

CS6102 – COMPUTATIONAL THINKING

Week – 8 (05.01.2023)

SCRATCH & TURTLE GRAPHICS

SCRATCH

1. Check the PPT/PDF tutorials shared for how to use SCRATCH, Turtle Graphics
2. Practice the following using **SCRATCH** (Using *Motion, Looks, Sound, Events, Control*)

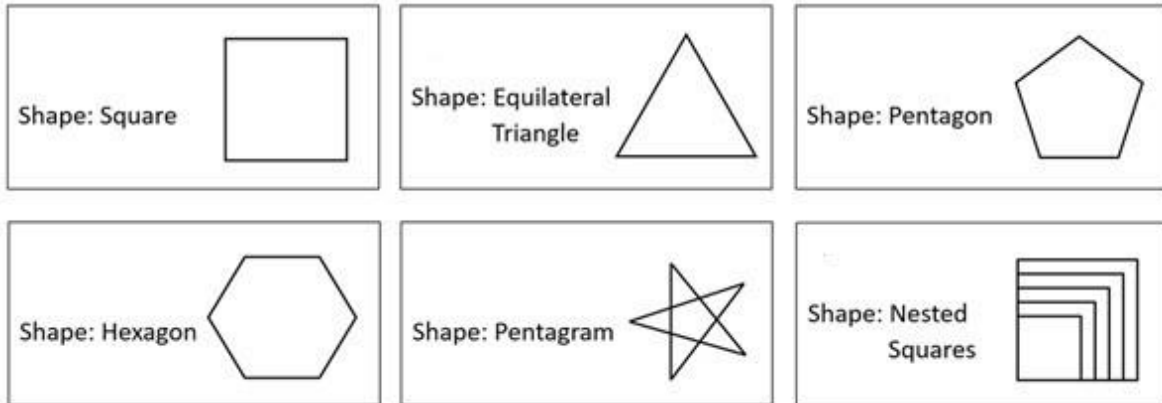
To begin with, write a simple scratch program (sequence of steps), (use flowchart wherever appropriate along with scratch program) for the following tasks and execute the same on your sprite using SCRATCH.

1. Choose a cat sprite and make him say hello for 5 seconds
2. Choose a backdrop accordingly (As cat is going to perform a dance)
3. Add one more sprite (A host to say welcome to the audience)
4. Make the cat sprite to say “Watch me dancing” for 2 seconds
5. To make the cat dance, repeat the following steps for 10 times.
 - a. Rotate the cat sprite to 15 degrees.
 - b. Move 50 steps forward
 - c. Play drum for 0.5 beats
 - d. move the sprite for 50 steps backward
 - e. Play drum for 0.5 beats
6. Change the costume of cat sprite after waiting for 2 seconds
7. Move the cat sprite 50 steps forward
8. If the sprite finds any obstacle, make the sprite move 50 steps backward
9. To make the horse sprite run, repeat the following steps for 10 times
 - a. Start the horse sound
 - b. Turn 5 degree
 - c. Change the pitch by 20 times
 - d. Move 20 steps
 - e. Play the horse running sound
 - f. Move 10 steps

Note: Explore alternate ways of getting the same effects

TURTLE GRAPHICS

3. Create Turtle Graphics using SCRATCH for the following shapes



4. Using scratch, design a script which would accomplish your sprites perform the following tasks.

- a) Draw a car
- b) Draw a smiley Face
- c) Draw a house
- d) Draw a sail boat

