Code the Screen Layouts – Part III

Hello Everyone! Welcome back!

Hi everyone! Welcome back! Hope you are enjoying the game development journey using the Construct platform.

In our last video, we coded the objects present in our Main Screen layout and added important functionalities - timer & score. In this video, we will continue to code the remaining objects present in the main screen. So, let's get on. Shall we?

You are already aware that we have successfully created a timer & score in the previous video. However, while running the layout we realized that the pathogens were not duplicating itself. So, we will now try to create the duplicates of pathogens every 2 seconds. To accomplish this, click on "Add event", select "System" option from the object window and click next. A new window will pop-up, select 'Every X second' option from time section and click next. This time a new window will pop-up showing the time interval. Change the value from 1 second to 2 second and click on done. We will add action to it. Click on "Add Action" and select "System" object and then click on next. Now select "Create object" option from the general section and click on next. You will see a new pop-up window appearing again. Select the object to create as 'Bacteria', change the layer value to 1 from 0, set the X-position value as **random(70,750)** and Y-position value as 0. X-position of bacteria can be decided by its movement when the bacteria is dragged in the Home Screen layout and by checking for the set values. This process will create the bacteria sprite duplicate every 2 seconds

on layer 1 randomly at any X-position between 70 & 750 while maintaining the Y-position of bacteria at 0. Similarly, repeat the same process for duplicating protozoa, worm and virus too. Follow the steps shown on the screen to code the duplication of Protozoa, Worm & Virus.

For duplicating Protozoa:

Click on "Add Action" > Select "System" - Next > Select "Create Object" – Next > Select object as "Protozoa"; Layer value = 1; X-position value = random(70,750); Y-position value = 0 – Done

(This means Protozoa will create itself every 2 second on layer 1 at any x-position between 70 & 750 while the Y-position remains fixed at 0)

For duplicating Worm:

Click on "Add Action" > Select "System" - Next > Select "Create Object" – Next > Select object as "Worm"; Layer value = 1; X-position value = random(70,750); Y-position value = 0 – Done

(This means Worm will create itself every 2 second on layer 1 at any x-position between 70 & 750 while the Y-position remains fixed at 0)

For duplicating Virus:

Click on "Add Action" > Select "System" - Next > Select "Create Object" – Next > Select object as "Virus"; Layer value = 1; X-position value = random(70,750); Y-position value = 0 – Done

(This means Virus will create itself every 2 second on layer 1 at any x-position between 70 & 750 while the Y-position remains fixed at 0)

In our game, we want the humans to get effected or destroyed as soon as the pathogens touch them. Let's code our humans accordingly.

Let us begin by coding Human1 to make the destroying effect to be applied on it. To do that, click on "Add event", select "Human1" option from the object window and click next. A new window will pop-up, scroll down to select 'On collision with another object' option from collisions section and click next. A new window will appear again. Click on 'click on choose' option and select 'Bacteria', then click on done. Next, click on "Add Action" and select "Human1" object and click on next. Scroll down and select "Spawn another object" option from the Misc section and click on next. A new window will soon appear. Click on choose to select the object as 'BoomEffect', change the layer value to 1 from 0 and keep the image point as 0. Again, click on "Add Action" and select "Human1" object and click on next. Select "Set visible" option from the Appearance section and click on next. A new window will appear where you will change the visibility from Visible to Invisible from the drop down and click on done. Now, click on "Add Action" and select "System" object and click on next. Select "Subtract from" option from the Global and local variables section and click on next. You will find a new window popping-up again. From the drop down, change the variable from Health to Score and the value from 1 to 5, then click on done. Again, click on "Add Action" and select "System" object and click on next. Select "Wait" option from the Text section and click on next. A new window will pop-up. Change the value of time from 1 to 5 seconds, then click on done. Again, click on "Add Action" and select "Human1" object and click on next. Select "Set visible" option from the Appearance section and click on next. A new window will appear and select the visible option from the drop down menu and click on done.

Now to explain what happens in this code of Event no. 17, you will see that when Human 1 collides with Bacteria, Human 1 gets destroyed, and before finally becoming invisible it changes to Boom effect. After this occurrence, the system deducts 5 from the score. The system will then wait for 5 seconds before Human 1 becomes visible again.

As the event no. 17 happens between bacteria and Human 1, the same process needs to be repeated for the other pathogens like protozoa, virus and worm too. Now, in order to use the same logic for the collision between Human 1 & Protozoa, Virus and Worms, let's code for it. As you can see a 'green arrow' right next to no. 17, right click on it and select 'Make Or Block' from the sub-menu. You'll see the whole event highlighted in yellow color. Next, right-click on the Human1 image and select 'Add another condition' from the sub-menu to open the object window. Select "Human1" option from the object window and click next. A new window will pop-up, scroll down to select 'On collision with another object' option from collisions section and click next. A new window will appear. Click on 'click on choose' option and select 'Protozoa', then click on done. So, you can see that we have added Human1-Protozoa collision event for the same logic. The function of the 'OR condition' here is to make sure that if Human 1 is colliding either with Bacteria or Protozoa, then the same logic gets repeated.

Repeat the same process for adding the OR statement for Virus and Worm too. Follow the steps shown on the screen to code the collision between Human 1 and Virus & Worm.

For collision between Human 1 & Virus:

Right click on "Human1 image" > Select "Add another condition" > Select "Human1" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Virus' option – Done

For collision between Human 1 & Worm:

Right click on "Human1 image" > Select "Add another condition" > Select "Human1" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Worm' option – Done

Next, we have to repeat the complete Event no. 17 for Human 2, Human 3, Human 4 and Human 5 respectively. Please feel free to pause the video and follow the steps carefully to code the remaining humans.

For Human 2:

Click on "Add event" > Select "Human2" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Bacteria' option – Done

Click on "Add Action" > Select "Human2" – Next > Select "Spawn another object" option – Next > Click on choose – Select 'BoomEffect' option; Layer value = 1; Image point = 0 – Done

Click on "Add Action" > Select "Human2" – Next > Select "Set visible" option – Next > From drop-down select 'Invisible' – Done

Again Click on "Add Action" > Select "System" – Next > Select "Subtract from" option – Next > From drop-down select 'Score' and value = 5 – Done

Again Click on "Add Action" > Select "System" – Next > Select "Wait" option – Next > Change value = 5 seconds – Done

Click on "Add Action" > Select "Human2" – Next > Select "Set visible" option – Next > From drop-down select 'Visible' – Done

Right-Click on a 'green arrow' > Select 'Make Or Block' > Right click on Human2 image > Select 'Add another condition' > Select 'Human2' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Protozoa' option – Done

Again Right click on Human2 image > Select 'Add another condition' > Select 'Human2' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Virus' option – Done

Again Right click on Human2 image > Select 'Add another condition' > Select 'Human2' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Worm' option – Done

For Human 3:

Click on "Add event" > Select "Human3" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Bacteria' option – Done

Click on "Add Action" > Select "Human3" – Next > Select "Spawn another object" option – Next > Click on choose – Select 'BoomEffect' option; Layer value = 1; Image point = 0 – Done

Click on "Add Action" > Select "Human3" – Next > Select "Set visible" option – Next > From drop-down select 'Invisible' – Done

Again Click on "Add Action" > Select "System" – Next > Select "Subtract from" option – Next > From drop-down select 'Score' and value = 5 – Done

Again Click on "Add Action" > Select "System" – Next > Select "Wait" option – Next > Change value = 5 seconds – Done

Click on "Add Action" > Select "Human3" – Next > Select "Set visible" option – Next > From drop-down select 'Visible' – Done

Right-Click on a 'green arrow' > Select 'Make Or Block' > Right click on Human3 image > Select 'Add another condition' > Select 'Human3' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Protozoa' option – Done

Again Right click on Human3 image > Select 'Add another condition' > Select 'Human3' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Virus' option – Done

Again Right click on Human3 image > Select 'Add another condition' > Select 'Human3' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Worm' option – Done

For Human 4:

Click on "Add event" > Select "Human4" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Bacteria' option – Done

Click on "Add Action" > Select "Human4" – Next > Select "Spawn another object" option – Next > Click on choose – Select 'BoomEffect' option; Layer value = 1; Image point = 0 – Done

Click on "Add Action" > Select "Human4" – Next > Select "Set visible" option – Next > From drop-down select 'Invisible' – Done

Again Click on "Add Action" > Select "System" – Next > Select "Subtract from" option – Next > From drop-down select 'Score' and value = 5 – Done

Again Click on "Add Action" > Select "System" – Next > Select "Wait" option – Next > Change value = 5 seconds – Done

Click on "Add Action" > Select "Human4" – Next > Select "Set visible" option – Next > From drop-down select 'Visible' – Done

Right-Click on a 'green arrow' > Select 'Make Or Block' > Right click on Human4 image > Select 'Add another condition' > Select 'Human4' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Protozoa' option – Done

Again Right click on Human4 image > Select 'Add another condition' > Select 'Human4' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Virus' option – Done

Again Right click on Human4 image > Select 'Add another condition' > Select 'Human4' – Next > Select 'On collision with another object' – Next > Click on choose – Select 'Worm' option – Done

For Human 5:

Click on "Add event" > Select "Human5" – Next > Select "On collision with another object" – Next > Click on choose – Select 'Bacteria' option – Done

Click on "Add Action" > Select "Human5" – Next > Select "Spawn another object" option – Next > Click on choose – Select 'BoomEffect' option; Layer value = 1; Image point = 0 – Done

Click on "Add Action" > Select "Human5" – Next > Select "Set visible" option – Next > From drop-down select 'Invisible' – Done

Again Click on "Add Action" > Select "System" – Next > Select "Subtract from" option – Next > From drop-down select 'Score' and value = 5 – Done

Again Click on "Add Action" > Select "System" – Next > Select "Wait" option – Next > Change value = 5 seconds – Done

Click on "Add Action" > Select "Human5" – Next > Select "Set visible" option – Next > From drop-down select 'Visible' – Done

Right-Click on a 'green arrow' > Select 'Make Or Block' > Right click on Human5 image > Select 'Add another condition' > Select 'Human5' – Next > Select 'On

Over all, the logic remains the same for all the human figures. So, if we are able to make logic for one Human, then we can replicate the same for all other humans. This is one important feature of programming irrespective of any language being used.

Let's run the layout and see if everything is working fine. I hope that your game is working fine as the pathogens are not only duplicating themselves but they are affecting the humans on collision and score is getting reduced too. Also, the humans keep reappearing after 5 seconds once they get destroyed.

In our next video, we will continue coding the remaining objects present in my Main Screen layout and move ahead with coding the next screens of our game as well.

Bye for now. See you soon!