# PROJECT DESIGN PHASE I

## SOLUTION ARCHITECTURE

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| Date | 04/11/2023 |
| Team ID | Team-592404 |
| Project Name | AI Enabled CAR Parking Using OPENCV |
| Maximum Marks | 4 Marks |

## AI ENABLED CAR PARKING USING OPEN CV:

AI-enabled car parking systems, harnessing the power of OpenCV, are a game-changer in modern urban mobility. By employing computer vision and machine learning, these systems detect, monitor, and optimize parking spaces. OpenCV facilitates real-time object recognition, space occupancy tracking, and license plate recognition. This not only simplifies the parking process for drivers but also enhances security and revenue for operators. With the ability to guide drivers to available spots and automate payment, these systems reduce congestion, save time, and minimize environmental impact. However, they come with initial implementation costs and privacy considerations. Nevertheless, AI-enabled car parking using OpenCV represents a smart, data-driven solution for efficient and convenient parking management in our increasingly crowded cities.

## SOLUTION ARCHITECTURE:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed and delivered.

## DIAGRAM: