WORKSHEET

Activity 1

1.1When you open Alice, you will see the following screen (Image 1). Select the SWAMP template (3rd row – Image 2) and click OK:

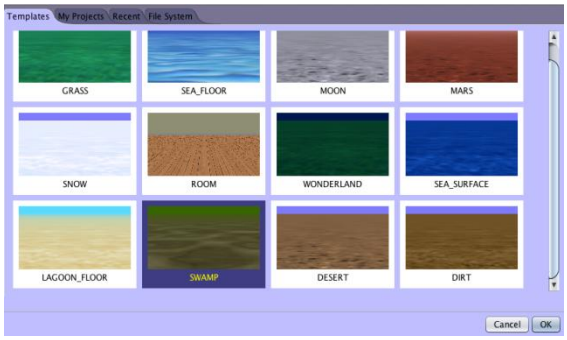


Image 1

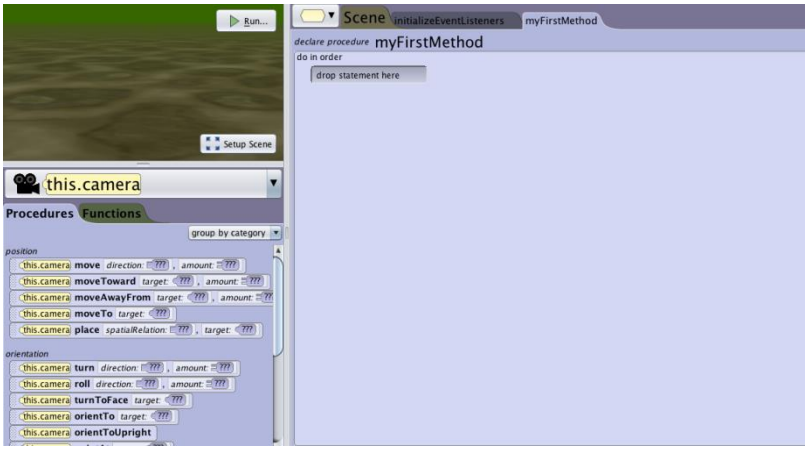


Image 2

1.2 To add objects to your scene, click SETUP SCENE located at the bottom-right of the Scene View (Image 3). In addition to the scene, a categorized list of objects will appear. Click on the Browse Gallery By Theme tab and choose the Fantasy theme (Image 4). You will see many fantasy objects.

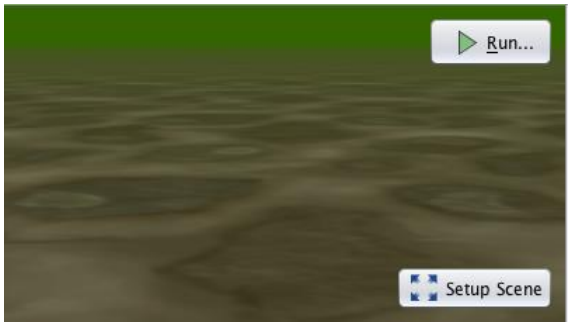


Image 3

Image 3

1.3 Scroll the bar to the right and select the witch (Witch) (Image 5). Hold the mouse button, drag her to the center of the scene (Image 6), and click OK.

Image 5

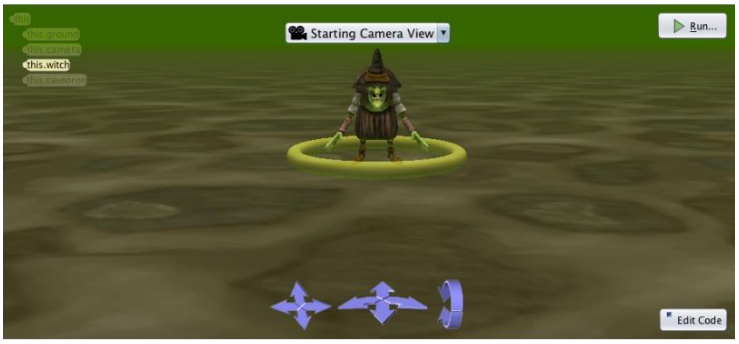
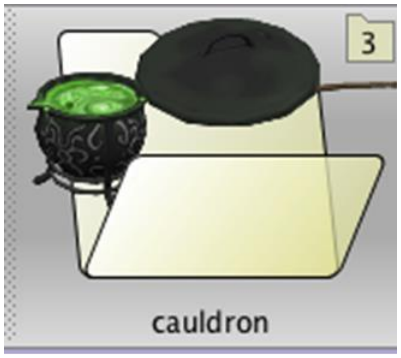


image 6

1.4 Scroll the bar to the left and select the cauldron (Image 7). Place it to the right and in front of the witch (Image 8).



mage 7

Image 8

Activity 2

2.1 To save the camera's position and move around more easily, go to the Camera Markers menu in the bottom right panel (Image 9).
Camera markers are like tripods that store a specific camera view. Click Add Camera Marker (Image 10).
A window will appear. Type START in the name field and click OK.

Image 9

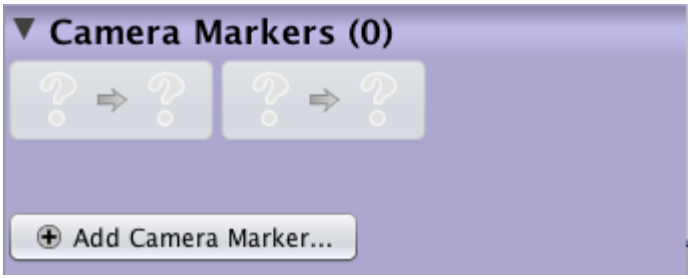


Image 10

2.2 In the scene panel, you will see 3 different sets of blue arrows (Image 11):

The first set moves the camera up, down, left, and right.

The second set moves the camera forward, backward, left, and right.

The third set tilts the camera up and down.

If something goes wrong, use the Undo or Redo buttons.

Select the up arrow from the first set to move the camera slightly upward. Then select the up arrow from the third set to tilt the camera downward (Image 12).

Then add a second camera marker by clicking + Add Camera Marker and name it betterSTART (Image 13).

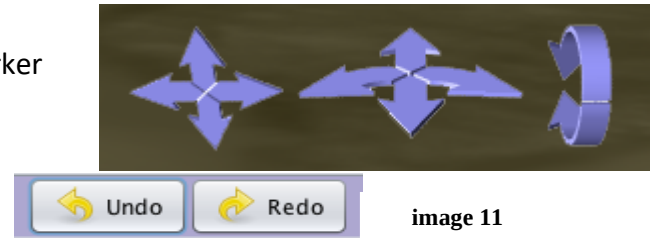


image 11

Image 12

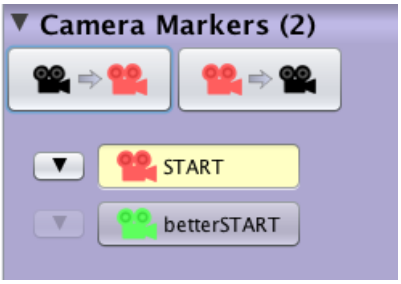


Image 13

Now you have two markers. See how fast you can switch between them:

The first button moves the camera to the selected marker.

Try switching between the two markers.

The second button moves the selected marker to the current camera position.

There is also a dropdown menu with preset camera positions (Image 14). Try selecting different ones to see how they look.

Image 14

Activity 3

3.1 Place a Magicspoon in the center of the scene (Image 15). We want the spoon to be placed like in Image 16.
To do this, use the positional buttons (Image 17):

Image 15

Image 16

Image 17

- Default: rotates objects left or right
- Rotation: rotates the object freely
- Translation: moves the object across the scene
- Resize: changes the object's size

3.2 Select the Magicspoon, then choose ROTATION. You'll see three rings (Image 18). Rotate the spoon so it looks like it's inside the cauldron.
Then select TRANSLATION, use the up arrow to place the spoon above the cauldron.
Finally, select DEFAULT, click the spoon (not the rings), and tilt it so it leans to the left side of the cauldron (Image 19).

Image 18

Image 19

3.3 Place a baby dragon in front and to the left of the witch (Image 20).
We want the dragon to start off invisible and appear with a spell.
Go to the this.babyDragon's properties and find Opacity. Change the value from 1.0 to 0.0 to make it invisible (Image 21).

Image 20

image 21

3.4 Place a fairy (Image 22) exactly at the witch's position and also make her invisible (Image 23).

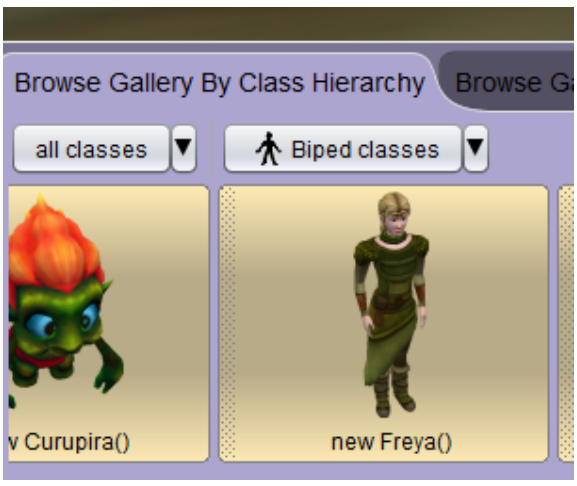


Image 22

Image 23

3.5 Add any other objects you like to make the scene more fun.

Activity 4

Click Edit Code to program the objects (Image 24).
The Methods Panel (Image 25) shows the actions (or methods) that objects can perform.

Procedures: make objects move, rotate, change color, etc.

Functions: perform calculations.

You program inside the Code Editor by dragging methods from the Methods Panel.
The tabs at the top of the screen represent editable methods.
The methods and procedures in myFirstMethod run when you click Run (top right of Scene View).

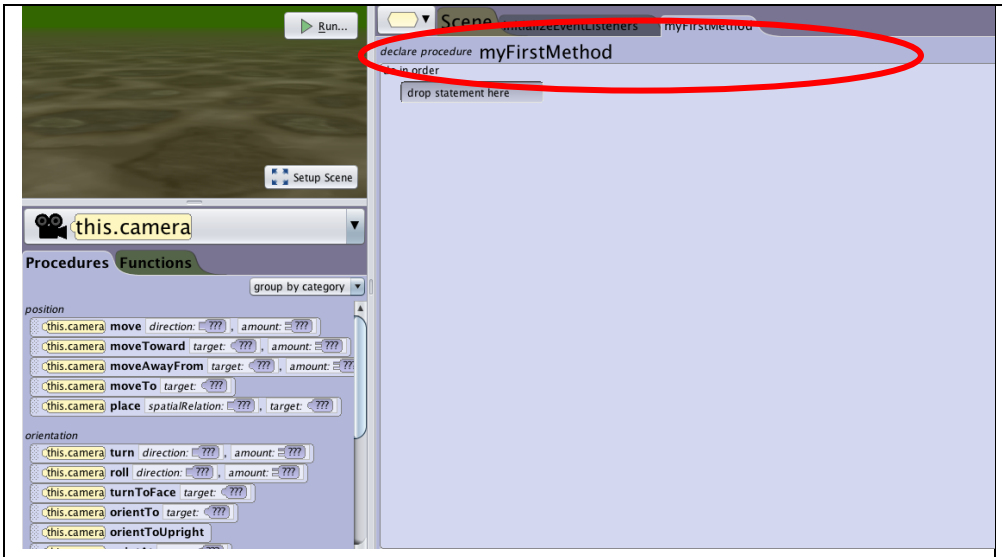


Image 24 – Scene View

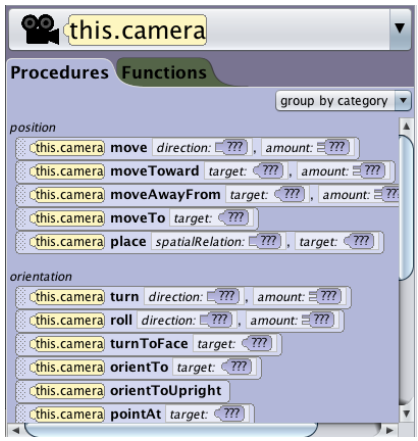


Image 25 – Methods Panel

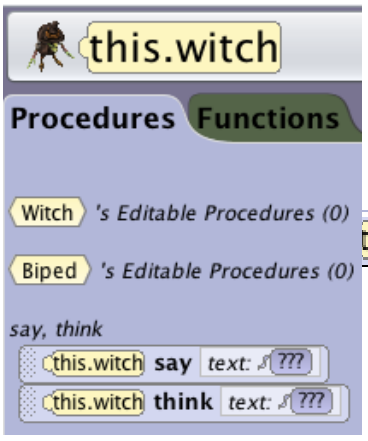
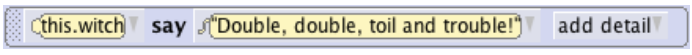


image 26

4.1Select the witch from the instance menu, and a list of available procedures will appear (Image 26).



We want the witch to say a spell.
Drag the say method to the code editor panel, choose custom TextString, and type a spell (e.g., "double, double, toil and trouble").

Click Run to see the method in action.

4.2 Select this.magicSpoon instead of the witch.
Drag the turn method into the code editor. Select direction: right > 2 (to turn the spoon twice).
To make it rotate around the cauldron, choose asSeenBy > this.cauldron.
Click Run.
(For faster rotation: choose add detail > duration > Custom DecimalNumber > 5.)

4.3 Select this.babyDragon and use the setOpacity method to set the value to 1.0.

Image 27

4.4 Select a body part of the dragon (e.g., the head – Image 27), drag turn into myFirstMethod, and set the parameters. Then drag the think method, choose Custom TextString, and type:
"Mama?"

If you want the dragon to turn its head and think at the same time, use do together (found at the bottom of the panel), and place the above two actions inside it.

Then reset the dragon's head to its original position.

The code should look like Image 28.

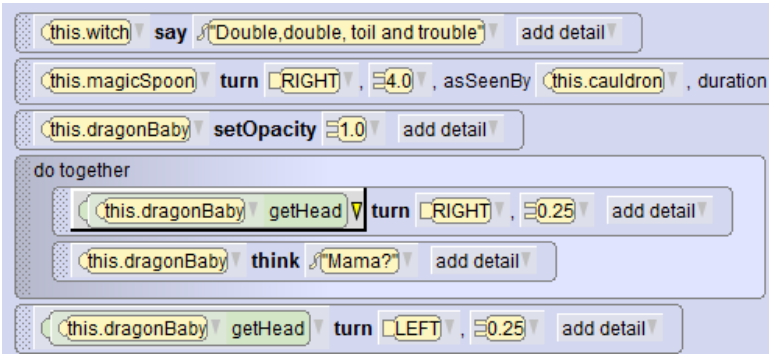


image 28

4.5 Now that the witch has created her own dragon, she wants to celebrate.

Select the witch again.

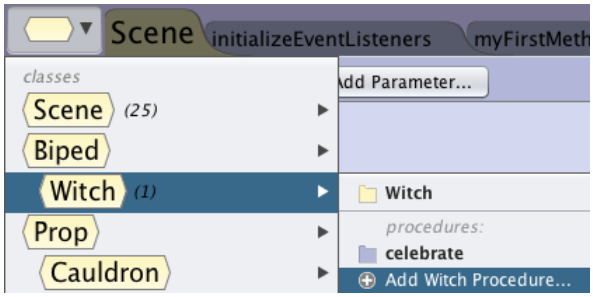
Create your own procedure and name it celebrate.

To do this:

Go to the top-left of the code editor, click the + button.

Select Witch > + Add Witch Procedure (Image 29).

Name it celebrate.



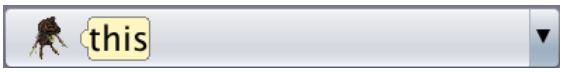


image 29

In the Instance menu, only the witch will appear.
The witch is now referenced as "this." (In Alice, "this." refers to the current object.)

Now we'll make the witch:

Shout "I AM INVINCIBLE!"

Jump up, flip, and land.

Drag the say method and set the text.

Drag move > UP > 1.0

Drag turn > BACKWARD > 1.0

Drag move > DOWN > 1.0

Then go to myFirstMethod, select this.witch, and drag the this.witch celebrate method into the code editor panel.

Click Run.

If you want her to shout 3 times, instead of repeating the command 3 times, use count from the bottom of the code editor panel.
Drag it to myFirstMethod, and choose 3.

Activity 5

5.1 Select the witch and find the procedure to make her move toward this.babyDragon.
At the same time, she should say:
"Let's go 'save' the world, sweethang!"

Use the appropriate procedures and run the code.

6.1 We'll make the dragon fly when we press the "F" key.

Select the dragon and create a new procedure named Fly.

Use the move > UP > 10 method.

6.2 Select initializeEventListeners from the code editor. (Image 30)
Events tell the program when to run code.

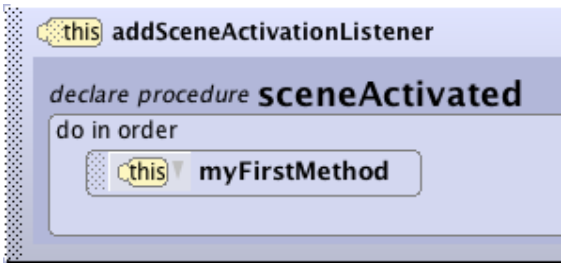
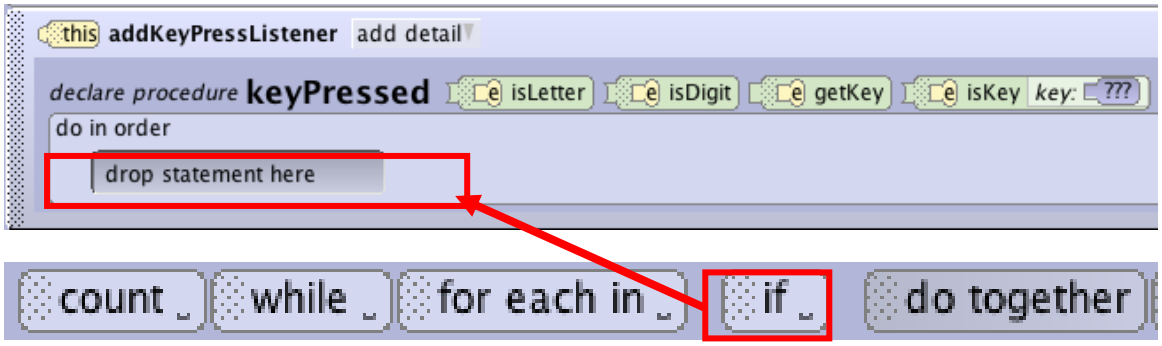


image 30

To create a new event:

Select Add Event Listener > Keyboard > addKeyPressListener (Image 31).

Image 31



Εικόνα 32

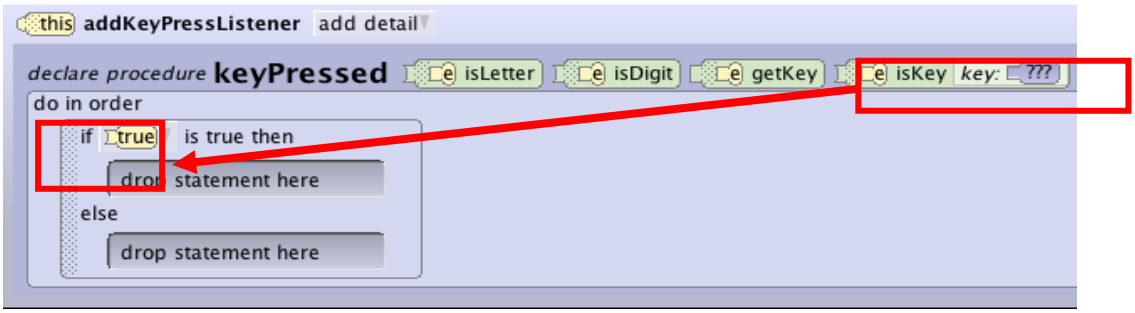


Image 33

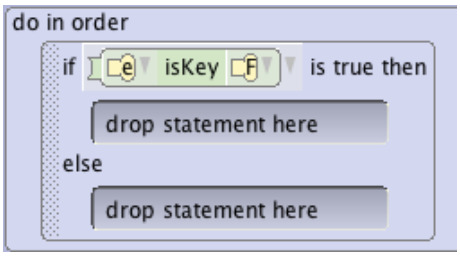


image 34

Activity 7

7.1 Select the **witch**. To make the witch **fly together** with the dragon, we will use the **setVehicle** procedure (Image 35).

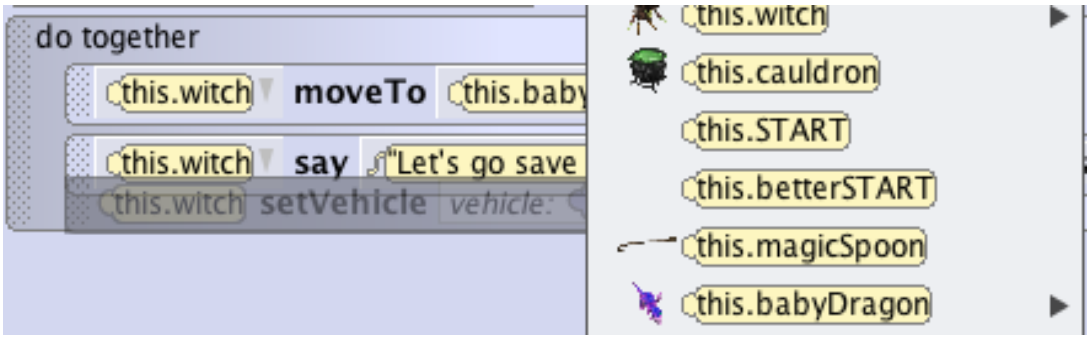
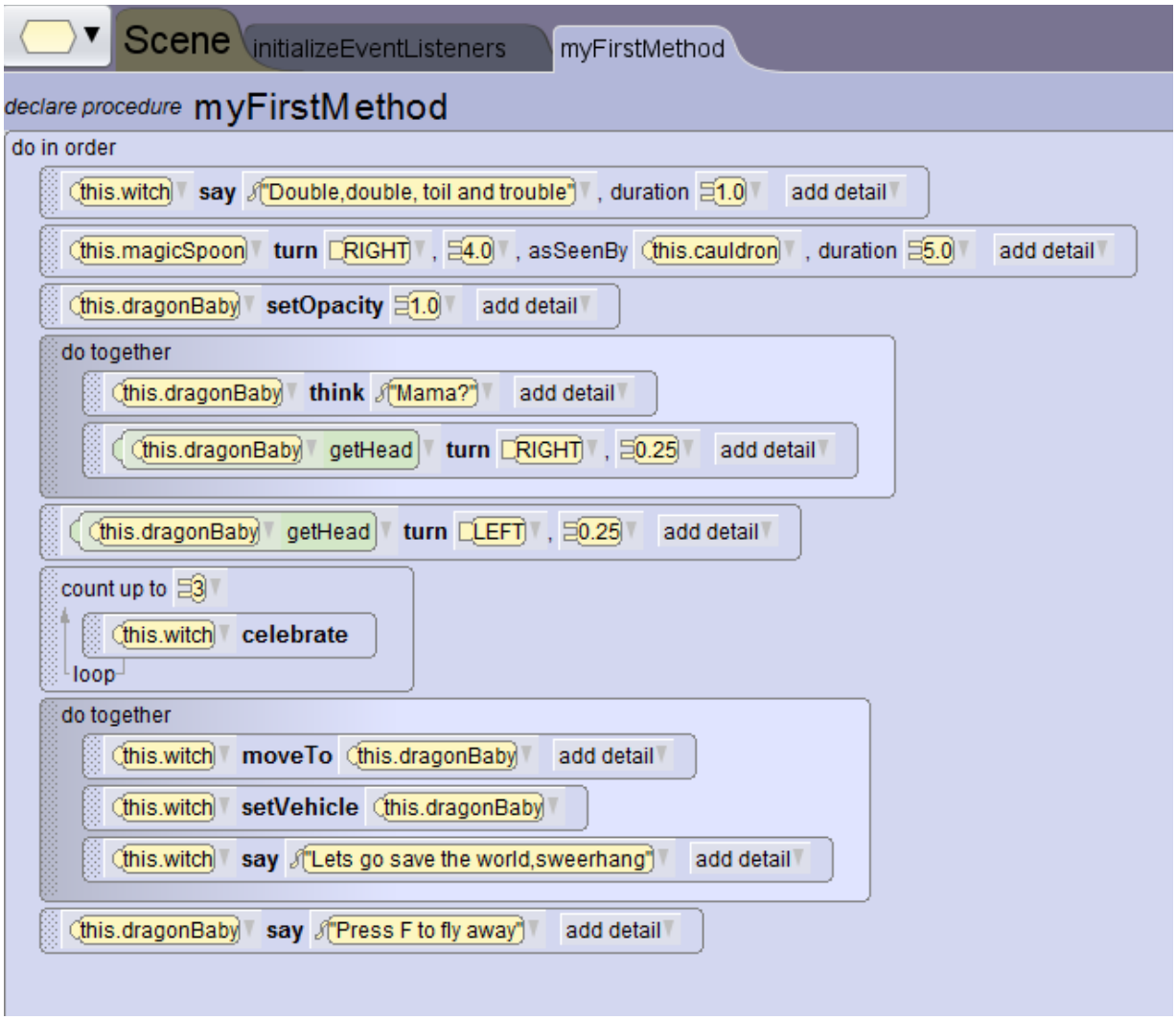


Image 35

7.2 Also, don't forget to **inform the user** that they need to press **F**:

"Press 'F' to make me fly!"

The final code is:



ACTIVITY 8

8.1 Make the **witch transform into a fairy** by casting the appropriate **spell**, and have her **fly together with the dragon**.

ACTIVITY 9

9.1 Create **your own story**...