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

Date	03 October 2022
Team ID	PNT2022TMID38709
Project Name	Project-job/skill 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
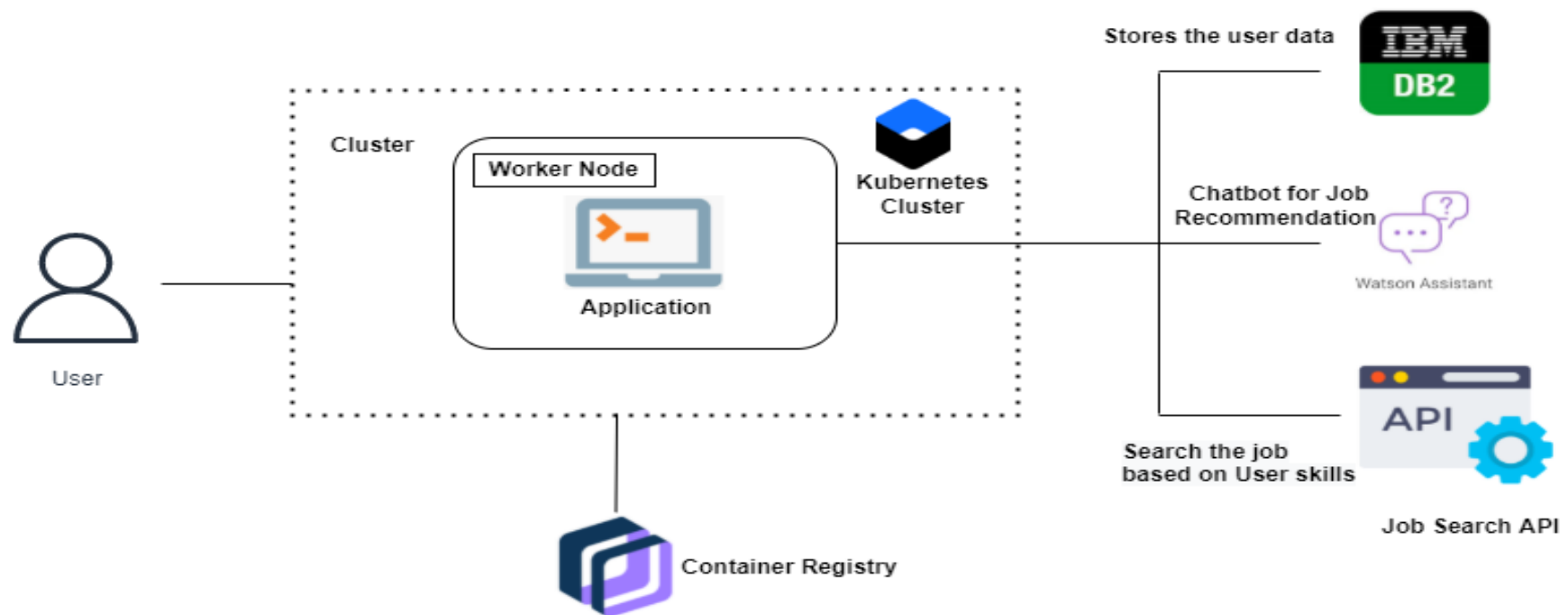
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User creates account and view details. User feel like free to flow with usage of sites application.	HTML, CSS, JavaScript , Python Flask.
2.	Chatbot	Chatbot to answer user's queries.	IBM Watson Assistant
3.	Database	Data Type, Configurations, For storing, maintaining, modifying and retrieving the user's details.	IBM DB2, IBM SQL.
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
5.	File Storage	Using to store object and files.	IBM Cloud Object Storage.
6.	Confirmation Email	Sending a confirmation email to users once they have registered for donation.	SendGrid.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Configuration.	Local, Docker, Kubernetes.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python flask micro framework is used.	Python Flask
2.	Security Implementations	Mandatory Access Control(MAC) and kubernetes is used.	SHA-256, Encryptions, IAM Controls, OWASP, Kubernetes
3.	Scalable Architecture	3 – Tier architecture is used.	Web Server - HTML, CSS, JavaScript. Application Server - Python Flask. Database Server - IBM DB2.
4.	Availability	Using Load Balancer to distribute network traffic across servers. Using a region servers the availability is to be increased.	IBM registry, Load Balancer.
5.	Performance	Request and respond facility within a second. User-friendly API.	IBM Content Delivery Network.