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

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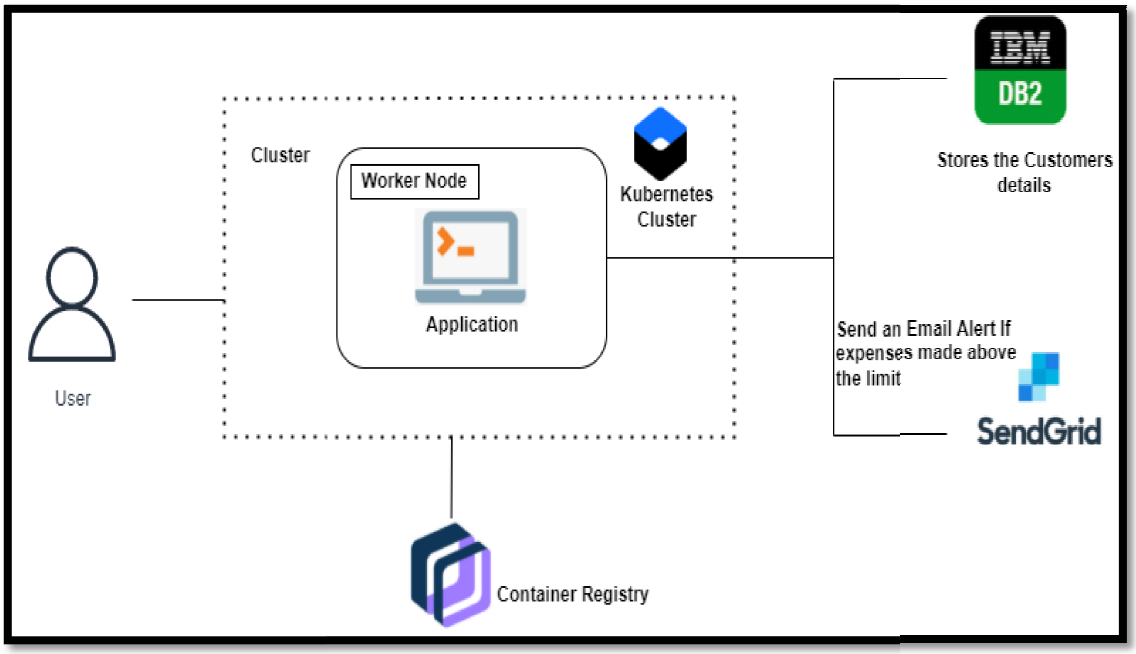
|---|---|
| Date | 03October 2022 |
| Team ID | PNT2022TMID48497 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

## Technical Architecture:




## Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | The application contains the sign in/signup page where the user will login into the main dashboard | Python |
| 3. | Application Logic-2 | Dashboard contains the fields like Add income, Add expenses, Save Money | IBM Watson STT service |

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|---|---|---|---|
| 4. | Application Logic-3 | The user will get expense report in the graph form and also get alerts if the expense limit exceeds | IBM Watson Assistant, SendGrid |
| 5. | Database | The income can be stored in the database | MySQL |
| 6. | Cloud Database | With the use of database service on cloud, the user data are stored in a well secured manner | IBM DB2, IBM Cloudant etc. |
| 7. | File Storage | IBM block storage used the financed data of the user | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | Infrastructure (Server / Cloud) | Application deployment on local system or server | Local, Cloud Foundry, Kubernetes, etc. |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Flask framework in python is used to implement this application | Python – Flask |
| 2. | Security Implementations | This application provides high security to the user financial data. It can ba done by using the container registry in IBM cloud. | Container registry, Kubernetes cluster |
| 3. | Scalable Architecture | Expense tracker is a lifetime access supplication. It's demand will increases when the users income are high | Container registery, Kubernetes cluster |
| 4. | Availability | This application will be available to the user at any part of time | Container registery, Kubernetes cluster |
| 5. | Performance | .the performance will be high because there will be no network traffics in the application | Kubernetes cluster |