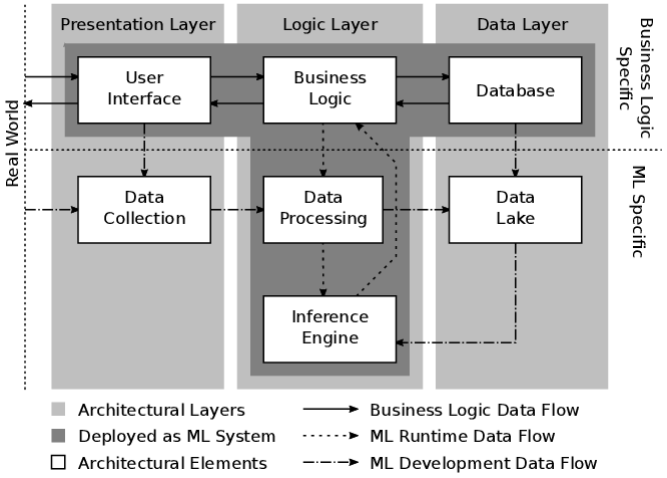
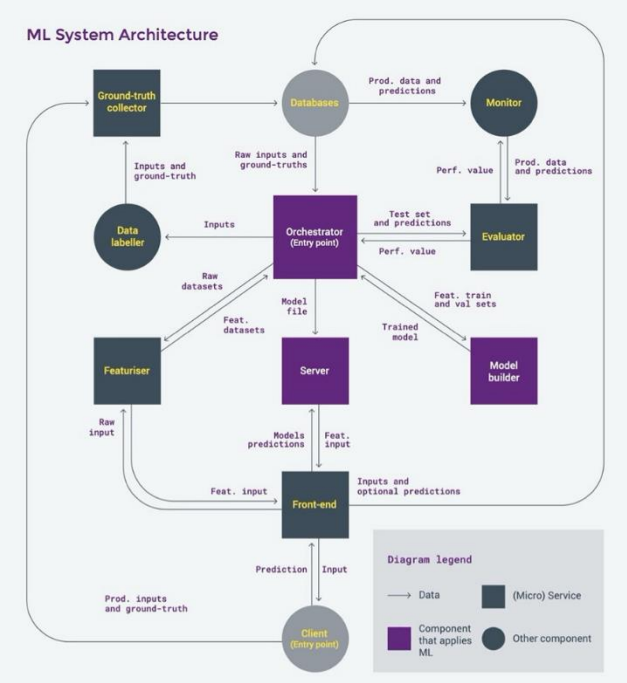
PROJECT DESGIN PHASE II
Techonlogy Stack (Architecture and Stack)

DATE	18 October 2022
TEAM ID	PNT2022TMID12210
PROJECT NAME	Project – Crude Oil Price Prediction
MAXMIMUM MARKS	4 MARKS

TECHNICAL ARCHITECTURE:





TASK I – COMPONENTS AND TECHNOLOGIES:

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	User Interface	Logic for the Interaction between user and app	HTML, CSS, JavaScript, React, Python Flask etc.
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 STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
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 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.
10.	Machine Learning Model	Purpose of Machine Learning Model	LSTM, ARIMA, etc.,
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Cloud Deployment – IBM Cloud

TASK II – APPLICATION CHARACTERISTICS:

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	Open-Source Frameworks	List the open-source frameworks used	No external APIs
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	User Authentication
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Three-Tier Architecture
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Nil
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Approximately 25 - 250 users