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

Date	20 October 2022
Team ID	PNT2022TMID36733
Project Name	Crude Oil Price Prediction
Maximum Marks	4 Marks

Technical Architecture:

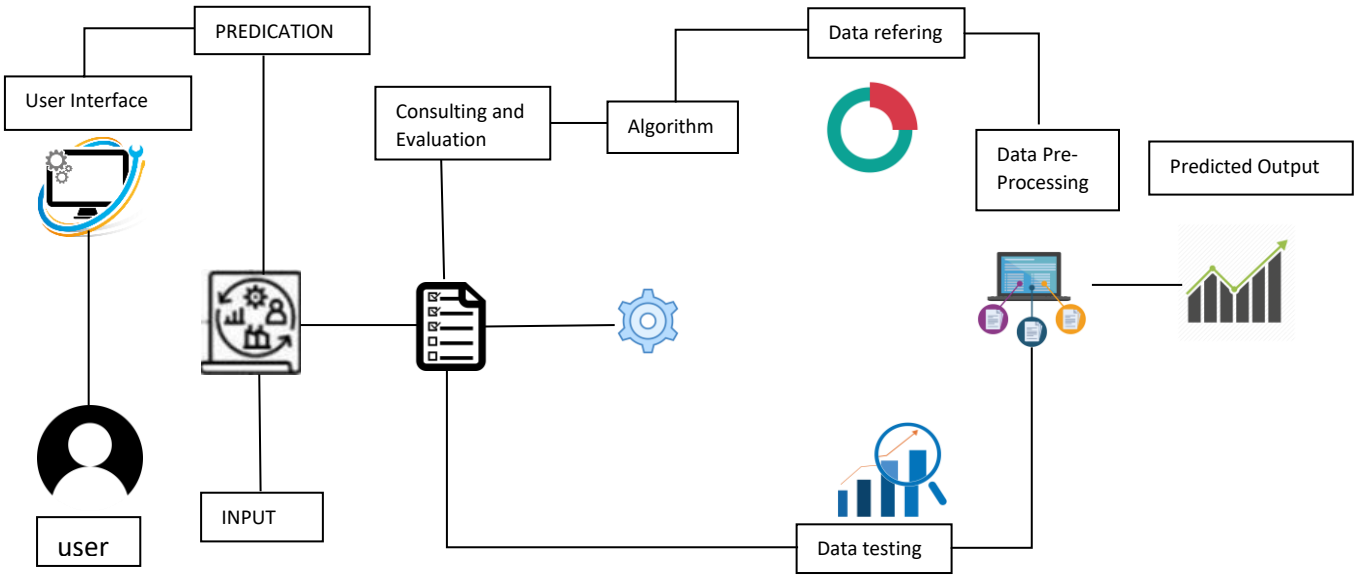

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
•	User Interface	How user interacts with application e.g. Web UI, Mobile App etc.	HTML, CSS, JavaScript etc
•	Application Logic-1	Logic for a process in the application	Java / Python
•	Application Logic-2	Logic for a process in the application	IBM Watson STT service
•	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
•	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
•	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
•	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
•	External API-1	Purpose of External API used in the application	IBM Weather API, etc.

•	External API-2	Purpose of External API used in the application	Aadhar API, etc.
•	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition 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
•	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
•	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
•	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
•	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
•	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used