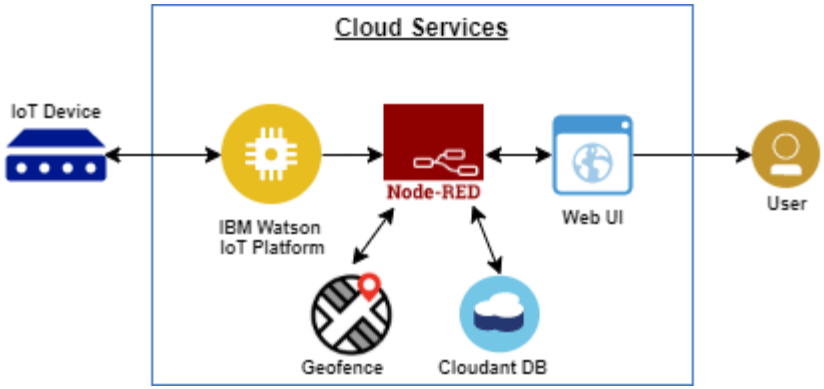
Project Design Phase–II

Technology Stack (Architecture & Stack)

Date	16 October 2022
Team ID	PNT2002TMID25027
Project Name	Project – IOT based child safety monitoring
Maximum Marks	4 Marks

Technical Architecture:



Table–1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The point of human – computer interaction .e.g. watch.	RSSI technique
2.	Application Logic–1	The logical governing what a computer program is trying to accomplish.	Java / Python ,c
3.	Application Logic–2	Since the logic is user device, any glitches will directly affect consumers	Children based on ad hoc network technologies
4.	Application Logic–3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Database system design with time series modification for child growth.	Backup monitoring
6.	Cloud Database	Database Service is uses the cloud storage to transfer the location of kids parents .	IBM analytics.
7.	File Storage	File activity monitoring software tools use deep packet inspection to see how users are interacting with files throughout the network.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API–1	Collecting and analysing data about the performance of API in order to identify problems the impact user.	REST API
9.	External API–2	PA Server Monitor has a simple API for automating some basic operations. Security. To protect the system from un–authorized requests	Aadhar API, etc.

10.	Machine Learning Model	Transmit a warning to the parent or guardian if a child is inadvertently in the car.	Artificial Intelligence.
11.	Infrastructure (Server / Cloud)	System database is geographically oriented which suits location based infrastructure.	4G, 5G cellular networks

Table–2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open–Source Frameworks	a template for software development that is designed by a social network of software developers	GNU/Linux and Android
2.	Security Implementations	This research is conducted to propose a child security smart band utilizing IOT technology. Online questionnaire and semi–structured interview are methodologies used to collect data.	Child security system, Child monitoring system, Internet of Things (IoT), IoT device, Smart band
3.	Scalable Architecture	An approach for pervasive home care environments focused on care of patients with dementia presents the architecture of the home care system for a patient with dementia	GPS and mobile application technology

S.No	Characteristics	Description	Technology
4.	Availability	This Child Monitoring system helps monitor or track the child and their activities from anywhere in the world. This system plays an important role. It tracks whether the children are safe. Someprominent features of this system are Geo-fencing, Discrete Panic Button, Long battery life, Real-Time Tracking.	Raspberry Pi, Wi-Fi Positioning System, Internet Of Things, Real Time Tracking.
5.	Performance	a violation of child safety is identified, a certain sensor in the child module will emit a signal, which is the main function of the suggested child tracking system.	This Child Monitoring system helps monitor or track the child and their activities from ... the aid of technology can increase efficiency and decrease the.