

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

Date	31-10-2022
TeamID	PNT2022TMID25143
ProjectName	Personal Assistance for seniors who are self-reliant
MaximumMarks	4Marks

Technical Architecture:

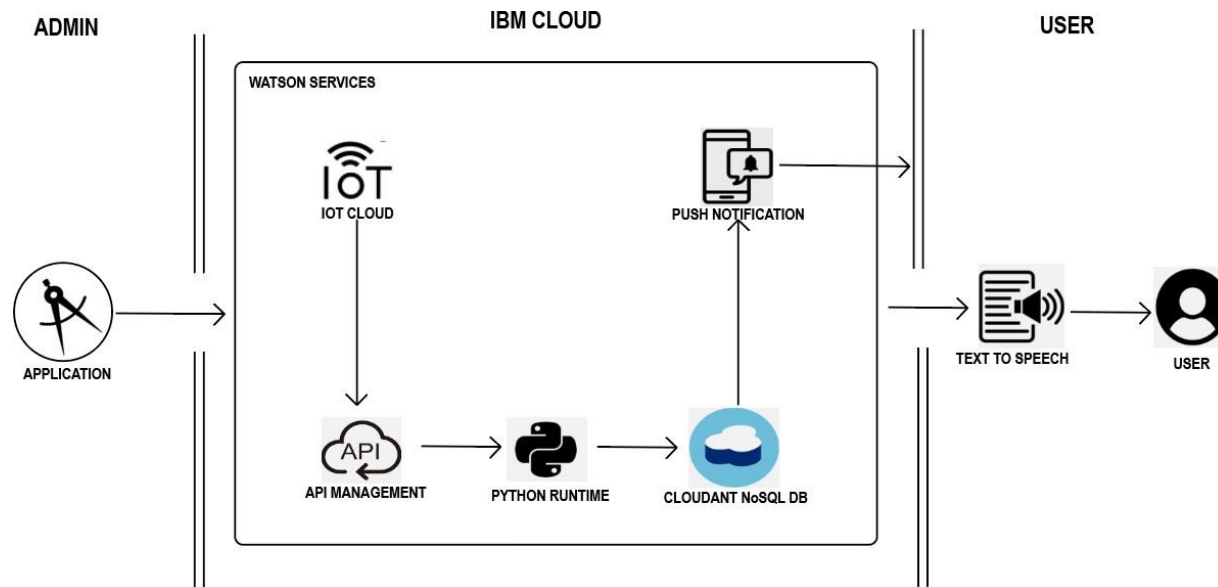


Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	MobileApp	HTML,CSS,JavaScript
2.	ApplicationLogic-1	MobileApptoenterthe Medicinedetailsweekly	Python
3.	ApplicationLogic-2	Getsthemedicationdatafromdatabase	IBMWatson IOTAPIcalldata
4.	ApplicationLogic-3	Converts thetexttospeechtopronunciation for theuser	IBMWatsonAssistant
5.	Database	Medicationtimeandtabletsnameondailyb asis	MySQL
6.	CloudDatabase	CallthedataIBMcloudantisedanduserlogi ncredentials	IBMDB2,IBMCloudant
7.	FileStorage	AppcodeandIOTcredentialsarestored andAPIkeys	IBMBlockStorage
8.	ExternalAPI-1	Toget themedicineboxstatusOpenor not	IBMboxstatus API
9.	ExternalAPI-2	Toget thelogincredentialsinIBMDB2	Username andPasswordAPI
10.	MachineLearningModel	Toconvertthetextinto speechforvoicecommandthetabletdetails	Texttospeech
11.	Infrastructure(Server/Cloud)	Tohosttheserverandapplication	CloudFoundry,NodeRed

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Todeveloptheapplicationinterface,weuseMITAppinventor.	MITAppinventor
2.	SecurityImplementations	Tosecuretheuserslogincredentialsandpersonalinformation.	SHA-256,OWASP
3.	ScalableArchitecture	Toscaletheapplicationdatabase	IBMAutoscaling
4.	Availability	Tomakeusetheapplicationanddataareavailable24x7	IBMCloudloadbalancer
5.	Performance	Toincreasetheperformanceoftheapplication hosted in the high-performanceinstance.	IBMinstance