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In [1]: import matplotlib.pyplot as plt
import numpy as np
import cv2
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In [6]: #Get the reference to our Webcam
#create a VideoCapture object
#Normally one camera will be connected. So I simply pass 0
#You can select the second camera by passing 1

WebCam=cv2.VideoCapture(0)

while(True):
    #reading a new frame

    #Frame will get the next frame in the camera.
    #Ret will obtain return value from getting the camera frame, either true or false

    ret,frame=WebCam.read()

    #show the frame
    cv2.imshow("New Frame", frame)

    #exit the camera if a key pressed(here it is the Letter 'q')
    if cv2.waitKey(1) & 0xFF == ord("q"):
        break

WebCam.release()
cv2.destroyAllWindows()
```

```
In [7]: # get the reference to the webcam
WebCam2 = cv2.VideoCapture(0)
HEIGHT = 500

while(True):
    # read a new frame
    _, frame = WebCam2.read()

    # flip the frame
    frame = cv2.flip(frame, 1)

    # add rectangle
    cv2.rectangle(frame, (250, 75), (500, 375), (0, 0, 255), 4)

    # show the frame
    cv2.imshow("Capturing frames", frame)

    # quit camera if 'q' key is pressed
    if cv2.waitKey(1) & 0xFF == ord("q"):
        break

WebCam2.release()
cv2.destroyAllWindows()
```

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In [14]: #Save a picture when clicking S key
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In [5]: WebCam3 = cv2.VideoCapture(0)
HEIGHT = 500
FrameArray = []

while(True):
    # read a new frame
    ret, frame = WebCam3.read()

    # flip the frame
    frame = cv2.flip(frame, 1)

    # add rectangle
    cv2.rectangle(frame, (250, 75), (500, 375), (0, 255, 0), 4)

    # show the frame
    cv2.imshow("Capturing frames", frame)

    key = cv2.waitKey(1)

    # quit camera if 'q' key is pressed
    if key & 0xFF == ord("q"):
        break
    elif key & 0xFF == ord("s"):
        # save the frame

        roi = cv2.cvtColor(frame, cv2.COLOR_BGR2RGB)
        FrameArray.append(roi)
```

```
    # preview the frame
    plt.imshow(roi)
    plt.show()

WebCam3.release()
cv2.destroyAllWindows()
```

