

Code the Screen Layouts – Part II

Hello everyone! Welcome back again!

If you recall, in our last video, we started coding the objects present in our Main Screen layout. And in this video, we will continue coding the other objects present in the main screen. So, let's begin right away.

After having successfully assigned the keys to the antibodies in the previous video we will now work to make the pathogens or enemies move randomly on the screen. To make this happen, left click on the "Add event", select "System" option from the event and click next. A new window will pop-up, scroll down to select 'on start of layout' and click done. We need to add an action to it. To do so, left click on "Add Action" and select "Bacteria" then click on next. Now select "Set Angle" from the Angle section and click on next. A new window will pop-up where you will enter the command **random(0,360)** in the box. This process ensures the movement of bacteria in random manner over the screen. Repeat the above process for the other three pathogens i.e. Virus, Worm and Protozoa to set the random movement of all the pathogens on the screen.

We want the timer to start when we switch to the Main Screen layout. To do this, click on 'Add Action' and select 'Timer' from the object window and click next. From the action window, scroll down to select 'Set text' option and click next. When a new pop-up window appears, type "Time - "&Timer in the box. Use the global variable timer and not the text one. This code is like an equation which will show the timer on the screen.

Next, we would want the pathogens to attack and eventually collide with the humans and medical box so as to increase the difficulty of game. To do this, click on “Add event”, select “Bacteria” option from the object window and click next. A new window will pop-up, scroll down to select ‘is outside layout’ and click done. Remember that we need to add an action to it. For this, left click on “Add Action” and select “Bacteria” then click on next. Select “Set angle position to” from the Angle section and click on next. A new window will pop-up where you will enter the command Human1.X for setting X-position and Human1.Y for setting Y-position. Click on done to set the movement of bacteria towards Human1. Repeat this action 5 more times for Human2, Human3, Human4, Human5 & MedicineBox in the same way it was done for Human1.

The commands used will be:

Human2.X and Human2.Y for **Human 2**

Human3.X and Human3.Y for **Human 3**

Human4.X and Human4.Y for **Human 4**

Human5.X and Human5.Y for **Human 5**

MedicineBox.X and MedicineBox.Y for **Medicine Box**

Similarly, we would want the other pathogens - Virus, Worm and Protozoa to move towards humans and the medicine box too. So, repeat the entire process that was done before for Virus, Worm and Protozoa.

Now it is time for us to destroy the pathogens with a boom effect as soon as the designated medicines touch them. For ex. a bacteria should get destroyed the

moment antibacteria capsule collides with it. To do this, click on “Add event”, select “AntiBacteria” option from the object window and click next. A new window pops-up, scroll down to select ‘on collision with another object’ and click next. Another window will pop-up from which you can click to choose colliding object as ‘Bacteria’ and then click done. Now, since we need to add an action to it, click on “Add Action” and select “Bacteria” and click on next. Select “Spawn another object” from the Misc section and click on next again. A new window will pop-up where you will select the Object as ‘BoomEffect’ with Layer value changed from 0 to 1 and image point to remain 0. Next, we want to destroy the Bacteria and AntiBacteria after they collide with each other. To do that, click on “Add Action” and select “Bacteria” and then click on next. Scroll down and select “Destroy” from the Misc section and click on done. Again click on “Add Action” and select “AntiBacteria” and click on next. Scroll down and select “Destroy” from the Misc section and click on done. As we also want to change the score everytime the AntiBacteria hits the Bacteria, click on “Add Action” and select “System” and then click on next. Scroll down and select “Add to” from the Global & local variables section and click on next. A new window will pop-up. From the drop down in variable, select ‘Score’ and allow the value to remain 1. These commands show that every time an AntiBacteria hits a Bacteria, a boom effect will occur following their collision and both of them will get destroyed. After collision the score gets incremented by 1 point.

Let’s recap so that you can repeat the steps for protozoa, virus and worm getting destroyed by the collision with AntiProtozoa, AntiVirus & AntiWorm capsules respectively. Follow the steps shown on the screen to code.

For Collision between Protozoa & AntiProtozoa:

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

Click on "Add Action" > Select "Protozoa" – 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 "Protozoa" – Next > Select "Destroy" option – Done

Again click on "Add Action" > Select "AntiProtozoa" – Next > Select "Destroy" option – Done

Again Click on "Add Action" > Select "System" – Next > Select "Add to" option – Next > From drop-down select 'Score' and value = 1 – Done

For Collision between Virus & AntiVirus:

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

Click on "Add Action" > Select "Virus" – 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 "Virus" – Next > Select "Destroy" option – Done

Again click on “Add Action” > Select “AntiVirus” – Next > Select “Destroy” option – Done

Again Click on “Add Action” > Select “System” – Next > Select “Add to” option – Next > From drop-down select ‘Score’ and value = 1 – Done

For Collision between Worm & AntiWorm:

Click on “Add event” > Select “AntiWorm” – Next > Select “On collision with another object” – Next > Click on choose – Select ‘Worm’ option – Done

Click on “Add Action” > Select “Worm” – 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 “Worm” – Next > Select “Destroy” option – Done

Again click on “Add Action” > Select “AntiWorm” – Next > Select “Destroy” option – Done

Again Click on “Add Action” > Select “System” – Next > Select “Add to” option – Next > From drop-down select ‘Score’ and value = 1 – Done

It is now time to show the score on the Main Screen layout. To do this, click on “Add event”, select “System” option from the object window and click next. A new window will pop-up, select ‘every tick’ option from general section and click done. Click on “Add Action” and select “Score” object and click on next. Scroll down and select “Set text” option from the Text section and click on next. When a new pop-up window appears, type “Score - “&Score in the box. Use the global

variable score and not the text one. This code is like an equation which will show the score on the screen.

As our game is a time based one, the time should decrease by 1 for every second elapsed. To do that, 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. A new window will pop-up showing the time interval. Let the value be 1 second and click on done. To add an action to it, click on “Add Action” and select “System” object and click on next. Scroll down and select “Subtract from” option from the global & local variables section and click on next. A new pop-up window will appear. From the drop down in variable, select ‘Timer’ and let the value remain 1. Click on done. Again click on “Add Action” and select “Timer” object and click on next. Scroll down and select “Set text” option from the Text section and click on next. A new pop-up window will appear, type “Time - “&Timer in the box. Use the global variable timer and not the text one. This code is like an equation which will show the time left on the screen.

Let’s run the layout to ascertain if everything is working fine. I hope that the game is working fine - the timer is changing every second and the score is increasing as you are shooting down the pathogens using antibody capsules.

In our next video, we will continue coding the remaining objects present in the Main Screen layout of our game.

Bye-Bye! See you next time!