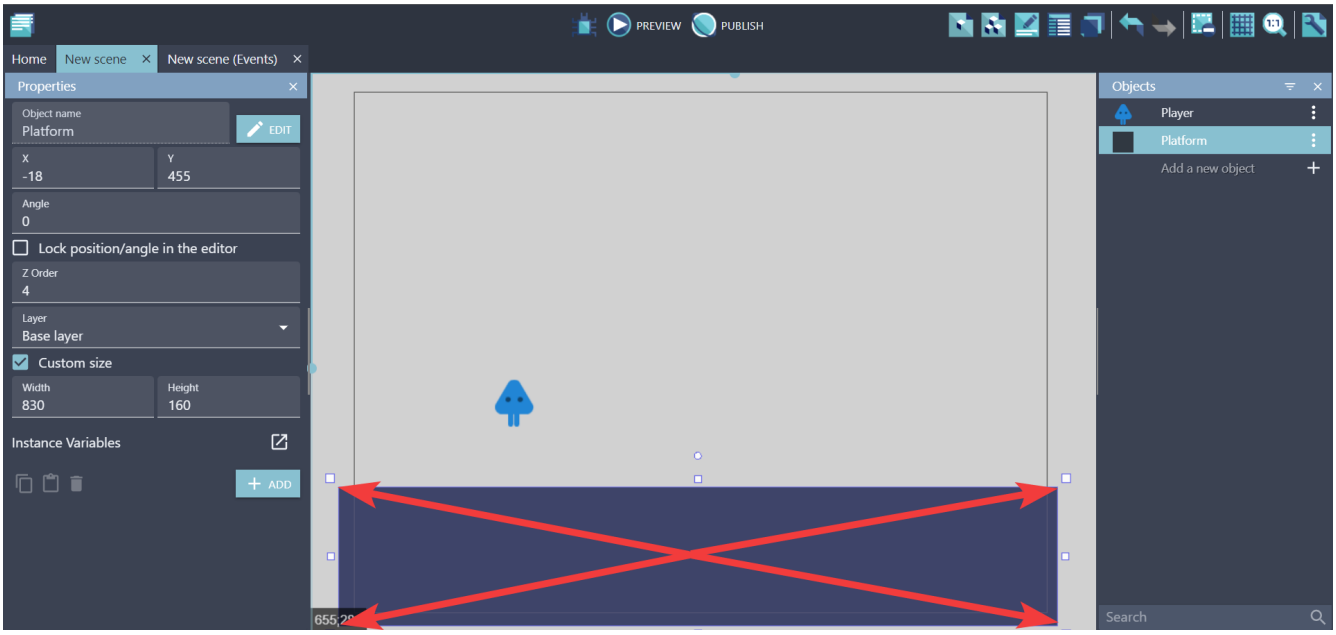



Now let’s add our **player** and our **platform** to the **map**!

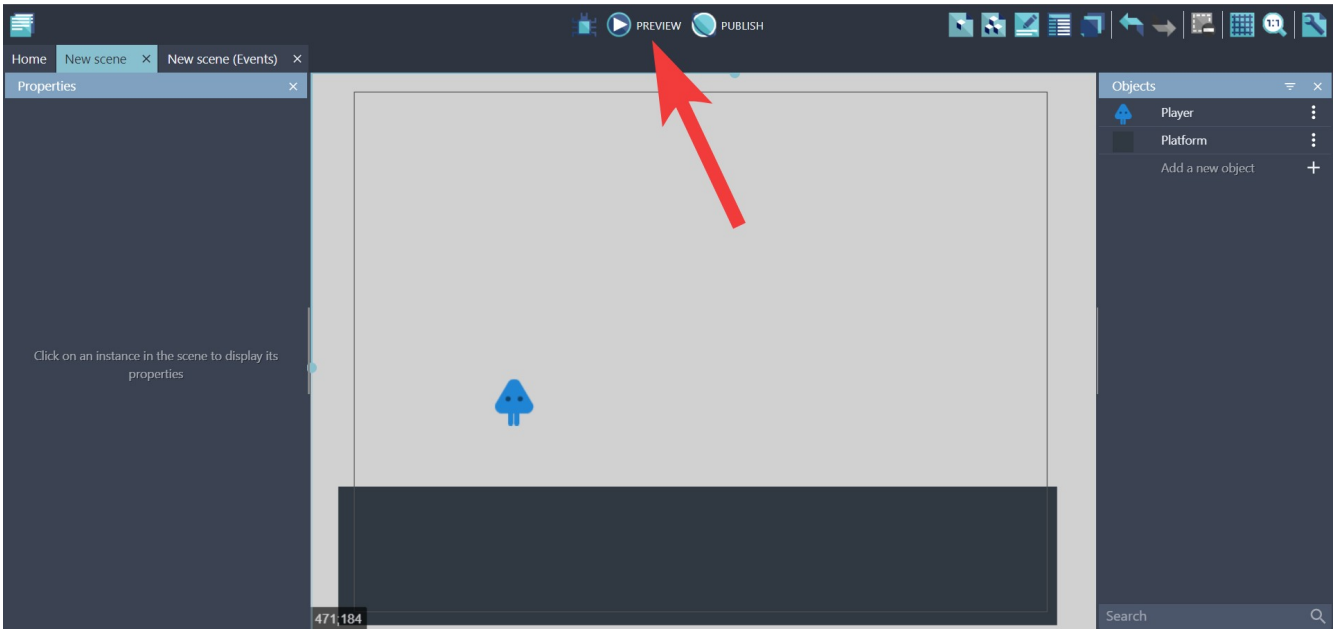
You can add objects to the map by **dragging** them from the **Objects panel** into the **map**. Let’s do this for both the **Player** and the **Platform** object.




Our platform is a little bit small right now, you can **stretch** it by moving the **white squares** around it. Let’s make an entire floor for our player!

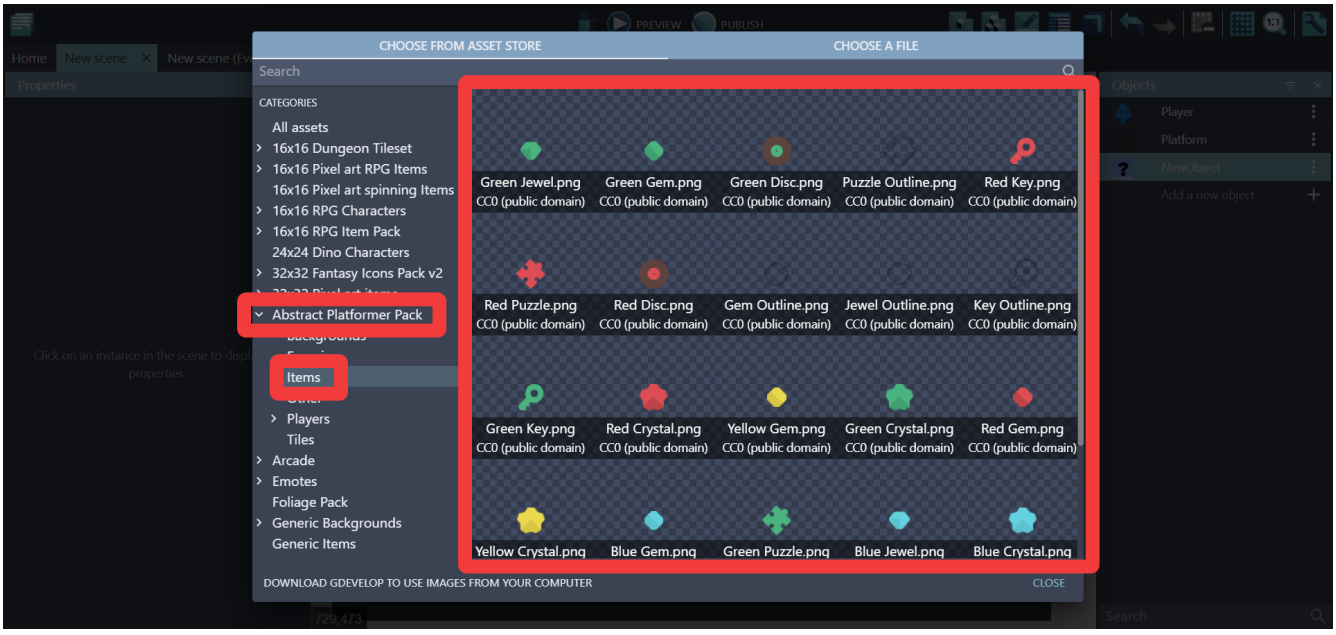


Great! Now you can try the game by clicking “**Preview**” at the top of your screen.




Congratulations! You just made your first game! It’s a bit empty for now, but you will be able to add many things in the future! Let’s start by adding something we can pick up, like **coins**!

Let’s try what you’ve learned until now. We want to add a new “**Sprite**” object and call it “**Coin**”. You can select any image but I recommend one of the images from the “**Items**” in “**Abstract Platformer Pack**”.




Now **drag** this new object into the **map**, you can add more than one.

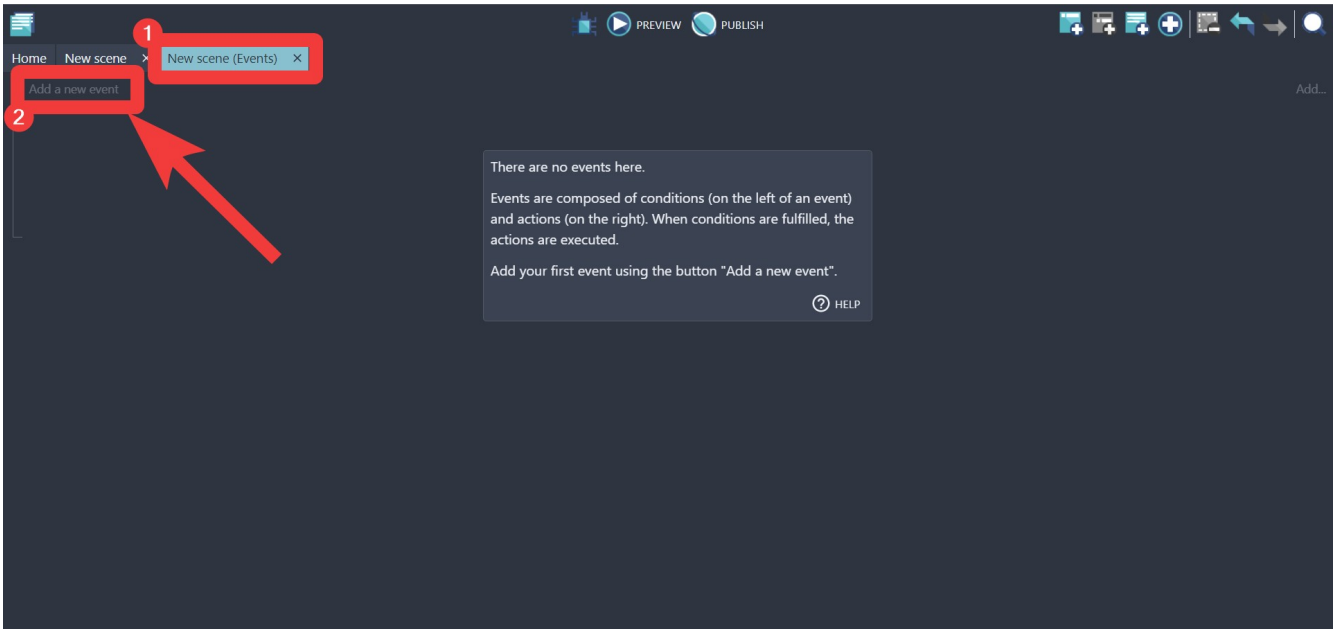
To make the coins disappear when we touch them, we will now start using some **visual code**!

## *Events and Actions*

**GDevelop** uses a visual scripting language similar to the one you used in **Scratch**. However, it has a lot more options to make game development easier.

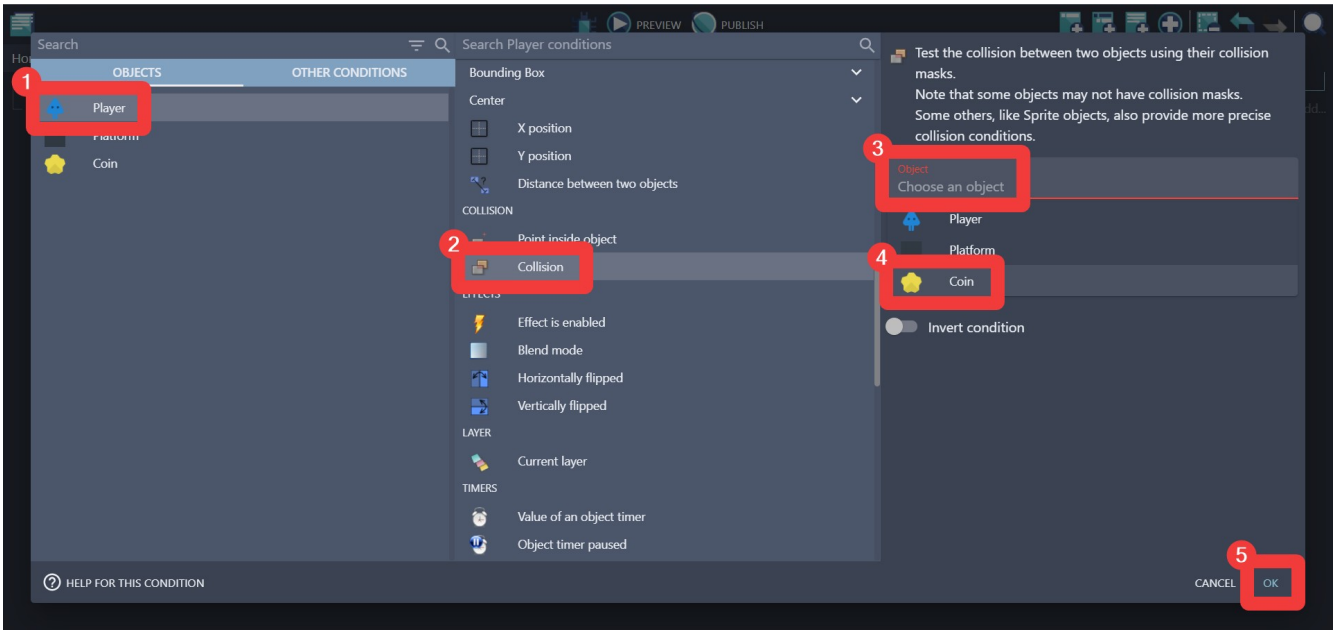
First of all, it uses a system called "**Events**", all code begins by creating one. Events contain "**Conditions**" and "**Actions**". In other words, events contain what happens (**Actions**) when specific rules are met (**Conditions**). Let's try it out with our coin!

First, go to the "**Events**" screen and click on "**Add a new event**".




This will create a new event with an empty condition and no actions. What we want to do is to delete the coin (**Action**) when the player touches the coin (**Condition**). Let's start with the condition!

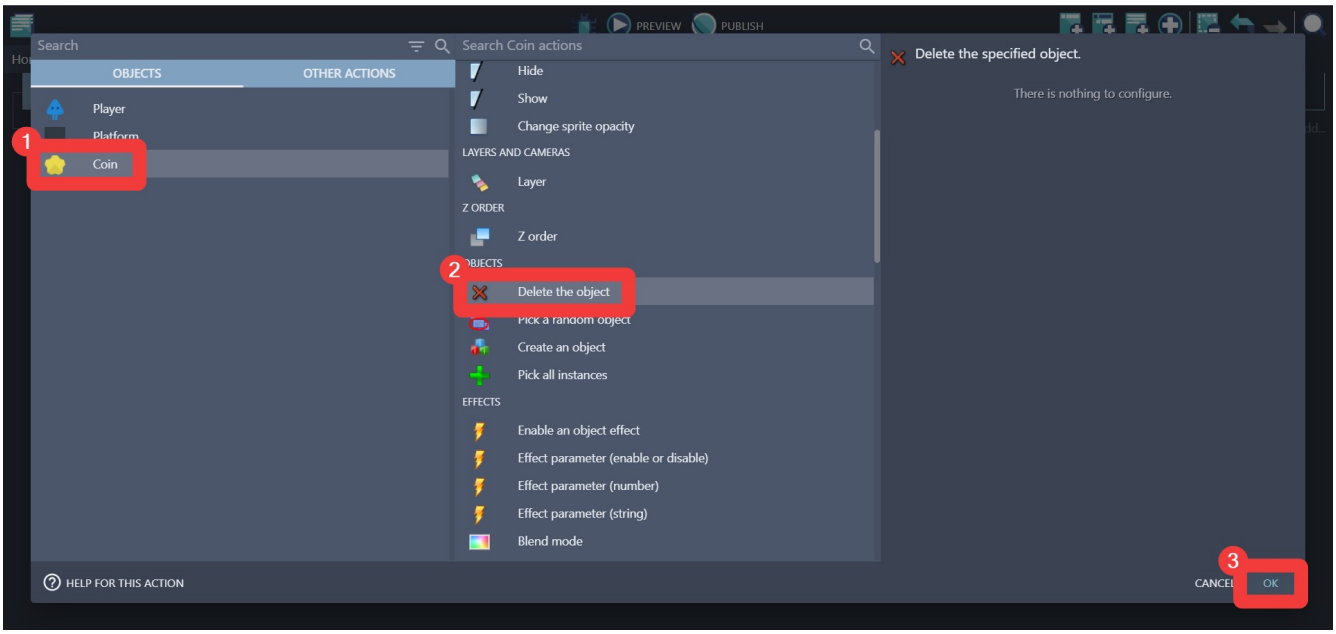
Click on "**Add condition**", then "**Player**", find the condition called "**Collision**" and then select the object "**Coin**". Finally, press "**OK**" to add the condition to the event.



This will make sure that this event only happens if the **Player** is in **Collision** with a **Coin** Object.

Now we want to add an action, when this event happens, we want to delete the coin.

Click on “**Add action**”, then “**Coin**”, find the action called “**Delete the object**” and press “**OK**”.




The complete event should look like this:


And that’s it! You can now click preview and when your player touches a coin, the coin will disappear!