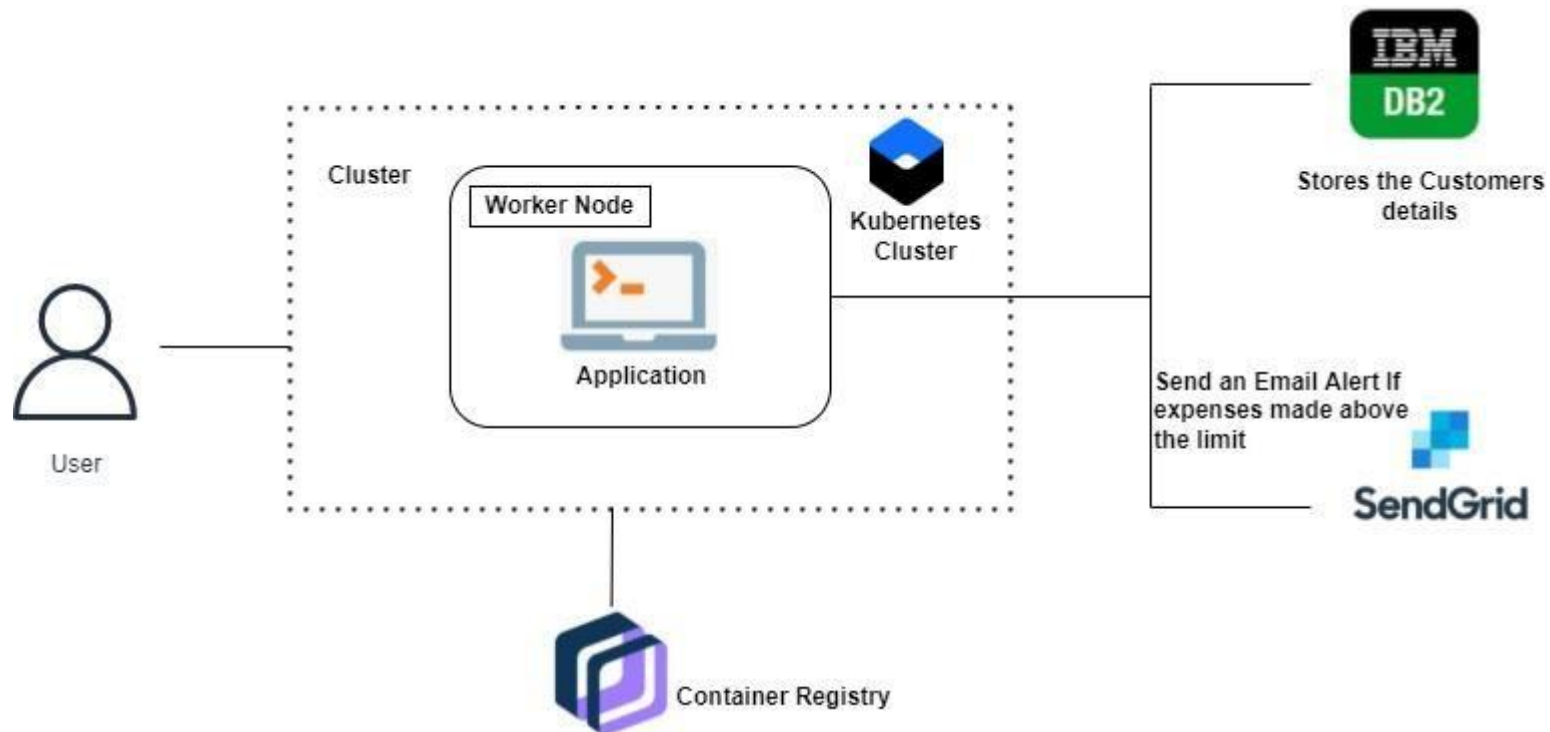


## Project Design Phase-II Technology Stack (Architecture & Stack)

|               |                                      |
|---------------|--------------------------------------|
| Date          | 03 October 2022                      |
| Team ID       | PNT2022TMID21946                     |
| 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:**

| <b>S.No.</b> | <b>Component</b>    | <b>Description</b>                                                                                      | <b>Technology</b>                                              |
|--------------|---------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 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:**

| <b>S.No.</b> | <b>Characteristics</b>   | <b>Description</b>                                                                                                              | <b>Technology</b>                      |
|--------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 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                     |