

## Project Design Phase-I Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID01238
Project Name	Project – Intelligent Vehicle Damage Assessment and Cost Estimator For Insurance Companies
Maximum Marks	4 Marks

### Solution Architecture:

To automate such a system, the easiest method would be to build a Convolution Neural Network 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.

The model accepts an input image from the user and processes it across 4 stages:

1. Validates that given image is of a car.
2. Validates that the car is damaged.
3. Finds location of damage as front, rear or side
4. Determines severity of damage as minor, moderate or severe

The model can also further be improved to:

1. Obtain a cost estimate
2. Send assessment to insurance carrier
3. Print documentation

