

PROJECT DESIGN PHASE - II

TECHNOLOGY STACK(ARCHITECTURE & STACK)

Date	15 October 2022
Team ID	PNT2022TMID23999
Project Name	Personal Assistance for Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

Technical Architecture :

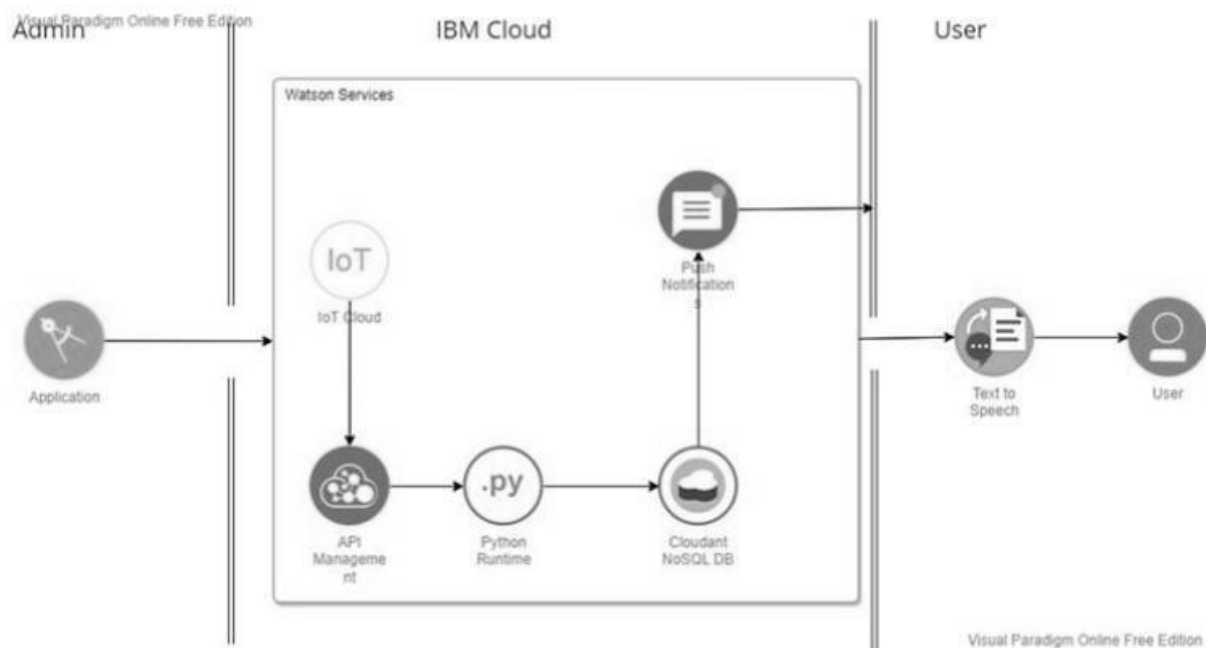


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile App	HTML, CSS, JavaScript
2.	Application Logic-1	Mobile App to enter the Medicine Details weekly	Python
3.	Application Logic-2	Gets the medication data from database	IBM Watson IoT API
4.	Application Logic-3	Converts the text to speech to pronunciation for the user	Call data
5.	Database	Medication time and tablets name on daily and	IBM Watson Assistant
6.	Cloud Database	Call the data IBM Cloudant is used and user login credentials	MySQL
7.	File Storage	App code and IoT credentials are stored and API keys	IBM DB2, IBM Cloudant
8.	External API-1	To get the medicine box status Open or not	IBM Block Storage
9.	External API-2	To get the login credentials in IBM DB2	IBM box status API
10.	Machine Learning Model	To convert the text into speech for voice command the tablet details	Username and Password API
11.	Infrastructure (Server / Cloud)	To host the server and application	Text to speech
			Cloud Foundry, Node Red

Table-2: Application Characteristics:

S.N o	Characteristics	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 login credentials 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 data are available 24/7	IBM Cloud load balancer
5.	Performance	To increase the performance the application in hosted in the high-performance instance	IBM instance