Planter Bot
Task 1B – Overlay flowers on detected color objects

Dear Participants,

Due to some technical issues the quality of video in the Task-1B was not as expected. We have made necessary correction in the video. Consider this document as a supplement to "Task1B_Desription.pdf". This document lists down the changes made in the video. Consider this new video for performing the task 1B. Please ignore the previous video.

Update:

The updated video has 39-seconds of play time, having frame rate of 16fps, containing objects which appear over time as the video progresses. The resolution of each frame is: 1280x720.

Your code should return a **39 second** video with the following features:

1. The video should be displayed at 16fps having the same aspect ratio and resolution as the original video i.e. 1280x720
2. Each colored object appearing in the video must be overlaid with the corresponding flower image (Refer to Table 1 in "Task1B_Discription.pdf")
3. As soon as each new object appears, the overlay for the previous object should disappear .i.e. **at a time only the latest occurring object will have an overlay.**

Rules:

1. You need to write a **generic program**. Note that we have provided one **39 second** long video with multiple objects of different colors. In addition, ***your code will be tested on several undisclosed "videos" when you submit your code.***
2. Use basic knowledge of Video processing using OpenCV to convert video to a series of frame or individual images.
3. Objects are not rotated or differently oriented with respect to each other.

In case objects are found in a frame, please overlay the flower image specific to that color.

Note 1:

Through this update everything in Task 1B remains unchanged except the video file and its specification.

Note 2:

The video when played in any available media player software will playout for 39 seconds @16fps. However, when using OpenCV APIs like cv2.imshow followed by cv2.waitKey; use a waitKey value of 40 for actual playout of 39 seconds @16fps. Any other waitKey value will either stretch (>40) or reduce(<40) the playout time depending on the value.

```
cv2.imshow("frame",frame)
cv2.waitKey(40)
```

Note 3:

The file named **"videostream.py"** is a code tutorial for verifying the framerate, number of frames and video playout as a tutorial.

Happy Learning!

All The Best!!!