

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

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|---------------|---------------------------|
| Date | 15 October 2022 |
| Team ID | PNT2022TMID32271 |
| Project Name | Skill and Job Recommender |
| Maximum Marks | 4 Marks |

Technical Architecture:

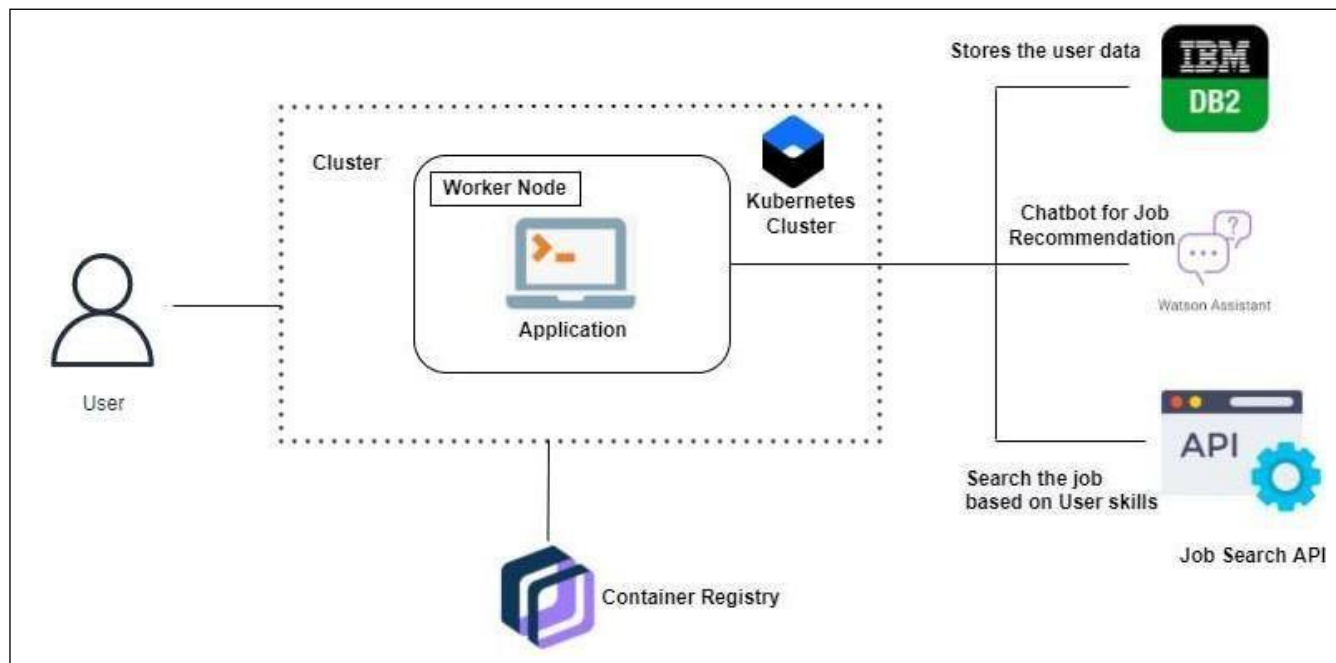


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|---------------------------------|---|--|
| 1. | User Interface | How user interacts with application e.g. Web UI, Chatbot etc. | HTML, CSS, JavaScript |
| 2. | Search | Search for jobs using hybrid filtering | Python |
| 3. | Chat | Chat with Watson Assistant | IBM Watson Assistant |
| 4. | User Application | User applies for the desired company | Python Flask |
| 5. | Cloud Database | Database Service on Cloud | IBM DB2 |
| 6. | Job Search API | Job Search API is used for relevant results | Google Job Search API, etc. |
| 7. | 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 Micro frameworks | Python Flask micro framework is used | Python Flask |
| 2. | Security Implementations | Mandatory Access Control (MAC) and Preventative Security Control is used | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3. | Scalable Architecture | 3 – tier architecture | Web Server – HTML,CSS, JavaScript Application Server – Python Database Server – IBM DB2 |
| 4. | Availability | Use of Load Balancing to distribute network traffic across servers | IBM Load Balancer |
| 5. | Performance | (number of requests per sec, use of Cache, use of CDN's) etc. | IBM Content Delivery Network |