PROJECT STRUCTURE

Team ID	PNT2022TMID10706
Project Name	Intelligent Vehicle Damage Assessment & Cost Estimator For Insurance Companies

Intelligent Vehicle Damage Assessment & Cost Estimator For Insurance Companies:-

Project Structure:

The dataset folder contains two folders one is for car views and another is for damage level prediction which in turn contains folders for test and train . Each folder has the images for different views and damage level of the car.

The Flask folder has all the files necessary to build the flask application

- The static folder has the images, style sheets, and scripts that are needed in building the web page.
- Templates folder has the HTML pages.
- Uploads folder has the uploads made by the user.
- Application.py is the python script for server-side computing.
- .h5 files are the model files that are to be saved after model building.
- Five car companies with their famous model's price and other details are include to find the premium amount.

The below mentioned are the training and testing notebook.

Sprint1.ipynb - training and testing of VGG16 model for the car view prediction.

Sprint2.ipynb- The training and testing of the VGG16 model for the damage level prediction.

IBM folder contains IBM deployment files.

Data Collection:

Create Train and Test folders, each folder having subfolders with car images of different views. We have make use of the image dataset that were posted by Nalaiya Thiran executed by IBM.You can collect datasets from our git hub repository. Two datasets will be used, we will be creating two models one to predict the views of the car image like front, rear and side and second model is to predict the damage level of the car like low, mild and severe.

Image Preprocessing:

Now that we have all the data collected, let us use this data to train the model. Before training the model you have to preprocess the images and then feed them on to the model for training. We make use of Keras Image Data Generator class for image preprocessing.