

AIMBIGATHON 2.0

Stay Hungry. Stay Foolish

Team Details

Team Name: **Technocrates**

Problem Code: ET-01

Members	Name
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Team Member 4	> Shanmuga Raja Rajeshwaran M
Team Member 5	> Rithika M S

Abstract

- Vehicle theft has become a serious problem in India and the crime is growing at an excellent rate.
- According to article "In 2018, the police said, of the 44,158 stolen vehicles, 32,984 were two-wheelers and 8,036 were cars. However, only 10.46% vehicles were recovered".
- Remaining 90% of the vehicles are hidden or being used by the thieves in a hidden manner.
- So to avoid this problem , we approached a solution based on machine learning.
- Our basic idea deals with processing of image captured by webcam and give the details about the vehicle ,its owner and whether it is stolen or not.

Abstract

- Machine Learning is one of the amazing and important thing used in this world of technology .
- Using Machine Learning Image Processing techniques, we grab the image of the vehicle and process it to show the License Plate number.
- This processing is Called License Plate Recognition.
- After the License Number is retrieved we search it in the Database and Check whether the vehicle is Stolen or Not.
- All this are implemented in web application.

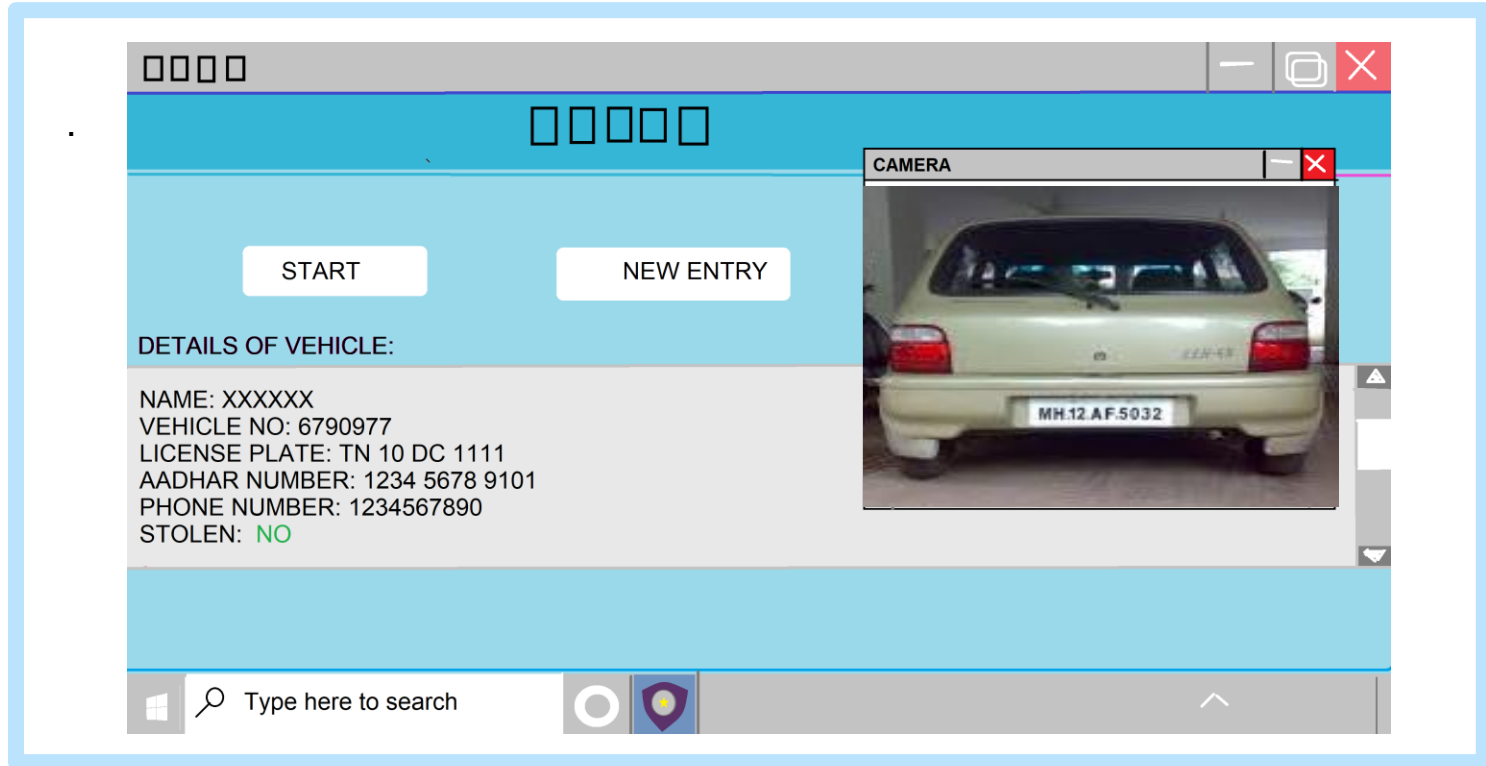
Example Scenario

Let us consider the Bike of number TN 02 G 1234 is stolen and the Bike Details and is Stolen is given complaint by the owner.

If the bike ever crosses the webcam which can capture image (At tollgate) the details will be shown and if the complaint is given .

Then we can identify that the bike is stolen and take actions. This is general case .but, apart from this there are several case scenarios which this problem which can be solved by our project.

Sample Image



□□□□


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START NEW ENTRY

DETAILS OF VEHICLE:

NAME: XXXXXX
VEHICLE NO: 6790977
LICENSE PLATE: TN 10 DC 1111
AADHAR NUMBER: 1234 5678 9101
PHONE NUMBER: 1234567890
STOLEN: NO

CAMERA

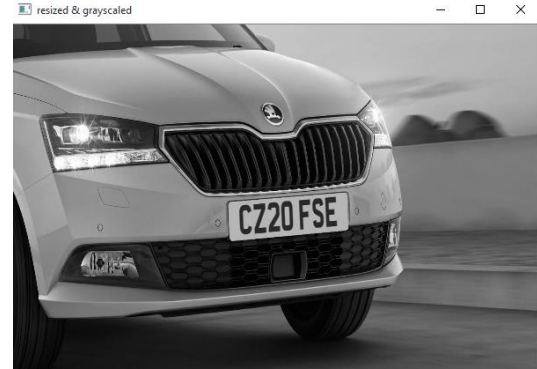


Type here to search

Image Processing

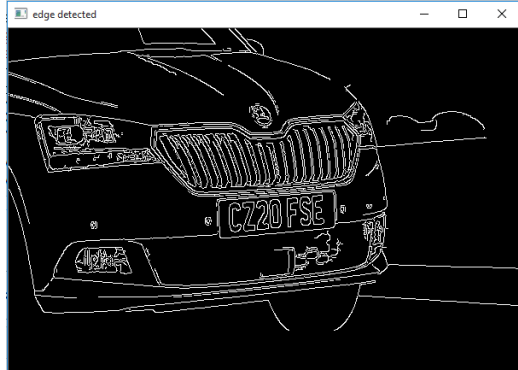


ORIGINAL IMAGE BEFORE
PROCESSING

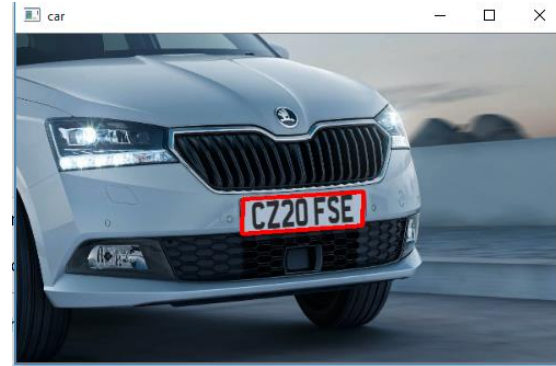


Converted as gray and
resized

Image Processing

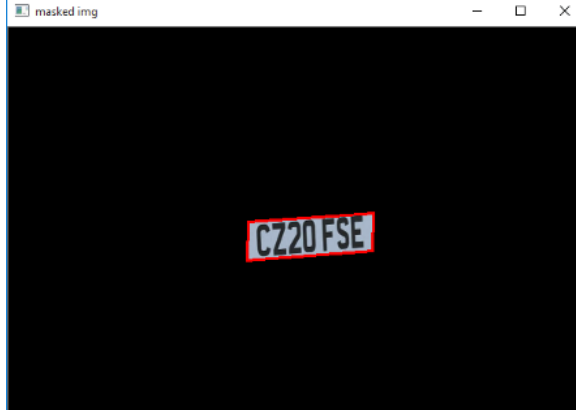


Finding the edges
of the image



Contour finding using
edges and drawing
contour

Image Processing



Masking the image except
contour part



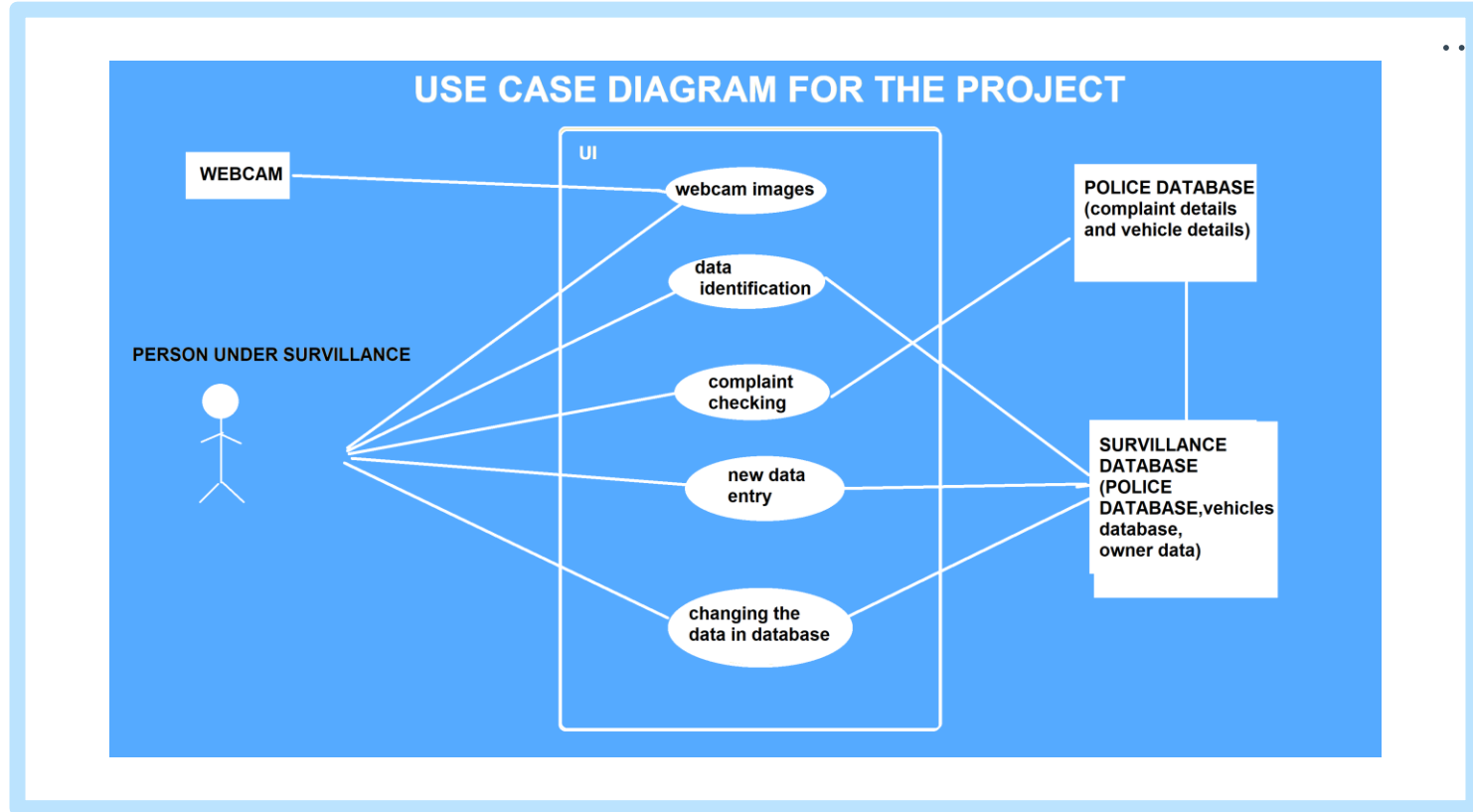
Cropping the image to
contour part

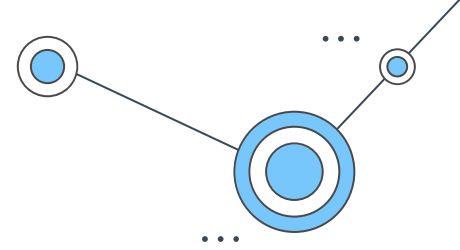
Technology Stack

Describe your technology stack here.

- Front-end -HTML,CSS
- Middleware-Firebase/PYTHON
- Back-end-SQL/Python

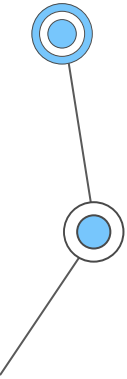
Use Case





Dependencies / Show stopper

- 1.Internet
- 2.Image processing
- 3.Database
- 4.System and Webcam



Thank You