

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

Date	10 November 2022
Team ID	PNT2022TMID12986
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.

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
FR-1	<b>User Registration</b>	<ul style="list-style-type: none"><li>➤ Registration through Phone</li><li>➤ Registration through Gmail</li></ul>
FR-2	<b>User Confirmation</b>	<ul style="list-style-type: none"><li>➤ Confirmation through Email</li><li>➤ Confirmation through Mobile Alert</li></ul>
FR-3	<b>App installation</b>	<ul style="list-style-type: none"><li>➤ Installation through website APK's</li><li>➤ Installation through play store.</li></ul>
FR-4	<b>Detecting child</b>	<ul style="list-style-type: none"><li>➤ Detecting location through SMS</li><li>➤ Detecting location through mobile app</li></ul>
FR-5	<b>Set Geofence</b>	<ul style="list-style-type: none"><li>➤ Setting by user to find child location</li></ul>
FR-6	<b>User End Result</b>	<ul style="list-style-type: none"><li>➤ Parents need not worry about their children.</li></ul>
FR-7	<b>User Objective</b>	<ul style="list-style-type: none"><li>➤ Easy to monitor the child anywhere</li><li>➤ Helps to identify the child.</li></ul>

### Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none"><li>➤ The device has GSM can help to inform the parents about the current situation of the child, alert by message immediately to save the child.</li><li>➤ Seamless communication is possible between people, processes, and things.</li></ul>
NFR-2	Security	<ul style="list-style-type: none"><li>➤ Make children parents more assure about their kid's security, we have a feature in our device called Geo-Fence.</li><li>➤ Securing your IoT devices and network as you scale up production and deployment can be challenging one, we have a feature like storing all data in the database.</li></ul>
NFR-3	Reliability	<ul style="list-style-type: none"><li>➤ The reliability of an item is to perform a required function in a correct manner.</li><li>➤ It is easy to use and more flexible.</li></ul>
NFR-4	Performance	<ul style="list-style-type: none"><li>➤ Create a Child tracker which helps the parents with continuously monitoring the child's location.</li><li>➤ The website's load time should not be more than one second for users.</li><li>➤ The notification will be sent according to the child's location to their parents. The overall data collection is stored in the database.</li></ul>

NFR-5	<b>Availability</b>	➤ The system is accessible to a user at a given point in time.
NFR-6	<b>Scalability</b>	➤ It is the ability of the application to handle an increase in workload without performance, degradation. ➤ Parents does not need worry about their children safety.