In [ ]:
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### opnen cv  exmple
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In [1]:
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import cv2
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In [16]:
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image= cv2.imread(r"C:\Users\shubham lokare\Downloads\Virat_Kohli_in_PMO_New_Delhi.jpg")
cv2.imshow('shubham' , image)
cv2.waitKey()
cv2.destroyAllWindows()
```

In [17]:
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## load the image and convert rgb color into gray color
import cv2
face_classifier = cv2.CascadeClassifier(r"C:\Users\shubham lokare\Downloads\haarcascade_frontalface_default.xml
if face_classifier.empty():
    raise Exception("Failed to load cascade classifier. Check the path and file existence.")

# Read the image
image = cv2.imread(r"C:\Users\shubham lokare\Downloads\Virat_Kohli_in_PMO_New_Delhi.jpg")

# Convert image to grayscale
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)

# Detect faces
faces = face_classifier.detectMultiScale(gray, 1.3, 5)

# If no faces found
if len(faces) == 0:
    print("No face found")
else:
    # Draw rectangle around each face
    for (x, y, w, h) in faces:
        cv2.rectangle(image, (x, y), (x + w, y + h), (127, 0, 225), 2)

    # Display the output image with detected faces
    cv2.imshow("Face Detection", image)
    cv2.waitKey(0)

cv2.destroyAllWindows()
```

In [19]:
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#### face and eye detection

import cv2

face_classifier = cv2.CascadeClassifier(r"C:\Users\shubham lokare\Downloads\haarcascade_frontalface_default.xml
eye_classifer = cv2.CascadeClassifier(r"C:\Users\shubham lokare\Downloads\haarcascade_eye.xml")

### load the image
image = cv2.imread(r"C:\Users\shubham lokare\Downloads\Virat_Kohli_in_PMO_New_Delhi.jpg")

### convert the image in gray

gray = cv2.cvtColor(image,cv2.COLOR_BGR2GRAY)

### the detect the feature of image

faces = face_classifier.detectMultiScale(gray,1.3 ,5)

if len(faces)==0:
    print("face is not found")

else :
    for (x,y,w,h) in faces :
        cv2.rectangle(image ,(x,y) ,(x + w , y + h) ,(127,0,225) ,2)
        cv2.imshow('face_detection' ,image)
        cv2.waitKey(0)

        roi_gray = gray[y:y+h , x:x+w]
        roi_color = image[y:y+h , x:x+w]

        eye = eye_classifer.detectMultiScale(roi_gray)

        for (ex ,ey,ew,eh) in eye:
            cv2.rectangle(roi_color ,(ex,ey) ,(ex + ew , ey + eh) ,(255 ,255,0) ,2)
            cv2.imshow('face' ,image)
            cv2.waitKey(0)

cv2.destroyAllWindows()
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In [ ]:
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