

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

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| Date | 01 November 2022 |
| Team ID | PNT2022TMID19814 |
| Project Name | Project – Smart Fashion Recommender Application |
| Maximum Marks | 4 Marks |

Technical Architecture:

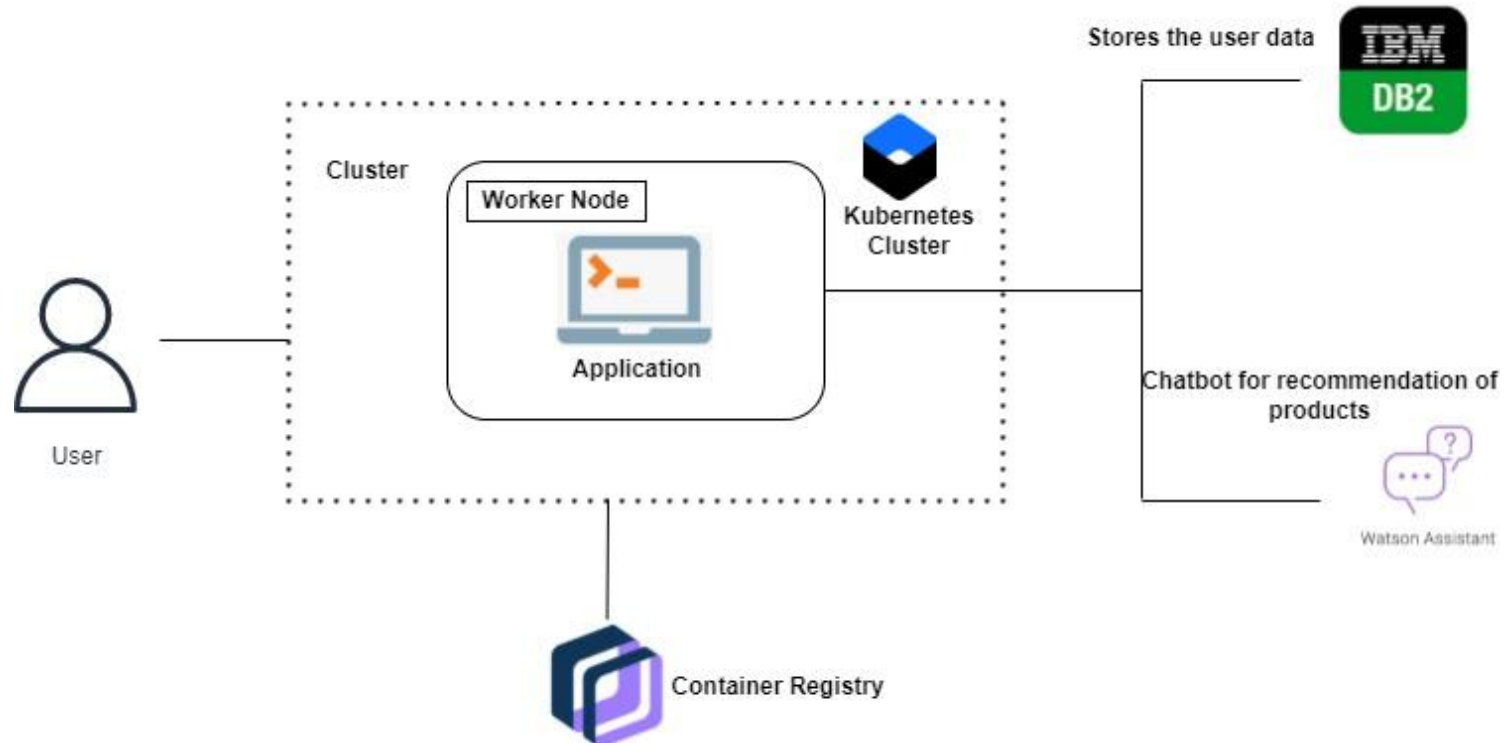


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|------------------------|--|--|
| 1. | User Interface | User can interact with the application through Chatbot. | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | 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 | Java / Python |
| 3. | Application Logic-2 | The application contains a Chatbot where the user needs to give their details like gender ,age and type of product they wish to buy. | IBM Watson STT service |
| 4. | Application Logic-3 | 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. | IBM Watson Assistant |
| 5. | Database | Customer details and order's are stored in the database. | MySQL, NoSQL, etc. |
| 6. | Cloud Database | 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. | IBM DB2, IBM Cloudant etc. |
| 7. | File Storage | Previously ordered product details and other customer details can be stored in the IBM Block Storage as the data kept inside are highly protected. | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | Infrastructure (Cloud) | Chatbot with updated services can be deployed in an IBM cloud by using watson assistant. | Cloud Foundry, Kubernetes, etc. |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|---|--|
| 1. | Open-Source Frameworks | Flask ,a web framework in Python is used in the implementation of smart fashion recommender application. | Python-Flask |
| 2. | Security Implementations | 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. | Container Registry, Kubernetes Cluster |
| 3. | Scalable Architecture | 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. | Container Registry, Kubernetes Cluster |
| 4. | Availability | Docker helps to improve the network management so that the application can be accessed at anytime. | Docker, Kubernetes Cluster |
| 5. | Performance | The performance of this application is high and efficient as the network traffic can be easily managed. | Docker , Kubernetes Cluster |