Project Design Phase II

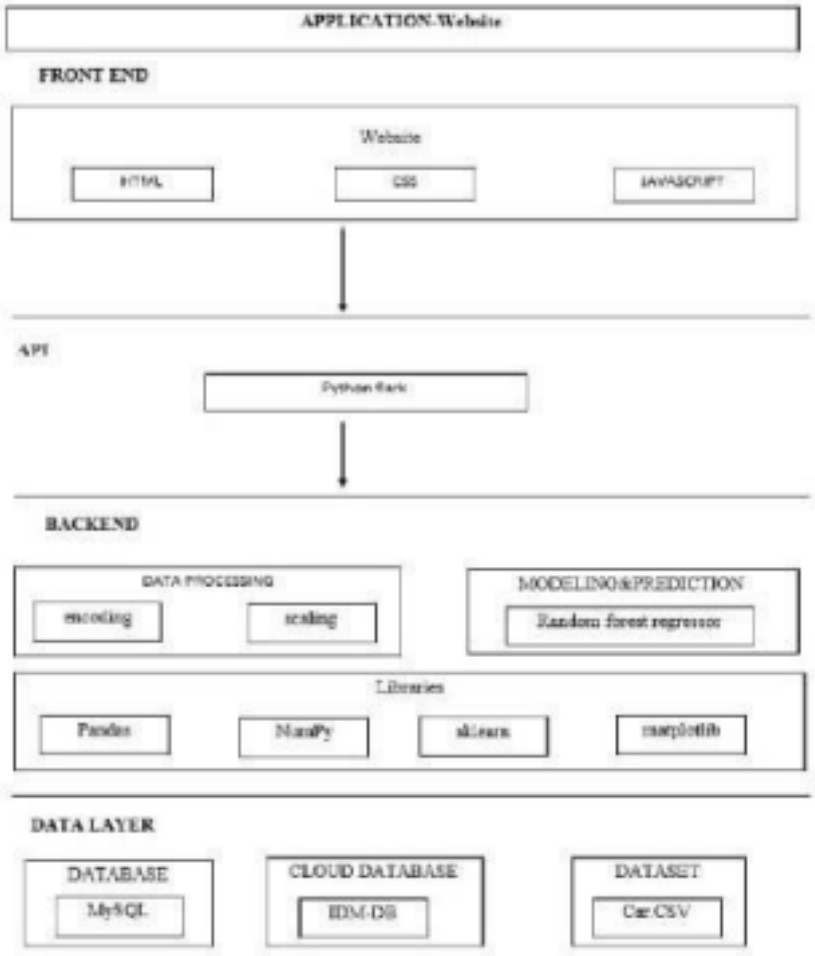
Technology Stack (Architecture & Stack)

Date	19 October 2022
Team ID	PNT2022TMID25847 PNT2022TMID54519
Project Name	Car Resale value Prediction
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Car Resale value Prediction



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud) 3. Indicate external interfaces (third-party API etc.) 4. Indicate Data Storage components/services 5. Indicate interface to Regression models (if applicable)

Table 1 - Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application e.g. Web UI, Mobile App, Chatbot, etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
	Machine Learning Model	Purpose of Regression Model	Regression Model, etc.
	Infrastructure (Server / Cloud)	Application Deployment on Local System/Cloud Local Server Configuration Cloud Server Configuration	Local, Cloud Foundry, Kubernetes, etc.

Table 2 - Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security/access controls implemented, use of firewalls, etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP, etc.
3.	Scalable Architecture	Justify the architecture's scalability (3 – tier, Microservices)	Technology used
4.	Availability	Justify the availability of the application (e.g. use of load balancers, distributed servers, etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDNs), etc.	Technology used

References

- https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/
- https://www.ibm.com/cloud/architecture https://aws.amazon.com/architecture
- https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d