

ProjectDesignPhase-II

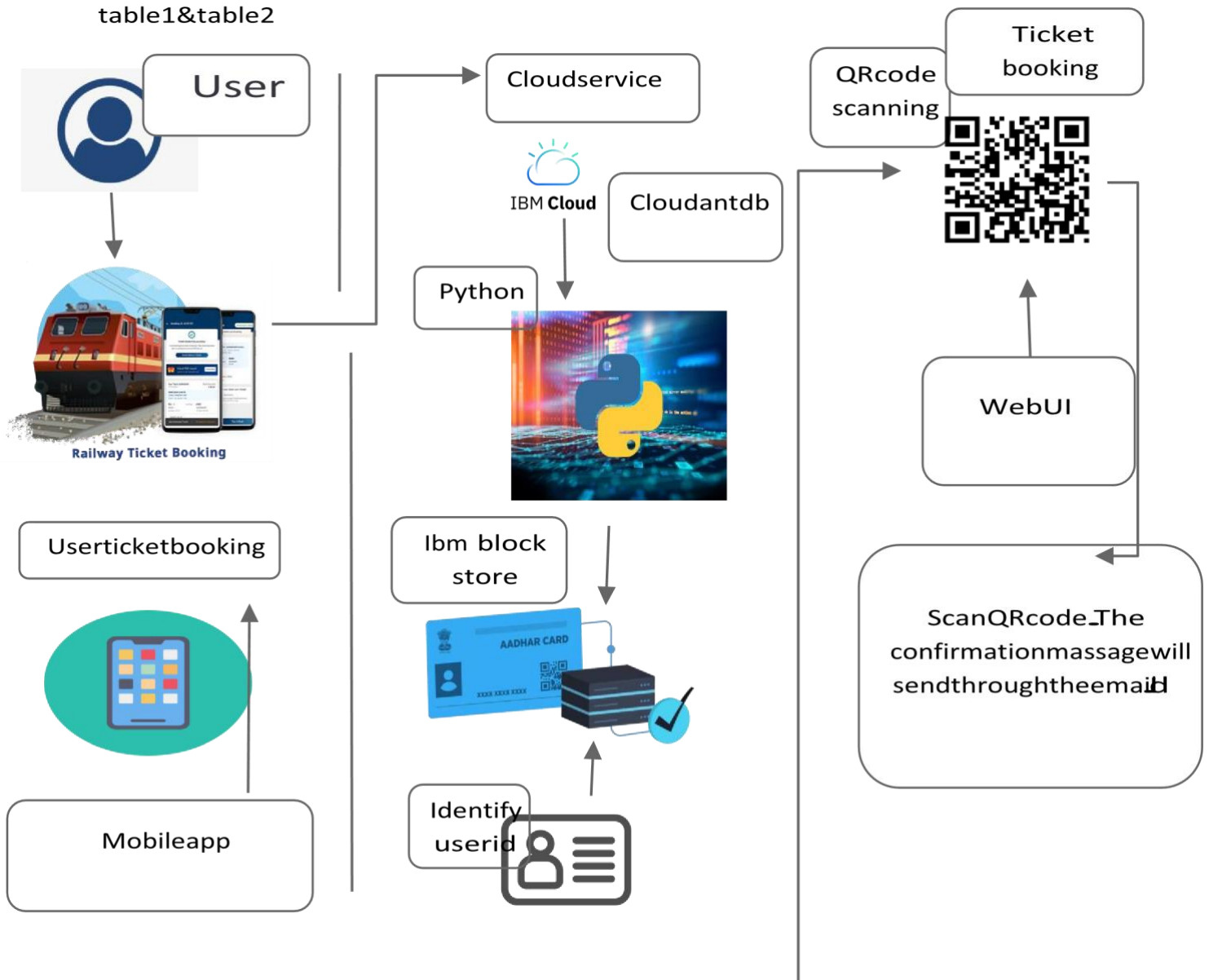
TechnologyStack(Architecture&Stack)

Date	19 NOVEMBER2022
TeamID	PNT2022TMID47138
Projectname	Smart solutions for railways
Maximum mark	4marks

Technicalarchitecture:

TheDeliverableshallincludethearchitecturaldiagramasbelowandtheinformationasperthe

table1&table2



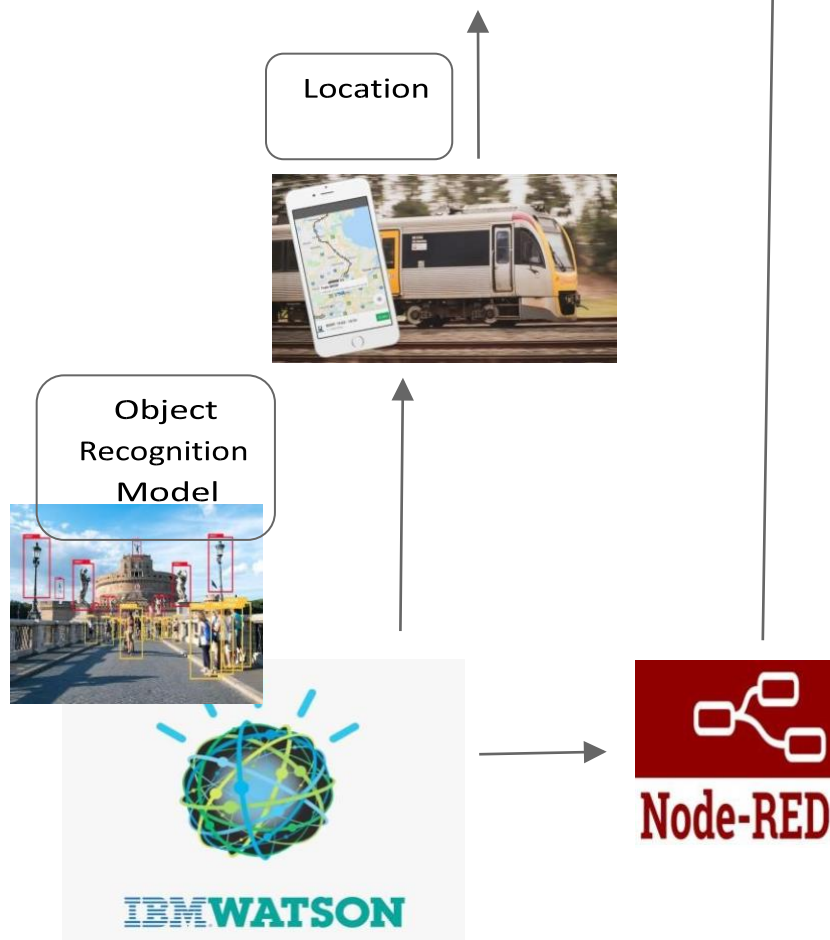









Table-1:Components&Technologies:

S.No	Components	Description	Technology
1	Userinterface	Theuserinteractwith applicationsarewebUI, mobilephone.1stuserwill beseetheapplicationlogin page.Ticketbookingon user.Theavailablein trains andseats.	HTML,CSS,Javascriptetc. 
2	Application	Theapplicationwillprocess inthepythoncode.The loginpageprogrammedto usepython.Use conversationallanguage. Thinkaboutyourtarget customerandhighlight features thatwillappealto	Python 
		thatcustomer.	

3	Clouddatabase	Usingtheclouddatabase cansavealotofstorage spaceondevices.Withthe helpofthecloudstore.User name,mobilenumber,email ID,photoonstore.	IBMCloudant  IBM Cloud
5	Filestorege	UserfilesonstoreIBM block.Manyuserfilesare stored.Peopleswill identifyingtheticket booking.Peoplewillshow thisfileonanytime.Block Storageisdesignedto protecttheintegrityofthe dataandmaintain availabilitythrough maintenanceeventsand unplannedfailures,and provideaconsistent performancebaseline.	IBMblockstore 
6	ExternalAPI	customerAPIprovidesacentralsourceofaccurate customerdatathatall operationalandanalytical systemsacanaccessrather thanrelyingonpointtopointintegrationswith individualdatasources. CustomerAPIsare increasinglybeingusedto assemblenewcustomer experiencesandlaunchnew revenuemodels.	IBMweatherAPI 

7	Machine learning model	A machine learning model is a file that has been trained to recognize certain types of patterns. You train a model over a set of data, providing	Object Recognition
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		it an algorithm that it can use to reason over and learn from those data.	Model 
8	Infrastructure (Server/Cloud)	User use of Cloud configuration is the process of setting hardware and software details for elements of a cloud environment to ensure that they can interoperate and communicate.	 Cloudfoundry
9	GPS Tracking	Live location details shared through the code to share the location in the website	IBM Watson Service
S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	The customer using frameworks are CSS, Backend framework,	Python, IBM Cloudant DB

2	Security Implementations	The customer will enter data is encrypted, then Continuous Location Tracking. Well secure of this implementation.	Python, Cloud service
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Table-2: Application Characteristics:

3	Scalable Architecture	The scanner and the codes written are highly scalable where any implementation can be done any time needed	Python
4	Availability	Any time available system. The ticket can be verified by the ticket collector from anywhere. the customer easy to receive the ticket.	IBM Load Balancer
5	Performance	the details are get stored in the cloud the system crash will not affect the data. The data can be retrieved from anywhere with a scanner. And the GPS states the exact location of the train.	Distributed Services, GPS Tracker