Walchand College of Engineering, Sangli

Computer Science & Engineering

Third Year

Course: Image Processing

PRN NO : 2020BTECS00207

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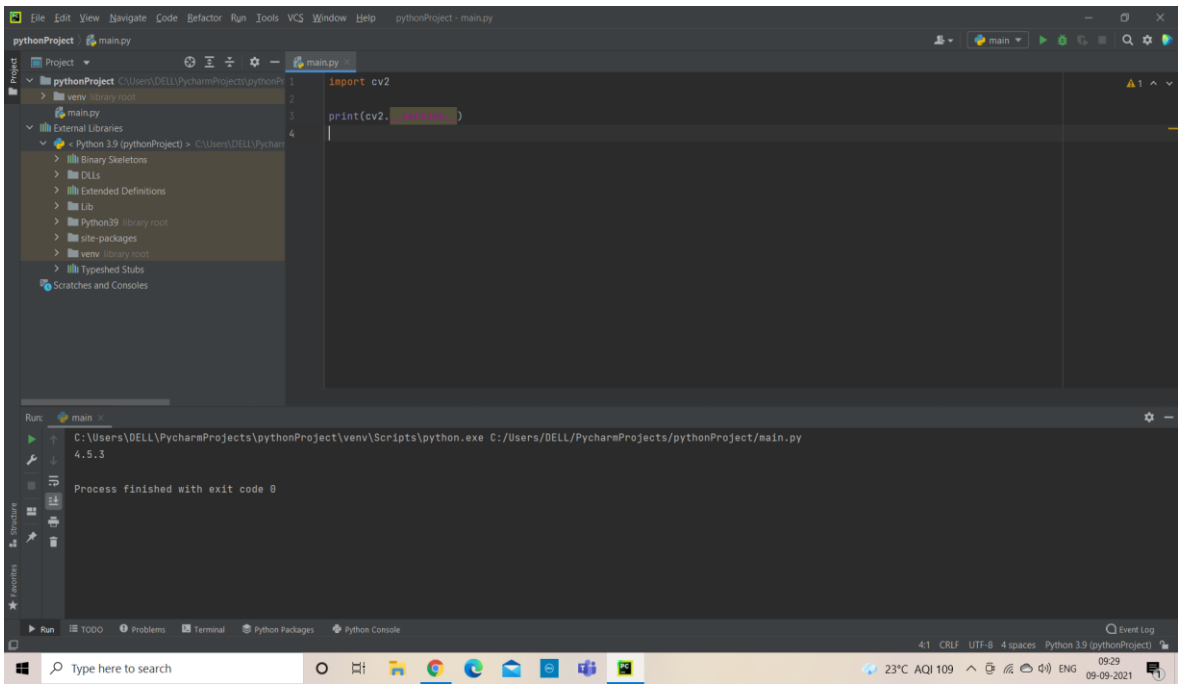
Lab course coordinator : Ms. P.D.Mundada

Batch: - T5

Experiment No:1

Q 1) Study of Open CV:-

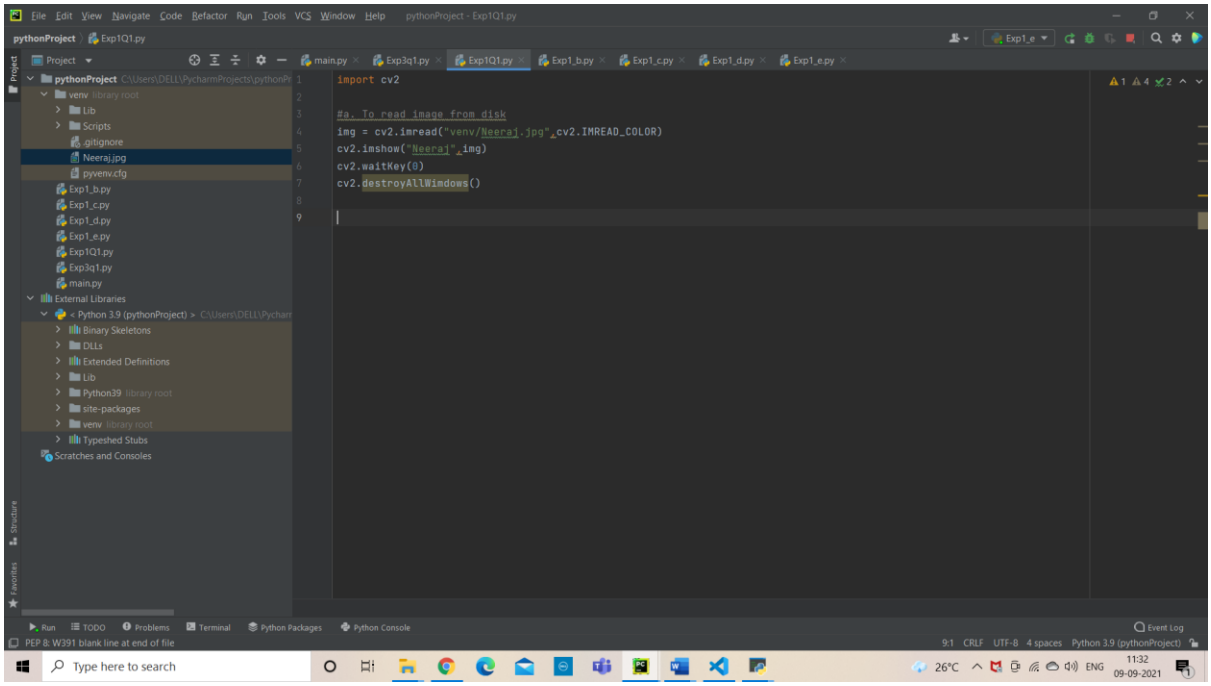
OpenCV (Open Source Computer Vision Library) is an open source computer vision and machine learning software library. OpenCV was built to provide a common infrastructure for computer vision applications and to accelerate the use of machine perception in the commercial products. Being a BSD-licensed product, OpenCV makes it easy for businesses to utilize and modify the code.



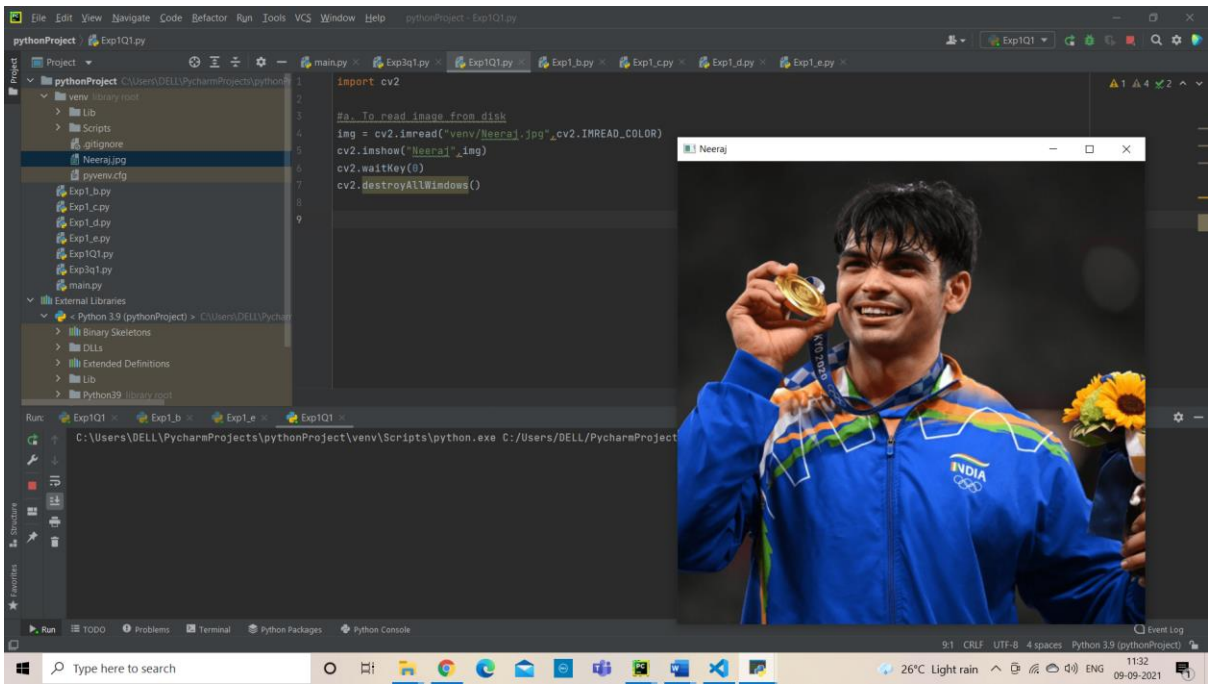
Q 2) Implement using python:

a) Read image

CODE:

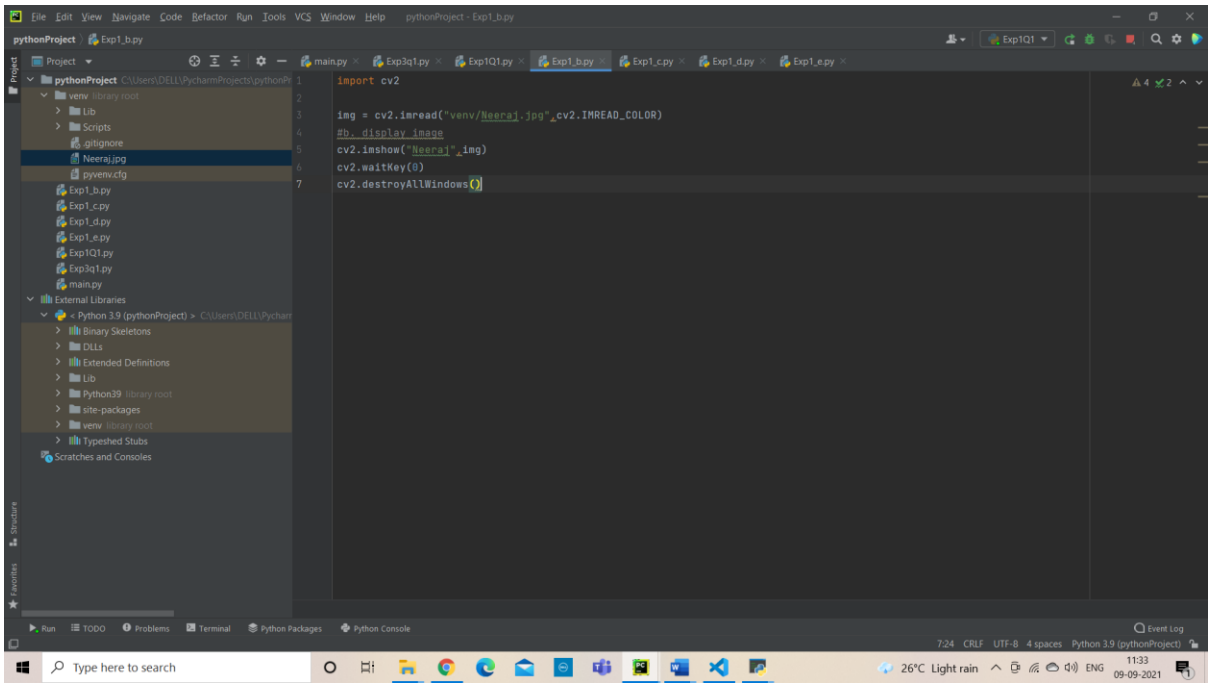


OUTPUT:

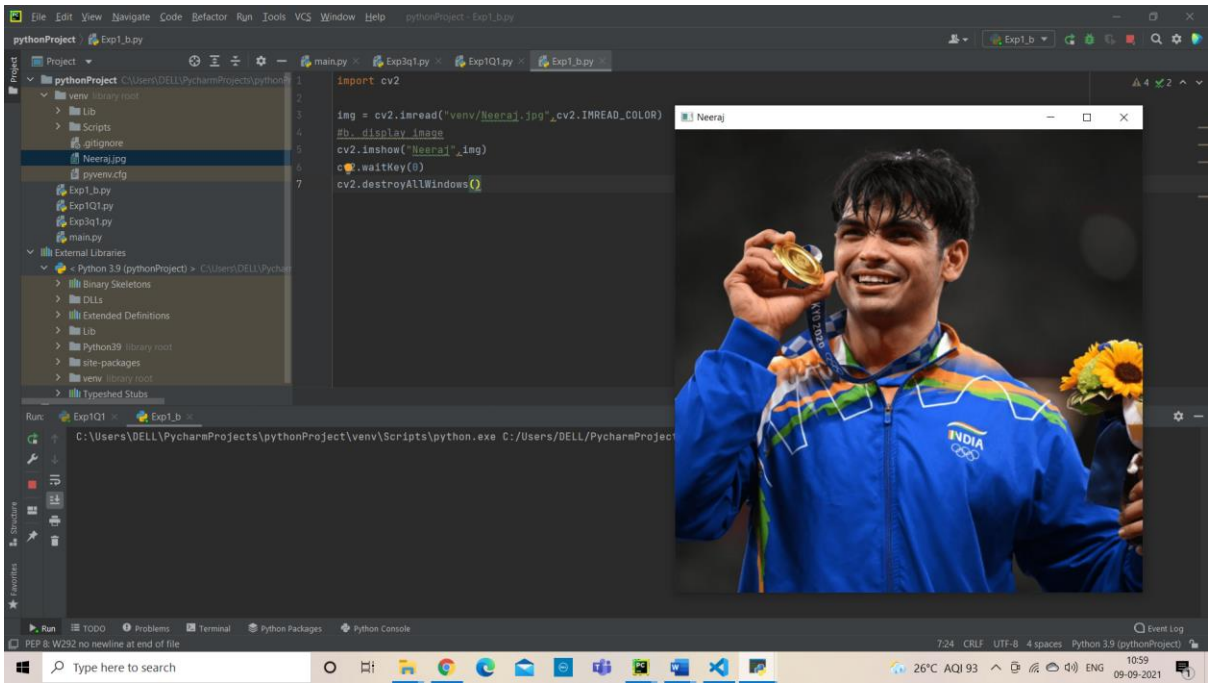


b) Display image

CODE:

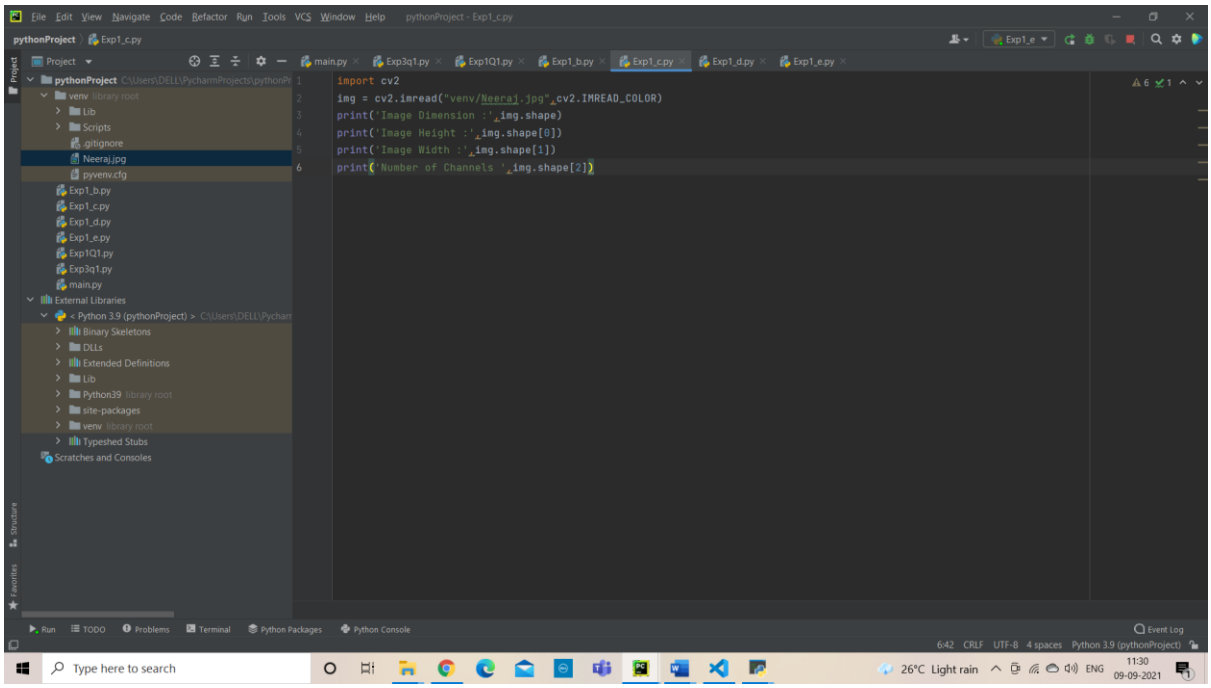


OUTPUT:

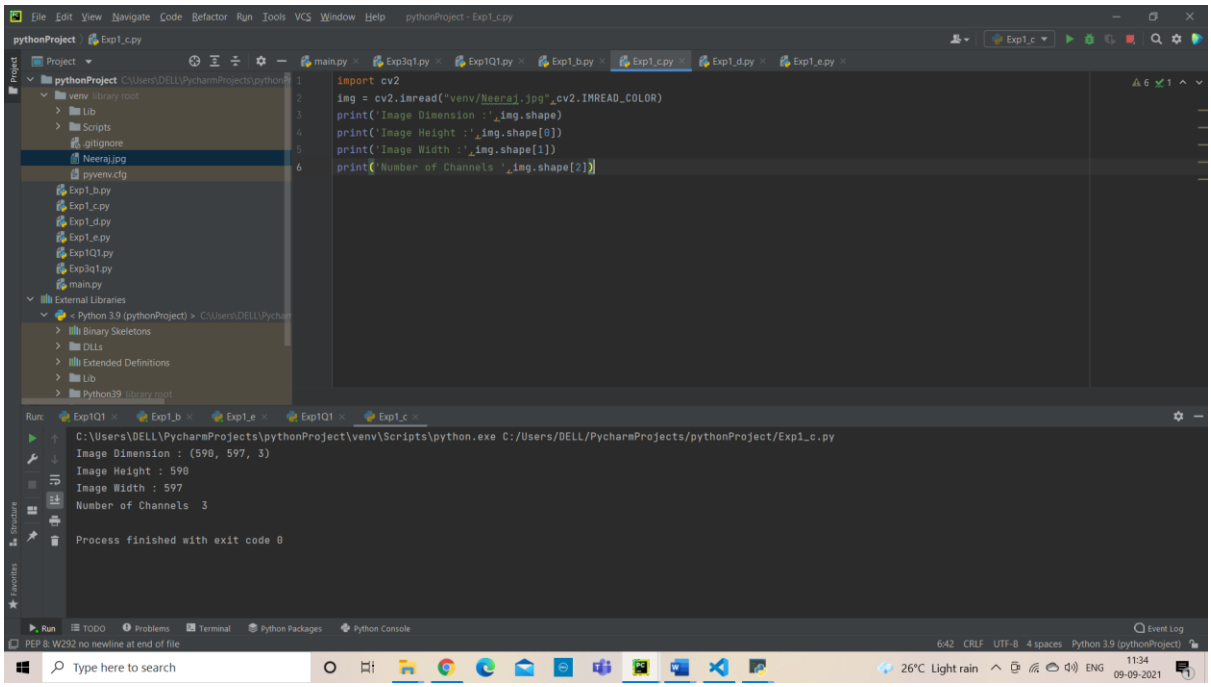


c) Display size of image

CODE:

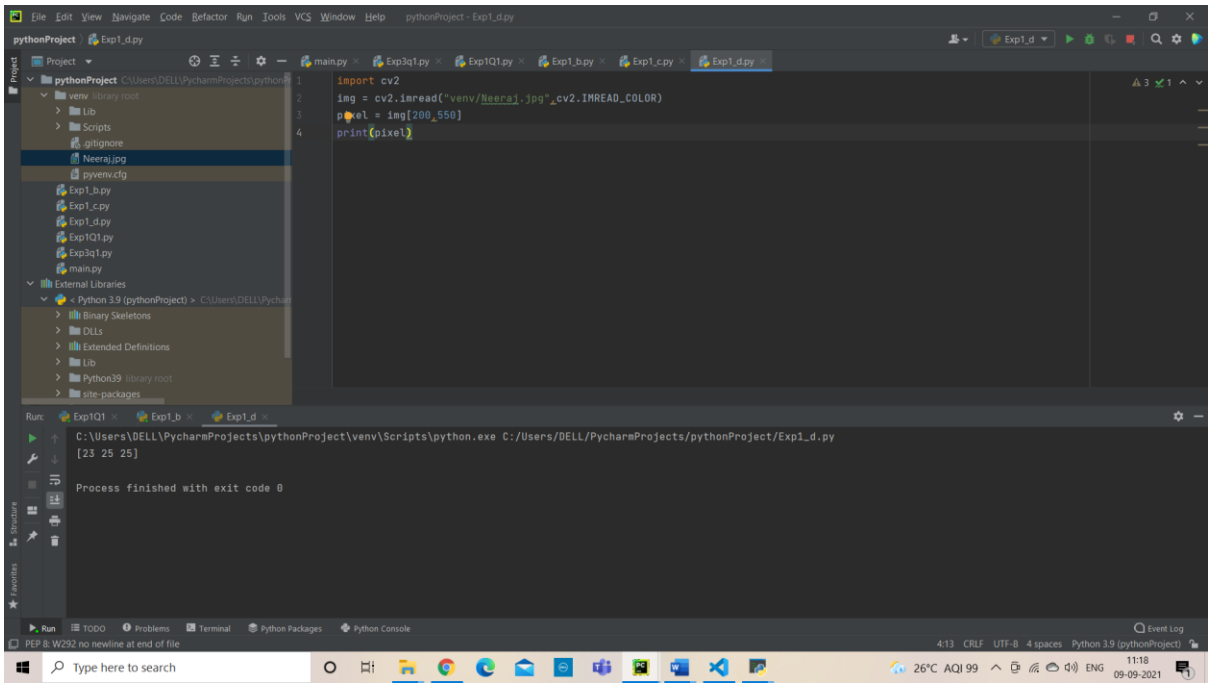


OUTPUT:



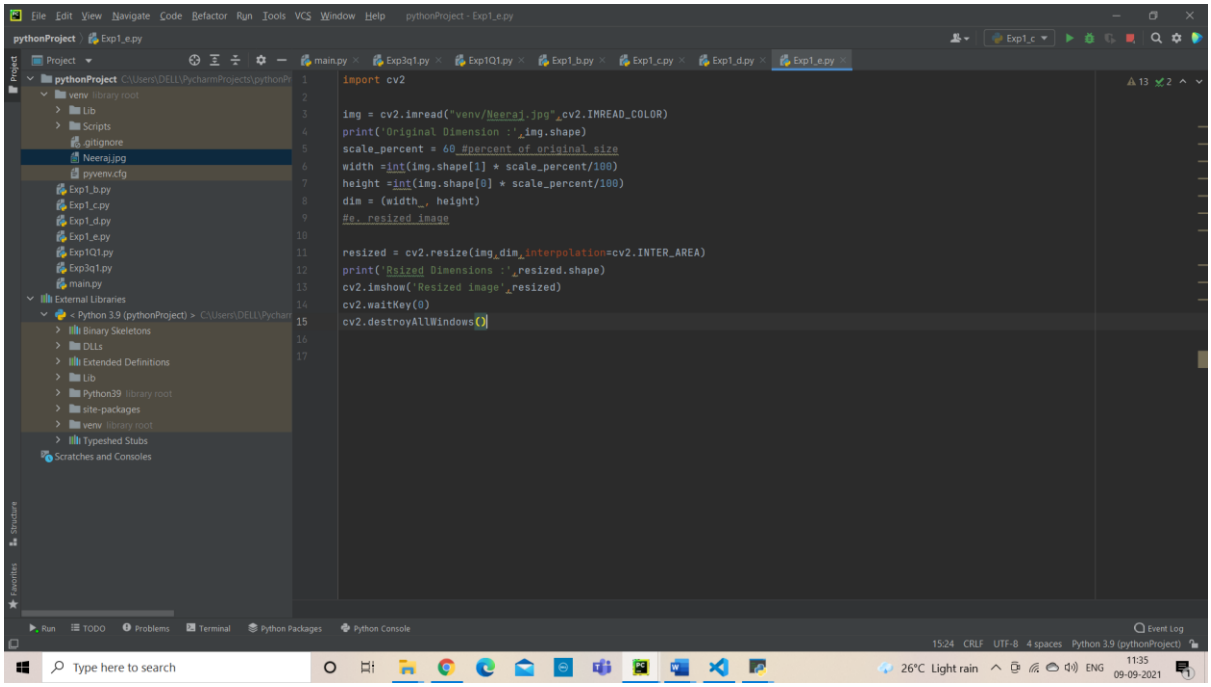
d) Read the grey level value of a pixel at given co-ordinates

CODE & OUTPUT:



e) Resize image and save it

CODE:

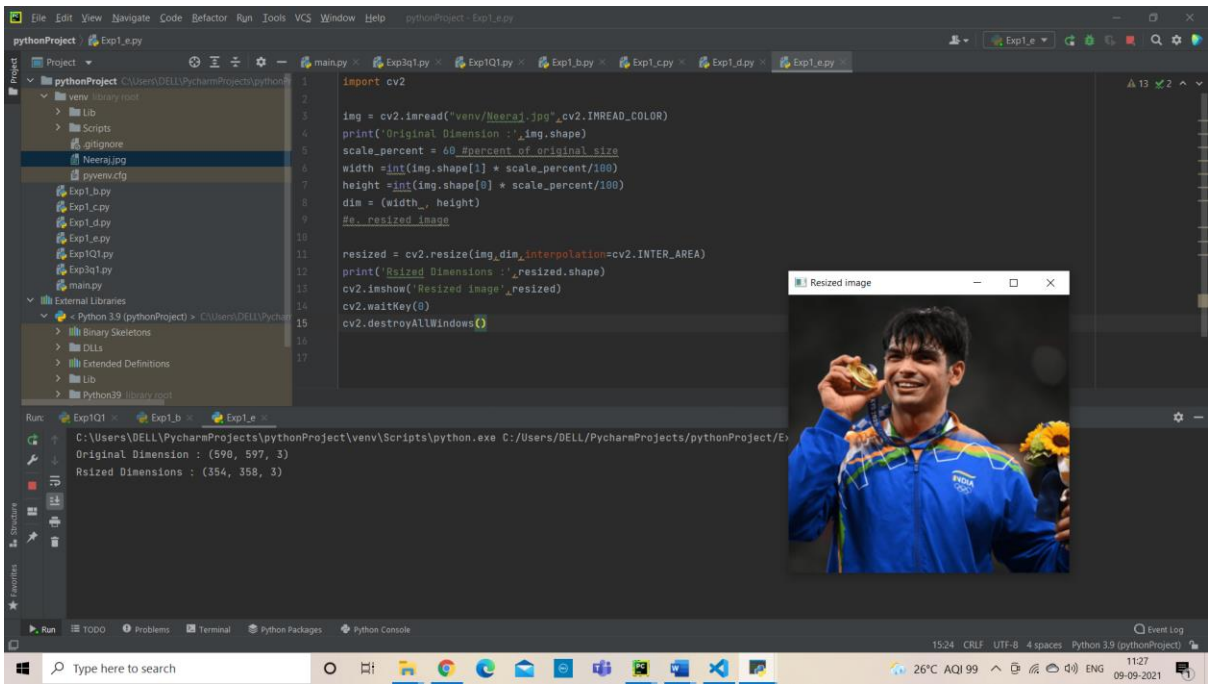


```
import cv2

img = cv2.imread("venv/Neeraj.jpg",cv2.IMREAD_COLOR)
print('Original Dimension :',img.shape)
scale_percent = 60 #percent of original size
width =int(img.shape[1] * scale_percent/100)
height =int(img.shape[0] * scale_percent/100)
dim = (width, height)
#e. resized image

resized = cv2.resize(img,dim,interpolation=cv2.INTER_AREA)
print('Rsized Dimensions :',resized.shape)
cv2.imshow('Resized image',resized)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

OUTPUT:



```
C:\Users\DELL\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/DELL/PycharmProjects/pythonProject/E
Original Dimension : (590, 597, 3)
Rsized Dimensions : (354, 358, 3)
```