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

Date	07 November 2022
Team ID	PNT2022TMID02903
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

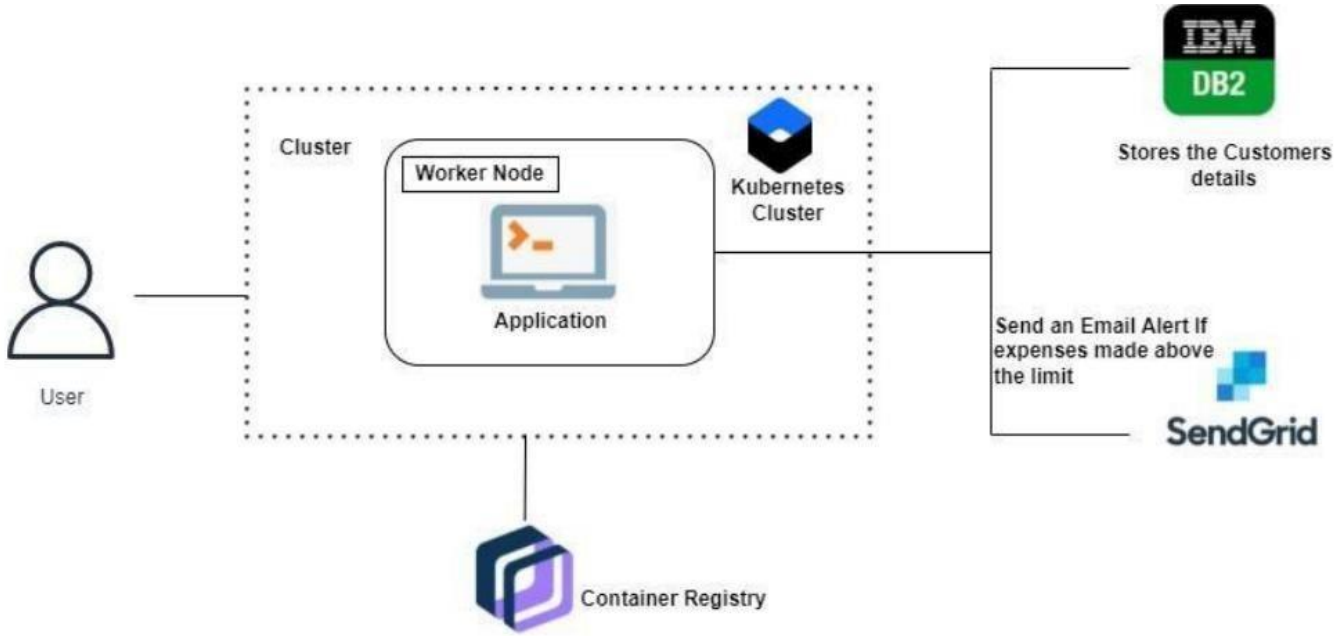

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application via Web UI.	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 Budget, Expenses, Record	Python, ReactJs (ChartJs)
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	IBM DB2
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
8.	Google OAuth	OAuth 2.0 allows users to share specific data with an application while keeping their username, passwords and other information private.	Enables login through Gmail account, thus making the application accessible

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	Docker, 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	Docker, Container Registry, Kubernetes Cluster
4.	Availability	This application will be available to the user at any part of time	Docker, Container Registry, Kubernetes Cluster
5.	Performance	The performance will be high because there will be no network traffics in the application	Docker, Kubernetes Cluster