

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

Date	19 October 2022
Team ID	PNT2022TMID06865
Project Name	Project - 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

Taken-in



Dataset

Data processing



Data
integration



Data cleaning



Data
Pre-processing

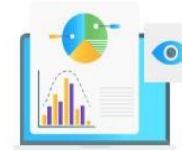


Data
Prediction



Data
Transformation

Data Visualization



Output
(Dashboard creation)



Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the application using web UI	HTML, CSS, JavaScript
2.	Dataset Collection	The sales data is being collected	Retail Store
3.	Data Processing	The data from dataset is preprocessed	IBM Cognos Analytics with Watson
4.	Cloud Database	The dataset is uploaded to IBM Cloud	IBM Cloud
5.	Data Visualisation	The data is visualised with various charts	IBM Cognos Analytics with Watson, Python
6.	Prediction	The algorithm helps to predict the proper way to make inventory available	Logistic Regression, Linear Regression, Random Forest, ABC Technique
7.	Report	A detailed report is made from the dashboard	IBM Cognos Analytics with Watson

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	IBM Cognos Analytics with Watson is used	IBM Cognos Analytics with Watson, Python, Jupyter Notebook
2.	Security Implementations	Authentication is undergone	Encryptions
3.	Scalable Architecture	This is a 3-Tier application	Application Server - Python Database Server - IBM Cloud
4.	Availability	The application is available for IBM Cloud users	IBM Cloud Hosting
5.	Performance	This makes retailer to maintain the inventory to make happy customers.	ML Algorithms