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

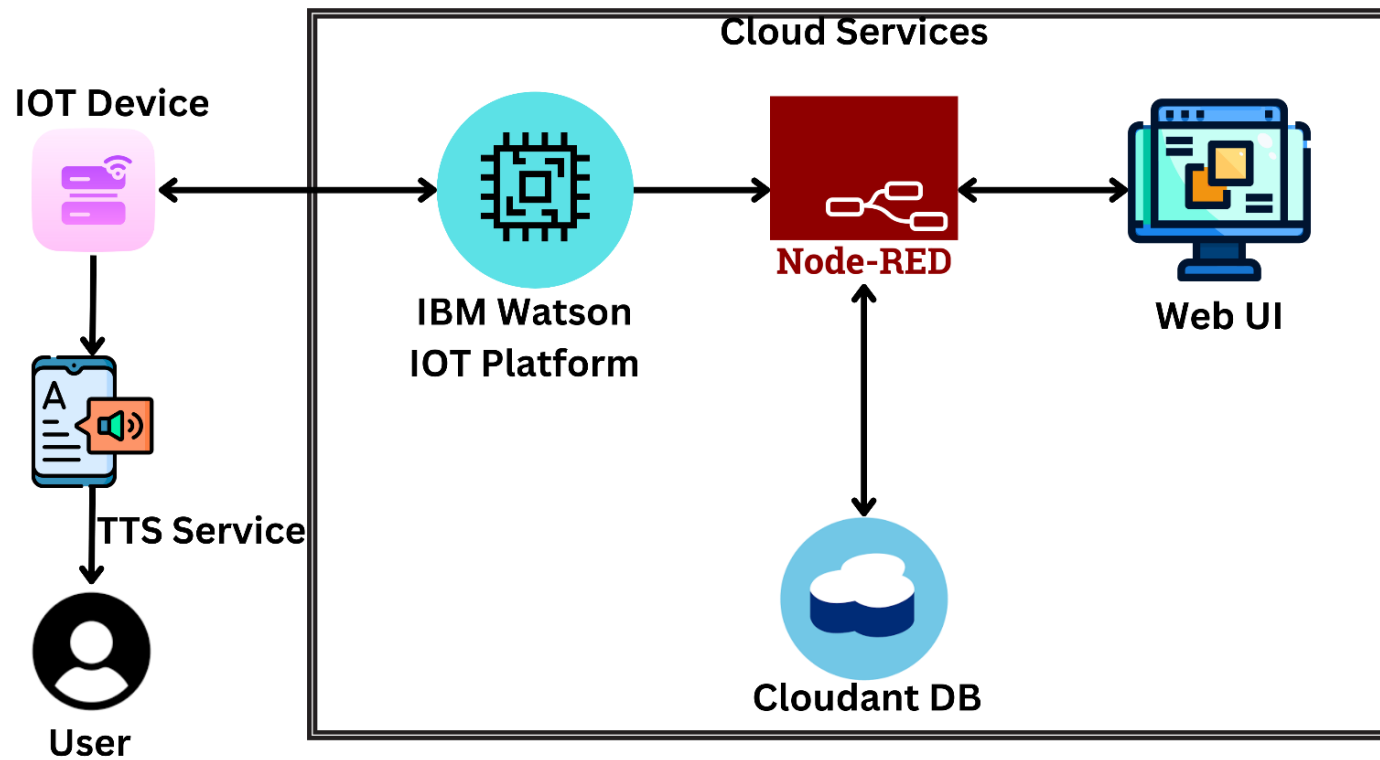| Date | 03 October 2022 |
|---|---|
| Team ID | PNT2022TMID18843 |
| Project Name | Personal Assistance For Seniors Who Are Self-Reliant |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

# Table-1 : Components & Technologies

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1. | User Interface | User interacts with the mobile application UI. | HTML, CSS, JavaScript / Flutter / React Js |
| 2. | Application Logic-1 | Updates medicine schedule,doctor's appointments and suggest diet plan . | Java / Python / Dart |
| 3. | Application Logic-2 | Create a speech notification with the medicine details at the scheduled time. | IBM Watson TTS service |
| 4. | Application Logic-3 | Interactions with the IOT device. | IBM Watson IoT Platform. |
| 5. | Database | Medication schedule and doctor's appointments. | MySQL, NoSQL, Firebase |
| 6. | Cloud Database | Database Service on Cloud. | IBM Cloudant |
| 7. | File Storage | File storage requirements - App code and IoT credentials are stored | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API-1 | To get the data from the IBM cloud | REST API |
| 9. | External API-2 | To get the login credentials in IBM DB2 | Login API |
| 10. | Infrastructure (Server / Cloud) | Host the server and application | Cloud Foundry, Node-Red. |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|----------------|-------------|------------|
| 1. | Open-Source Frameworks | To develop the application interface, we use MIT App Inventor | MIT App Inventor or Flutter |
| 2. | Security Implementations | To secure the users login credentials and personal information. | e.g. SHA-256, OWASP |
| 3. | Scalable Architecture | To enhance the scalability o application database | IBM auto scaling |
| 4. | Availability | To make use the application and data available tothe registered users | IBM Cloud load balancer |
| 5. | Performance | To increase the performance , the application is hosted in the high performance instance. | IBM instance |