PROJECT DESIGN PHASE-II
SOLUTION REQUIREMENTS
(FUNCTIONAL & NON-FUNCTIONAL REQUIREMENTS)

Date	14 October 2022
Team ID	PNT2022TMID01023
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

F unconal Requirements :

Following are the func onal requirements of the proposed solu on.

FR No.	Func onal Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registra on	✓ Registra on through Gmail ✓ Registra on through phone number
FR-2	User Confirma on	✓ Confirma on via Email ✓ Confirma on via OTP
FR-3	App installa on	✓ Installa on through link ✓ Installa on through play store
FR-4	Se ngs geofence	✓ Se ng by user to find child loca on
FR-5	Detec ng child loca on	✓ Detec ng loca on via app ✓ Detec ng loca on via SMS
FR-6	User Interface	✓ User Login Form. ✓ Admin Login Form.

FR-7	Database	✓ Stored in cloud for seamless connec vity. ✓ Parents and kids link with the distance and the loca on values obtained from the mobile devices are stored here.
		✓ T he values include parent id, kid id, distance, longitude, la tude etc.

FR-8 Server ✓ It connects the database and the front e nd applica on.

☐ The backend server has been implemented to run as a service and is deployed in an IBM cloud instance.

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FR-9	GPS tracking	☐ The system is implemented with a GPS module, which acquires the l oca on informa on of the user and stores it to the database.
FR-10	API	☐ The value collected is sent to the database using an API.
FR-11	React JS	☐ We are using react is as front end for us project. ☐ Node JS for the back end we are using node is.
FR-12	GPS modules	☐ It receives data directly from satellites.
FR-13	Ba ery 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-las ng.

| FR-14 | Loca on History | ☐ The loca on history w ill help to t rack t he child's ac vity s o that t he a ren't will b e updated. L oca on history will be there for 30 days. |
| | | ☐ For example if the child gets missing with the help of loca on history t he aren't c an track down their child's ac vity a nd a lso can find their child. |

N on-funconal Requirements:

F ollowing are the non-func onal requirements of the proposed solu on.

NFR-1	Usability	☐ Device have GSM can help to inform the parents or rela ves about the current situa ons 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 no fica on on your phone.
NFR-3	Reliability	☐ Portable ☐ Easy to use ☐ Flexibility
NFR-4	Performance	☐ Create a Child tracker which helps the parents with con nuously monitoring the child's loca on. ☐ The no fica on will be sent according to the child's loca on to their parents or caretakers. ☐ The en re loca on data will be stored in the database.
NFR-5	Availability	☐ Track your child even in a crowd ☐ Get travel details of kids at any me ☐ Know the current loca on
NFR-6	Scalability	☐ Gadget ensures the safety and tracking of the children. ☐ Parents need not worry about their children.
NFR-7	Evaluability	☐ The system should be able to deliver promptly to the financing authority. ☐ In the case of non-profit organiza ons, the solu on should be 'advancing the mission'.

NFR-9 Dynamicity   IoT devices may have the capability to adapt dynamically and change based on their condi ons.

NFR-1 0	Desirability	☐ Naviga on should be made easy. ☐ The user should be able to search and find the informa on he needs without much hassle.