# Project Design Phase-II

## Technology Stack (Architecture & Stack)
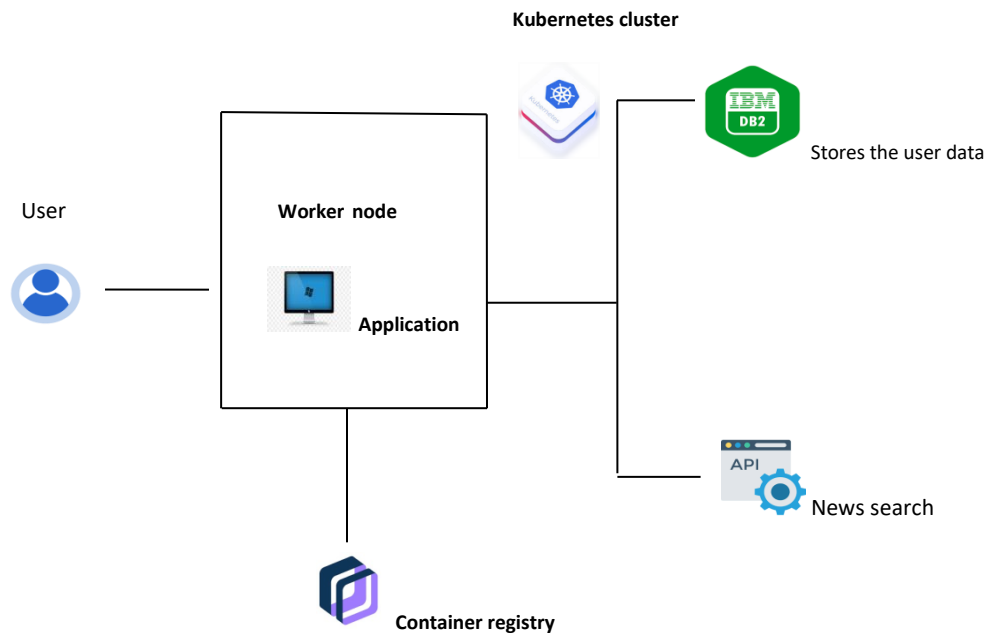
**Kubernetes cluster**

**Worker node**

User

**Application**

Stores the user data

News search

**Container registry**

**Table-1 : Components & Technologies:**

| S.NO | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1. | User interface | How user interacts with Application | HTML, CSS, JavaScript |
| 2. | Application logic-1 | Logic for a process in the application | Python |
| 3. | Application logic-2 | Logic for a process in the application | IBM Watson Assistant |
| 4. | Database | Data type, configuration | My SQL |
| 5. | Cloud database | Database service on cloud | IBM database |
| 6. | External API-1 | Purpose of external API used in the application | Rapid API |
| 7. | Infrastructure(server/cloud) | Application deployment on local system/cloud | Local. Cloud foundry, kubernetes, etc |

**Table-2 : Application Characteristics:**

| S.NO | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1. | Open-source frameworks | List the open-source frameworks used | Flask |
| 2. | Security implementations | List all the security/ access controls implemented, use of firewalls | Encryption, IAM Controls, OWASP |
| 3. | Scalable architecture | Justify the scalability of architecture (3-tier,micro-services) | Kubernetes |
| 4. | Availability | Justify the availability of application | IBM cloud |