

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

Date	03 October 2022
Team ID	PNT2022TMID43298
Project Name	Project – Crude Oil Price Prediction
Maximum Marks	4 Marks

Technical Architecture:

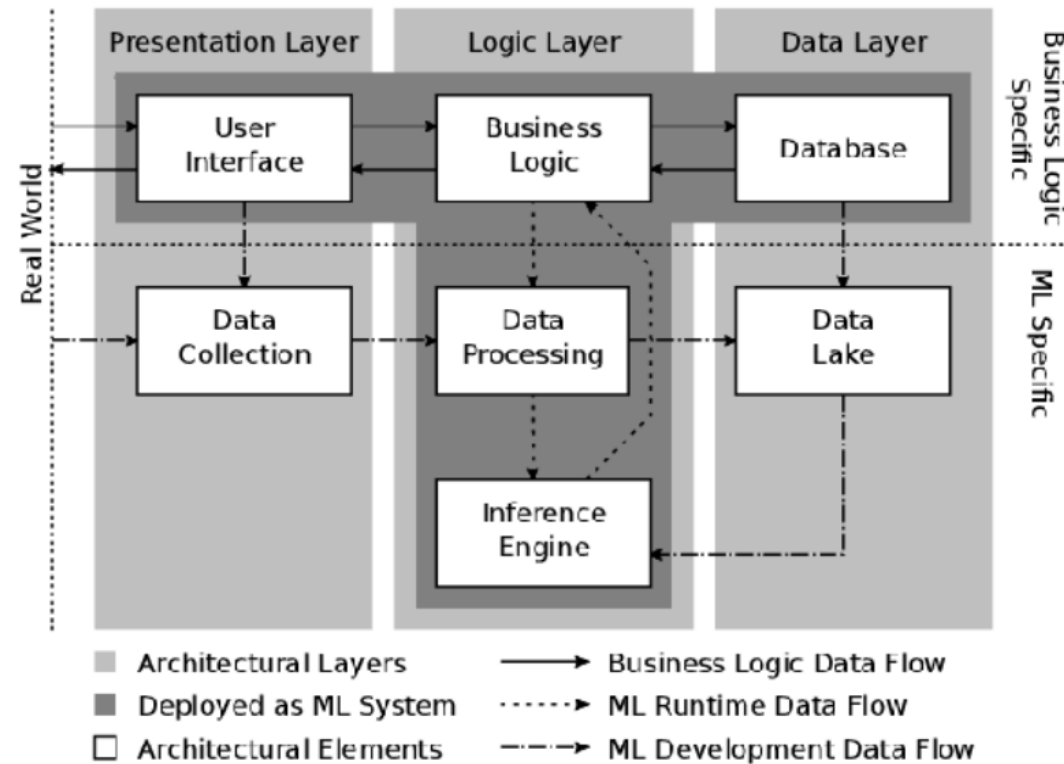


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript, etc.
2.	Application Logic-1	Logic for a process in the application	Python Flask
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.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
7.	External API-2	Purpose of External API used in the application	NIL
8.	Machine Learning Model	Purpose of Machine Learning Model	LSTM
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	IBM cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	No API's used
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	No Authentication
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3 Tier Architecture
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	NIL

S.No	Characteristics	Description	Technology
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	20 – 200 approx.