Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	16 May 2023
Team ID	NM2023TMID01183
Project Name	Street quality identification

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	**User authentication requirement**	Provide secure login mechanism for authorized users to access the system.
FR-2	**Mobile accessibility requirement**	Ensure the system is responsive and accessible on mobile device, allowing user to access the street quality information.
FR-3	**Notification requirement**	Sent timely notifications or alerts to user regarding significance changes in street quality, road closures, or safety concerns.
FR-4	**Reporting requirements**	Allow the users to generate reports, summarizing street quality assessments.
FR-5	**Data export requirement**	Provide a options to export data in a various formats, such as CSV or PDF for the further analysis or sharing.
FR-6	**Feedback requirements**	Enable users to provide feedback on street quality or report specific issues the encounter.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Efficient, user-friendly interface with real-time data visualization , intuitive mapping functionality , and clear indicators for smoothness, potholes ,cracks, and overall road condition.
NFR-2	**Security**	Implementing security measure to ensure accurate street quality identification through continuous monitoring, data encryption, and strict access controls.
NFR-3	**Reliability**	Ensuring reliable street quality identification through robust data collection, advanced analytics, and quality assurance protocols.

NFR-4	**Performance**	The performance of street quality identification can vary depending on the specific method and technologies used. However, recent advancements in computer vision and machine learning techniques have significantly improved the accuracy and efficiency of street quality identification systems.
NFR-5	**Availability**	Widely accessible and readily available for users, providing real-time street quality data and analysis through user-friendly platforms and applications.
NFR-6	**Scalability**	Designed to handle large –scale data processing and analysis, allowing seamless expansion and integration with diverse urban environments. Capable of efficiently accommodating growing user demand and increasing data volumes while maintaining high performance and accuracy.