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

Date	03 October 2022
Team ID	PNT2022TMID08062
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

Example: Retail Store Stock Inventory Analytics

Reference:
https://app.mural.co/t/subashal2916/m/subashal2916/1666189482572/3eaba9bc8f33b8a39f05d25951b0c312f85a1188?sender=ubdc30890daab78c556441023

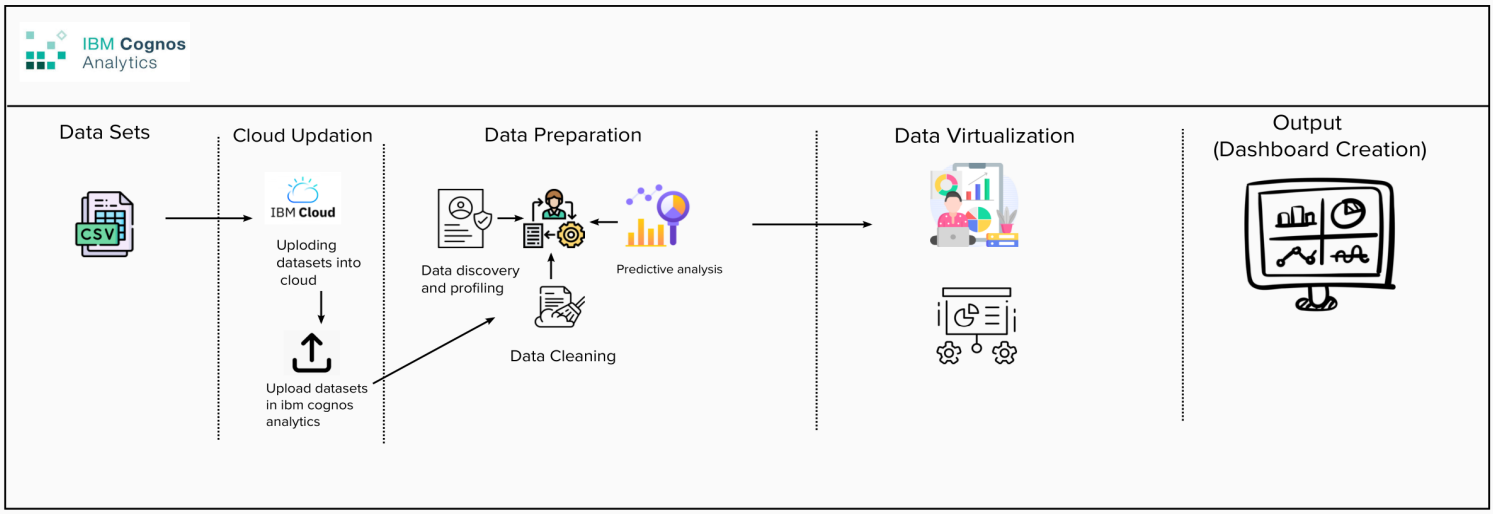

Table-1: Components & Technologies:

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.	Data Uploading	Data sets are uploaded into cloud, system etc	IBM Cloud
3.	Data Processing	Clustering and cleaning of data occurs	IBM Cognos Analytics
4.	Data Virtualization	Data can be virtualized into many forms like graphs, charts, heat maps etc	IBM Cognos Analytics
5.	Cloud Database	Storing datasets in online retrieving it back whenever necessary	IBM DB2, IBM Cloud etc.
6.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
7.	Prediction	The algorithm aids in forecasting the ideal method for making inventory available.	Linear regression, Decision tree, k nearest neighbour
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc.

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
2.	Security Implementations	Authentication is undergone	Encryptions.
3.	Scalable Architecture	3-Tier application	Application server-python Database Server-IBM cloud
4.	Availability	The application is available for cloud users	IBM cloud Hosting
5.	Performance	The user can identify the forecasting stocks and high demand stocks where they can easily maintain data warehouse but without going out of stock and over stock	Contains set of algorithms