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

Date	19 October 2022
Team ID	PNT2022TMID46834
Project Name	IOT Based Safey Gadgets for Child Saftey 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	What product does ?	• The main aim is to track the child and send the information to the parents.
FR-2	**Focus on** • User Reg 1(Registration) • User Reg 2(Conformation)	• Register through Google form , G-mail etc. • Confirmation Via e-mail , (or)SMS like OTP.
FR-3	**Essentiality** • Mandatory to install the app which is design • Enable the geofence	• Installation by the link (or) by play store. • To find the current chid location.
FR-4	**Origin Type** • Main goal of the user is to track the child	• With help of GPS,GSM we can monitor location of child.
FR-5	**Testing** • User should test component device , API	• Through API testing we can able to check functionality, performance & security of the product (or) device.
FR-6	**User interface**	• User login. • (Name , Password(or) Authentication token).
FR-7	**Data Base**	• They store the data in cloud for viewing permanently to know about the information of the child.
FR-8	**Battery life**	• Battery is very much important for any IoT device, There is a chance of low battery due to more usage so that we are unable to get the information of child. • That's why we aim to make the usage of solar ,kinetic energy to save the battery power of the device.
FR-9	**End result** • Product feature	• It is wearable device with cordless and no skin contact to the child which will not affect the child health. • This device is designed in the form of light weight feature.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	• This device is combined with feature of GPS and GSM module with help of this it can convey the information to the parent about the child.
NFR-2	**Security**	• To make the information confidential we are implementing the encrypted protocol because user can only read the data, most effective way to achieve the data security.
NFR-3	**Reliability**	• Flexibility. • Less harmful to child. • It will operate in a defined environment without fail.
NFR-4	**Performance**	• This device can send SMS with some keywords and the device reply back. • The device can detect the child's approximate location ,it can detect the body temperature and the surrounding temperature , humidity and also the heart beat of the child.
NFR-5	**Availability**	• It track the child in any environment condition with help of IPV6 auto configuration because it automatically adopt to an new condition to collect the information from the current location.
NFR-6	**Scalability**	• This project work about existing safety application for children and comes out with the idea for making a safe environment for children on the society and allows them to go anywhere fear free. • Parents will be relief from stress about their children safety.