Project Design Phase – II

Technology Architecture

Date	15 October 2022
Team ID	PNT2022TMID02964
Project Name	Personal Expense Tracker
Batch Number	B8-2A4E

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the Table -1 Components & Technologies and table 2 Application Characteristics:

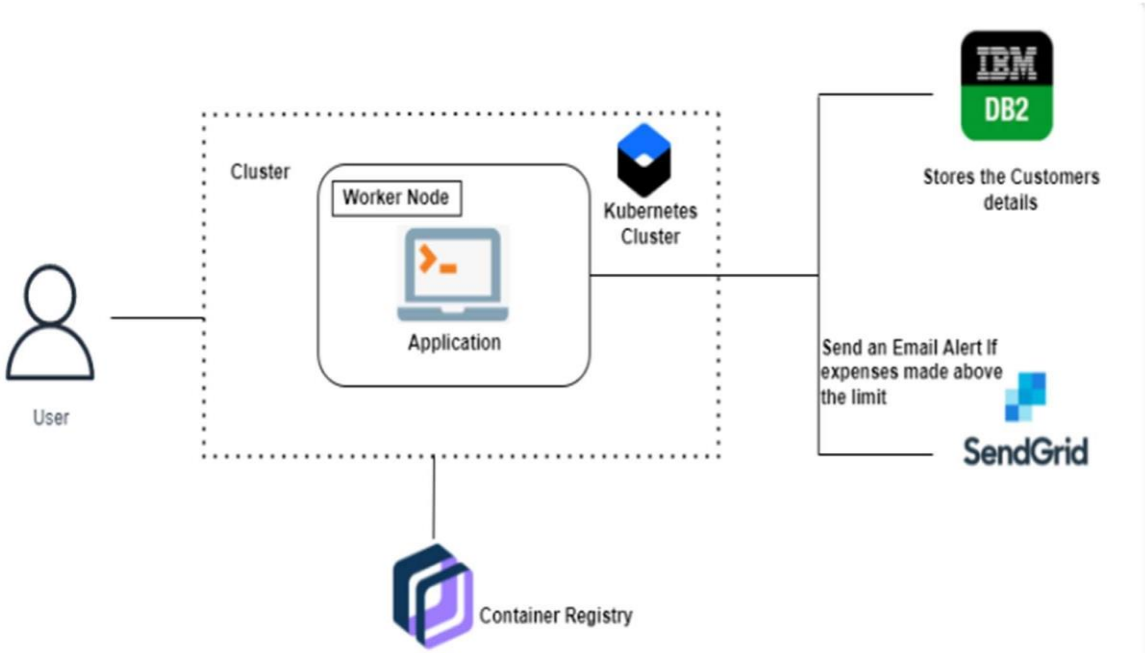
IBM
DB2
Stores the Customers details
Cluster
Worker Node
Kubernetes Cluster
Application
User
Send an Email Alert If expenses made above the limit
SendGrid
Container Registry

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.