

Project Design Phase-II

Technology Stack (Architecture & Stack)

| | |
|---------------|--------------------------------------|
| Date | 31 October 2022 |
| Team ID | PNT2022TMID34425 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

Technical Architecture:

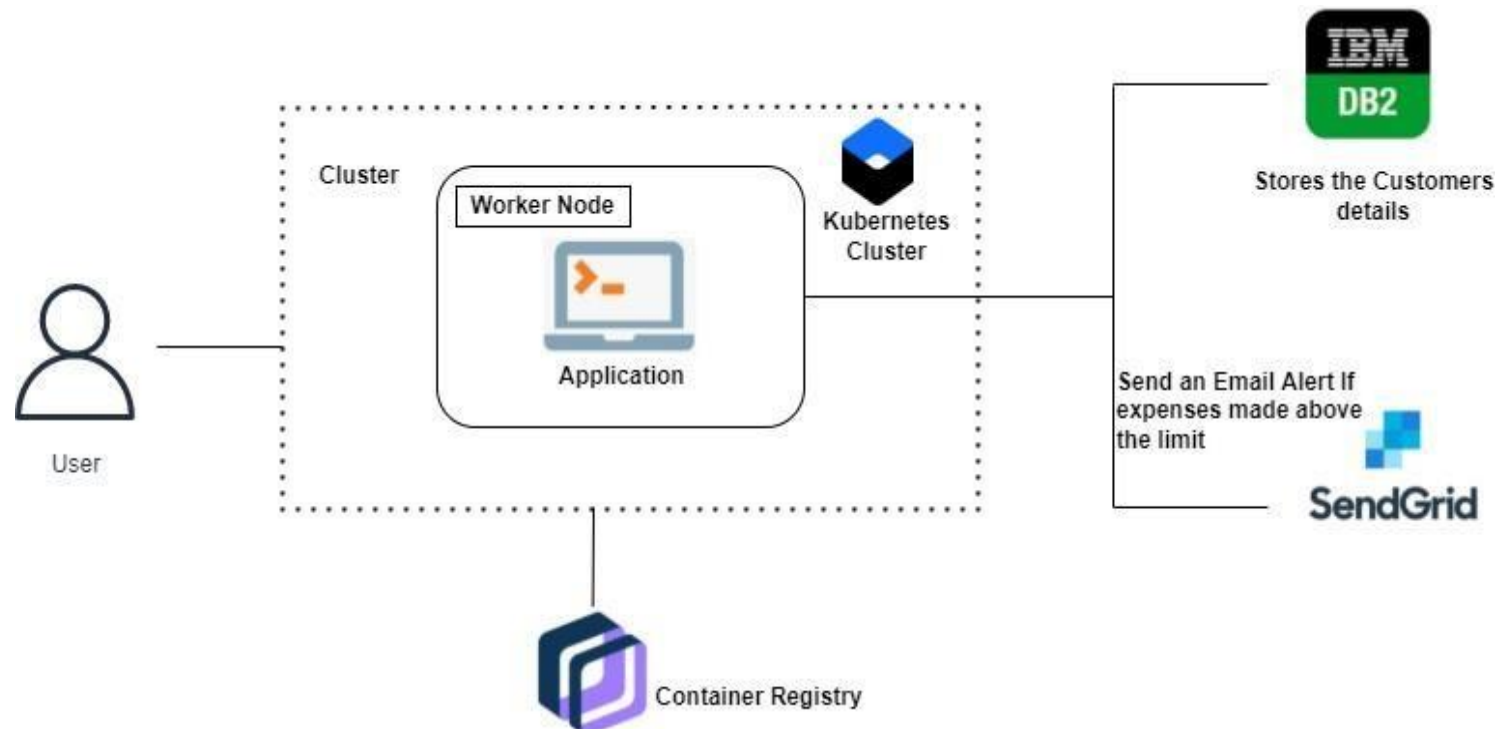


Table-1: Components & Technologies:

| S.No | Component | Description | Technology |
|-------------|---------------------|---|--|
| 1. | User Interface | The user can Interact with the application with use of Chatbot | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | The application contains the sign in/sign up where the user will login into the main dashboard | Java / Python |
| 3. | Application Logic-2 | Dashboard contains the fields like Add income, Add Expenses, Save Money | IBM Watson STT service |
| 4. | Application Logic-3 | The user will get the expense report in the graph form and also get alerts if the expense limit exceeds | IBM Watson Assistant, SendGrid |
| 5. | Database | The Income and Expense data are stored in the MySQL database | MySQL, NoSQL, etc. |
| 6. | Cloud Database | With 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 to store the Financial data of the user | IBM Block Storage or Other Storage Service or Local Filesystem |

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 be done by using the Container Registry in IBM cloud | Container Registry, Kubernetes Cluster |
| 3. | Scalable Architecture | Expense Tracker is a life time access supplication. It's demand will increase when the user's income are high | Container Registry, Kubernetes Cluster |
| 4. | Availability | This application will be available to the user at any part of time | Container Registry, Kubernetes Cluster |
| 5. | Performance | The performance will be high because there will be no network traffics in the application | Kubernetes Cluster |