Project Design Phase-II

Technology Stack (Architecture & Stack)

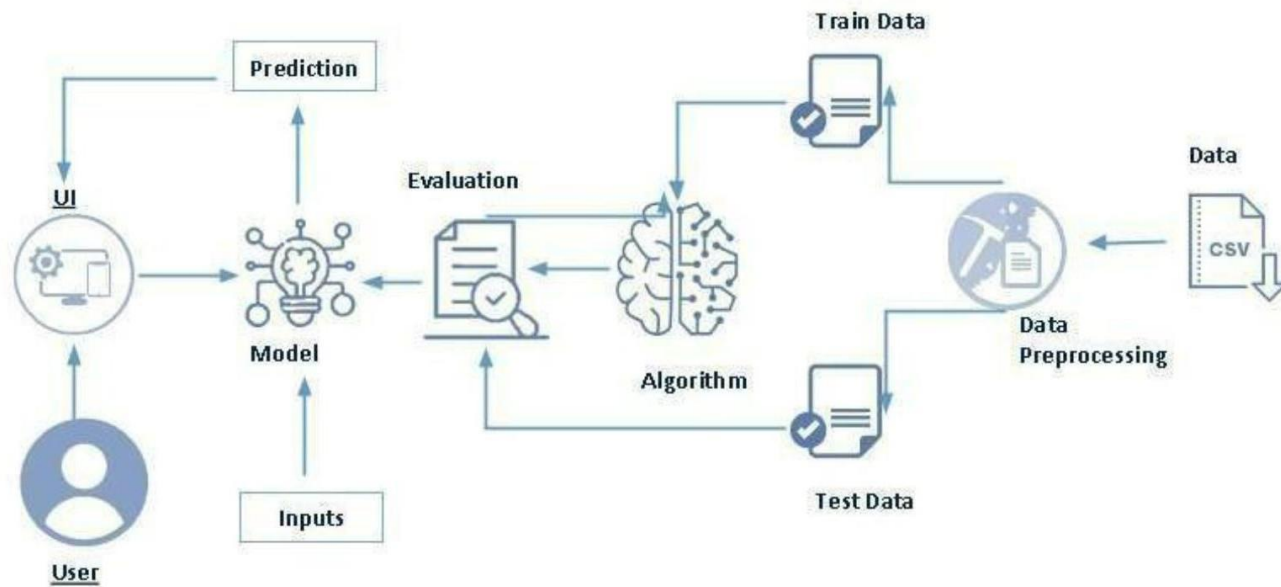| TEAM ID	PNT2022TMID21336
PORJECT NAME	SmartLender- ApplicantCredibility PredictionforLoanApproval
MAXIMUM MARKS	4 MARKS

Technical Architecture :

Table-1: Components &Technologies:

S.No	Component	Description	Technology
1.	UserInterface	Users interactwiththe application withthe helpof a web UI	HTML, CSS etc.
2.	Buildingapplication	GettinguserinformationfromUIandfeeding itto MLmodel	PythonFlask
3.	Visualizingandanalysingdata	Readingandunderstanding the data properly with the helpof visualizationandanalyzingtechniques.	Pythonpandas, numpy, pickle, matplotlib, seaborn
4.	Pre-processing orcleaningdata	Handling missing values, Handlingcategorical data, Handlingoutliers,Scaling Techniques	Pythonpandas
5.	Database	LoanApprovaldataset	.csvfile
6.	CloudDatabase	Deployingthe modeloncloud	IBMcloud
7.	Machine Learning Model	Using machine learning modelforpredicting loan approval	Modelbuildingusingclassification algorithms suchas Decisiontree, Randomforest, KNN, and xgboost.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	IBMCloud
2.	SecurityImplementations	Its secures information and data	IBMcloud provides layeredsecurity controls across network and infrastructure.
3.	Scalable Architecture	Its supports various data sizes	Web3.0 IBMCoud
4.	Availability	Creating multiple pages forcomfortable user interface experience	HTML, CSS, JavaScript
5.	Performance	Withstandhuge data andprocess themwithout crashing.	Python