LetsGrowMore Data Science Internship

Beginner Level - TASK 4

Prediction using Decision Tree Algorithm:

BY SMRITHIKA ANTONETTE

```python
In [17]:  #Importing Libraries
          import cv2
          import matplotlib.pyplot as plt
```

Read the image in RBG format

```python
In [18]:  image = cv2.imread("CAR.jpg")
          cv2.imshow("Original image of the Plane", image)
          cv2.waitKey(0)
```

Out[18]: -1

Converting the image to GrayScale Image

```python
In [16]:  Grayscale_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
          cv2.imshow("CAR", Grayscale_image)
          cv2.waitKey()
```

Out[16]: -1

Inversion of the Grayscale image

```python
In [13]:  Inverted_image = 255 - Grayscale_image
          cv2.imshow("Inverted GreyScale Plane", Inverted_image)
          cv2.waitKey()
```

Out[13]: -1

Blurring the Inverted Grayscale

```python
In [5]:  blurred = cv2.GaussianBlur(Inverted_image, (51, 51), 0)
         cv2.imshow("Blur InvertedGreyscale",blurred)
         cv2.waitKey(0)
```

Out[5]: -1

Inverting the blurred Inverted Grayscale

```python
In [6]:  Inverted_blurred = 240 - blurred
```

```
cv2.imshow("Inverting the Blur Inverted Greyscale", Inverted_image)
cv2.waitKey(0)
```

Out[6]: -1

Pencil sketch

Done by mixing the grayscale image with the inverted blurry image.

In [7]:
```
pencil_sketch = cv2.divide(Grayscale_image, Inverted_blurred, scale=256)
cv2.imshow("Sketch", pencil_sketch)
cv2.waitKey(0)
```

Out[7]: -1

Displaying both the original image and the pencil sketch

In [8]:
```
cv2.imshow("Original Image of Car", image)
cv2.imshow("pencil sketch of Car", pencil_sketch)
cv2.waitKey(0)
```

Out[8]: -1