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

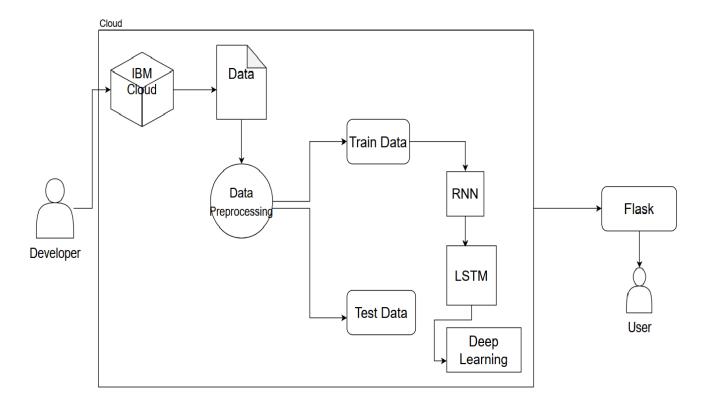| Date	20 October 2022
Team ID	PNT2022TMID08315
Project Name	Project – Crude Oil Price Prediction
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
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 Studio
4.	Application Logic-3	Logic for a process in the application	IBM Watson Machine Learning
5.	Database	Data Type, Configurations etc.	IBM Cloud Object storage
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine Learning Model	Purpose of Machine Learning Model	Sequential Model
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry

Table-2: Application Characteristics:

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