

Project Design Phase-II

Technology Stack (Architecture & Stack)

Team ID	PNT2022TMID27689
Project Name	Personal Assistance for Seniors Who Are Self-Reliant

Technical Architecture:

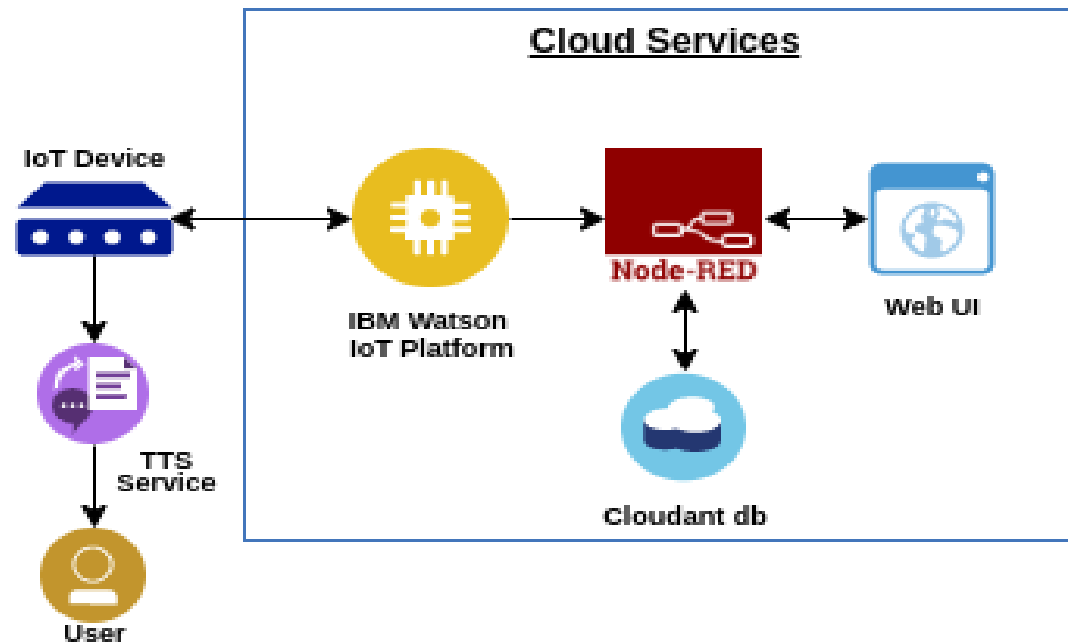


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile app	HTML, CSS, JavaScript
2.	Application Logic-1	Mobile app to enter the medicine details	Python
3.	Application Logic-2	Gets the medication data from the database	IBM Watson, API call data
4.	Application Logic-3	Converts the text to speech to pronunciation for the user	IBM Watson
5.	Database	Medication time and tablets name on daily	MySQL
6.	Cloud Database	Call the data IBM Cloudant is used and user login credentials	IBM Cloudant
7.	File Storage	App code and IoT credentials are stored and API keys	Other Storage Service or Local Filesystem
8.	Machine Learning Model	To convert the text to speech for voice command	Text to speech
9.	Infrastructure (Server / Cloud)	To host the server and application:	Node Red

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	To develop the application interface	MIT APP INVERTOR
2.	Security Implementations	To secure the users login credentials and personal information	SHA-256
3.	Scalable Architecture	To scale application database	IBM Auto scaling
4.	Availability	To make use the application and database available 24/7	IBM Cloud load balancer
5.	Performance	To increase the performance the application in hosted in the high-performance instance	IBM instance