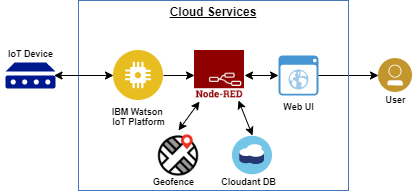
**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

|  |  |
| --- | --- |
| Date | 16 October 2022 |
| Team ID | PNT2022TMID50050 |
| Project Name | Project – IOT based child safety monitoring |
| Maximum Marks | 4 Marks |

**Technical Architecture:**



**Table-1 : Components & Technologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
|  | User Interface | The point of human – computer interaction  .e.g. watch. | RSSI technique |
|  | Application Logic-1 | The logical governing what a computer program is trying to accomplish. | Java / Python ,c |
|  | Application Logic-2 | Since the logic is user device, any glitches will directly affect consumers | Children based on ad hoc network technologies |
|  | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
|  | Database | Database system design with time series modification for child growth. | Backup monitoring |
|  | Cloud Database | Database Service is uses the cloud storage to transfer the location of kids parents . | IBM analytics. |
|  | 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 |
|  | External API-1 | Collecting and analysing data about the performance of API in order to identify problems the impact user. | REST API |
|  | 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. |
|  | Machine Learning Model | Transmit a warning to the parent or guardian if a child is inadvertently in the car. | Artificial Intelligence. |
|  | 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** |
| --- | --- | --- | --- |
|  | Open-Source Frameworks | a template for software development that is designed by a social network of software developers | GNU/Linux and Android |
|  | 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 |
|  | 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 |
|  | 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. |
|  | 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. |