Project Design Phase – I

Solution Architecture

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| Team ID | NMIoT05EN |
| Project Name | IOT Based Street Quality Idebtification |

Solution Architecture

Solution architecture refers to the process of designing a software solution that meets the specific needs and requirements of an organization or a particular project. The solution architecture process involves analyzing the business requirements, identifying the technical constraints and opportunities, and creating a plan for implementing the solution.

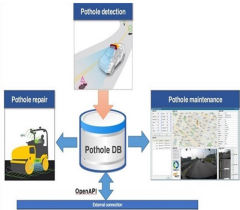
 First find the best solution to implement and rectify the solution.

 Assessing and selecting the appropriate technologies, platforms, and tools that will be used to implement the solution.

 Define the requirements to design the project and define how the model rectify the problem

 Creating detailed documentation, including architectural diagrams, specifications, and guidelines, to guide the development and implementation of the solution.

Solution diagram



Data base Analysing and reporting

 User App: It allows users to search for location of the quality of streets.

 Web Application: The web application provides a browser-based interface for users. It handles user requests, manages session data, and communicates with the API gateway.

 Load Balancer: The load balancer distributes incoming requests across multiple instances of the web application to ensure scalability and high availability.

 API Gateway: The API gateway serves as a centralized entry point for client requests. It handles request routing, authentication, authorization, and implements security policies.

 Authentication: The authentication component manages user authentication and authorization. It verifies user credentials, issues access tokens, and enforces access control.

 Camera and Sensors: Cameras and sensors are deployed in vehicles to capture picture streams and collect data on the quality of streets. They provide input to the integration layer for real-time analysis.

 Database:The database stores and manages data related to location of the quality of streets and system configurations. It provides persistent storage for the system.

 Analytics and Reporting: The analytics and reporting component collects data from various sources, performs analysis, and generates insights and reports. It enables system optimization, decision-making, and business intelligence.