

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

Date	03 October 2022
Team ID	PNT2022TMID12138
Project Name	Project -Personal Assistance for Seniors Who Are Self-Reliant
Maximum Marks	4 Marks

Technical Architecture:

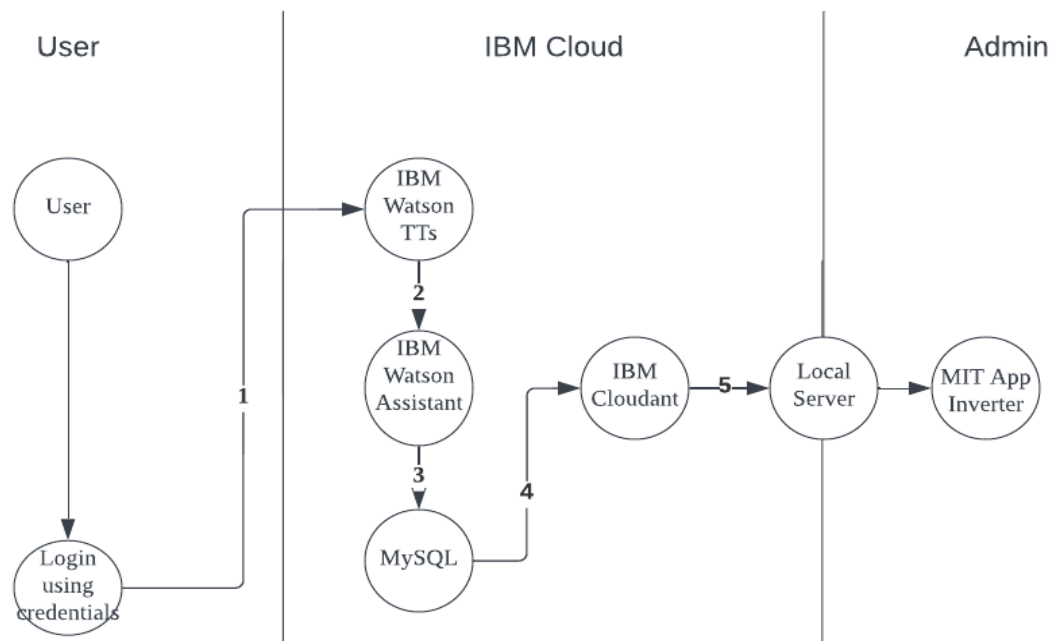


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Log in into the Application, Enter the medicine prescription schedule	Java / Python
3.	Application Logic-2	Gets the data that has been collected	IBM Watson TTS service
4.	Application Logic-3	Provides voice assistant or notification	IBM Watson Assistant
5.	Database	Prescriptions, schedule, Doctor appointments	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud- User Login Credentials	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements – App Code and IoT credentials	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Information on the active working of the alert mechanism	IBM Weather API, etc.
9.	External API-2	Based on the log in credentials provided by the user	Aadhar API, etc.
10.	Machine Learning Model	To train the project in accordance with a certain routine	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	To Host the application	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Application interface	MIT App Inverter
2.	Security Implementations	Securing user credentials – Two step verifications, email login, etc	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Enhance the scalability of architecture (3 – tier, Micro-services)	IBM Auto Scaling
4.	Availability	Identify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Cloud load balancer
5.	Performance	Improvising the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	IBM Instance