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

Date	15 October 2022
Team ID	PNT2022TMID29308
Project Name	SMART FASHION RECOMMENDER APPLICATION
Maximum Marks	4 Marks

Diagram - Architecture :
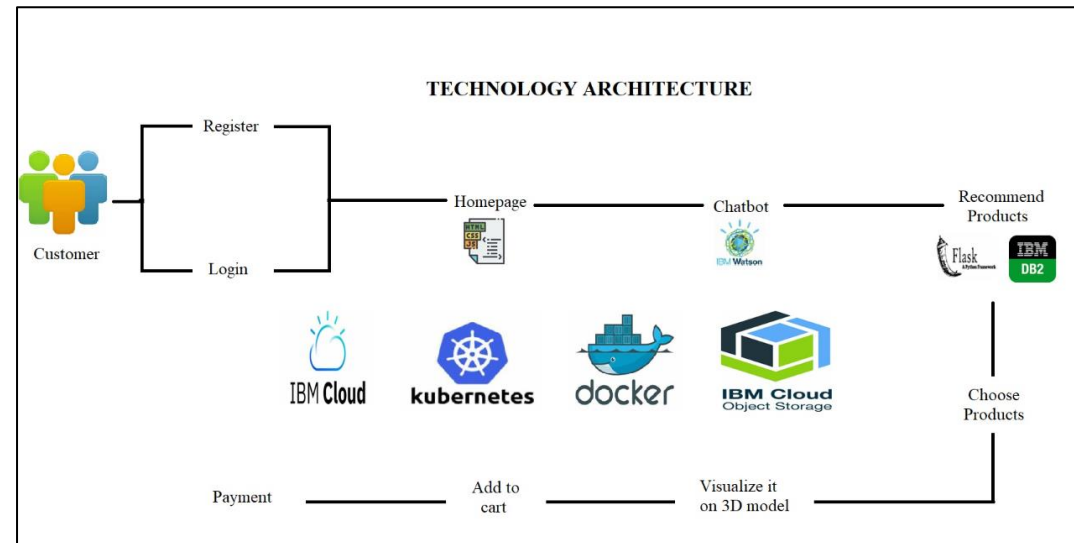
Way Chatbot:

FLASK ⟶ IBM CLOUD ⟶ IBM DB2 ⟶ KUBERNETES ⟶ DOCKER

Table-1 : Components & Technologies:

S.No	Component	Technology	Description
1.	User Interface	HTML, CSS, JavaScript / Angular Js / React Js.	User can interact with the application through Chatbot for good Human-computer interface.
2.	Application Logic-1	Java Python	The application will have the login/sign up page where the user can login into the main dashboard or they can register into the application.
3.	Application Logic-2	IBM Watson STT service	The application contains a Chatbot where the user needs to give their details like - gender, - age - type of product these were they wish to buy using Watson assistant through chatbot.
4.	Application Logic-3	IBM Watson Assistant	User's will get the recommendations based on their interests, can get the details about offers, discounts and chatbot will send a notification to customers if the order is confirmed.
5.	Database	MySQL, NoSQL,	Customer's details and order are stored in the database and whenever we can be fetch and retrieve data from database.
6.	Cloud Database	IBM DB2, IBM Cloudant	With use of Database Service on Cloud, user can access all the data stored in the cloud over a network from any device and user's data are stored in a well secure manner.
7.	File Storage	IBM Block Storage or Other Storage Service or Local Filesystem	Previously ordered product details and other customer details can be stored in the IBM Block Storage as the data kept inside are highly protected.
8.	Infrastructure (Server / Cloud)	Local, Cloud Foundry, Kubernetes, Docker	Chatbot with updated services can be deployed in an IBM cloud by using Watson assistant.

Table-2: Application Characteristics:

S.No	Characteristics	Technology	Description
1.	Open-Source Frameworks	Python - Flask	• Flask is a web framework in Python is used in the implementation of smart fashion recommender application.
2.	Security Implementations	Container Registry, Kubernetes Cluster.	• This application uses Container Registry in IBM cloud so that the user details are kept as more secure and confidential. • User have to confirm the login while logging in to avoid any misuse of the credentials.
3.	Scalable Architecture	Container Registry, Kubernetes Cluster.	• The Smart Fashion Recommender Application is more useful whenever user's make online purchase and it's demand increase at festival season's to know about the available offers and discounts.
4.	Availability	Docker, Kubernetes Cluster.	• Docker helps to improve the network management so that the application can be accessed at anytime.
5.	Performance	Docker, Kubernetes Cluster.	• The performance of this application is high. • efficient as the network traffic can be easily managed.