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

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Date	11 October 2022
Team ID	PNT2022TMID14258
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**	Registration using mail id or phone number
FR-2	**Device Pairing**	Over the internet
FR-3	**GPS**	GPS is utilized to track the live location of the youngster who is wearing the gadget. With the use of GPS, we may simply conduct Geo-fence idea, in which we can feed a specified boundary to that device.
FR-4	**GSM**	The kid's guardians will each receive a GSM alarm call if the youngster crosses the defined boundary.
FR-5	**Raspberry pi microprocessor**	All additional sensors, GPS, and GSM are built within the Raspberry Pi microcontroller. To utilize the program, users must first register using their credentials.

Non-functional Requirements

Following are the non-functional requirements of proposedsolution.

NFR-1	**Security**	To enable automated video recording and set off the alarm anytime the emergency button is hit.
NFR-2	**Reliability**	Enable notification transmission if the youngster is missing or if the device detects unusual conditions or scenarios.
NFR-3	**Performance**	The device button should be touched when a kid is in an emergency scenario so that the device can take a picture and send it together with the user information to the registered cellphone numbers.

NFR-4	**Availability**	Child monitor, audio monitor, location monitor, video monitor
NFR-5	**Scalability**	Parents are free to view their child's whereabouts if an issue occurs.
NFR-6	**Usability**	Enable monitoring of the child's position and gathering data remotely such as temperature, pulse, breathing rate and many more.