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

Date	08 October 2022
Team ID	PNT2022TMID00170
Project Name	Project - Car Resale Value Prediction
Maximum Marks	4 Marks

Technical Architecture:

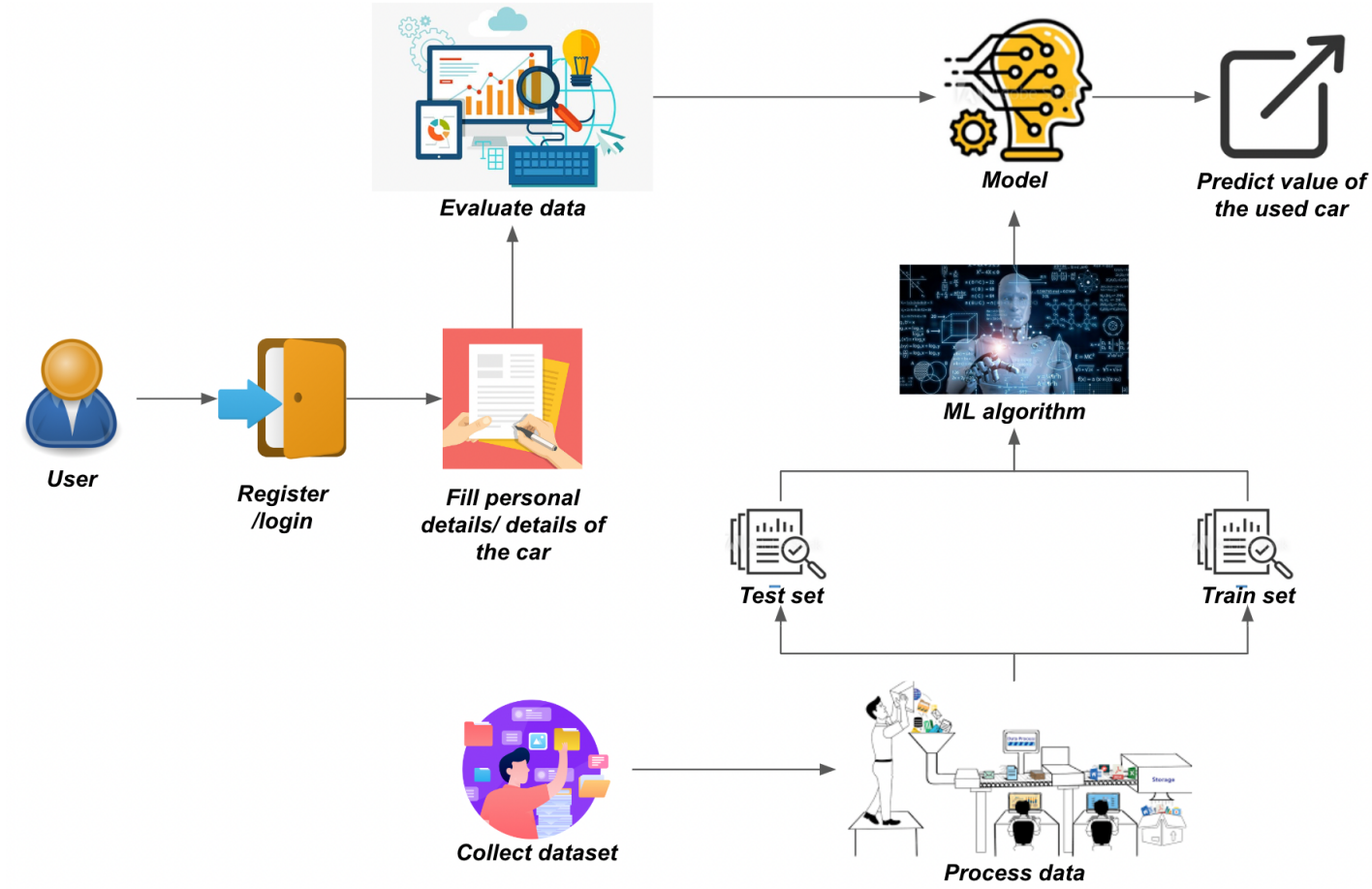

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interface is the point at which human users interact with a computer, website or application. The goal of effective UI is **to make the user's experience easy and intuitive, requiring minimum effort on the user's part to receive the maximum desired outcome**.	**HTML, CSS, JavaScript / React Js etc.**
2.	Application Logic-1	Logic for a process in the application	**python**
3.	Database	A database is **an organized collection of structured information, or data, typically stored electronically in a computer system**. A database is usually controlled by a database management system (DBMS).	**Structured Query Language (SQL)**
4.	Cloud Database	A cloud database is **a database built to run in a public or hybrid cloud environment to help organize, store, and manage data within an organization**. Cloud databases can be offered as a managed database-as-a-service (DBaaS) or deployed on a cloud-based virtual machine and self-managed by an in-house IT team.	**IBM DB2**
5.	File Storage	File storage—also called file-level or file-based storage—is **a hierarchical storage methodology used to organize and store data on a computer hard drive or on a network-attached storage (NAS) device**.	**IBM Block Storage**
6.	Machine Learning Model	A machine learning model is a file that has been trained **to recognize certain types of patterns**. You train a model over a set of data, providing it an algorithm that it can use to reason over and learn from those data	**K-nearest neighbor, random forest,support vector machine.**
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	**Local, Cloud Foundry, Kubernetes, etc.**

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	**Flask, scikit learn,tensor flow**
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	**Encryptions, decryptions**
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	**My SQL**
4.	Availability	Justify the availability of applications (e.g. use of load balancers, distributed servers etc.)	**IBM Watson- can be accessed easily**
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	**Flask-handle multiple requests**