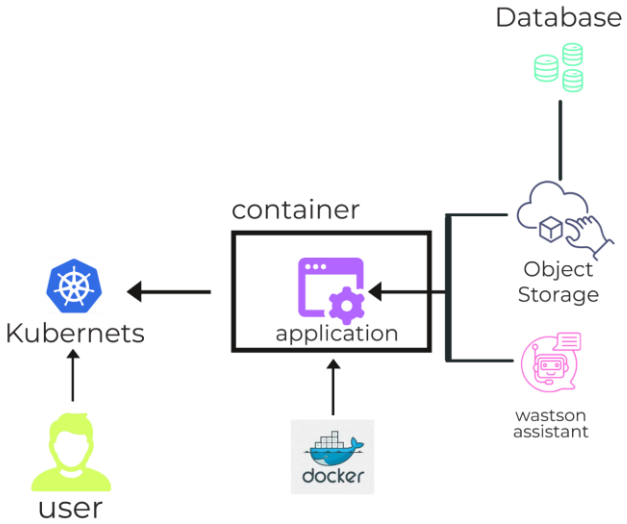
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	8 October 2022
Team ID	PNT2022TMID50218
Project Name	Project - Smart Fashion Recommender Application
Maximum Marks	4 Marks

Technical Architecture:

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



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	This platform is a web-based application where the user can able to use and understand the application easily.	HTML, CSS, JavaScript ,bootstrap.
2.	Application Logic-1	To address the growing issue of online information overload and enhance customer relationship management, recommender systems aim to offer users personalized online product or service recommendations.	Python/JavaScript
3.	Chat-bot	Chatbot offer ways to instantly communicate with customers on this platform. It is used to infer customer preferences and offer visitors personalized experiences. Ecommerce chatbots can be designed to: Help complete a buyer's purchase. The logic for a process in the application	IBM Watson Assistant
4.	Application Logic-2	A family of algorithms known as collaborative filtering offers numerous methods for locating comparable users or items as well as numerous methods for determining ratings based on the ratings of comparable users. Depending on your decisions, you might adopt a collaborative filtering strategy.	Machine Learning
5.	Database	Information about people, like that of clients or users, is frequently stored in databases. Social media platforms, for instance, use databases to store user data like names, email addresses, and usage patterns.	MySQL
6.	Cloud Database	Developers, DBAs, and enterprise architects are given the tools they need by IBM Db2 to run real-time analytics and low-latency transactions for even the most taxing workloads.	IBM DB2
7.	File Storage	File storage, which is also known as file-level storage or file-based storage, is a hierarchical storage methodology used to organise and store	IBM Block Storage

		data on network-attached storage (NAS) device or on a computer hard drive.	
8.	External API-1	A software platform called Docker makes it simple to develop, test, and deploy applications. Software is packaged by Docker into standardised units called containers that contain all of the necessary code, libraries, system tools, and runtime.	Docker
9.	External API-2	Kubernetes streamlines application management by automating operational tasks associated with container management and providing built-in commands for application deployment, the rollout of updates, scaling up and down to accommodate changing requirements, monitoring, and more.	Kubernetes
10.	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	Python-based Flask, which is implemented on Werkzeug and Jinja2, is used to create web applications. There are benefits to using the Flask framework, including a built-in development server and a quick debugger.	Python Flask
2.	Security Implementations	Implement - After all the planning, designing, and training are finished, the control owners can put the new procedures in place and start implementing the new controls during this phase.	SHA-256, RSA
3.	Scalable Architecture	Scaling design can include a variety of activities, from establishing consistency through systems to implementing design thinking procedures across the organisation and beyond. In the early stages of scaling, not everyone is on the same page.	SaaS

S.No	Characteristics	Description	Technology
4.	Availability	Software's availability is the quality of being available and prepared to perform its function when required. This broad view includes what is typically referred to as reliability.	Cloud storage
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) .	python