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

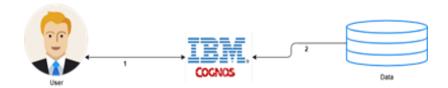| Date	14 November 2022
Team ID	PNT2022TMID46594
Project Name	Retail Store Stock Inventory Analysis
Maximum Marks	4 Marks

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics

/

TECHNICAL ARCHITECTURE:

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

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 / Angular Js / React Js etc.
2.	Customer Engagement	How the customer searching for his product with his/her unknown deliverables	Python
3.	Standardization Of Product Prices	Creating sort list based on the rate, features, distance, colour	Smart Search
4.	Enabling M-Commerce.	By enabling M-commerce even the consumer can become as a prosumer's	Recommendation systems
5.	Utilize The Power of social media.	We should provide the suggestion by the user search and their needs	Social Search.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Warehousing fulfilment and shipping	Ensuring the availability of product by their warehouse detail and its shipping information is stored in cloud	Cloud computing
9.	Reliable and Trusted Customer Support.	24/7 customer support will provide a customer satisfaction on their product and resolvent in their problems	Indicator analysis tools
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Ensuring Security.	Creating a security wall for accessing the user, with their own identity to be safe without any fraudulent	Encryption, Hash, Authentication, Firewell

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	One-Step Registration.	Providing a authentication step for verifying the user whether he/she or not?	User Authentication
2.	Super-fast checkout.	Clearing the orders as soon as possible will make the customer satisfaction.	RFID scanner gates
3.	Detailed Product Information.	Making a detailed information about the product could clear the customer doubts and fulfil the expected information.	Cognas
4.	Availability	Knowing the availability of product will show the availability of the product based on the customer location	Location-based marketing
5.	Product Review	For Creating a customer standard will make suggestion data base for future use	Basic web tool

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d