

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

Date	03 October 2022
Team ID	PNT2022TMID32704
Project Name	Retail Store stock Inventory Analytics
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

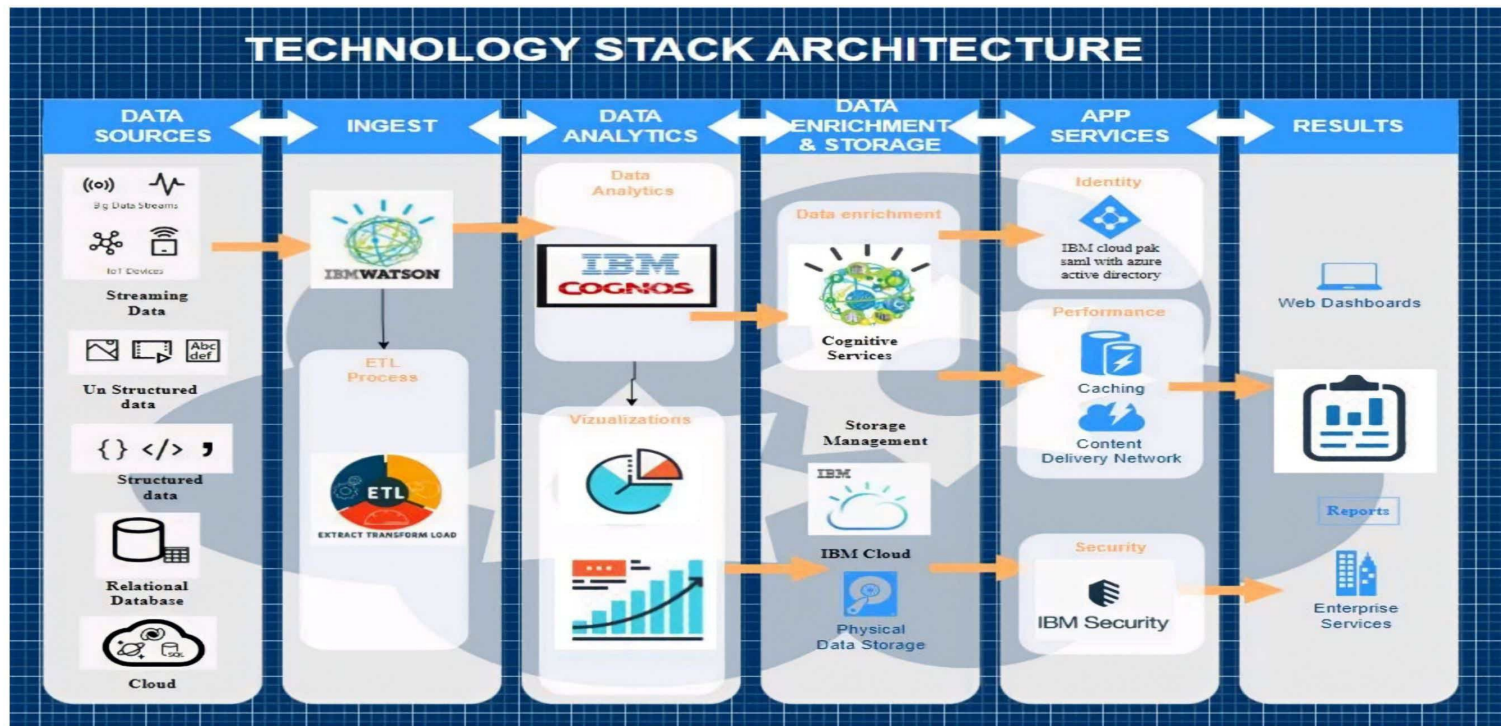


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interaction with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js 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 Assistant
4.	Uploading the Data	Data is uploaded	IBM Cognos Analytics
5.	Processing the Data	The process on the data	IBM Cognos Analytics
6.	Visualize data	The visualization of data	IBM Cognos Analytics
7.	Database	Storage of data	MySQL
8.	Analzyation of Data	The data is analysed and reported to improve sales and increase the profit.	IBM Cognos
9.	Cloud Database	Database service on cloud.	IBM DB2, IBM Cloudant
10.	File Storage	File Storage Requirements.	IBM Block Storage or other Storage Service or Local File System.
11.	Machine Learning Algorithm	The machine learning algorithm is used to visualize the data and also for analysing the data	Object Recognition Model, Python, Jupyter Notebook.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks are used.	Python (Pandas, Numpy, Scikit
2.	Security Implementations	The data are secured using safe encryption techniques.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	3 – Tier application architecture is used.	Presentation Layer : HTML, CSS Application Layer : Python Database Layer : MySQL, IBM Cloud

S.No	Characteristics	Description	Technology
4.	Availability	The software can be accessed by multiple users at the same time without any congestion.	IBM Cloud Load Balancer.
5.	Performance	IBM load balancer is used to improve the performance and traffic control is achieved.	IBM Cloud Load Balancer.