

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

DATE	03 November2022
TEAM ID	PNT2022TMID36677
PROJECT NAME	Project-Personal Assistance for Seniors Who Are Self-Reliant
MAXIMUM MARKS	4 Marks

Technical Architecture:

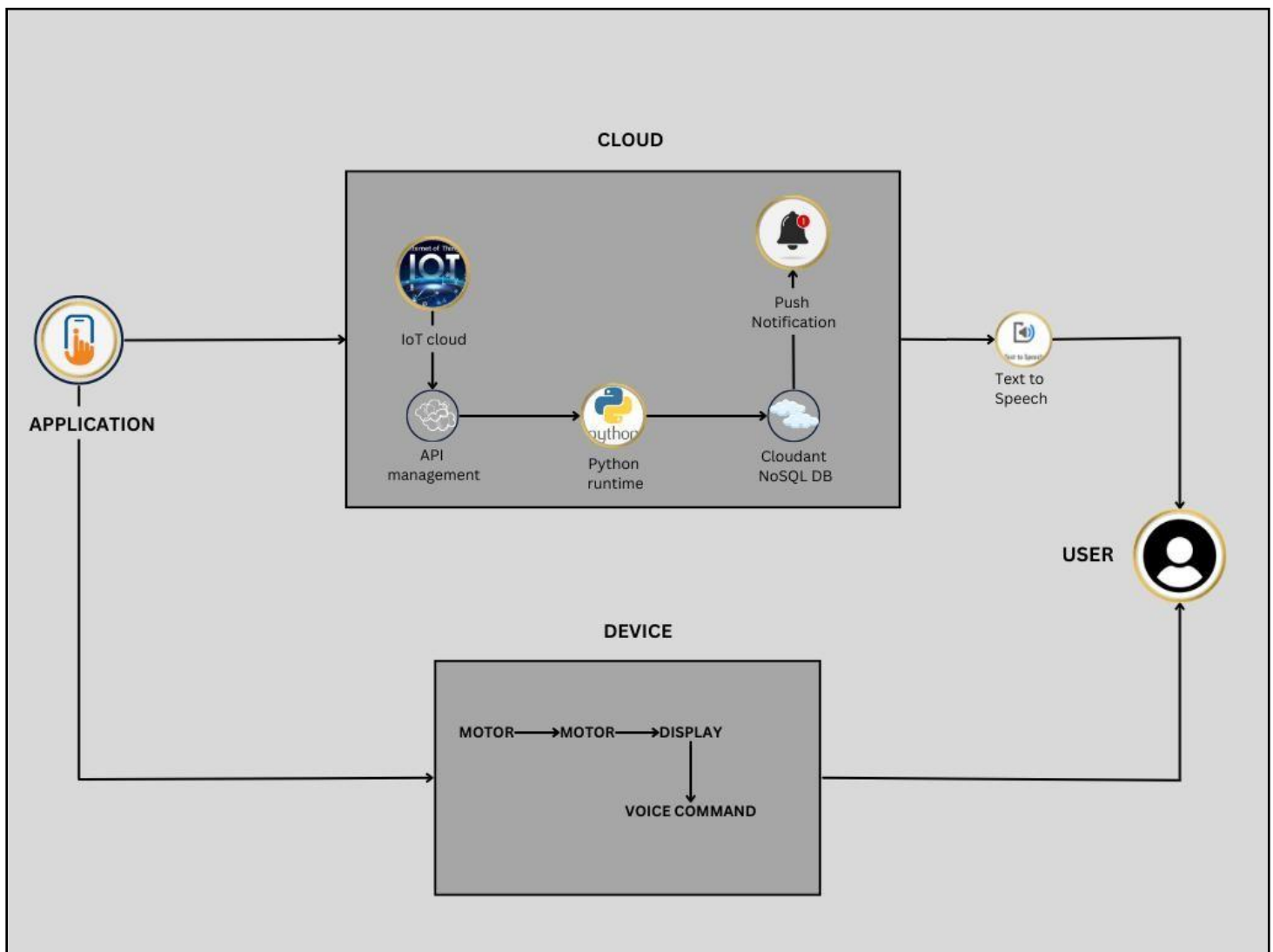


Table-1: Components & Technologies:

S.NO	Component	Description	Technology
1	User Interface	Mobile App/Device	HTML, CSS, JavaScript / Angular Js / React Js etc.
2	Application Logic-1	Remainder to take medicine on time	Java / Python
3	Application Logic-2	Gets medication data from database	IBM Watson STT service
4	Application Logic-3	Convert text to speech for the easy use of user	IBM Watson Assistant
5	Database	Medicine name & Desired time	MySQL, NoSQL, etc.
6	Cloud Database	Used to store the details of medicine in IBM cloudant DB	IBM DB2, IBM Cloudant etc.
7	File Storage	It uses application programming key interface code to store application code	IBM Block Storage or Other Storage Service or Local Filesystem
8	External API-1	Version1 of API used to send request for web servers and give medicine box	IBM Weather API, etc.
9	External API-2	Version2 of API used to send request for web servers and get login details in DB	Aadhar API, etc.
10	Machine Learning Model	It provides algorithm, utilized to convert the text message into voice command	Object Recognition Model, etc.
11	Infrastructure (Server / Cloud)	To convert text into speech for the remainder of medicine details	Local, Cloud Foundry, Kubernetes, etc.

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 user login credentials, personal & medical information	SHA-256, Encryptions, IAM Controls, OWASP etc.
3	Scalable Architecture	To scale the application database	IBM Auto scaling
4	Availability	Available in mobile app & device and make it use for 24/7	IBM Cloud load balancer
5	Performance	To increase the performance the application inhosted in the high performance instance	IBM instance