Project Report

Problem Name: Document Scanner using Opencv.

Explanation

In this Project we are building the Document Scanner using Opencv and the other important libraries.
It can be accomplished in three easy steps :
1)Detect edges.
2)use the edges in the image to find the contour (outline) representing the piece of paper being scanned.
3)Apply a perspective transform to obtain the top-down view of the document.

We use Gaussian Blurring technique to remove high frequency noise and perform the canny edge detection.Finding contours after that with having an assumption that we want the largest area contour rest are useless for us.Two steps are done at last we are doing the perspective transform that is obtaining the top down view of the image which is the last section at the end.
It should work when it get four cornered document that is generally what we scan because counter is made on the basis of that only.Corners should be properly visible .We will try to improve this...

Important things:
imutils for the resizing of the image,gaussian blurring for removing the noise ,canny edge detection and four_point_transform for the top view .

Only one file is there that is scan.py which is main and another one is transform.py which is helping in generating the perspective transform.

1)scan.py
2)imp/transform.py

How to run:

first file:
python scan.py -i images/page.jpg