Project Design Phase-II
TechnologyStack(Architecture & Stack)

Date	5 October 2022
TeamID	PNT2022TMID40130
Project Name	Project- Car Resale ValuePrediction
Maximum Marks	4 Marks

Technical Architecture:
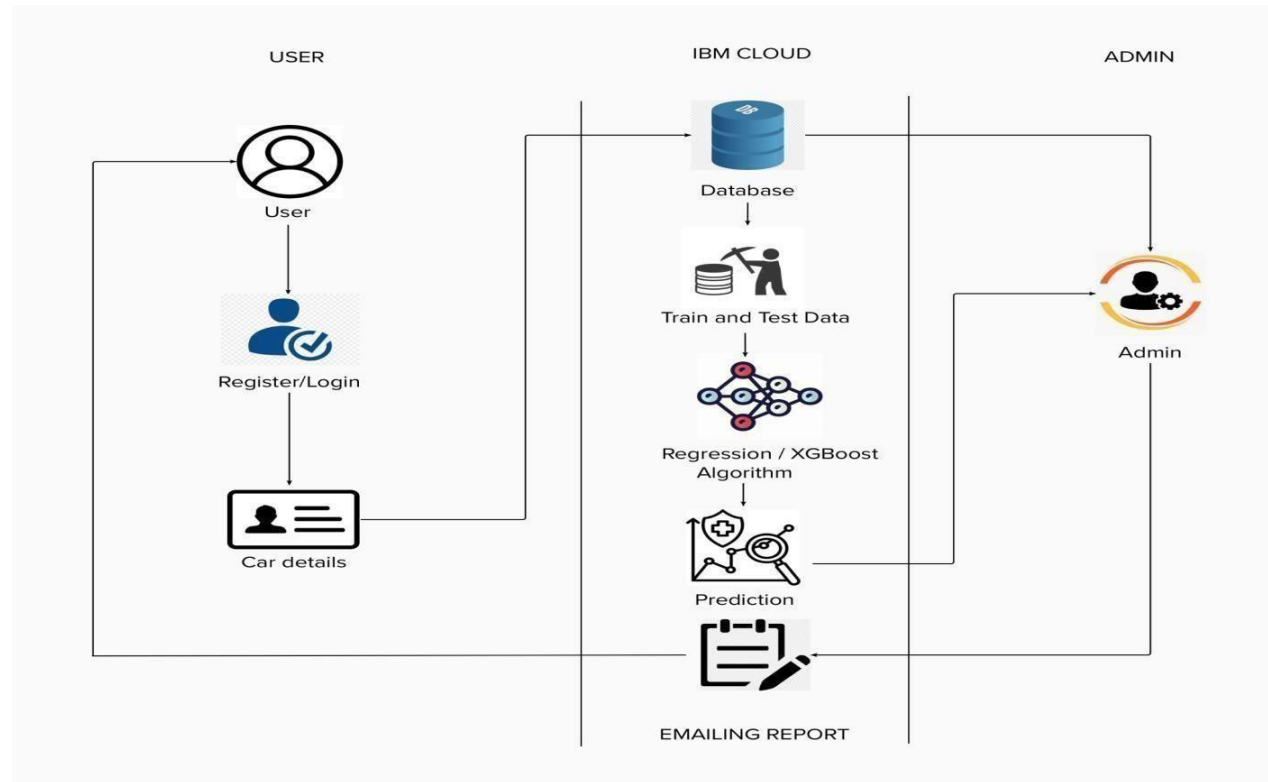
S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Open-sourceframeworks used	PythonFlask, Python, IBM Cloud
2.	SecurityImplementations	Authenticationprocess implementation	Encryptions.
3.	ScalableArchitecture	Scalabilityof architectureconsists of 3 tiers	Web server-HTML, CSS, Java script Application server-Python Flask Database server-IBM Cloud
4.	Availability	Theuser canaccess through cloud	IBM Cloud hosting

5.	Performance	Multipleusers canaccess the web application	IBM LoadBalance

Table-1:Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Theuser interacts withapplicationusing Web UI.	HTML, CSS, JavaScript , ReactJS etc.
2.	Database	Thedataset containing car details is usedfor trainingthe model to predict therate.	Pythonlibraries likeNumPy, Pandas etc.
3.	CloudDatabase	The dataset is stored in the IBM cloud	IBM Cloud
4.	MachineLearning algorithms	The machine learning algorithms are used to predict the used cars rate.	XGBoost or Regressionalgorithm
5.	Chart	Theuser will receive theprediction chart	SMTP

Table-2:ApplicationCharacteristics: