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

Date	04 November 2022
Team ID	PNT2022TMID13442
Project Name	Personal Assistance For Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
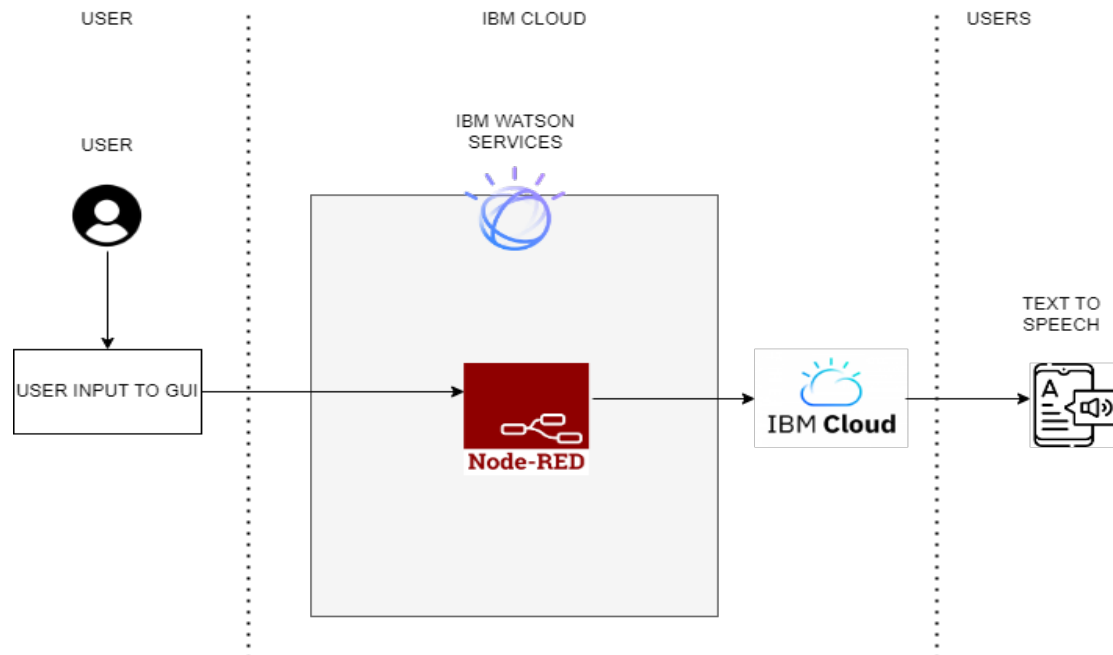
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile App	HTML, CSS, JavaScript
2.	Application Logic-1	Receive data from node-red by using IBM Watson IoT platform	Python
3.	Application Logic-2	Get the time and compare it with the time stored in the database. Send the medicine time to IBM IoT platform at the desired time	NODE-red
4.	Application Logic-3	Reminder	IBM Watson Device
5.	Cloud Database	Desired time and medicine details will be stored in the IBM Cloudant DB	IBM Cloudant
6.	External API-1	It notifies the care taker with the medicine name.	Text to Speech API
7.	Infrastructure (Server / Cloud)	It stores the medicine and time details	Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	open-source frameworks used in IBM Watson	Technology of Opensource framework IBM Watson
2.	Security Implementations	IBM Cloud	Watson Assistant has certifications such as ISO,SOC2,US HIPPA,European Union GDPR,PCI DSS. We use security systems such as TCS/SSL,IPSEC,Third party CAs,HTTPS,Encrypted file system,Encrypted storage systems,key management systems,AES -256 bit
3.	Scalable Architecture	Web interface architecture consist of four pillars. They are intents, entities ,data flow, scripts (3 – tier architecture Micro-services architecture)	Technology used IBM Watson Assistant
4.	Availability	The Web interface is made available using load balancers, distributed servers etc.	Technology used BM Watson Assistant
5.	Performance	IBM Watson –automate processes	Technology used BM Watson

References:

https://c4model.com/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d