

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

Date	31 October 2022
Team ID	PNT2022TMID19685
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and 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 LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Login	Validate username Validate password Take to homepage
FR-4	Track child location	Get the map Get the coordinates of the child's location Display result
FR-5	Create geo fence	Get the map Create the geofence Store the geofence in db
FR-6	View location history	Fetch history from db Display history
FR-7	Get child's weather condition	Get the coordinates of the child's location Get the weather updates Display results
FR-8	Receive out of safe zone notification	Get the coordinates of the child's location Check and notify if out of safeZone
FR-9	Receive emergency notification from the child	Listen to child emergency notification API If notification initiated , notify the user
FR-10	Communicate with the child	Connect with the device Transmit the voice data

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Attractive and effective UI that gives complete enjoyable and user friendly experience.
NFR-2	<b>Security</b>	Protecting the users data and storing their children's location history safely
NFR-3	<b>Reliability</b>	Ever consistent API that never fails and gives proper response to the user.
NFR-4	<b>Performance</b>	Fast tracking and providing instant updates about the child's location to his/her parent.
NFR-5	<b>Availability</b>	The APIs should be readily available to satisfy the users' needs.
NFR-6	<b>Scalability</b>	Ability to process and update thousands of users data instantly