

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

Date	03 October 2022
Team ID	PNT2022TMID07000
Project Name	Project - Personal Assistance For Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

Technical Architecture:

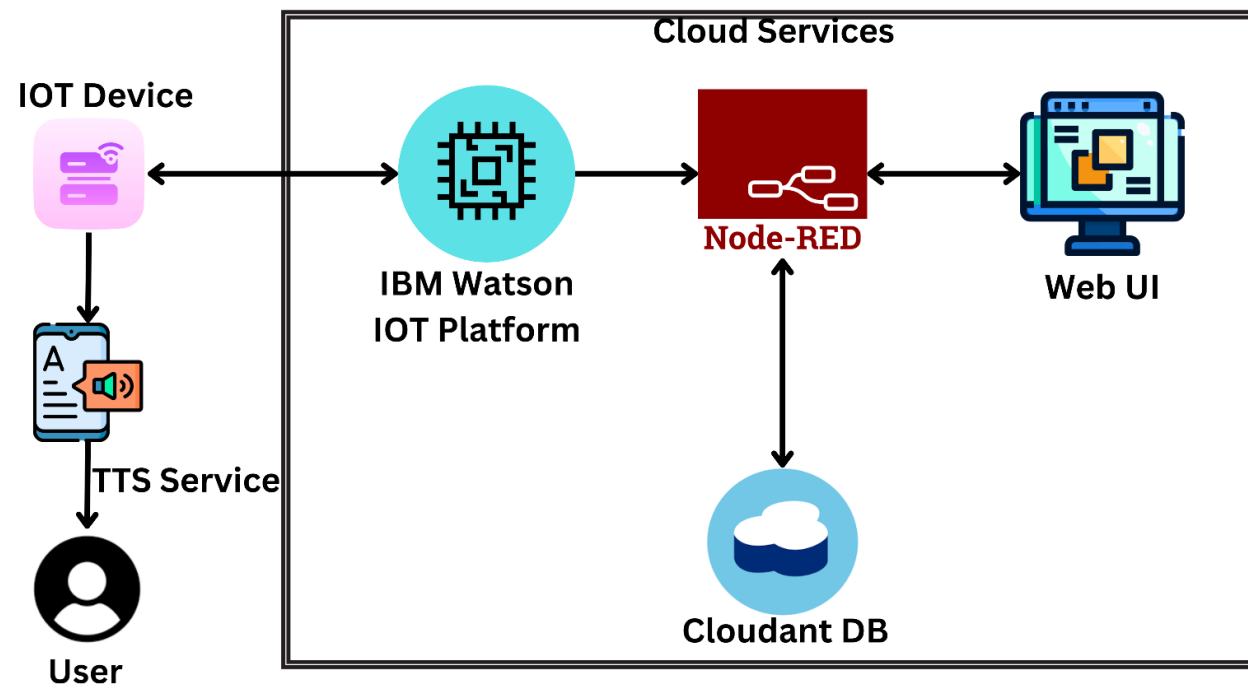


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the mobile application UI.	HTML, CSS, JavaScript / Angular Js / React Js
2.	Application Logic-1	Updates medicine schedule,doctor's appointments and suggest diet plan .	Java / Python
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
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
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 to the registered users	IBM Cloud load balancer
5.	Performance	To increase the performance , the application is hosted in the high performance instance.	IBM instance