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

Date	14 October 2022
Team ID	PNT2022TMID31301
Project Name	Project- IOT Based Safety Gadget for Child Safety Monitoring & Notification
Maximum Marks	4 Marks

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	Registration through Form Registration through Gmail Registration through App Registration through Social Media
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP Confirmation via Call
FR-3	App Installation	Installation through Link Installation through Play Store/App Store
FR-4	Database	Location history is stored in the cloud Values include distance, latitude, longitude
FR-5	Detecting Child Location	Detecting location via app Detecting location via SMS Detecting location through Website
FR-6	User Interface	User login form Admin login form
FR-7	User Notification	Notification through Message Notification through Gmail

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The programme comprises of a small setup established in the phone that allows SMS or notifications to be sent to parents. Given that the device includes a GSM, it can assist parents and guardians know where their children are at any given time, enabling them to respond quickly in the event of an emergency. The device is small and simple to use, and Its use is impervious to error.
NFR-2	**Security**	It creates a secure atmosphere for kids to play outside. Given that the device combines GPS and GSM to track the child's current location, it gives parents peace of mind regarding their children's safety.

NFR-3	**Reliability**	It is also tensile, transportable, and simple to access. The cloud can be used to store the children's surveillance data. The user will receive an update if any faults are discovered, which is necessary for the device to operate properly. The wifi modules help in sending the monitoring information.
NFR-4	**Performance**	For the user's elevated performance regarding basic assistance and security, the web page loads in less than one second. The system's unique feature is its ability to warn parents or caregivers on demand by sending an SMS when a child needs immediate assistance during a crisis. The repository will save all of the information on the children's whereabouts, and the device's performance will decline in areas with less connectivity.
NFR-5	**Availability**	Even in a crowd, it can be utilised to keep an eye on your youngster. Along with current location and trip information, it also gives. A board with embedded C and Python programming powers this system. It is a website that can be accessed online.
NFR-6	**Scalability**	This technology can be improved further by installing a little camera within a smart device for exceptional security and protection so that, in an emergency, a peek can be captured on the live feed on the parent's phone. If a problem arises, parents can view certain characteristics, such as the child's location, temperature, and heartbeat, as well as the surroundings without deterring the youngsters.