In [ ]:
```
import cv2
import matplotlib.pyplot as plt
import os
```

In [ ]:
```
# Path to your image
image_path = r'C:\Users\mdmaz\Downloads\Rohit_Sharma.jpg'
output_path = r'C:\Users\mdmaz\Downloads\Rohit_Sharma_detected.jpg'
```

In [ ]:
```
 #Load the pre-trained face detector from OpenCV
face_cascade = cv2.CascadeClassifier(cv2.data.haarcascades + 'haarcascade_frontalface_default.xml')
```

In [ ]:
```
# Read the image
image = cv2.imread(image_path)
if image is None:
    raise ValueError("Failed to load image. Please check the file format and path.")
```

In [ ]:
```
# Convert image to grayscale (face detection works better)
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
```

In [ ]:
```
# Load your image using the full path (use double backslashes or raw string to avoid errors)
image = cv2.imread(r'C:\Users\mdmaz\Downloads\Rohit_Sharma.jpg')
```

In [ ]:
```
# Convert the image to grayscale for face detection
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
```

In [ ]:
```
 #Detect faces in the image
faces = face_cascade.detectMultiScale(gray)
```

In [ ]:
```
# Draw rectangles around detected faces
for (x, y, w, h) in faces:
    cv2.rectangle(image, (x, y), (x + w, y + h), (0, 255, 0), 2)
```

In [10]:
```
# Convert BGR to RGB for displaying with matplotlib
image_rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
```

In [ ]:
```
# Display the image with detected faces
cv2.imshow('Faces detected', image)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

In [ ]:
```
# Display results with matplotlib
plt.figure(figsize=(10, 8))
plt.imshow(image_rgb)
plt.axis('off')
plt.title(f"Detected {len(faces)} face(s) in the image")
plt.show()
```

In [ ]:

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