2_Pencil Assignment

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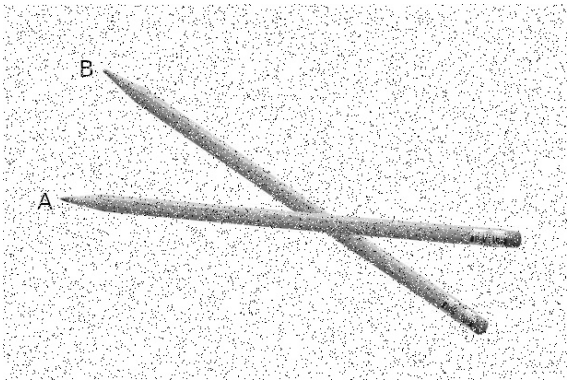
Problem Statement:

You are given an image with 2 pencils(A & B) kept at an angle as shown below and we want to know the length of pencil-B as well as the angle at which these pencils are placed.

Use computer vision techniques to find out:

a) Length of pencil-B.
b) Angle at which pencils are placed with each other.



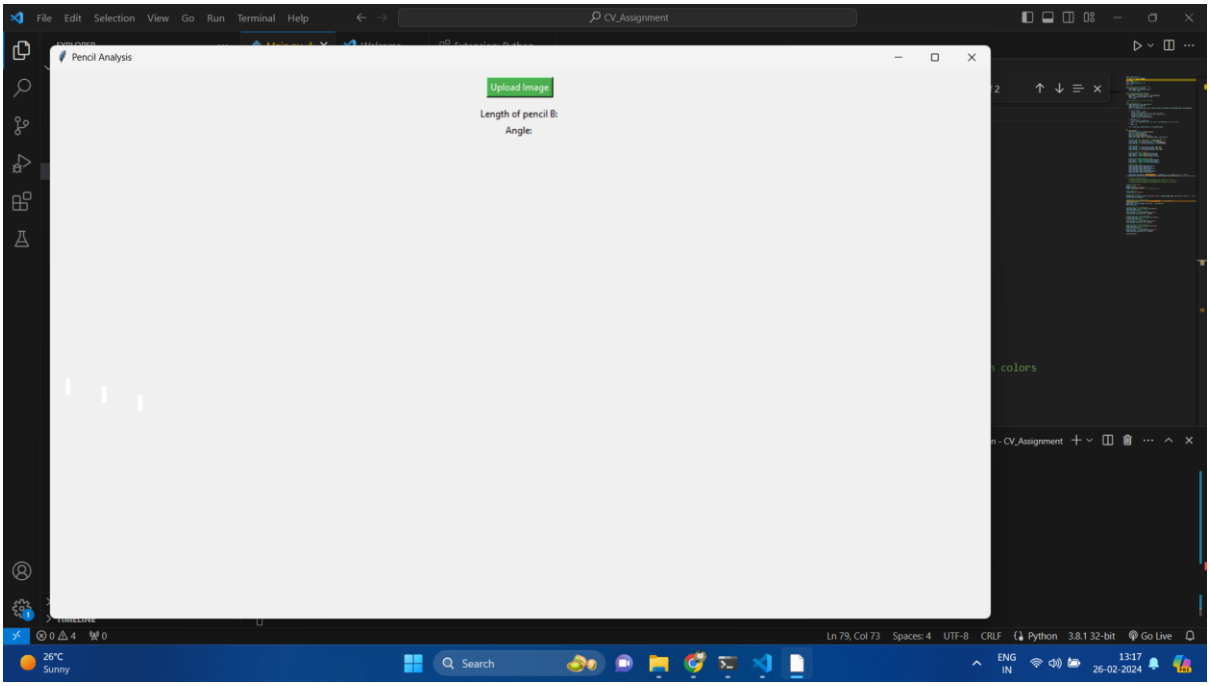
Solution:

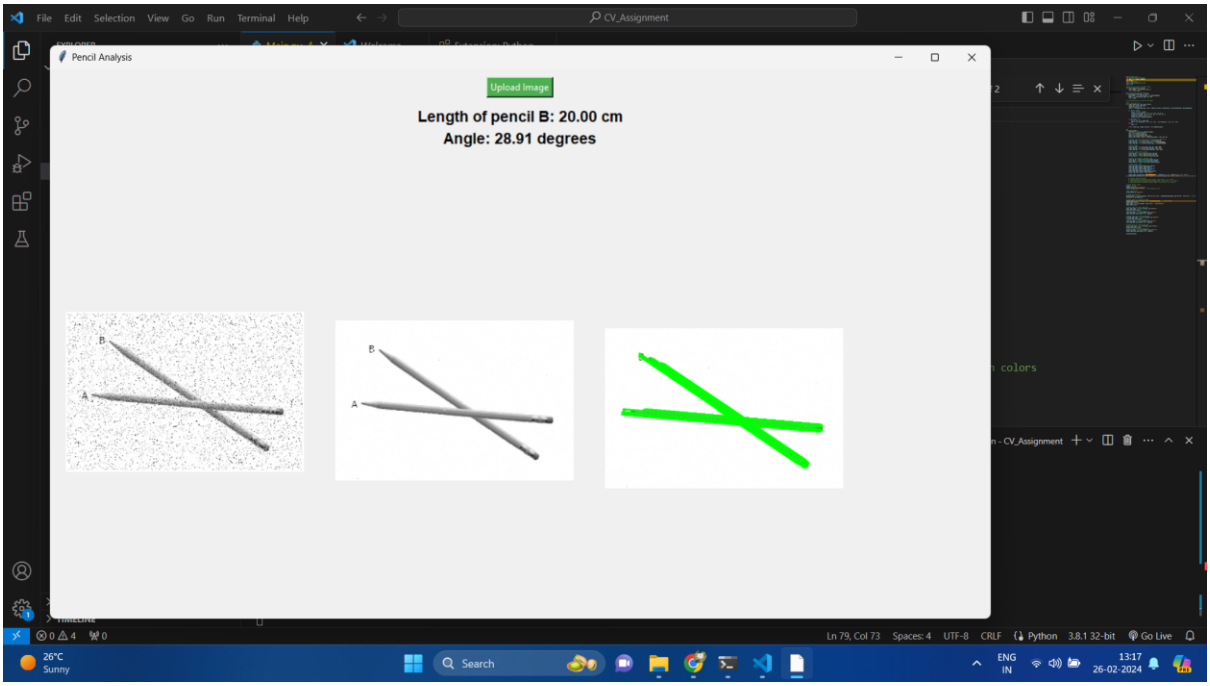
GUI Application for Object length Detection

Approach:

a) Noise Removal – Median Blur (Image matches Salt pepper Problem)
b) Edge Detection – Canny Edge detection
c) Mapping lines over the pencil – HoughLinesP
d) Finding length and Angle – Getting length in cm and Angle in Degree
(Using PixelPerInch PPI as **65** for transformation of length into cm (Average 72))

Challenges: Overlapping objects, Noises and right parameter for HoughLinesP


Pencil Analysis
Upload Image
Length of pencil B:
Angle:


Pencil Analysis
Upload Image
Length of pencil B: 20.00 cm
Angle: 28.91 degrees