



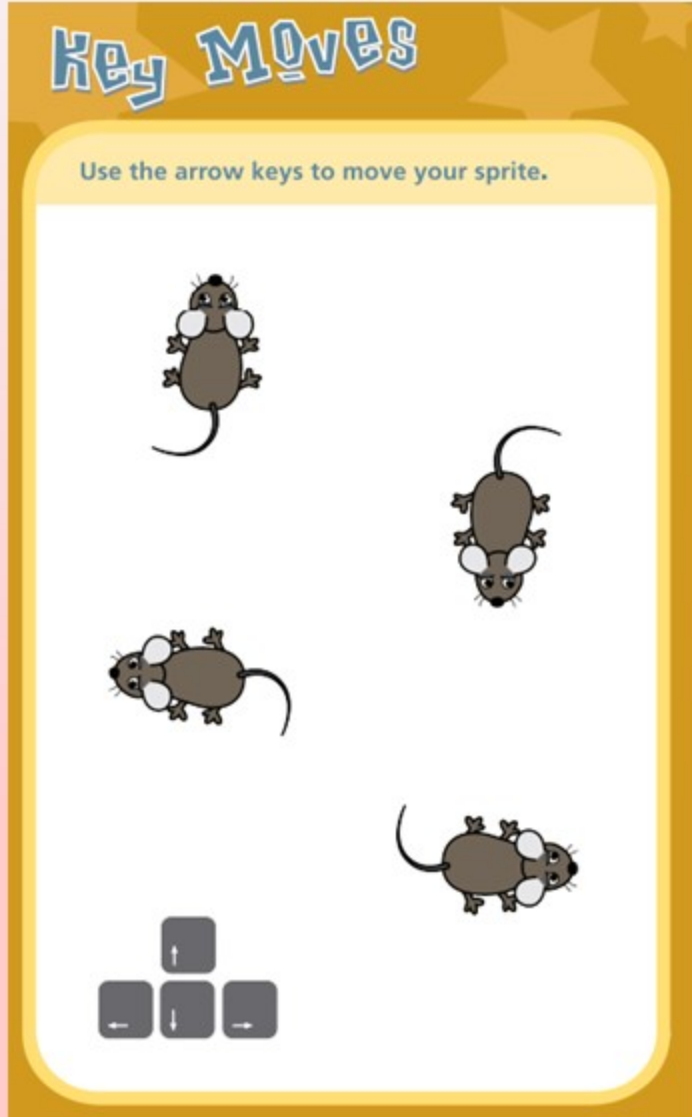
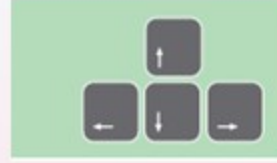
ISWK SHARING KNOWLEDGE

TOPIC : SCRATCH PROGRAMS

Getting started with Scratch Programming



1) Scratch Program to move the sprite with the help of arrow keys



Main Idea: To move the sprite character according to the arrow keys

Left / Right Arrow Key – The sprite should move 10 steps towards the left /Right

Up/Down Arrow Key – The sprite should move 10 steps towards the Up/down

Main Key point: We should change the direction of the sprite according Key pressed.

If Left Arrow key is pressed – The direction of sprite is -90 degree

If Right Arrow key is pressed – The direction of sprite is 90 degree

If Up Arrow key is pressed – The direction of sprite is 0 degree

If Down Arrow key is pressed – The direction of sprite is 180 degree

Blocks used in the program



This block help to set an event when Left arrow key is pressed



This block help to move the sprite character 10 steps ahead



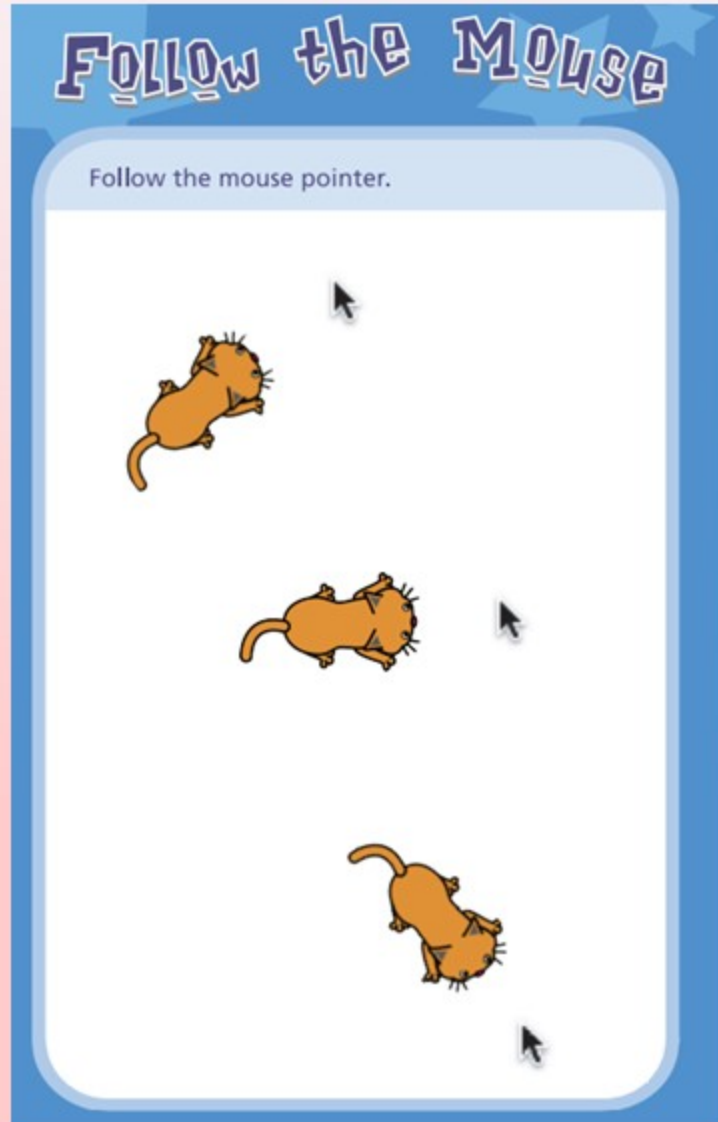
This block help to set the direction of the sprite character

Steps involved

- Change the sprite according to the program
- Drag and place – “ when key pressed “ blocks from event tab. Click on arrow option in tab and select Left arrow.(right arrow/up arrow/ down arrow according to key)
- Drag and place – “Move steps “ Block from motion tab. By default the no of steps will be 10.
- Drag and place “Point in Direction” block from motion tab. Select 90 degree from the drop down menu present in the block.
- Club together the blocks.
- Duplicate the blocks and then make the appropriate change according to the arrow key used.

1) Scratch Program to move the sprite according to the mouse movement

Main Idea: To move the sprite character according to movement of mouse cursor



Blocks used in the program



attach blocks you want to run when the green flag is clicked



always face the sprite where the mouse point is



This block help to move the sprite character 10 steps ahead



run the blocks inside again and again till the red stop button is clicked

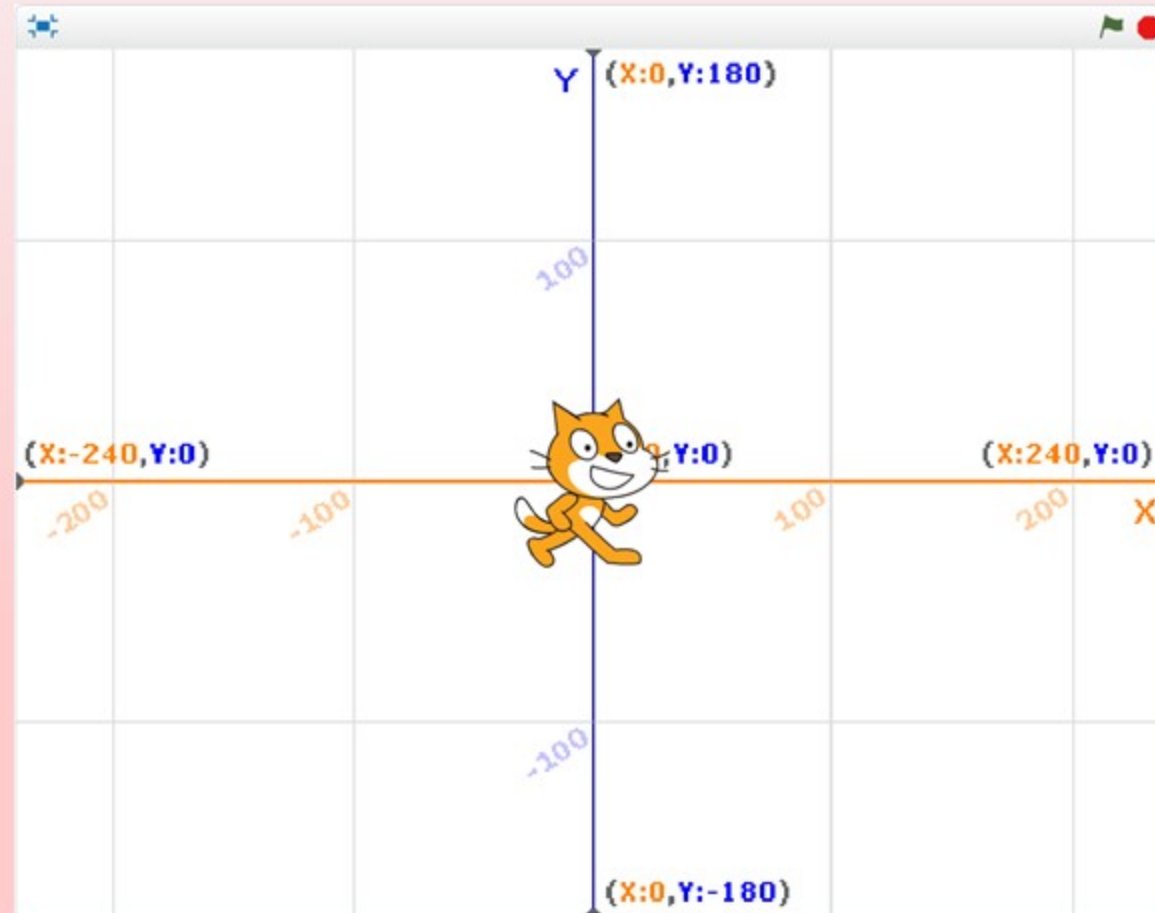
Steps involved

- Change the sprite according to the program
- Drag and place – “ when green flag clicked “ blocks from event tab.
- Drag and place – “Move steps “ Block from motion tab. By default the no of steps will be 10 ,change the number of steps to 3
- Drag and place “Point towards ” block from motion tab. Select “mouse pointer “ option from the drop down list in the block.
- Drag and place “forever ever” block from the control tab
- Club together the blocks.
- Execute the program

1) Scratch Program to glide the sprite



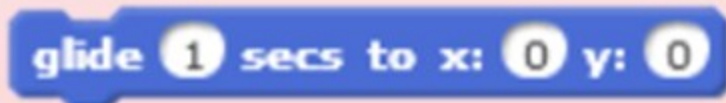
Main Idea: To move the sprite character according to value of x,y co-ordinates of stage



Blocks used in the program



attach blocks you want to run when the green flag is clicked



move smoothly to a position on the screen within N seconds



run the blocks inside again and again till the red stop button is clicked

Steps involved

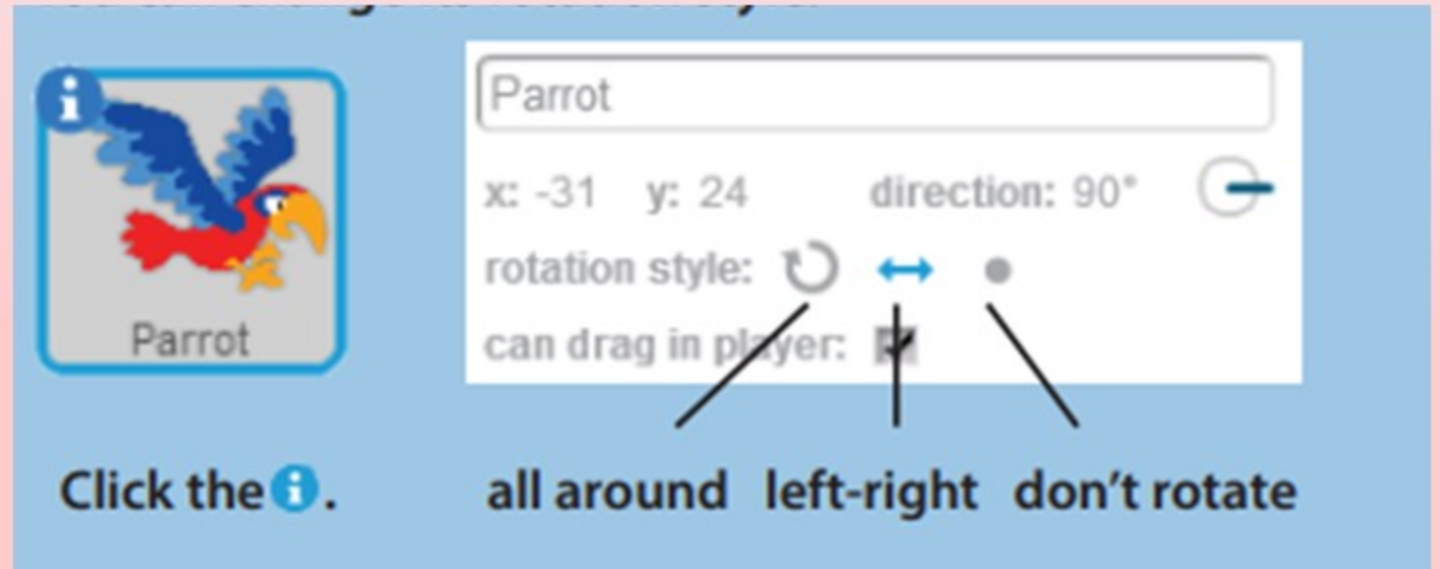
- Change the sprite according to the program
- Drag and place – “ when green flag clicked “ blocks from event tab
- Drag and place – “ glide“ blocks from motion tab and set the x and y coordinates.
- Duplicate the glide block and change the coordinates.
- Drag and place “forever ever” block from the control tab
- Club together the blocks.
- Execute the program

1) Scratch Program to animate the sprite



Main Idea: To animate the sprite character by changing the costume.

To understand certain important option in sprite info



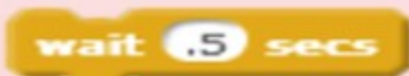
Blocks used in the program



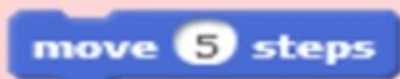
attach blocks you want to run when the green flag is clicked



show the next costume



pause the program for some seconds and then continue



This block help to move the sprite character according to the number in white circle (here it is 5) steps ahead



test if the sprite touches the edges of the stage and if so let it bounce off



run the blocks inside again and again till the red stop button is clicked

Steps involved

- Change the sprite according to the program
- Drag and place two costumes of the same sprite.
- Drag and place – “ when green flag clicked “ blocks from event tab
- Drag and place “next costume ” block from the Looks tab
- Drag and place “wait” block from control tab ,”move steps “ block from motion and change the values to .05 sec and 5 steps respectively.
- Drag and place “if on edge bounce” block from the motion tab
- Drag and place “forever ever” block from the control tab
- Club together the blocks expect when green flag clicked block.
- Execute the program



THANK YOU & ALL THE BEST