

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

Date	03 October 2022
Team ID	PNT2022TMID52922
Project Name	Project – Crude Oil Price 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

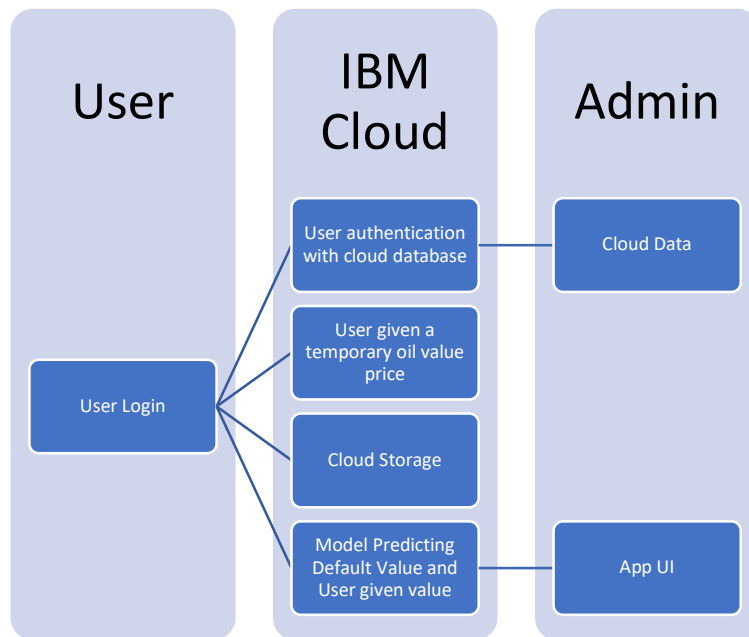


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application; Web UI, Mobile App.	HTML, CSS, JavaScript / Angular JS
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assistant
4.	Web Application	For web app	Python (Flask), Streamlit
5.	Database	Data Type, Configurations etc.	MySQL,
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Local Filesystem
8.	External API-1	Purpose of External API used in the application	Firebase
9.	Machine Learning Model	Purpose of Machine Learning Model	RNN, LSTM
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Firebase, Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
	Open-Source Frameworks	Flask	Web Application
	Security Implementations	OAuth 2.0 Authentication	Authentication is provided by Google orFacebook or any available providers
	Scalable Architecture	Microservices	AWS Lambda
	Availability	Distributed servers	CDN
	Performance	Handle more than1000 users at a time(in server)	Flask