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

Date	22 October 2022
Team ID	PNT2022TMID27948
Project Name	Project - 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	Notification System	When the child is out of location or when the device realizes abnormal conditions/situations then sending of notification should be enabled . Whenever the panic button is pressed trigger the alarm enable automatic video recording . Then, emergency notification along with real-time video should be sent to and display in the parents' mobile apps.
FR-2	Security	Child Safety Wearable Device-Using this child safety is very much guaranteed.
FR-3	Local Ranging/Positioning	GPS is used to track the live location of the child who is wearing that device. With the help of GPS, Geo-fencing concept is easily performed in which we will be able to feed a particular boundary to that device. If the child goes beyond that particular boundary specified, the respective guardians will receive an alert call using GSM.
FR-4	Biometrics	The child's status should be monitored by using heartbeat and temperature sensor.
FR-5	Early Alarm	The alarm sensitivity should be adjusted by the parent this is preferred to a fixed alarm sensitivity setting.
FR-6	Variable Sensitivity	The device should be very much attractive to the child (colourful design).

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	How easy and cost efficient is it for the customer to use the system?
NFR-2	**Security**	How well are the whole functioning system and its personal data protected against various kinds of attacks?
NFR-3	**Reliability**	How often does the system experience critical failure?
NFR-4	**Performance**	How soon does the system return results?

| NFR-5 | **Availability** | How is the user availability time compared to downtime? |
| NFR-6 | **Scalability** | How the child is monitored in real-time? |