Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID22056
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

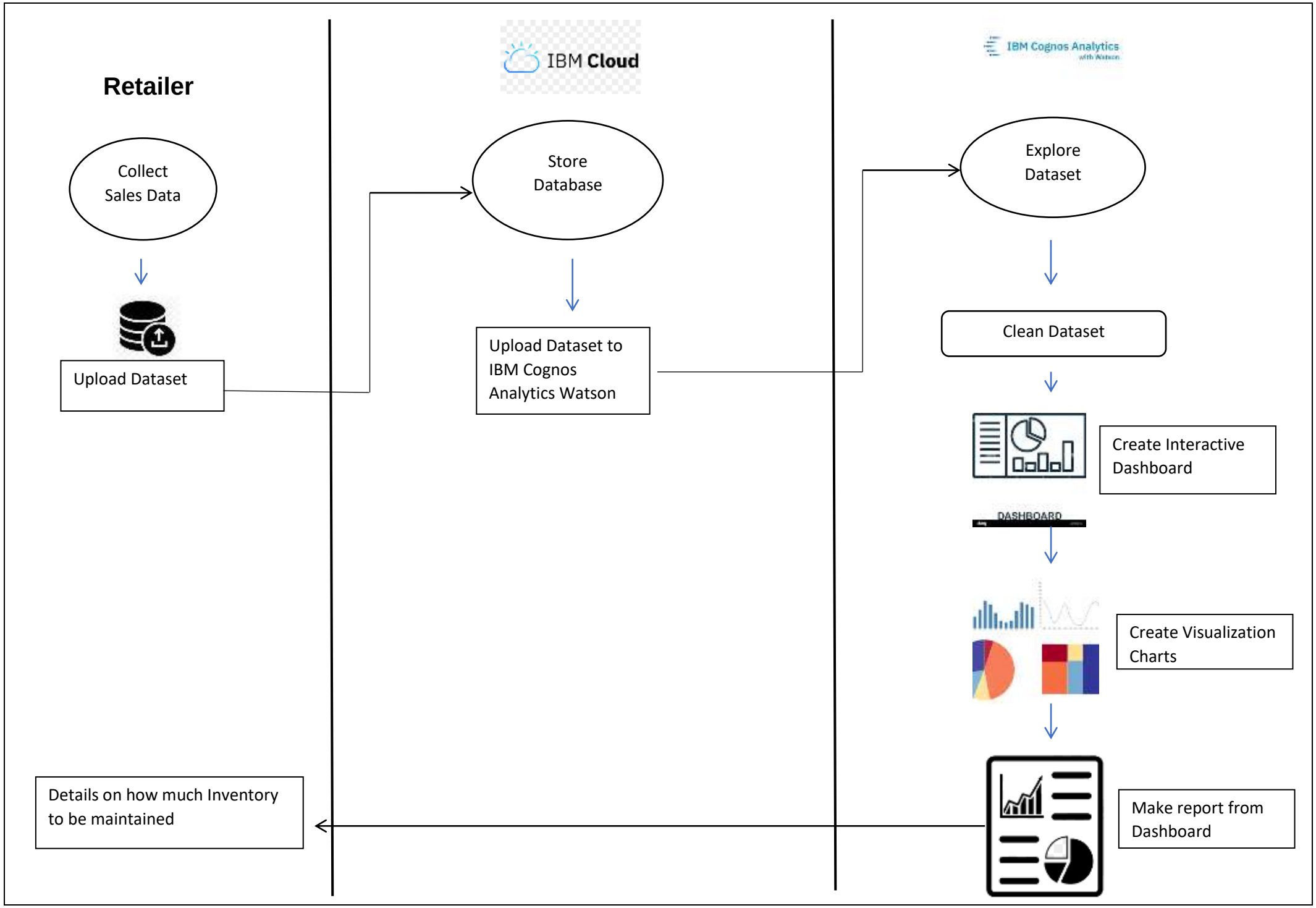
Retailer
IBM Cloud
IBM Cognos Analytics
Collect Sales Data
Store Database
Explore Dataset
Upload Dataset
Upload Dataset to IBM Cognos Analytics Watson
Clean Dataset
Create Interactive Dashboard
DASHBOARD
Create Visualization Charts
Make report from Dashboard
Details on how much Inventory to be maintained

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application using web UI	HTML, CSS, JavaScript
2.	Dataset Collection	The sales data is been collected	Retail Store
3.	Data Processing	The data from dataset is pre-processed	IBM Cognos Analytics with Watson
4.	Cloud Database	The dataset is uploaded in IBM cloud	IBM Cloud
5.	Data Visualization	The data is visualized 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