Project Planning Phase Doc-I

Technology Stack(Architecture & Stack)

Date	5th November,2023
Team ID	Team-593183
Project Name	Car Purchase Prediction using ML
Maximum Marks	4 Marks

Architectural Diagram:

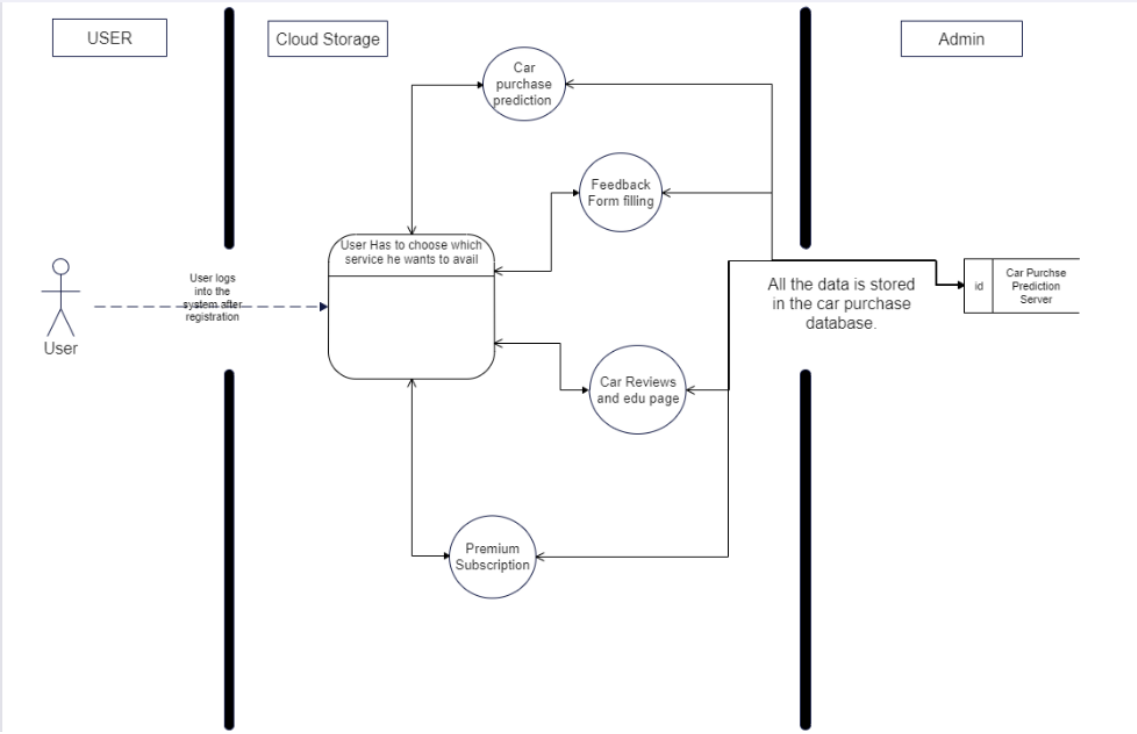

Table-1 : Components & Technologies:

S.No.	Component	Description	Technology
1.	User Interface	How user interacts with application e.g., Web UI, Mobile App ,etc.	HTML, CSS, JavaScript / React Js, etc.
2.	Application Logic-1	Basic Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for validation of user	JavaScript frameworks and other backend frameworks.
4.	Application logic-3	Logic for creation of educational content	Content management system like WordPress, frontend frameworks, analytics tool like google analytics.
5.	Application Logic-4	Logic for creation of feedback form	Form created using Google or Microsoft forms.
6.	Application Logic-5	Logic for allotting premium subscription	Subscription management like stripe or Braintree, Subscription tiers and plan configurations.
7.	Database	Data Type, Configurations etc.	MySQL, NOSQL, RDBMS,etc
8.	Cloud Database	Database Service on Cloud	Various google cloud databases like, Cloud BigQuery, Cloud Firestore, etc.
9.	File Storage	File storage requirements	Cloud file storage systems and local file storage systems.
10.	External API-1	Purpose of External API used in the application	Automotive data API like Edmunds API, Market Data API like Financial Market Data API, etc
11.	External API-2	Purpose of External API used in the application	Social Media Data API like Facebook Graph API, Environmental Impact Data like EPA Fuel Economy API and Carbon Interface API
12.	Machine Learning Model	Purpose of Machine Learning Model	Regression or Classification model, etc
13.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Google Cloud Platform (GCP), Cloud SQL (PostgreSQL or MySQL), Google Workspace (formerly G Suite).

Table-2: Application Characteristics:

S.No.	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks are used for the whole application development.	Django, HTML,CSS, JS, React, etc.
2.	Security Implementations	the security / access controls implemented, use of firewalls etc.	Firebase Authentication, Google Cloud IAM, etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Google Cloud Load Balancing, Google Kubernetes Engine (GKE)
4.	Availability	the availability of application (e.g., use of load balancers, distributed servers etc.)	Various technologies used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Various technologies used