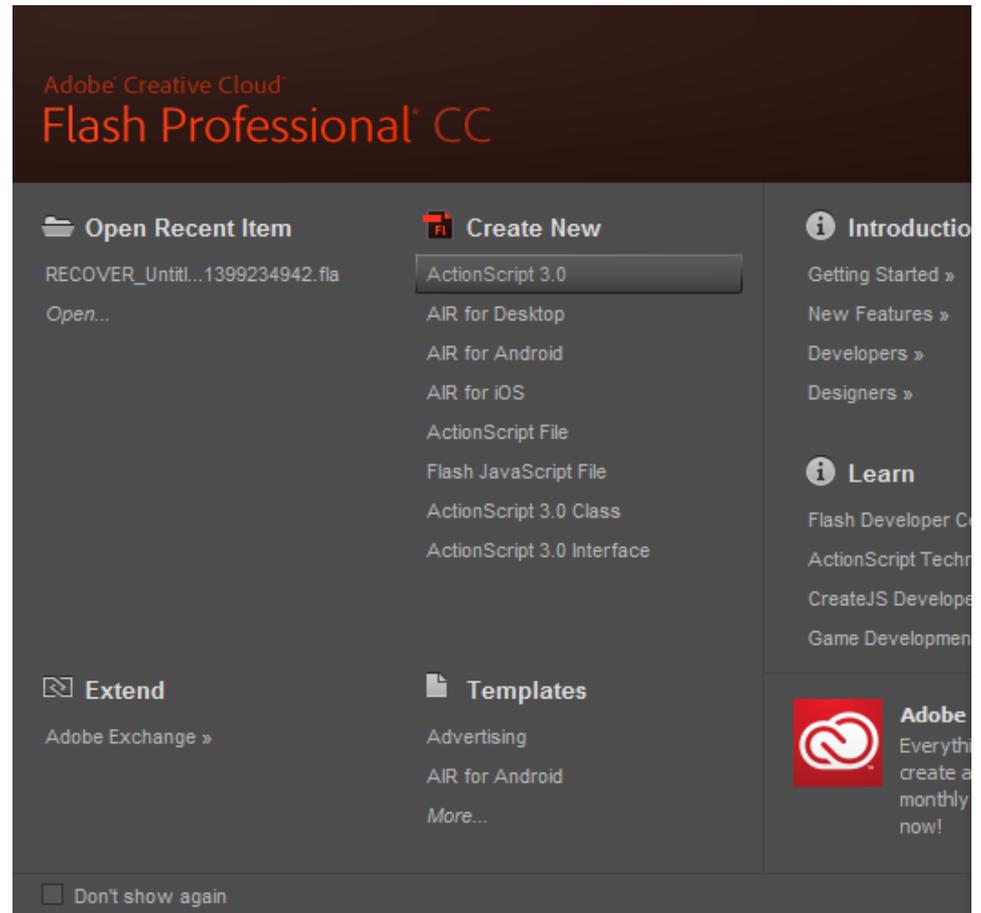


Creating a Game 4

October 13, 2013

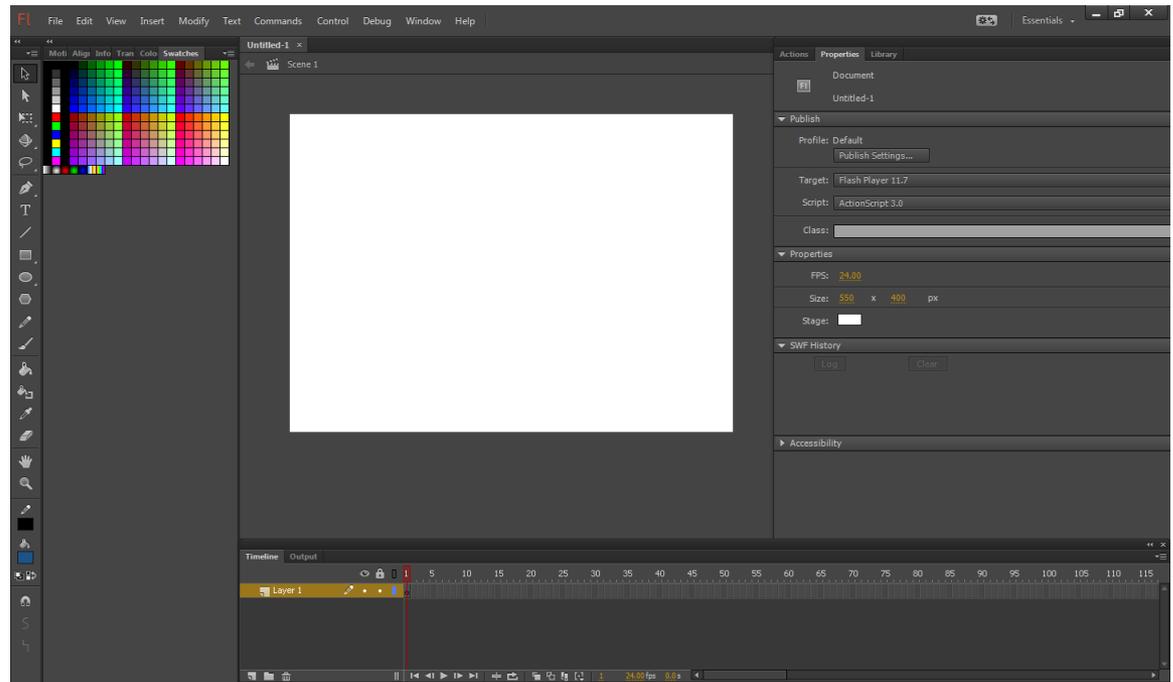
Open the Flash Program

Open the Adobe Flash Professional program and then we want to choose ActionScript 3.0 under the Create New section of the start menu.



The Flash Program

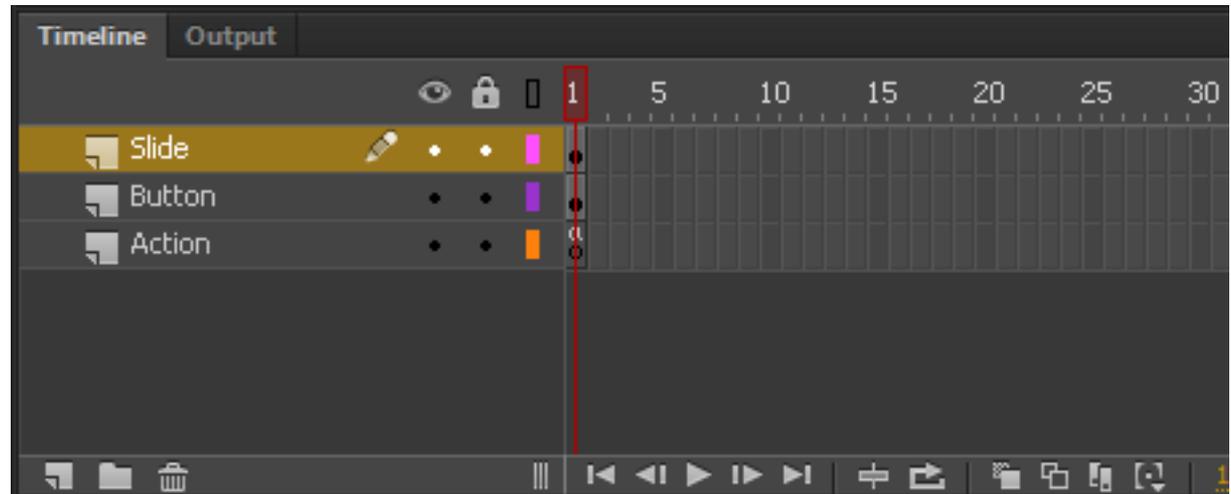
We can see the white Flash stage in the center pane. On the left, the Tools toolbar is seen along with the Swatches window. On the right of the center stage, we have the Actions, Properties and Library window. Under the stage, we see the Timeline.



Renaming and Creating a Layer

We will rename the layer called Layer1 to Slide.

Select the New Layer icon and when it appears in the list, we will rename it to Button. Repeat the process for the Action layer.



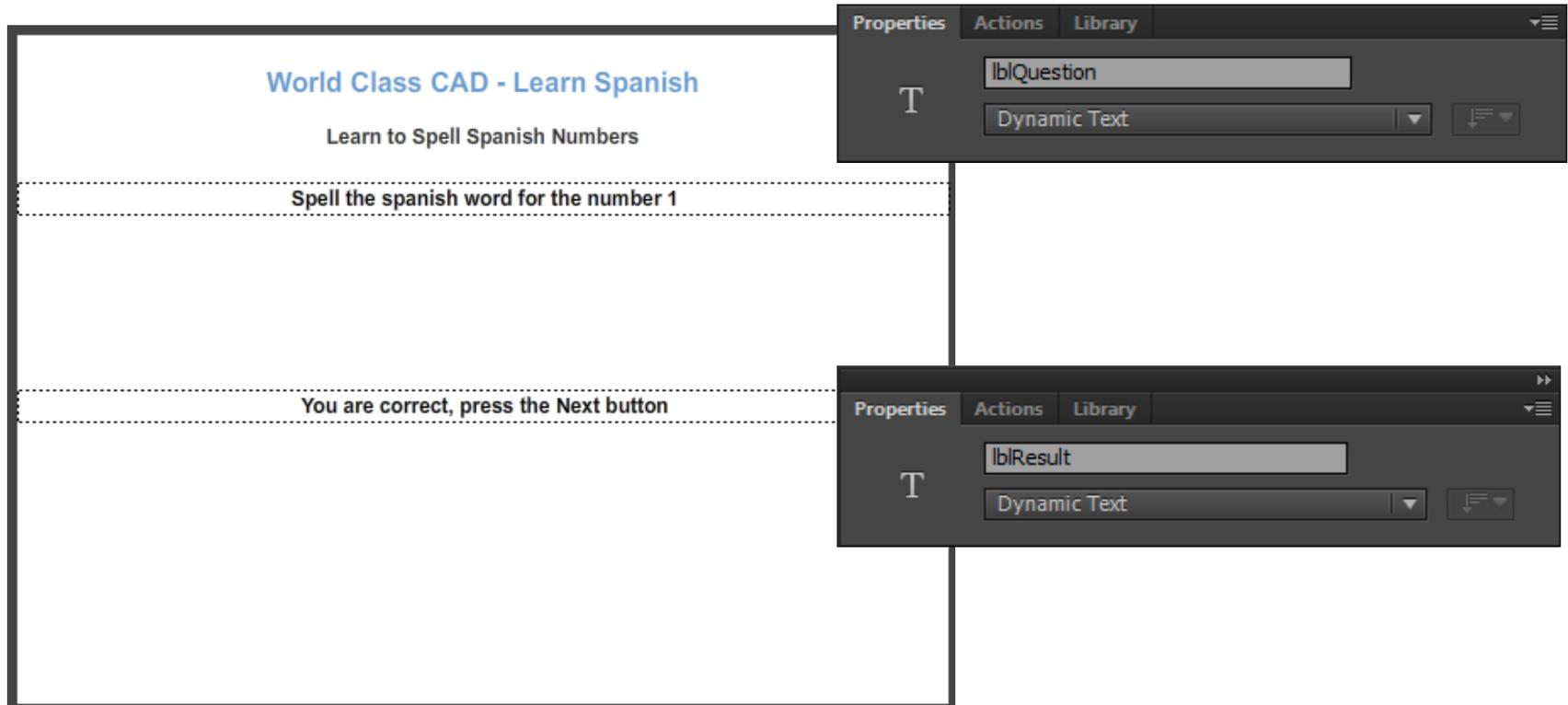
Adding Text to the Stage

We will then add text for the game name on the Slide layer as shown to the right.

World Class CAD - Learn Spanish

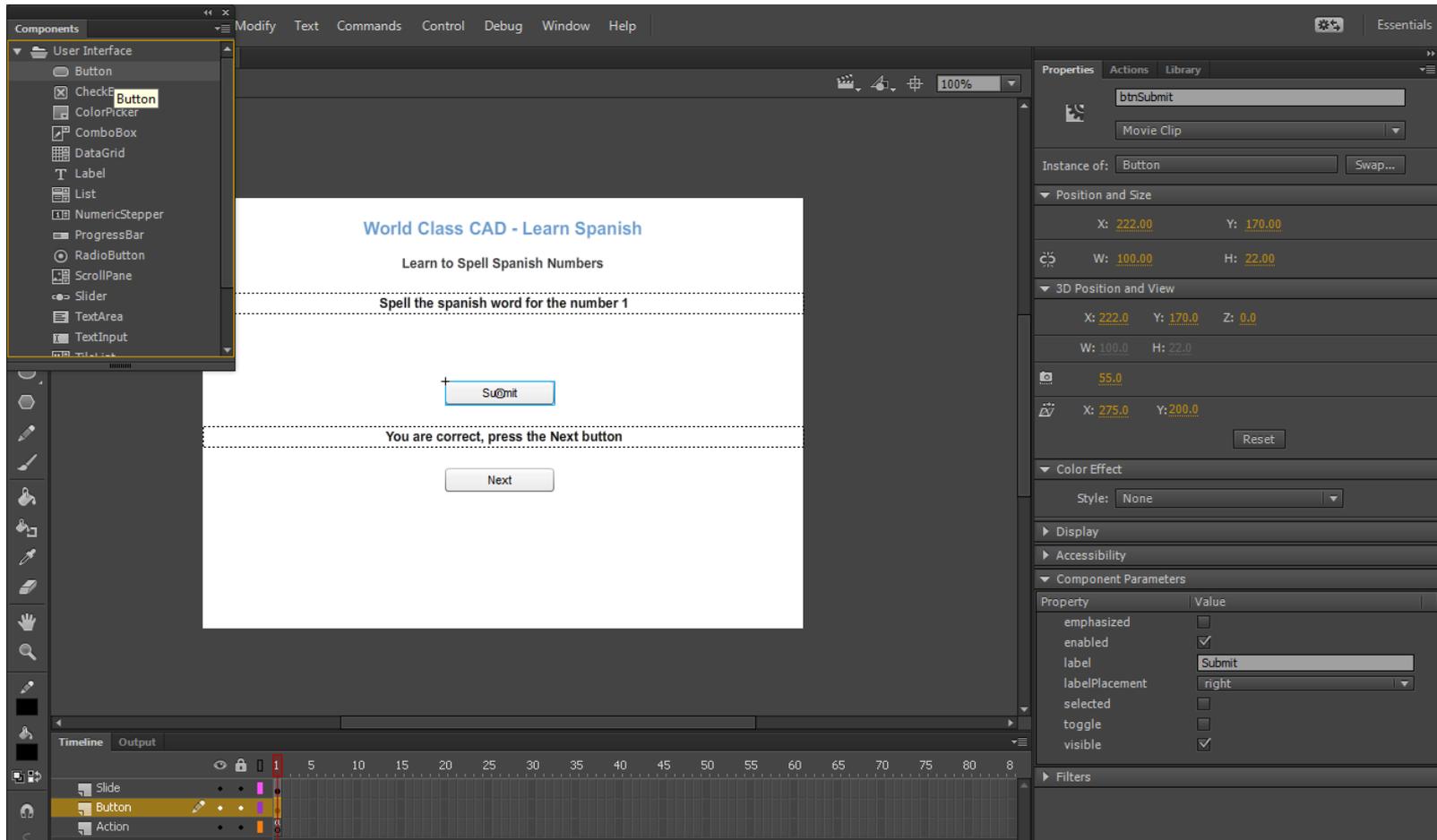
Learn to Spell Spanish Numbers

Create a Dynamic Text



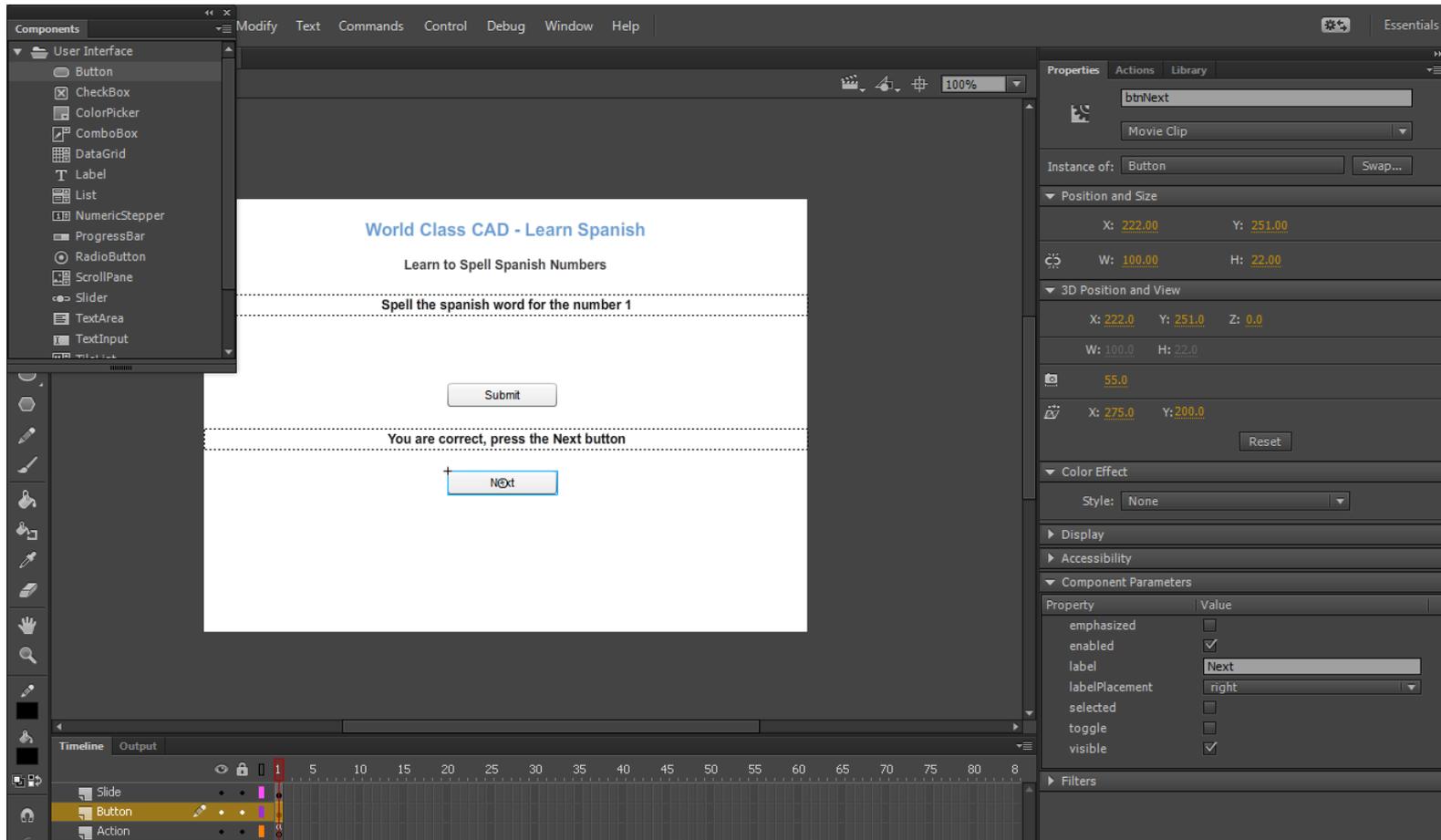
On the Slide layer, we will insert a phrase that says “Spell the Spanish word for the number 1”. On the Properties tab, we will change the text type to Dynamic Text and the Instance name to lblQuestion. We then will insert a phrase that says “You are correct, press the Next button”. On the Properties tab, we will change the text type to Dynamic Text and the Instance name to lblResult.

Insert a Button



Select Window and Component to open that menu. On the button layer, we select the Button component and drag it to the stage. In the Property section of the Property tab, name the button, btnSubmit. Open the Property section and change the label to Submit.

Insert a Second Button

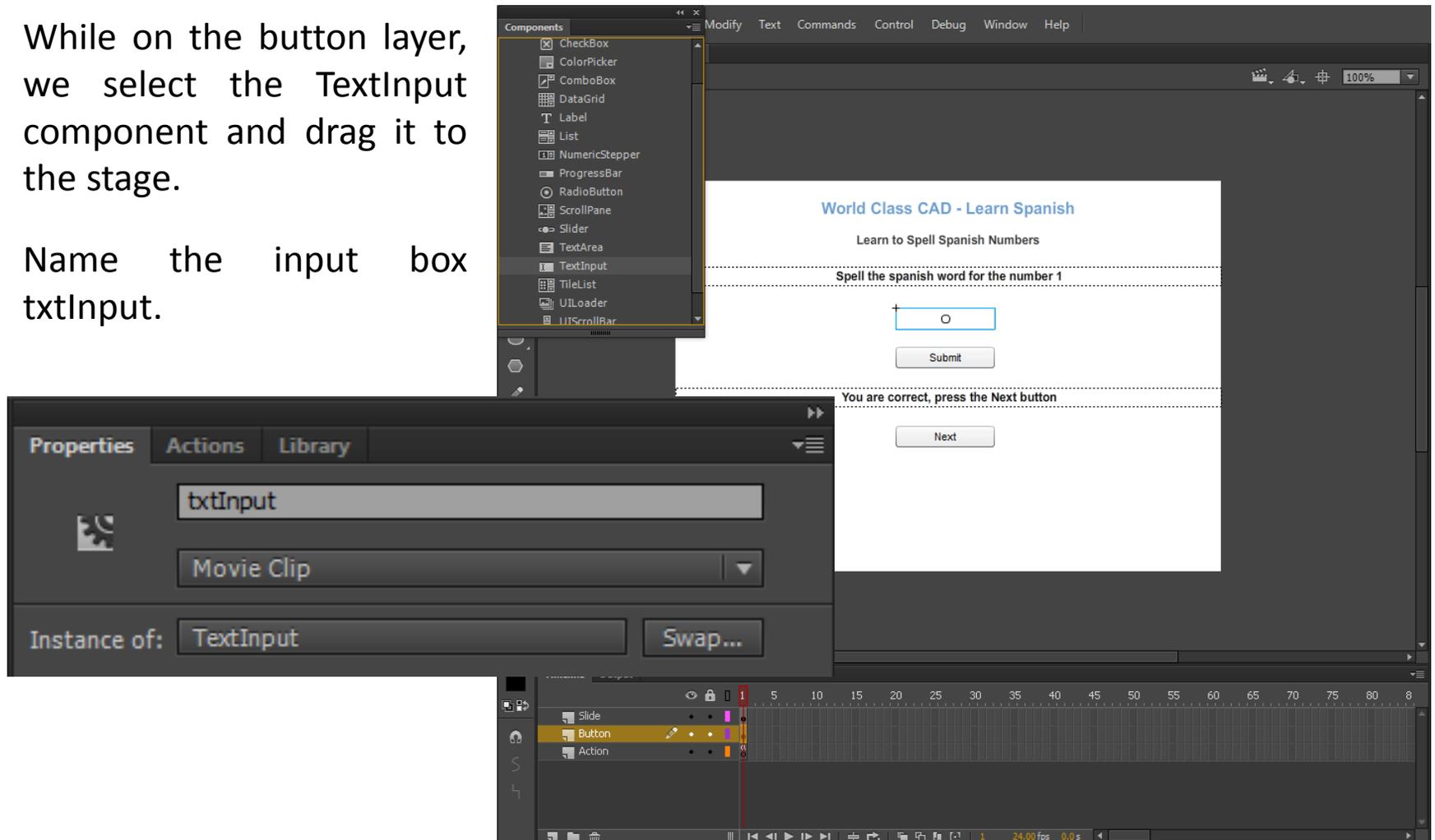


Again, on the button layer, we select the Button component and drag it to the stage. In the Property section of the Property tab, name the button, btnNext. Open the Property section and change the label to Next.

Insert a Textbox

While on the button layer, we select the TextInput component and drag it to the stage.

Name the input box txtInput.



ActionScripts

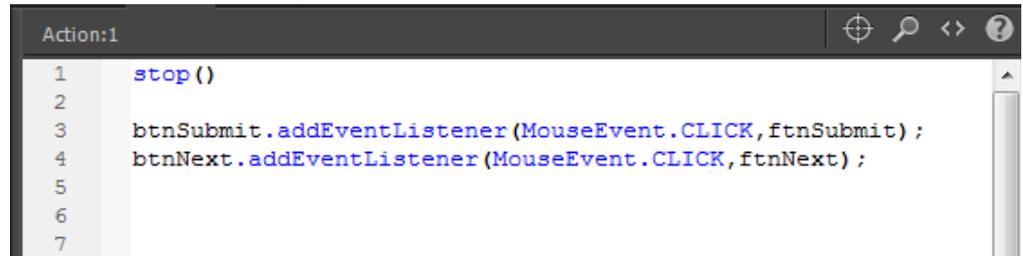
We choose frame 1 of the Action layer. Then we select the Action tab and we type `stop()` on line 1 of the script.

This will stop the flash movie at the frame.

The screenshot displays the Adobe Flash Professional interface. The main workspace shows a scene titled "Learn spanish numbers.fla" with a central interactive area. The interface includes a title "World Class CAD - Learn Spanish", a subtitle "Learn to Spell Spanish Numbers", and a prompt "Spell the spanish word for the number 1". Below the prompt is an input field and a "Submit" button. A feedback message "You are correct, press the Next button" is shown below, with a "Next" button. The right-hand side of the interface features the "Properties", "Actions", and "Library" panels. The "Actions" panel is active, showing a script for "Action:1" with the code `stop()` on line 1. At the bottom, a separate "Buttons - 0:1" panel shows the same `stop()` script on line 1.

Add another Event Listener

We then add an event listener to determine when a button is selected or the Submit or Next button was clicked on. We type:

A screenshot of a code editor window titled "Action:1". The editor shows a list of lines of code. Line 1: stop (); Line 2: Line 3: btnSubmit.addEventListener(MouseEvent.CLICK, ftnSubmit); Line 4: btnNext.addEventListener(MouseEvent.CLICK, ftnNext); Line 5: Line 6: Line 7: The code is displayed in a light blue font on a dark background. The editor has a search icon, a refresh icon, and a help icon in the top right corner.

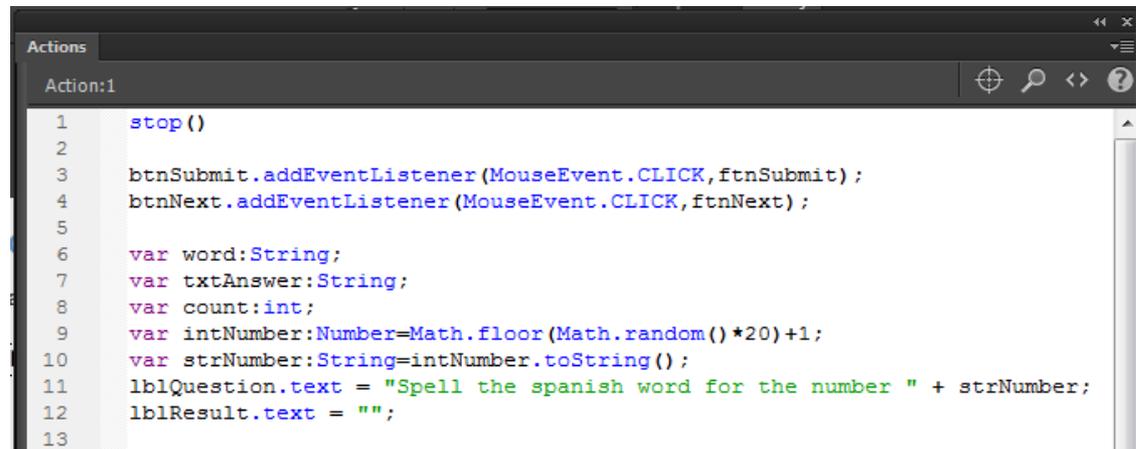
```
1 stop ();
2
3 btnSubmit.addEventListener(MouseEvent.CLICK, ftnSubmit);
4 btnNext.addEventListener(MouseEvent.CLICK, ftnNext);
5
6
7
```

btnSubmit.addEventListener(MouseEvent.CLICK, ftnSubmit);

btnNext.addEventListener(MouseEvent.CLICK, ftnNext);

Declaring Variables

We need five variables, one for the word, one for the user's answer, one for the counter for the while loop, one for the random number generator, and the last for the string of the random number.



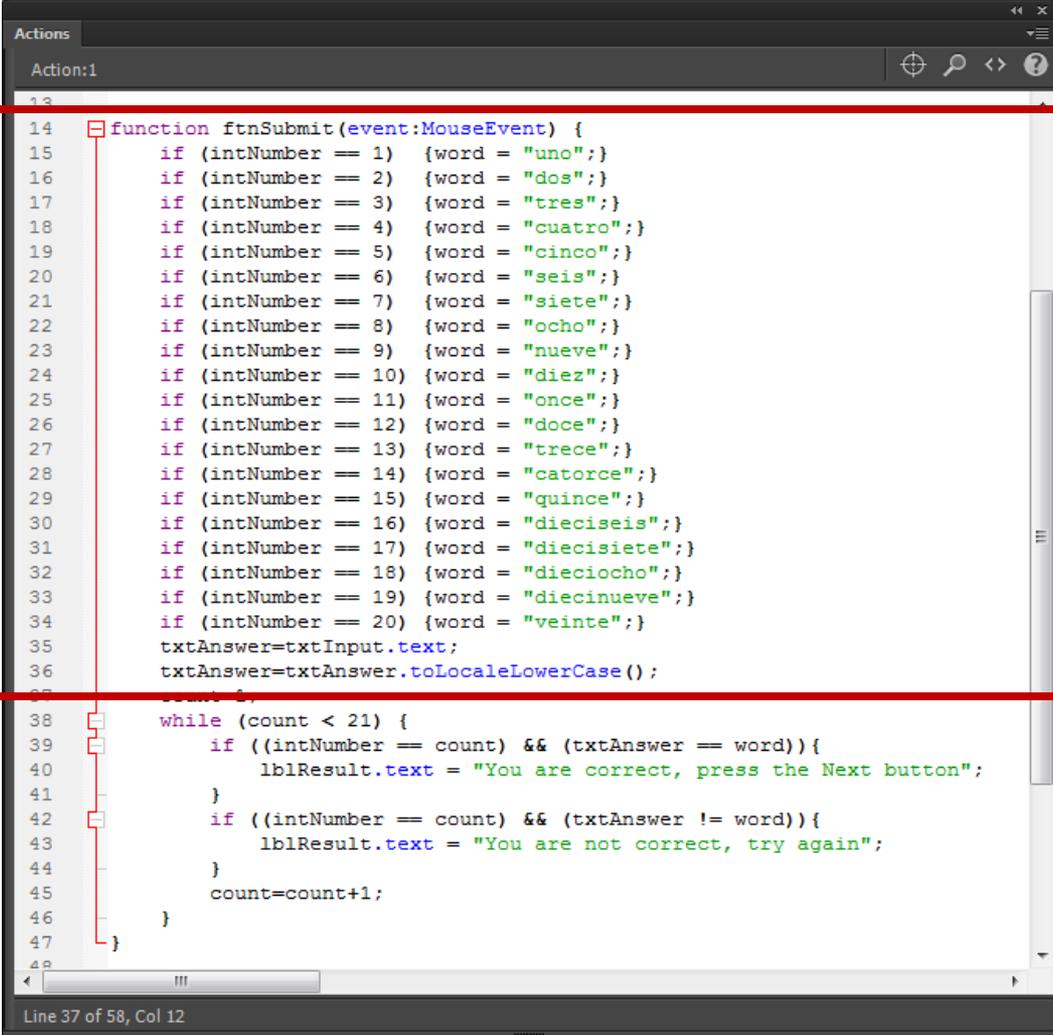
```
1  stop()
2
3  btnSubmit.addEventListener(MouseEvent.CLICK,ftnSubmit);
4  btnNext.addEventListener(MouseEvent.CLICK,ftnNext);
5
6  var word:String;
7  var txtAnswer:String;
8  var count:int;
9  var intNumber:Number=Math.floor(Math.random()*20)+1;
10 var strNumber:String=intNumber.toString();
11 lblQuestion.text = "Spell the spanish word for the number " + strNumber;
12 lblResult.text = "";
13
```

Var allows us to declare a variable. Then comes the variable name. After the colon is the type of variable, which in this case is a string, a number or an integer. If we want to assign a value to the variable, we use the equal sign in the same statement.

The Submit Function

We add the logic inside the function for the submit function, we first check the number in the variable `intNumber` to set the variable `word` to its Spanish number.

Next, we capture the text in the input box and set it to the variable `txtAnswer`. Then we convert it to lowercase.



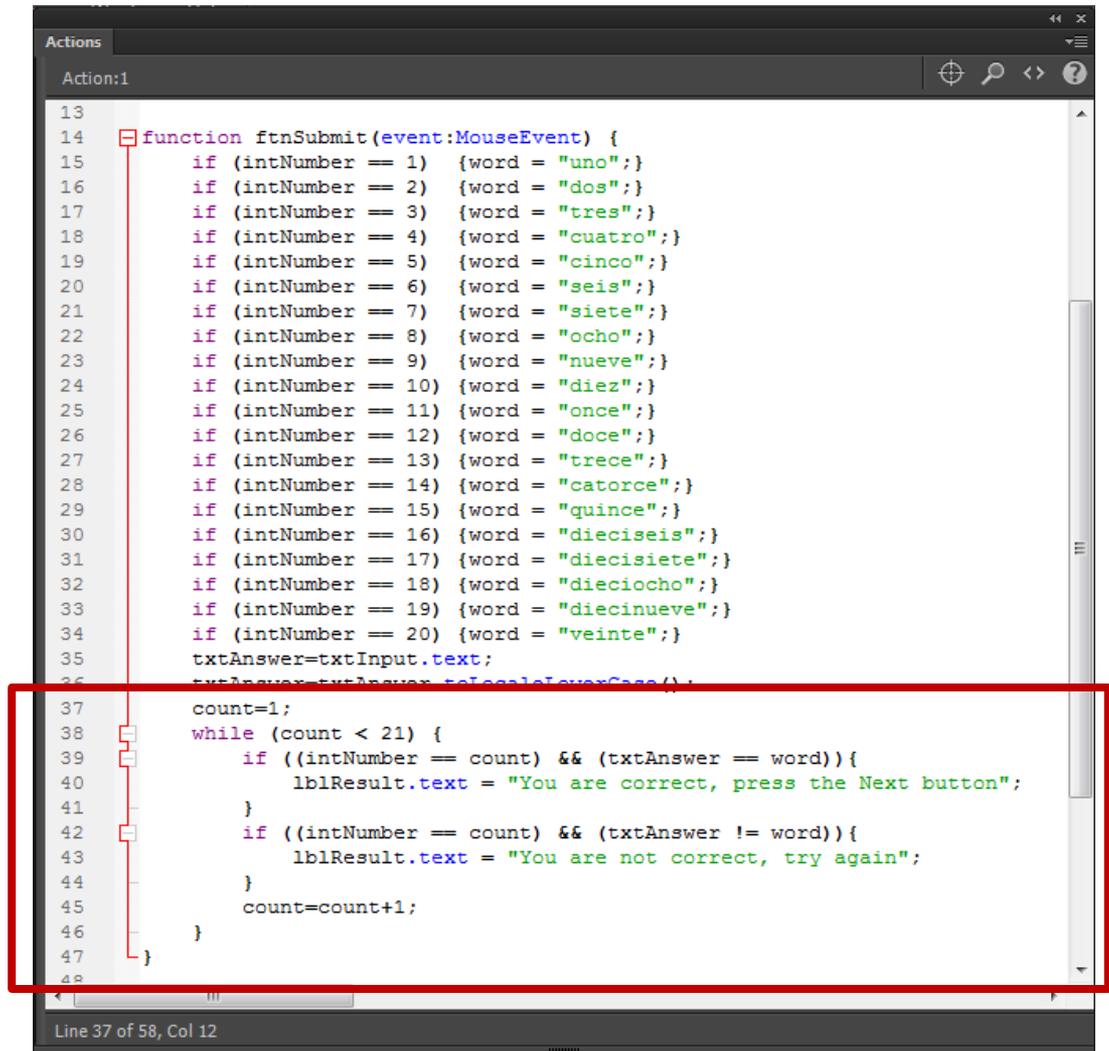
```
14 function ftnSubmit(event:MouseEvent) {
15     if (intNumber == 1) {word = "uno";}
16     if (intNumber == 2) {word = "dos";}
17     if (intNumber == 3) {word = "tres";}
18     if (intNumber == 4) {word = "cuatro";}
19     if (intNumber == 5) {word = "cinco";}
20     if (intNumber == 6) {word = "seis";}
21     if (intNumber == 7) {word = "siete";}
22     if (intNumber == 8) {word = "ocho";}
23     if (intNumber == 9) {word = "nueve";}
24     if (intNumber == 10) {word = "diez";}
25     if (intNumber == 11) {word = "once";}
26     if (intNumber == 12) {word = "doce";}
27     if (intNumber == 13) {word = "trece";}
28     if (intNumber == 14) {word = "catorce";}
29     if (intNumber == 15) {word = "quince";}
30     if (intNumber == 16) {word = "dieciseis";}
31     if (intNumber == 17) {word = "diecisiete";}
32     if (intNumber == 18) {word = "dieciocho";}
33     if (intNumber == 19) {word = "diecinueve";}
34     if (intNumber == 20) {word = "veinte";}
35     txtAnswer=txtInput.text;
36     txtAnswer=txtAnswer.toLocaleLowerCase();
37
38     while (count < 21) {
39         if ((intNumber == count) && (txtAnswer == word)){
40             lblResult.text = "You are correct, press the Next button";
41         }
42         if ((intNumber == count) && (txtAnswer != word)){
43             lblResult.text = "You are not correct, try again";
44         }
45         count=count+1;
46     }
47 }
48
```

Line 37 of 58, Col 12

The Submit Function

With a while loop, we first set the counter to zero. Then while the counter is less than 20. For each number, we check if the answer will equal the word (==) and if the answer does not equal the word (!=).

Inside the while loop, we add one to the counter.

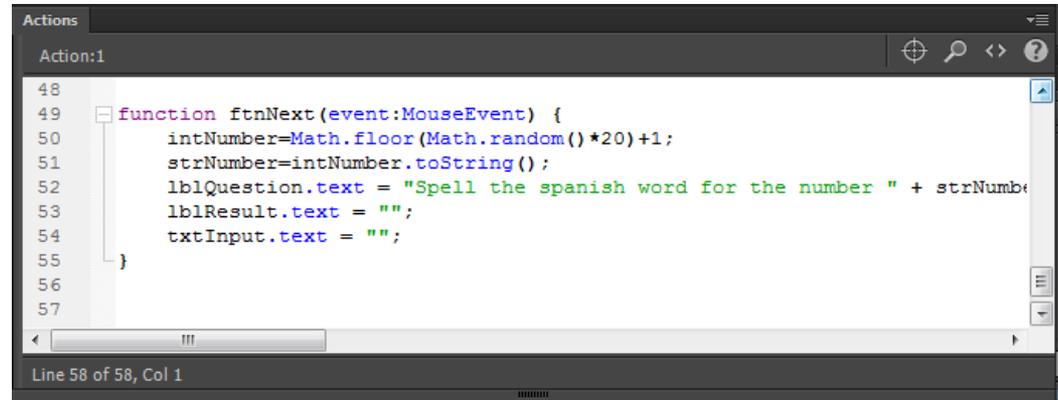


```
13
14 function ftnSubmit(event:MouseEvent) {
15     if (intNumber == 1) {word = "uno";}
16     if (intNumber == 2) {word = "dos";}
17     if (intNumber == 3) {word = "tres";}
18     if (intNumber == 4) {word = "cuatro";}
19     if (intNumber == 5) {word = "cinco";}
20     if (intNumber == 6) {word = "seis";}
21     if (intNumber == 7) {word = "siete";}
22     if (intNumber == 8) {word = "ocho";}
23     if (intNumber == 9) {word = "nueve";}
24     if (intNumber == 10) {word = "diez";}
25     if (intNumber == 11) {word = "once";}
26     if (intNumber == 12) {word = "doce";}
27     if (intNumber == 13) {word = "trece";}
28     if (intNumber == 14) {word = "catorce";}
29     if (intNumber == 15) {word = "quince";}
30     if (intNumber == 16) {word = "dieciseis";}
31     if (intNumber == 17) {word = "diecisiete";}
32     if (intNumber == 18) {word = "dieciocho";}
33     if (intNumber == 19) {word = "diecinueve";}
34     if (intNumber == 20) {word = "veinte";}
35     txtAnswer=txtInput.text;
36     txtAnswer=txtAnswer.toLowerCase();
37     count=1;
38     while (count < 21) {
39         if ((intNumber == count) && (txtAnswer == word)){
40             lblResult.text = "You are correct, press the Next button";
41         }
42         if ((intNumber == count) && (txtAnswer != word)){
43             lblResult.text = "You are not correct, try again";
44         }
45         count=count+1;
46     }
47 }
```

Line 37 of 58, Col 12

The Next Function

In the Next function, we compute the random number, reset the variables and clear the input textbox and the results dynamic text.

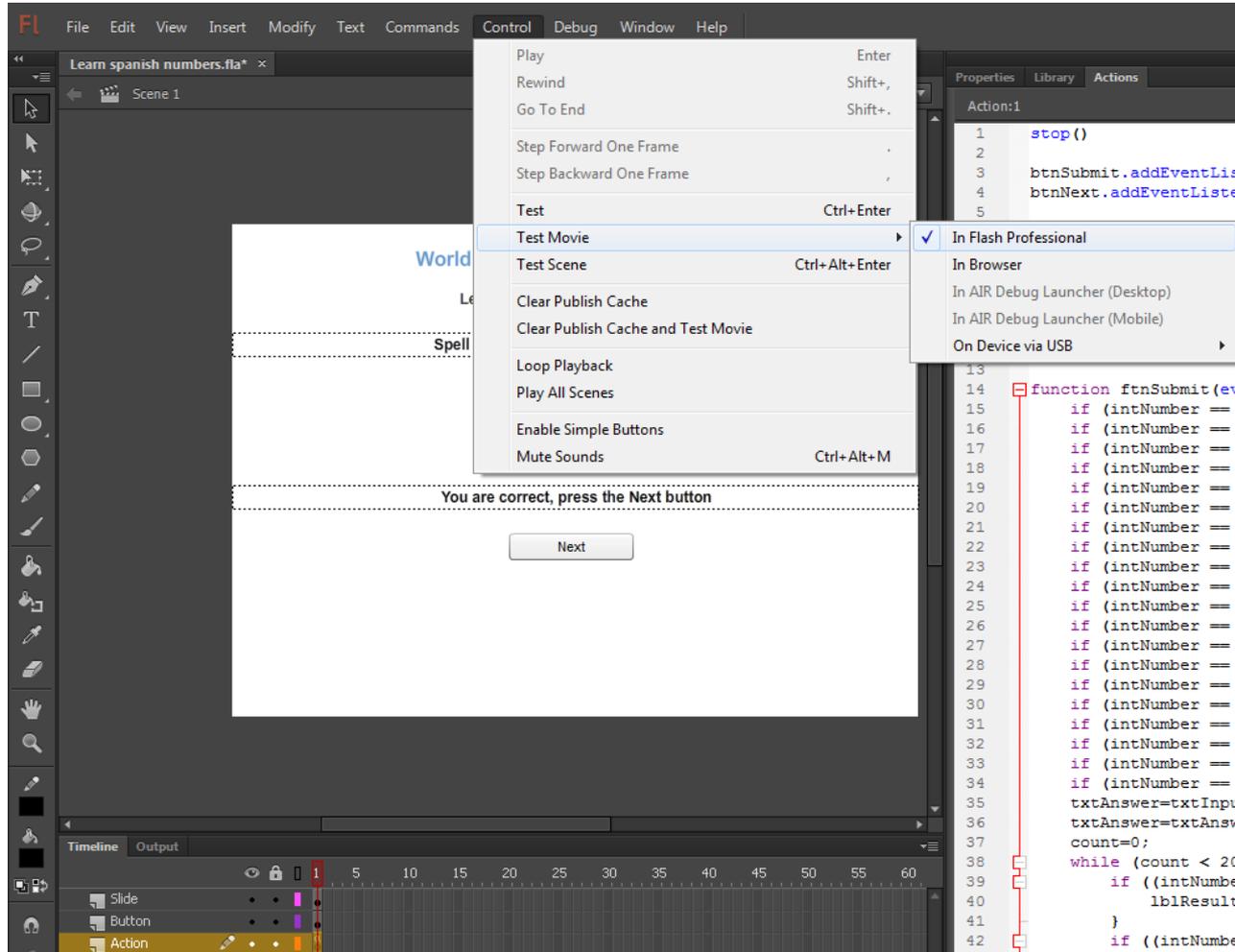
A screenshot of an IDE's 'Actions' window. The window title is 'Action:1'. It contains a code editor with the following JavaScript code:

```
48  
49 function ftnNext(event:MouseEvent) {  
50     intNumber=Math.floor(Math.random()*20)+1;  
51     strNumber=intNumber.toString();  
52     lblQuestion.text = "Spell the spanish word for the number " + strNumber;  
53     lblResult.text = "";  
54     txtInput.text = "";  
55 }  
56  
57
```

The status bar at the bottom indicates 'Line 58 of 58, Col 1'.

```
function ftnNext(event:MouseEvent) {  
    intNumber=Math.floor(Math.random()*20)+1;  
    strNumber=intNumber.toString();  
    lblQuestion.text = "Spell the spanish word for the number " + strNumber;  
    lblResult.text = "";  
    txtInput.text = "";  
}
```

Test the Movie

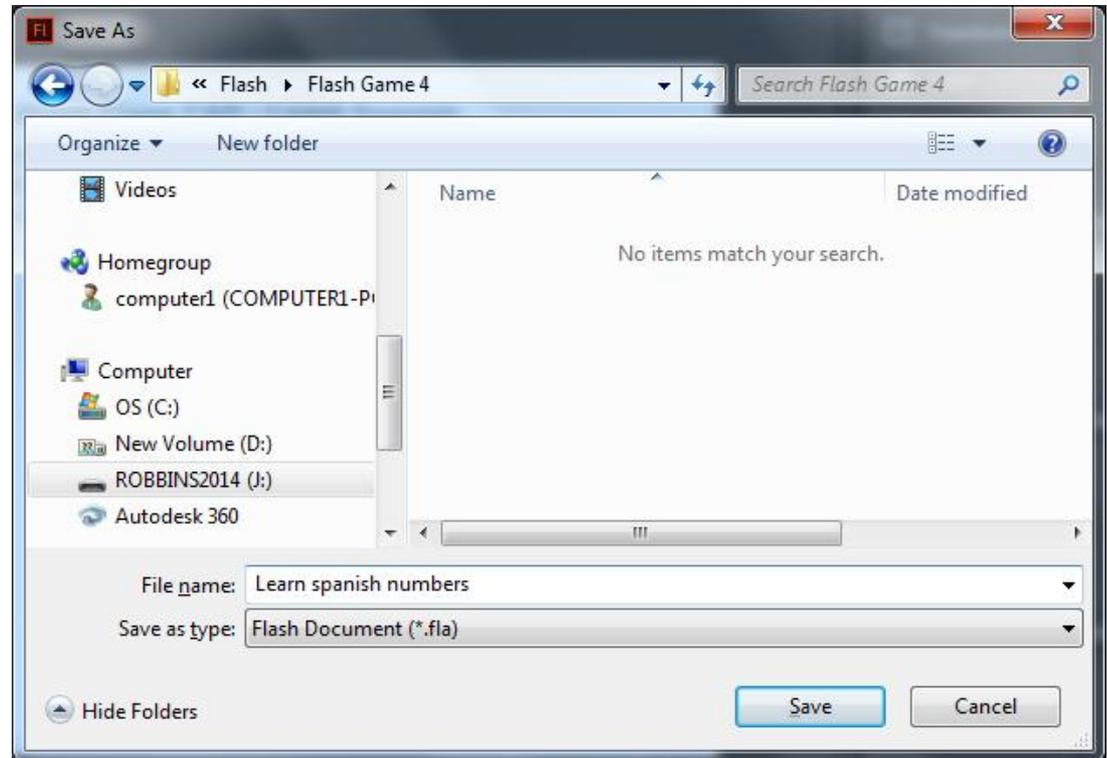


We should select Control on the menu and then Test Menu and In Flash Professional.

Saving the Movie

We need to save our work, so we choose File on the top menu bar and then we press Save on the drop down menu.

We will call our animation “Learn Spanish numbers” and we will depress the Save button.



Publish the Flash Slide Show

We then choose File on the menu and Publish.

