



## IP Assignment

### **Problem 1:**

You will be given a 10-second video of an image that contains a particular number of regular shapes with different colours. You are required to print the name of the shape and its colour in sequence (first, row 1 elements, then row 2 elements in order) on your terminal.

For Eg. 1)Rectangle: Red

2)Triangle: Blue

Print rectangle for every four-sided figure.

We have attached a sample video, but your code should be able to run on any video not limited to this one only.

You can find the sample video and test videos in the link given at the end of the assignment.

### **Problem 2:**

You are given a sample image that contains a matrix of 8x8. Cells are filled with 2 different colours: Blue and Yellow. You have to go from starting cell (1,1) to the end cell (8,8).

From each cell, you can either move to right, left, up or down. **You are not allowed to go through Yellow cells. You can only touch Blue cells.** You have to print the path (coordinates) on the terminal that you will be taking to go from starting point to endpoint (Print the coordinates for the cells)

Note: The first and the last cell will always be marked Blue.

Output Form:

(1,1),(1,2) (2,2), (3,2), (4,2),(4,3),(5,3),(5,4),(5,5),(5,6),(6,6),(7,6),(8,6),(8,7),(8,8)

You can find the sample image and test images in the link given at the end of the assignment.

**Link for Sample images and test images:**

[https://drive.google.com/open?id=1VspqqikA2qU\\_m0l1UBGGxR8JqkfJieu9](https://drive.google.com/open?id=1VspqqikA2qU_m0l1UBGGxR8JqkfJieu9)