ProjectDesignPhase-II

TechnologyStack(Architecture&Stack)

Date	12October2022
TeamID	PNT2022TMID37589
ProjectName	Early Detection of Chronic Kidney Disease using MachineLearning
MaximumMarks	4 Marks

Technical Architecture:

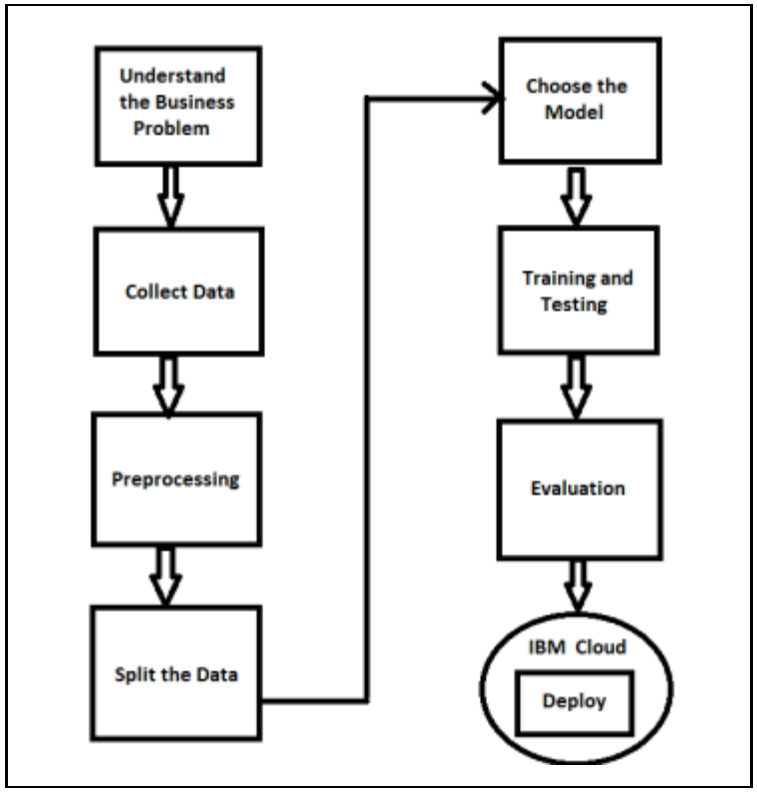
Understand the Business Problem
Collect Data
Preprocessing
Split the Data
Choose the Model
Training and Testing
Evaluation
IBM Cloud
Deploy

Table-1:Components&Technologies:

S.No	Component	Description	Technology
1	UserInterface	Howuserinteractswithapplicatione.g. W ebUI	HTML,CSS,PythonFlask
2	ApplicationLogic-1	Getinputfrom theuser	HTML,CSS,PythonFlask
3	ApplicationLogic-2	Predictsbased ontheprovidedinput	Python
4	ApplicationLogic-3	DisplaysthepredictedResult	Python,HTML,CSS,Flask
5	FileStorage	Filestoragerequirements	IBMCLOUD
6	Machine Learning Model	RandomForest,Regressiontechn iq ues,DecisiontreeandSVM	PredictionandClassification
7	Infrastructure(Server/Cloud)	Cloud Deployment	IBMCLOUD

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1	Open-SourceFrameworks	Development and Deployment	IBMCloud,Python
2	SecurityImplementations	SecutiryprovidedbyIBM Cloud	WorkloadProtection,Identi ty andAccessProtection
3	ScalableArchitecture	Model canbe scalable	Python

4	Availability	Availableinthecloud	IBMCLOUD
5	Performance	HighaccuracyPerformance	MachineLearningPredictio na ndClassificationtechniques

References:

https://www.ibm.com/in_en/cloud security?utm_content=SRCWW&p1=Search&p4=437000526581505 83&p5=e&gclid=CjwKCAjwtKmaBhBMEiwAyINuwJox0TDWprc7hp189HpjBfjAmN0isGe3Etmvr9criDif_P_D-ZckNxoCBJgQAvD_BwE&gclsrc=aw.ds

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https://scikit-learn.org/stable/supervised_learning.html#supervised-learning