

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	14 October 2022
Team ID	PNT2022TMID46169
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 and UserConfirmation	<ul style="list-style-type: none"> ✓ Registration through Gmail ✓ Registration through phone number ✓ Confirmation via Email ✓ Confirmation via OTP
FR-2	App installation and DetectingChild location	<ul style="list-style-type: none"> ✓ Installation through link ✓ Installation through play store ✓ Detecting location via app ✓ Detecting location via SMS
FR-3	Database	<ul style="list-style-type: none"> ✓ Stored in cloud for seamless connectivity. ✓ Parents and kids link with the distance and thelocation values obtained from the mobile devices are stored here. ✓ The values include parent id, kid id, distance, longitude, latitude etc.
FR-4	Server	<ul style="list-style-type: none"> ✓ It connects the database and the front endapplication. ✓ The backend server has been implemented to run as a service and is deployed in an IBM cloud instance. ✓ The backend server has been implemented to run as a service and is deployed in an IBM cloud instance.
FR-5	Battery Life	<ul style="list-style-type: none"> ✓ If the child or parent forgets to charge the device for a whole day then also the device will work. That's why we aim to make this device Blast the whole day with one charge. ✓ It should be long-lasting.
FR-6	Location History	<ul style="list-style-type: none"> ✓ Location history will help to track the child's activity so that they aren't will be updated. Location history will be there for 30days. ✓ For example if the child gets missing with the help of location history they aren't can track down their child's activity and also can find their child.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	✓ Device have GSM can help to inform the parents or relatives about the current situations of the child by deliver the message immediately to save the child.
NFR-2	Security	✓ Make children parents more assure abouttheir kid's security, we have a feature in our device called Geo-Fence. ✓ Whenever your child crosses that specificarea, you will get an instant notification on your phone.
NFR-3	Reliability	✓ Portable ✓ Easy to use ✓ Flexibility
NFR-4	Performance	✓ Create a Child tracker which helps theparents with continuously monitoring the child's location. ✓ The notification will be sent according tothe Child's location to their parents orcaretakers. ✓ The entire location data will be stored inthe database.
NFR-5	Availability	✓ Track your child even in a crowd ✓ Get travel details of kids at any time Know the current location
NFR-6	Scalability	✓ Gadget ensures the safety and tracking ofthe children. ✓ Parents need not worry about theirchildren.