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

| Date | 15 October 2022 |
|---|---|
| Team ID | PNT2022TMID30665 |
| Project Name | News Tracker Application |
| Maximum Marks | 4 Marks |

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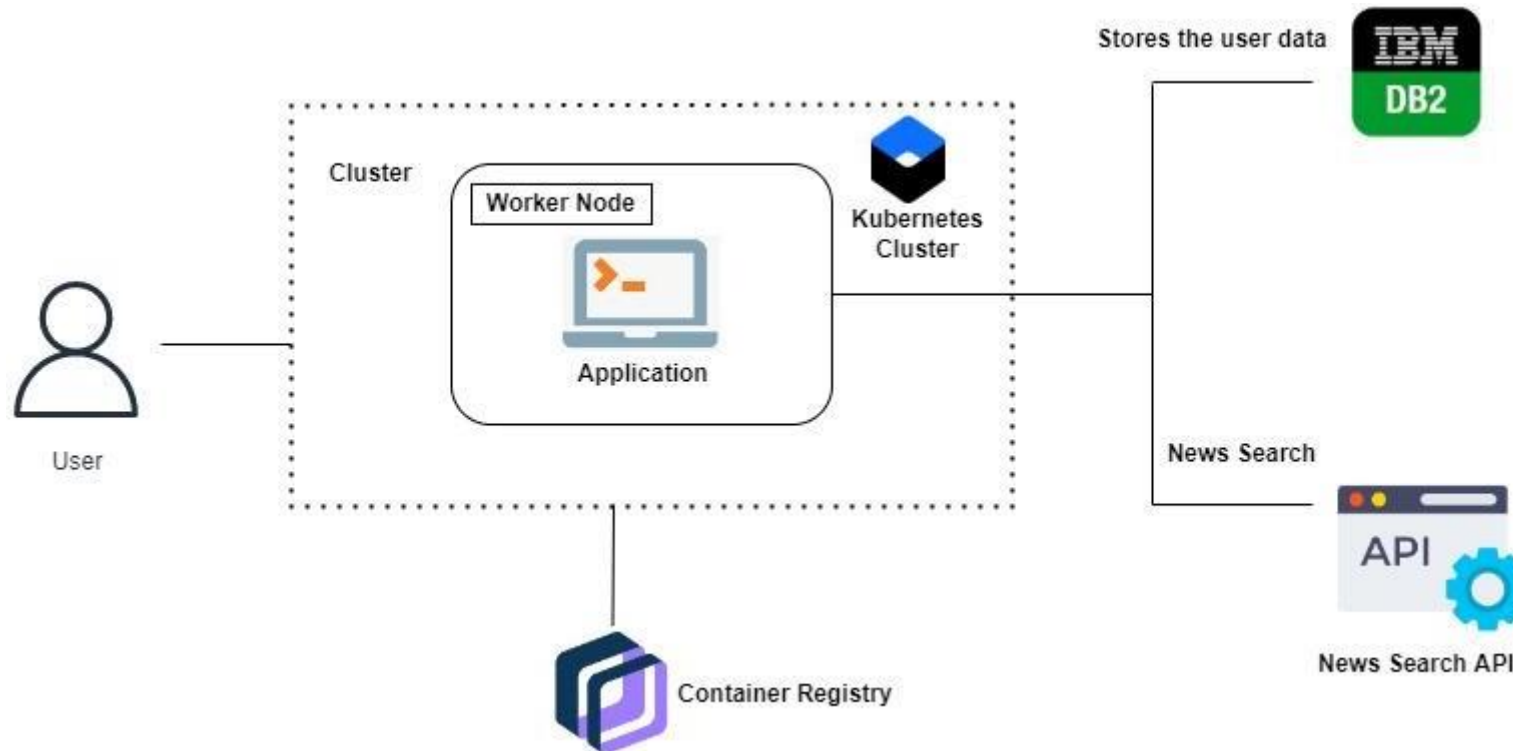
**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | User interacts with application with ease of use and most handy environment with minimum effort on user to receive maximum effort | HTML, CSS, JavaScript |
| 2. | Application Logic-1 | This application starts with login page where user sign up or sign in web application | Java / Python |
| 3. | Application Logic-2 | User enters personal data to update their Account profile where IBM watson stt service used to convert audio to text that is user can fill their detail by voice assistance | IBM Watson STT service |
| 4. | Application Logic-3 | User can view news content based on dates and places where chatbot is used there to filter content | IBM Watson Assistant |
| 5. | Database | User data gets stored in database for lateral purposes | MySQL |
| 6. | Cloud Database | Here Database Service are used in IBM DB2 .Using this users can access all the data stored in cloud through network from any accessible device | IBM DB2, IBM Cloudant |
| 7. | File Storage | Users personal data and last visited news content are get stored in IBM block storage | IBM Block Storage |
| 8. | External API-1 | Application used IBM Weather to get exact weather report as it is one of the mandatory news content | IBM Weather API |
| 9. | Infrastructure (Cloud) | Application Deployment on Cloud for faster and flexible performance over the internet | Kubernetes |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1. | Open-Source Frameworks | Here this application is light weight application using flask (python) as a backend development | Flask(Python) |
| 2. | Security Implementations | Application contains user personal information, login credentials,transaction details are protected and kept confidential using data protection in IBM cloud | IAM in IBM cloud |
| 3. | Scalable Architecture | Here application runs 24/7 as it is scalable where size is everything.So flask is used to perform web application quickly | Flask(Python) |
| 4. | Availability | Application functions properly and will justifie requirements .It can be accessible anytime | Docker,Kubernetes cluster |
| 5. | Performance | Application trace every request and building blocks efficiently for better performance | Instana |