Ideation Phase
Define the Problem Statements

Date	10 October 2022
Team ID	PNT2022TMID24296
Project Name	Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies
Maximum Marks	2 Marks

Customer Problem Statement:

According to a data collected in 2018, The Average insurance Payment period for small-scale automobile insurance cases is 11.8 days, while the claim period for investigation, damage assessment and claim collection accounts for 9.94 days. Secondly, the accident party's long waiting time at the accident site, slow payment process, unreasonable fixed price and other issues, to a certain extent, reduce customer satisfaction with the insurance company. Hence Intelligent damage determination system can be used to determine the appearance damage of vehicles in small cases.

Who does the problem affect?	The problem affects the accident party who is claiming insurance because of its slow process.
What are the boundaries of the problem?	Accuracy, Fast outcome, Labour Cost, can be updated easily.
What is the issue?	Increasing Accidents leading to delayed insurance claim.
When does the issue occur?	When an accident occurs.
Why is it important to fix this problem?	It is required because many can't afford ready payments when accidents occur. They usually rely upon Insurance.
What solution to solve this issue?	A CNN model can be proposed to identify the severity of damage and a report can be filed and sent to the user and insurance firm.

What methodology used to solve the issue?	A CNN and image classification model can be used which takes the input from a user as an image to test the severity of damage, that can happen in a sequence of two steps. First being the image classification, here the input provided by the user is processed by the neural network to identify the car that is if the car is damaged or not. and on the second step, the flattened input obtained as the output in step 1 can be applied for object detection to identify the region and severity of damage, where region damaged might be classified into minor, moderate and major.

Example:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
Problem Statement-1	Insurance Claimed person	Claim Insurance for my damaged car	Insurance Claim reaches me only after 10 days	of Computable difficulties	Frustrated