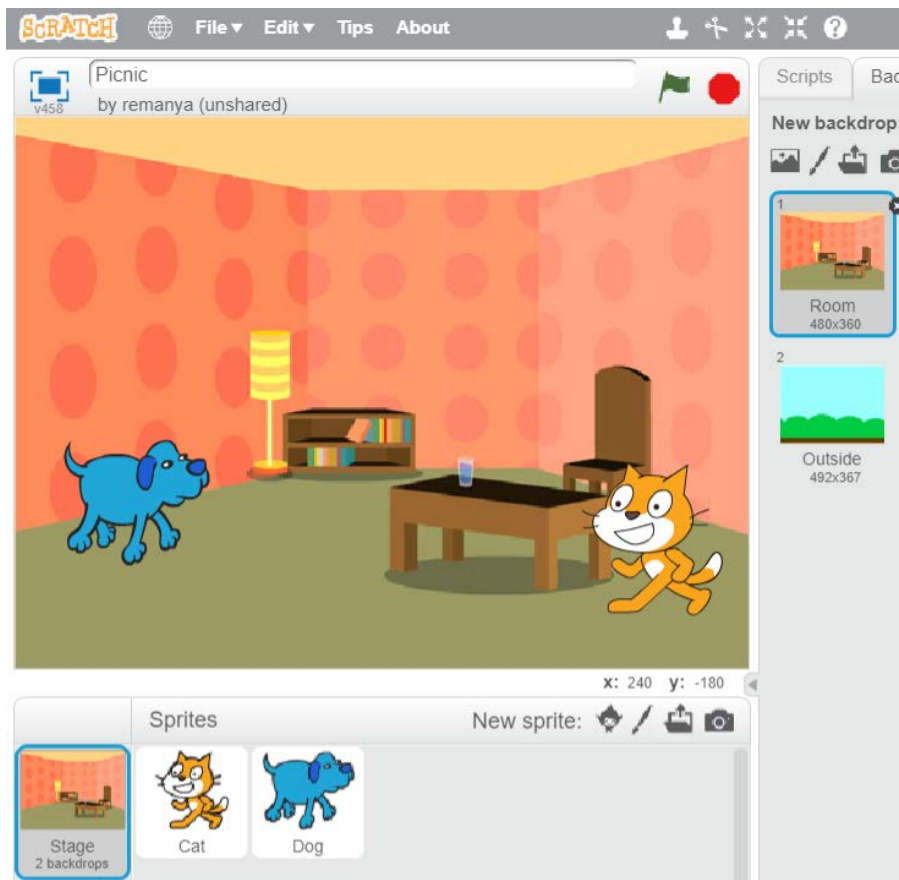


Implementing a Storyboard

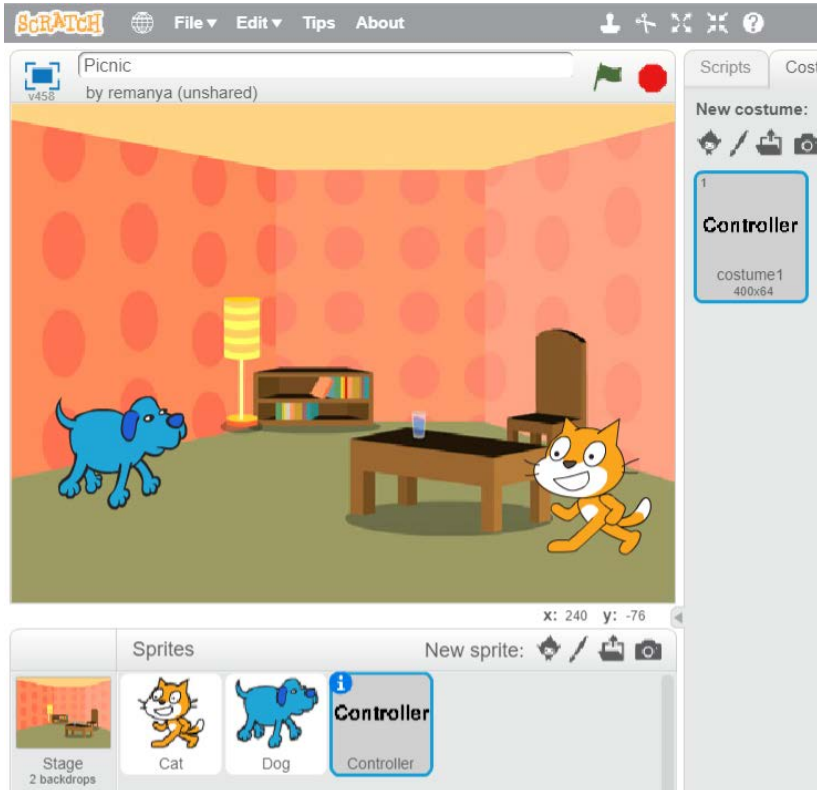
It is important to structure the code in your implementation well so that it is easy to make changes to individual stories. We used the example story with the dog and cat that are having a picnic.

Let's work through an example:

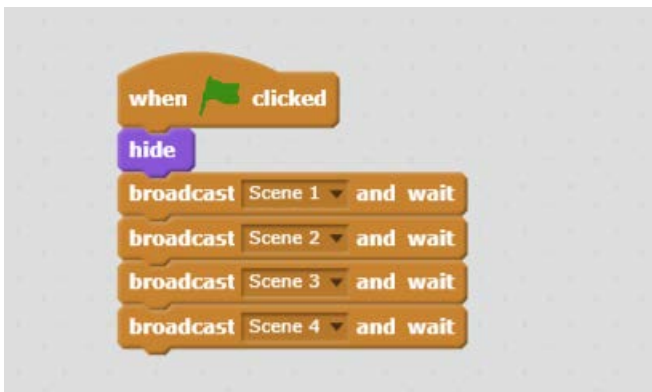
1. We created first a new Scratch project with name Picnic and added the sprites and the two different backdrop images. Give all sprites and costumes suitable names:



- The code (also called scripts in Scratch) for each sprite's actions and behavior is implemented in the Script section for that sprite. In turn, any code is associated with a Sprite or the Stage. In order to write a script that initiate each scene and thus controls the flow of the story, we add an additional sprite, called the controller. The Controller sprite should be hidden and thus its costume does not matter. We painted a new costume for the controller sprite showing the word Controller:



- Now we added a script to the controller to start each scene one-by-one. The script is started when the green flag is clicked. To ensure that the controller is hidden, we also called the hide instructions. Since the script is part of the controller, the hide instruction will hide the controller sprite on the screen. Since our storyboard has four scenes, we broadcast a message for the four scenes to start:



4. Now we can implement the actions scene-by-scene for each sprite. We start with the first scene.
 - a. The backdrop should be set to the image of the room. We add the following script to the stage:



- b. The cat needs to be hidden. We add the following script to the cat sprite:



- c. The dog is shown and thinks "I'm lonely." We add the following script to the dog sprite:



5. Test your implementation by clicking the green flag. Does the first scene work correctly? If not correct any problems.
6. Lets move on to the second scene. The backdrop remains the same. The cat appears and talks with the dog.
 - a. We add the following script to the cat sprite:



- b. The dog responds. Since the cat said something first for 2 seconds, we let the dog wait for 2 seconds before responding. We add the following script to the dog sprite:



7. Test your implementation by clicking the green flag. Do the first two scenes work correctly? If not correct any problems.

8. Continue adding the scripts for each scene to each sprite. Test your story after implementing each scene.

Once the basic story is working, make improvements. For example,

- Add some sounds
- Make the cat walk into the room instead of suddenly appearing
- Add a title scene
- Add credits at the end of the story