Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	○ User needs to login ○ Registration needs to be done by giving their name, mobile number and locality
FR-2	Identify bin location	○ Identify the location of dustbin using Google maps
FR-3	Monitoring details	○ This process gives a brief description about the bins. ○ Using Capacitance sensor the level of the bin can be measured ○ Ultrasonic sensor is used for opening and closing of the lid for the bin
FR-4	Buzzer	○ Buzzer should alert the public people by giving the alarm

Admin	○ If the buzzer is alert means it will send notification to authorized persons

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	IoT device verifies that usability is a special and important perspective to analyze user requirements, which can further improve the design quality.
NFR-2	**Security**	We propose a Secure Incentive based Waste monitoring system to encourage garbage segregation at the initial level.
NFR-3	**Reliability**	Smart waste management is also about creating better working conditions for waste collectors and drivers. Instead of driving the same collection routes and servicing empty bins, waste collectors will spend their time more efficiently, taking care of bins that need servicing.
NFR-4	**Performance**	The Smart Sensors use ultrasound technology to measure the fill levels. focuses on solving the previously mentioned solid waste management problems using sensors, intelligent monitoring systems, and mobile applications.
NFR-5	**Availability**	By developing & deploying resilient hardware and beautiful software we empower cities, businesses, and countries to manage waste smarter
NFR-6	**Scalability**	Using smart waste bins reduce the number of bins inside town , cities as we are monitoring the whole 24 hours of 7days Smart waste bins are more cost efficient and scalability