

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	26 October 2022
Team ID	PNT2022TMID14437
Project Name	Project - CAR RESALE VALUE PREDICTION
Maximum Marks	4 Marks

Technical Architecture:

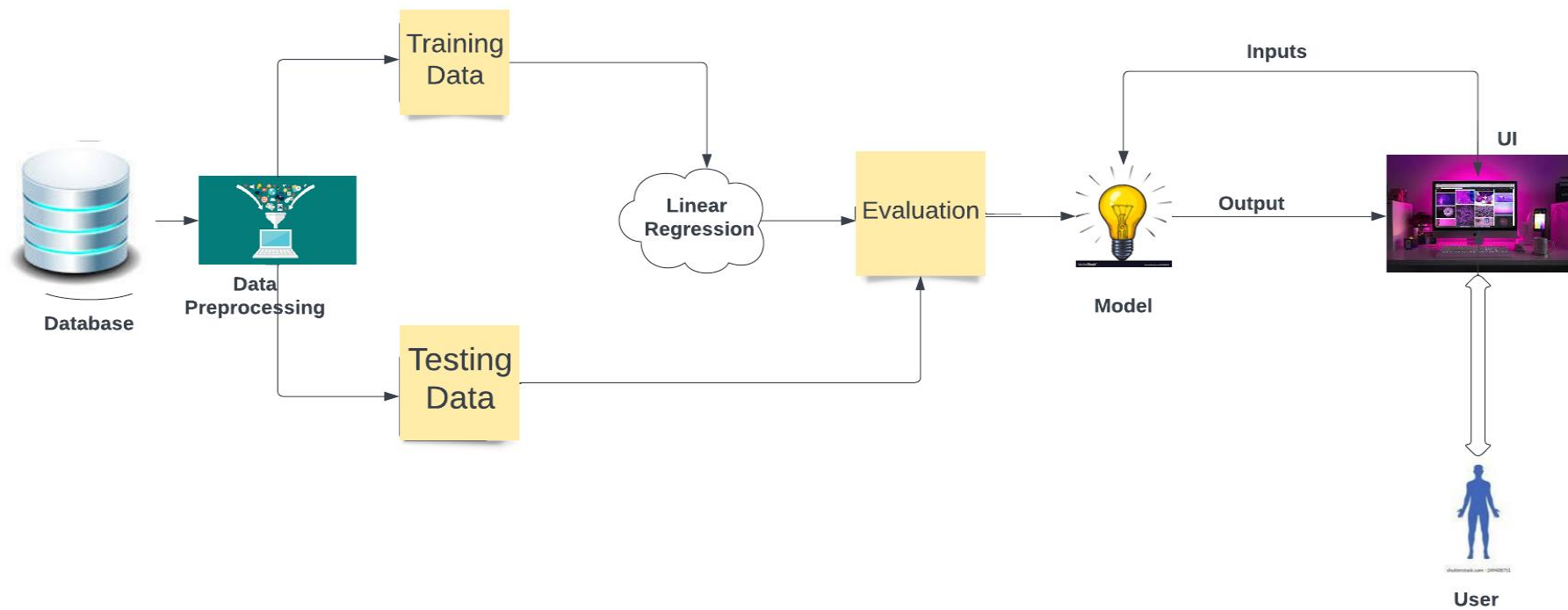


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Application interact with Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Clean the dataset to fill the missing value and remove unwanted data.	Python
3.	Application Logic-2	Load the model and initialize Flask app. To fetch the parameter values from the UI, and return the prediction.	Python
4.	Application Logic-3	To take the values from the user in a form and upon clicking on the button for submission it has to redirect to URL for “y_predict” which returns the predicted resale value	HTML,CSS,Python
5.	Cloud Database	Database Service on Cloud	IBM cloudant
6.	File Storage	Storage Requirements	IBM Block Storage or Other Storage Service or Local Filesystem
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8.	External API-1	Weather API is used in the application	IBM Weather API, etc.
9.	External API-2	External API used	HTTP request
10.	Machine Learning Model	To improve the predictive accuracy and control over-fitting.	Linear Regression, Python
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Heroku Platform

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	To establish an connection between the flask and an HTML page.	Python Flask
2.	Security Implementations	Protects User information as well as their car details.	SHA-256, Encryptions.
3.	Scalable Architecture	The website can be visited by both desktop and mobile phones.	Web UI,Mobile Android app
4.	Availability	The website can be accessed all the time.	IBM Cloud
5.	Performance	The model performance has high accuracy and with portable from one machine to another machine.	HTML,CSS