

Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID35960
Project Name	Project - Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	In the Recent times a lot of money is being wasted in the car insurance business due to leakage claims. Claims leakage Underwriting leakage is characterized as the discrepancy between the actual payment of claims made and the sum that should have been paid if all of the industry's leading practices were applied. Visual examination and testing have been used to may these results. However, they impose delays in the processing of claims. There is no easy way of accessing and knowing about the part of the vehicle getting damaged. Often the processing of such a damaged part of the vehicle carrying the area of damaged part is cumbersome. New methods have to be proposed in order to make it faster and efficient. Processing of Insurance for the cars needs to be assessed in a quicker way so that claims can be provided to the damaged parts.
2.	Idea / Solution description	To automate such a system, the easiest method would be to build a VGG16 model capable of accepting images from the user and determining the location and severity of the damage. The model is required to pass through multiple checks that would first ensure that given image is that of a car and then to ensure that it is in fact damaged. These are the gate checks before the analysis begins. Once all the gate checks have been validated, the damage check will commence. The model will predict the location of the damage as in front, side or rear, and the severity of such a damage as in minor, moderate or severe.

3.	Novelty / Uniqueness	Working on with VGG16 pre-trained model by adding extra layers to increase the accuracy while implementing the project. Designing a model that could accurately detecting the damage from the input image by analysing the patterns using Deep Learning algorithm.
4.	Social Impact / Customer Satisfaction	The model developed will be used to fix the damage caused to the Vehicle quickly so that the vehicle can be modified to the old look and also for faster processing of cost of the damage to claim insurance quickly. This project can be used to save time for calculating the area and level of the damage quickly such that the insurance claim can be made efficiently.
5.	Business Model (Revenue Model)	Employing an application will be a cost effective solution to help customers to get services from the insurance company by the method of collaboration. This can also be used to help car companies as well.
6.	Scalability of the Solution	AI guided Application provides 24/7 service to clear all customer queries and guide them through all the processes. In future, it can be scaled as per the requirements of the insurance or car company to include answers to queries related to the cost based on the inputs provided.