Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	14 October 2022
Team ID	PNT2022TMID15392
Project Name	Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

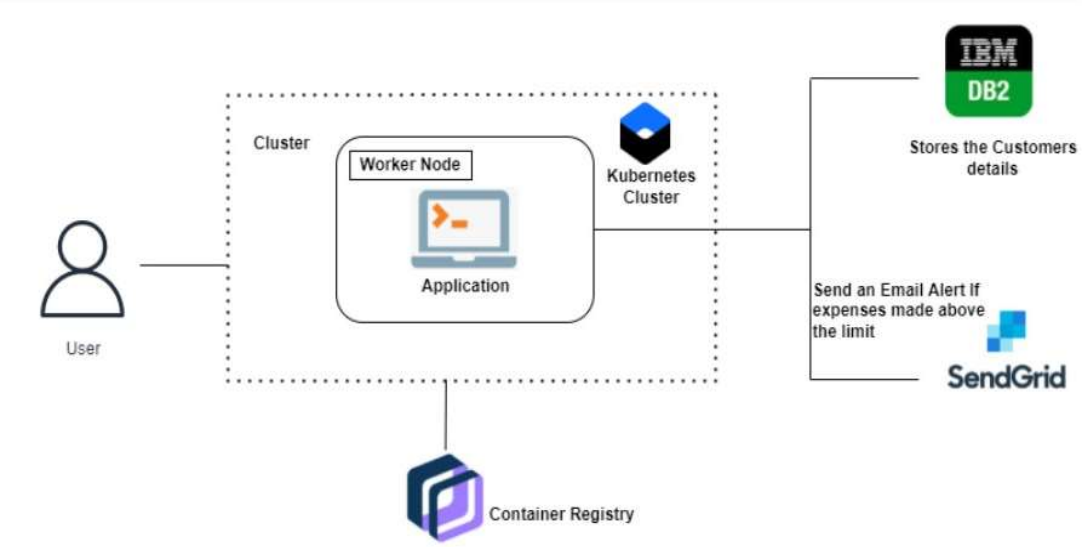

Table 1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user can interact with the application with the use of a 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 log in to the main dashboard	Java / Python
3.	Application Logic-2	The 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
5.	Database	The Income and Expense data are stored in the MySQL database	MySQL, NoSQL, etc.
6.	Cloud Database	With the use of Database Service on the Cloud, the User data are stored in a well secure Manner	IBM DB2, IBM Cloudant etc.
7.	File Storage	IBM Block Storage is used to store the Financial data of the use	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's Financial data. It can be done by using the Container Registry in the IBM cloud	Container Registry, Kubernetes Cluster.
3.	Scalable Architecture	Expense Tracker is a lifetime access supplication. Its demand will increase when the user's income is high	Container Registry, Kubernetes Cluster.
4.	Availability	This application will be available to the user at any part of the time	Container Registry, Kubernetes Cluster.
5.	Performance	The performance will be high because there will be no network traffics in the application	Kubernetes Cluster.

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

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