

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

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID03124 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

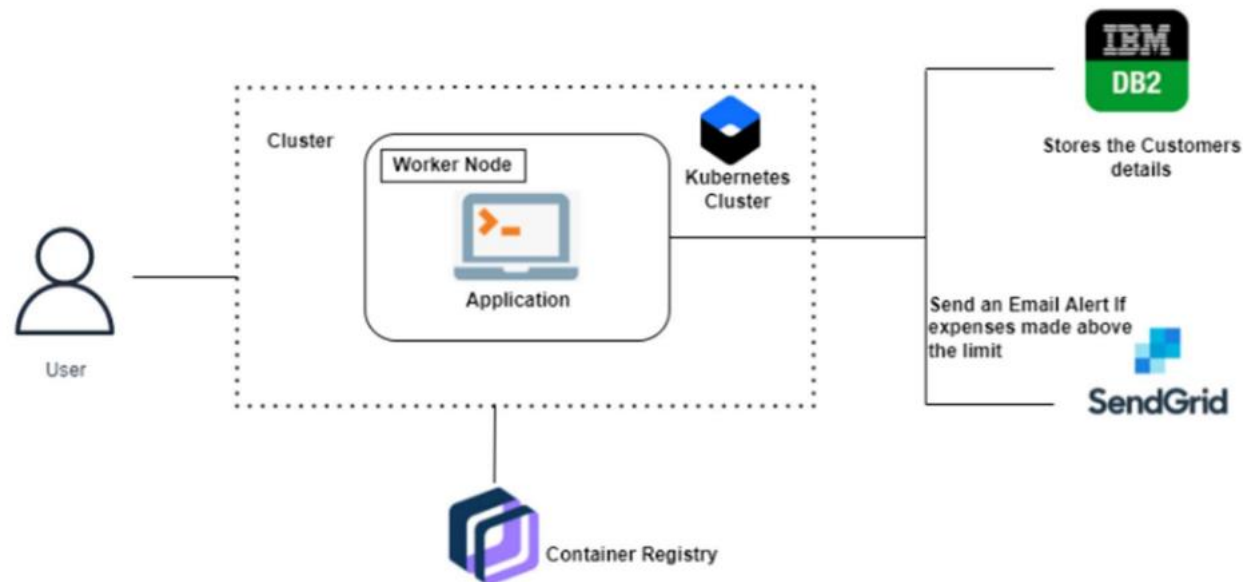


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|-------------|---------------------|---|---|
| 1. | User Interface | The user can Interact with the application with use of Chatbot. | HTML, CSS, JavaScript / ReactJS, etc. |
| 2. | Application Logic-1 | The application contains the sign in/sign up where the user will login into the main dashboard. | Python |
| 3. | Application Logic-2 | Dashboard contains the fields like Add income, Add Expenses. | 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 exceed. | 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. Its demand will increase when the user's incomes 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. |