ProjectDesignPhase
IITechnologyStack(Architecture&Stack)

Date	*03 November 2022*
Team ID	*PNT2022TMID07596*
ProjectName	*Project DataAnalyticsforDHLLogisticsFacilitie s*
MaximumMarks	*4Marks*

TechnicalArchitecture:
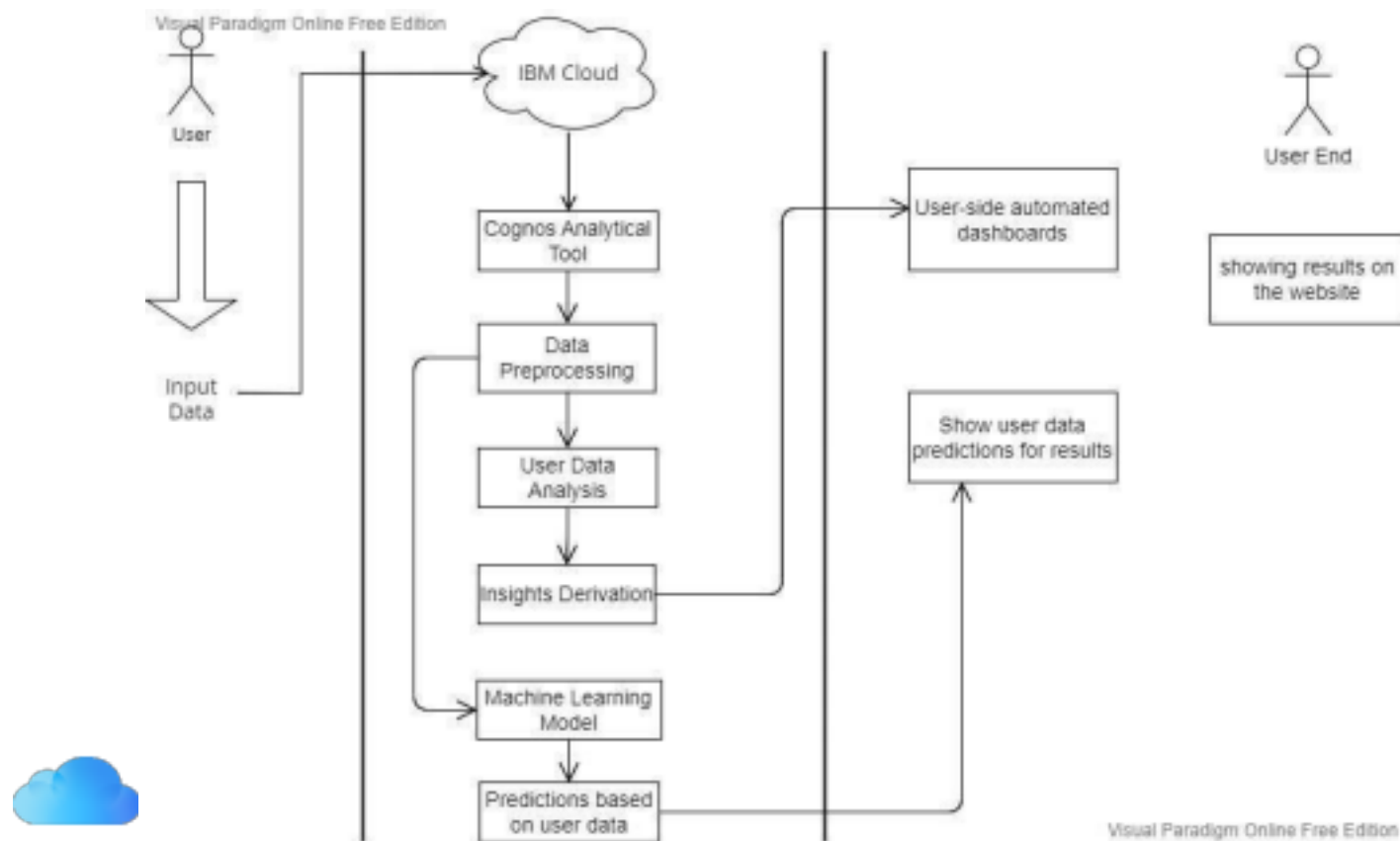
Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	User uploadsthecsvorexcelformatfilesintothewebpages	HTML,CSS,JavaScript
2.	ApplicationLogic-1	TheuserdatawillpassintotheIBMcloudfor storingandactsasadatasource	IBMcloud

3.	ApplicationLogic-2	Incloud,datawillbefetchedbytheCognos analyticaltoolfordataanalysis	IBMCognosanalyticaltool
4.	ApplicationLogic-3	Thepre-trainedDashboardswillbepresentto performanalysisontheincomingdata	IBMCognosanalyticaltool
5.	Database	Datawillberetrievedfromcloud	MySQL
6.	CloudDatabase	DatabaseServiceoncloud	IBMDB2,IBMCloud
7.	FileStorage	Customersalesdataisuploadedincloud throughinterface	IBMBlockStorageorOther StorageServiceor LocalFilesystem
8.	ExternalAPI-1	Toperformdataanalysisontheuserdata	IBMCognosTool
9.	ExternalAPI-2	Tobuildthemachinelearningmodelforclassification	JupiterNotebook
10.	MachineLearningModel	Todothepredictiveanalysisontheinputdata	Predictiveanalysismodel,etc.
11.	Infrastructure(Server/Cloud)	ApplicationDeploymentonLocalSystem /Cloud LocalServerConfiguration:UsingtheflaskCloud ServerConfiguration:IBMcloud	Local,CloudFoundry

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Listtheopen-sourceframeworksused	TechnologyofOpensourceframework
2.	SecurityImplementations	Listallthesecurity/accesscontrolsimplemented ,useoffirewallsetc.	e.g.,SHA-256,Encryptions,IAM Controls,OWASPetc.

3.	ScalableArchitecture	Justifythescalabilityofarchitecture(3–tier, Micro-services)	Technologyused
4.	Availability	Justifytheavailability ofapplication(e.g.,useofloadbalancers,distribute dserversetc.)	Technologyused
5.	Performance	Designconsiderationfortheperformance oftheapplication(numberofrequestsper sec,useofCache,useofCDN's)etc.	Technologyused