Ideation Phase
Define the Problem Statements

Date	18-05-2023
Team ID	NM2023TMID14621
Project Name	AI enabled car parking using openCV
Maximum Marks	2 Marks

Problem Statement :

Inefficient car parking management is a prevalent issue that results in several challenges, such as congestion, difficulty finding parking spaces, and reduced overall parking efficiency. The traditional methods of manual parking space detection and monitoring are prone to errors, leading to a sub-optimal utilization of parking resources. As a result, customers face long wait times, frustration, and increased traffic congestion, leading to environmental and economic consequences.

To address these challenges, an AI-enabled car parking solution using OpenCV can be developed to automate parking space detection, monitoring, and guidance. The solution will utilize computer vision algorithms to detect and track vehicles, analyze parking occupancy in real-time, and provide accurate guidance to drivers for available parking spaces. This will improve the overall parking experience, reduce congestion, and optimize the utilization of parking resources, resulting in improved customer satisfaction, increased traffic flow, and reduced environmental impact.

Therefore, the problem statement is to develop an efficient and reliable AI-enabled car parking solution using OpenCV that can automate parking space detection, monitoring, and guidance to optimize parking resources and improve the overall parking experience for customers.

Customer Problem Statement :

I am a car park manager, and I'm facing challenges with inefficient car parking management. The current manual processes result in congestion, difficulty in finding parking spaces, and reduced overall parking efficiency. These issues lead to frustrated customers, longer wait times, increased traffic congestion, and a negative impact on the environment.

I need an AI-enabled car parking solution to address these challenges. The solution should utilize OpenCV and computer vision algorithms to automate parking space detection, monitoring, and guidance. The current lack of automated systems and real-time data analysis makes it difficult to optimize parking resources and provide accurate guidance to drivers for available parking spaces.

Without an AI-enabled car parking solution using OpenCV, my parking facility struggles to provide a seamless parking experience, resulting in customer dissatisfaction, reduced revenue, and an inefficient use of parking resources. I need a solution that can enhance customer satisfaction, reduce congestion, and optimize the utilization of parking spaces, ultimately improving the overall parking experience for my customers.