ProjectDesignPhase-II

TechnologyStack(Architecture&Stack)

TeamID	PNT2022TMID06025
Projectname	Smart solutions for railways
Maximum mark	4marks

Technicalarchitecture:

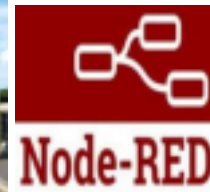TheDeliverableshallincludethearchitecturaldiagramasbelowandtheinformationasperthe
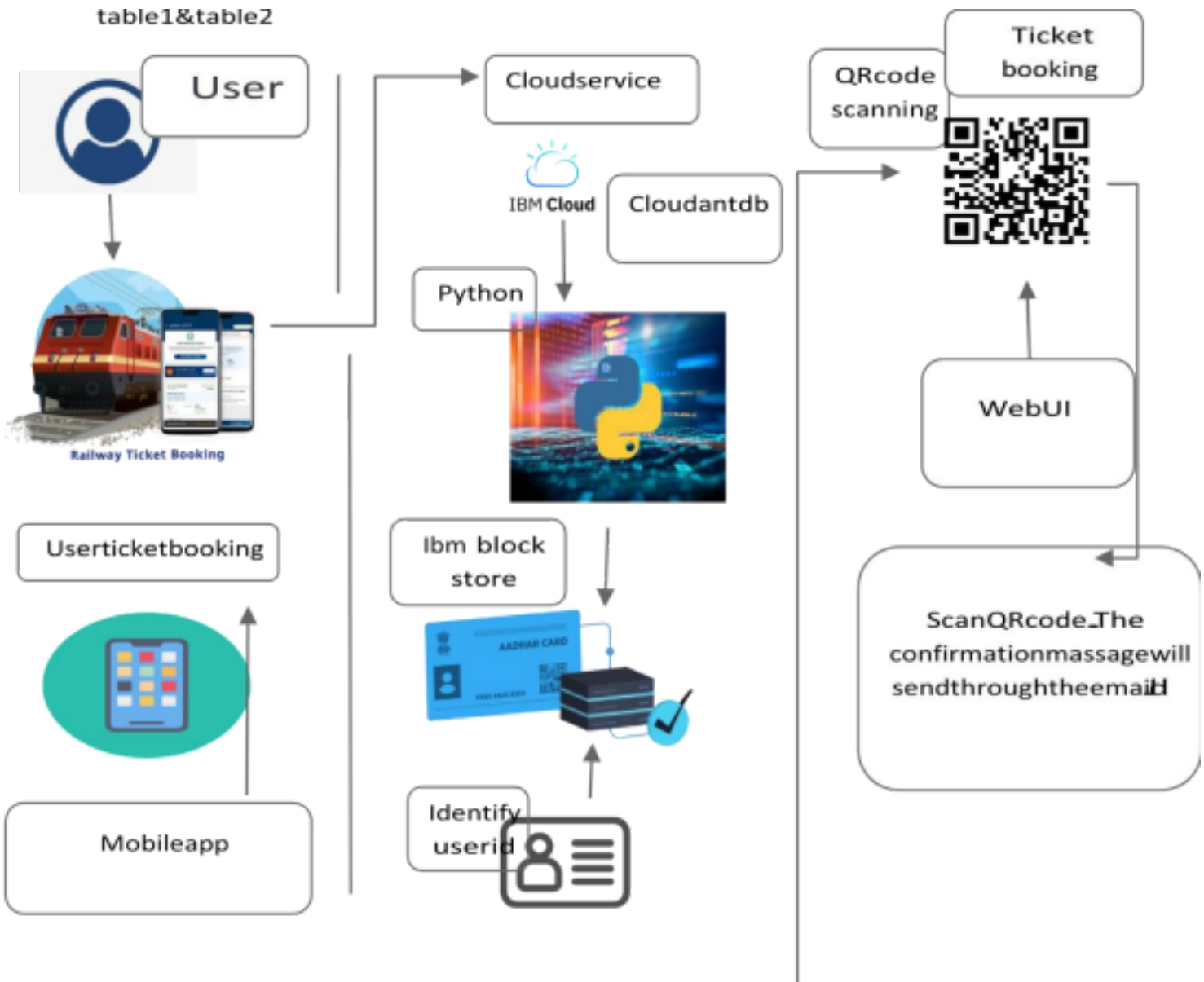
Table-1:Components&Technologies:

S.No	Components	Description	Technology
1	Userinterface	Theuserinteractwith applicationsarewebUI, mobilephone.1stuserwill beseetheapplicationlogin page.Ticketbookingon user.Theavailableintrains andseats.	HTML,CSS,Javascripte tc.
2	Application	Theapplicationwillprocess inthepythoncode.The loginpageprogrammed to usepython.Use conversationallanguage. Thinkaboutyourtarget customerandhighlight featuresthatwillappealto	Python
		thatcustomer.	

3	Clouddatabase	Usingtheclouddatabase cansavealotofstorage spaceondevices.Withthe helpofthecloudstore.User name,mobilenumber,email ID,photoonstore.	IBMCloudant
5	Filestorege	UserfilesonstoreIBM block.Manyuserfilesare stored.Peopleswill identifyingtheticket booking.Peoplewillshow thisfileonanytime.Block Storageisdesignedto protecttheintegrityofthe dataandmaintain availabilitythrough maintenanceeventsand unplannedfailures,and provideaconsistent performancebaseline.	IBMblockstore
6	ExternalAPI	customerAPIprovidesa centralsourceofaccurate customerdatathatall operationalandanalytical systemscanaccessrather thanrelyingonpointtopointintegrationswith individualdatasources. CustomerAPIsare increasinglybeingusedto assemblenewcustomer experiencesandlaunchnew revenuemodels.	IBMweatherAPI
7	Machine learningmodel	Amachinelearningmodelis afilethathasbeentrained torecognizecertaintypesof patterns.Youtrainamodel overasetofdata,providing	ObjectRecognition

S. No	Characteristics	Description	Technology
		itanalgorithmthatitcan usetoreasonoverandlearn fromthosedata.	Model
8	Infrastructure (Server/Cloud)	UseruseofCloud configurationistheprocess ofsettinghardwareand softwaredetailsfor elementsofacloud environmenttoensurethat theycaninteroperateand communicate.	Cloudfoundary
9	GPSTracking	LiveLocationdetailsshared throughthecodetoshare thelocationinthewebsite	IBMWatsonService
S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	Thecustomerusing frameworksareCSS, Backendframework,	Python,IBMcloudantDB
2	Security Implementations	Thecustomerwillentered dataisencrypted,then ContinuousLocation Tracking.Wellsecureofthis implementation.	Python,Cloudservice

Table-2:ApplicationCharacteristics:

3	Scalable Architecture	Thescannerandthecodes writtenarehighlyscalable whereanyimplementation canbedoneanytimeneeded	Python
4	Availability	Anytimeavailablesystem. Theticketcanbeverified by theticketcollectorfrom anywhere.thecustomereasy toreceivetheticket.	IBMLoadBalancer
5	Performance	thedetailsaregetstoredin thecloudthesystem.crash willnotaffectthedata.The datacanberetrievedfrom anywherewithascanner. AndtheGPSstatesthe exactlocationofthetrain.	DistributedServices,GPS Tracker