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

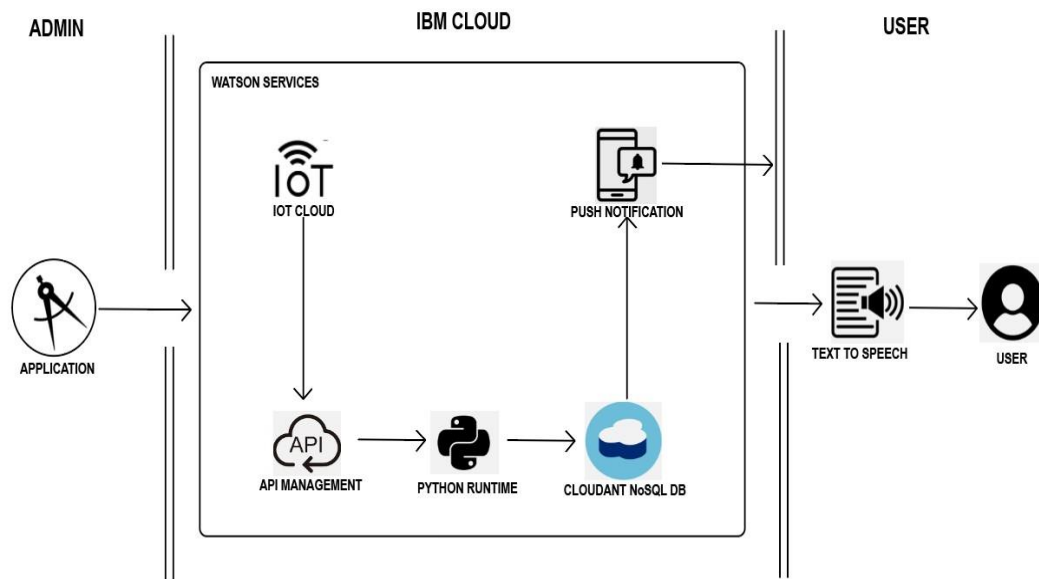|	
Date	02-11-2022
Team ID	PNT2022TMID17685
Project Name	Personal Assistance for Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

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 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 name on daily basis	MySQL
6.	Cloud Database	Call the data IBM cloudant is used and 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 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 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.No	Characteristics	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 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 24x7	IBM Cloud load balancer
5.	Performance	To increase the performance of the application hosted in the highperformance instance.	IBM instance