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

Date	14 October 2022
Team ID	PNT2022TMID33855
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 User Confirmation	● Registration through Gmail ● Registration through phone number ● Confirmation via Email ● Confirmation via OTP
FR-2	App installation and Detecting Child location	● Installation through link ● Installation through play store ● Detecting location via app ● Detecting location via SMS
FR-3	Database	● Stored in cloud for seamless connectivity. ● Parents and kids link with the distance and the location values obtained from the mobile devices are stored here. ● The values include parent id, kid id, distance, longitude, latitude etc.
FR-4	Server	● It connects the database and the front end application. ● 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	● 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 last the whole day with one charge. ● It should be long-lasting.
FR-6	Location History	● location history will help to track the child's activity so that the aren't will be updated. Location history will be there for 30 days. ● For example if the child gets missing with the help of location history the 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 about their kid's security, we have a feature in our device called Geo-Fence. ● Whenever your child crosses that specific area, 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 the parents with continuously monitoring the child's location. ● The notification will be sent according to the ● Child's location to their parents or caretakers. ● The entire location data will be stored in the 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 of the children. ● Parents need not worry about their children.