PROJECT DESIGN PHASE - II

TECHNOLOGY STACK (ARCHITECTURE & STACK)

Team ID	PNT2022TMID22874
Project Name	Personal Assistance for Seniors Who Are Self-Reliant

TECHNICAL ARCHITECTURE:

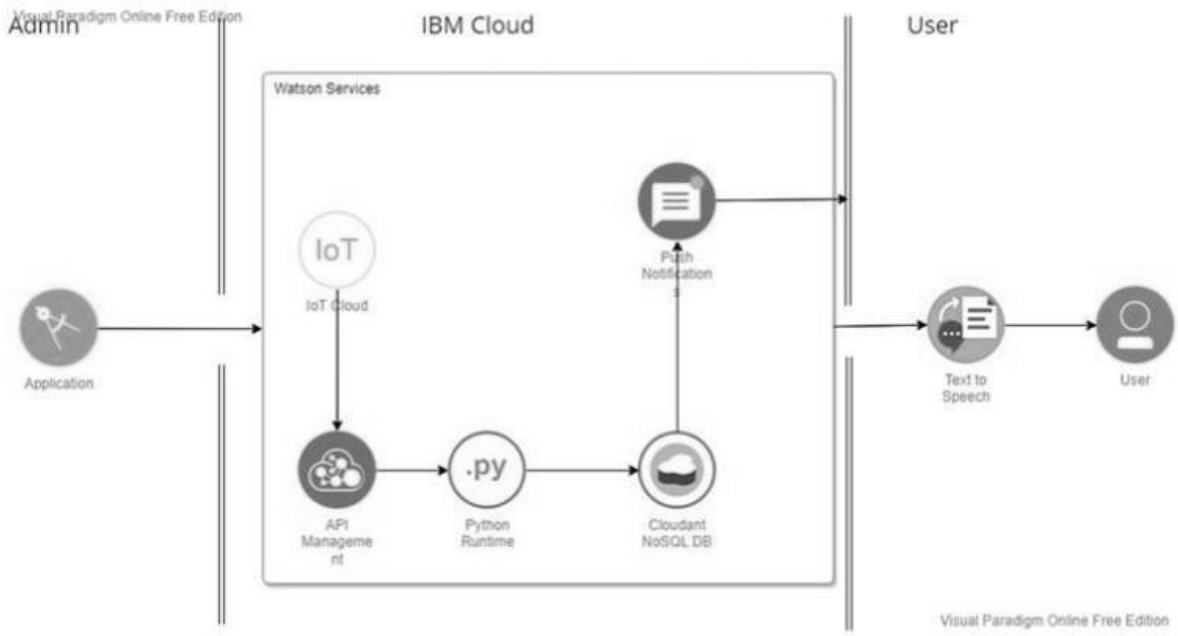

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile App	**HTML, CSS, JavaScript**
2.	Application Logic-1	Mobile App to enter the Medicine Details weekly	**Python**
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 the user	**IBM Watson Assistant**
5.	Database	Medication time and tablets nameon daily and	**MySQL**
6.	Cloud Database	Call the data IBM Cloudant is usedand user login credentials	**IBM DB2, IBM Cloudant**
7.	File Storage	App code and IoT credentials are stored and API keys	**IBM Block Storage**
8.	External API-1	To get the medicine box statusOpen 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 command the tablet details	**Text to speech**
11.	**Infrastructure (Server / Cloud)**	**To host the server and application**	**Cloud Foundry, Node Red**

Table-2: Application Characteristics:

S.N	Characteristicso	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 logincredentials and personal information	**SHA-256, OWASP**
3.	Scalable Architecture	To scale the application database	**IBM Auto scaling**
4.	Availability	To make use the application and dataare available 24/7	**IBM Cloud load balancer**
5.	**Performance**	**To increase the performance the application In hosted in thehigh-performance instance**	**IBM instance**