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

Date	03 October 2022
Team ID	PNT2022TMID04978
Project Name	Project - Retail Store Stock Inventory Analysis
Maximum Marks	4 Marks

Technical Architecture :

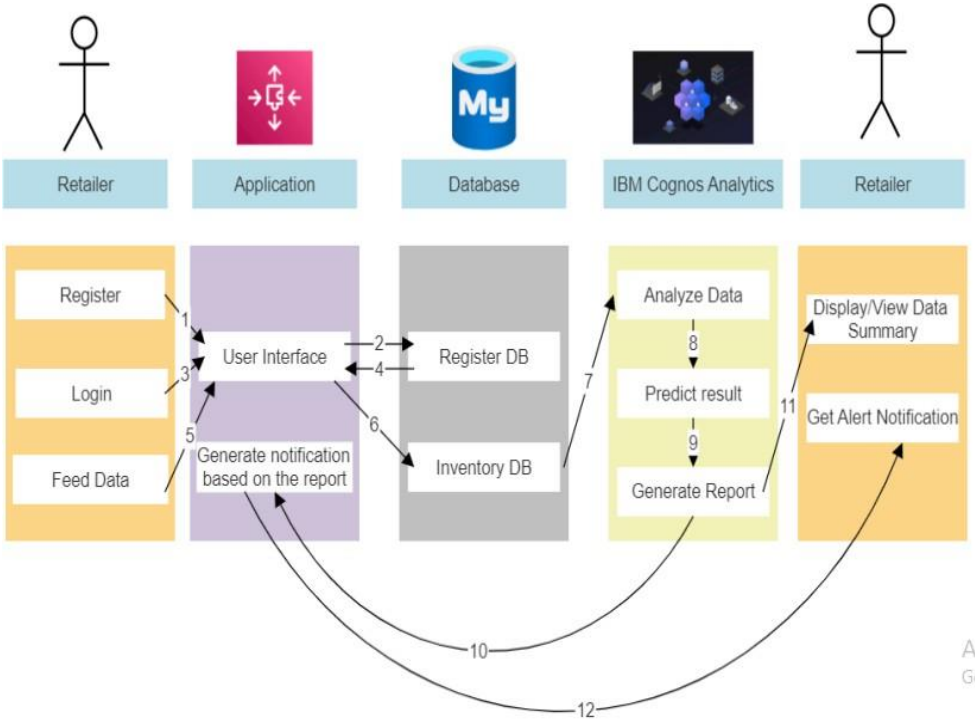

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Provides an interactive platform for Retailers to register,login and can enter inventory data such as stocks ,order.	HTML, CSS, JavaScript / Angular Js / React Js.
2.	Register	To create account for each retailer.	Python
3.	Login	Enter the credentials using UI and get authenticated through Register database	Python
4.	Feed Data -Inventory data	Enter the stock ,order details using AI and store it in the Inventory database.	Python,HTML,CSS,JavaScript.
5.	Generate notification	Intimate the retailers for understock and overstock by using the report Generated by IBM cognos analytics.	Python
6.	Register Database	The database contains details of the retailers	Mysql/IBM DB2
7.	Inventory Database	The database contains stock details and bill details that is sent as input to cognos analytics to generate reports.	Mysql/IBM DB2
8.	Analyze Data	Upload,Prepare and analyse the data.	IBM Cognos Analytics
9.	Predict result	Present the data.	IBM Cognos Analytics.
10.	Generate Report	Generate the summary .	IBM Cognos Analytics
11.	Machine Learning Model	Forecast the need using multilinear regression	Python
12.	Infrastructure (Server / Cloud)	Gives the collection of hardware and software elements needed. :	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	A platform where the inbuilt libraries are available to develop the UI and to do tests for our project.	React,Pytest,MySql Testing framework
2.	Security Implementations	To store the details of the retailer securely that can be done by encryption	Encrypting techniques
3.	Scalable Architecture	This is a 3 tier application, the retailer can add stocks, purchase and sales details how long the inventory is.	Mysql,Python,React
4.	Availability	The application is available at any time and anywhere.	IBM cloud
5.	Performance	The average time of failure for the system is 30 days.In the event that the server crashes, the system will take a week to be running again.	ML Algorithms