Project Design Phase-II
Technology Stack (Architecture & Stack)

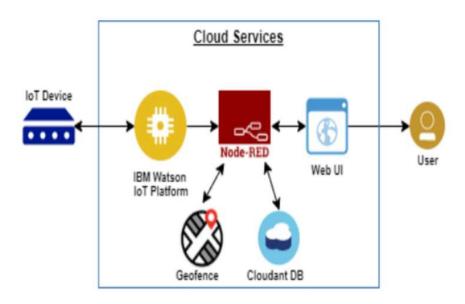|	
Date	09 October 2022
Team ID	PNT2022TMID12738
Project Name	IoT Based safety gadget for child safety monitoring and notification
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	**User Interface**	The communication protocol being used in the proposed solution might act as an interface e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js / MIT App
2.	**Application Logic**	The data which is collected sent to authenticators (i.e.) parents through GSM providing the GPS which coordinates for easy locating access and monitor the child	Java / Python, IBM Watson STT service etc

S.No	Component	Description	Technology
3.	**Database**	Collected data to be segregated and stored securely in form of Relational Database Management Systems (RDBMS)	MySQL
4.	**Cloud Database**	IBM	IBM DB2, IBM Cloudant
5.	**File Storage**	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	**External API-1**	Purpose of External API used in the application is to access the location of the children	IBM Weather API / GPS location monitoring / Aadhar API etc.
7.	**Infrastructure (Server / Cloud)**	Application Deployment on Local System / Cloud Local Server Configuration	Local Cloud Foundry or Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	**Open-Source Frameworks**	Proposed Solution is being framed in a form that an end user can have the easy surveillance of their children by the service of android application (users here are preferably parents)	UI / UX design development
2.	**Security Implementations**	Developed application should be accessible in a way that it can respond only to the comments from the relevant users	SHA-256 / Encryptions, IAM Controls / OWASP, etc...
3.	**Scalable Architecture**	The format of the application is in the way that is easier to handle and operate	Not yet determined
4.	**Availability**	Developed Solution tends to be available in market at any time and to balance and distribute over large no of users	Not yet determined
5.	**Performance**	Highly proper and betterment functionalities are to be ensured in the design solution eg. number of requests per sec, use of Cache, use of CDN's, etc…	Not yet determined