PROJECT DESIGN PHASE - II
TECHNOLOGY STACK(ARCHITECTURE & STACK)

Date	13 OCTOBER 2022
Team ID	PNT2022TMID11797
Project Name	Personal Assistance for Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

Technical Architecture:

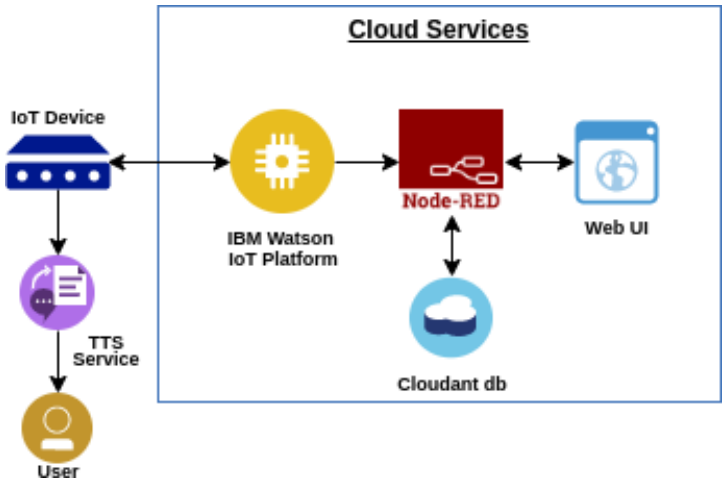

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile App	HTML, CSS,
			JavaScript
2.	Application Logic-1	Mobile App to enter the Medicine	Python
		Details weekly	
3.	Application Logic-2	Gets the medication data from database	IBM Watson IoT API Call data
4.	Application Logic-3	Converts the text to speech to pronunciation for theuser	IBM Watson Assistant
5.	Database	Medication time and tablets nameon daily and	MySQL
6.	Cloud Database	Call the data IBM Cloudant is usedand user logincredentials	IBM DB2, IBM Cloudant

7.	File Storage	App code and IoT credentials arestored and APIkeys	**IBM Block Storage**
8.	External API-1	To get the medicine box status Open or not	**IBM box status API**
9.	External API-2	To get the login credentials in IBMDB2	**Username and Password API**
10.	Machine Learning Model	To convert the text into speech for voice commandthe tablet details	**Text to speech**
11.	**Infrastructure (Server / Cloud)**	**To host the server and application**	**Cloud Foundry, Node Red**

Table-2: Application Characteristics:

S.No	Characteristic	Description	Technology
1.	Open-Source Frameworks	To develop the application interface, we use **MITApp Inventor**	**MIT APP INVENTOR**
2.	Security Implementations	To secure the users logincredentials and personalinformation	**SHA-256, OWASP**
3.	Scalable Architecture	To scale the application database	**IBM Auto scaling**
4.	Availability	To make use the application and dataareavailable 24/7	**IBM Cloud load balancer**
5.	**Performance**	**To increase the performance the application inhosted in the high-performance instance**	**IBM instance**