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

Date	03 October 2022
Team ID	PNT2022TMID04422
Project Name	Personal Expense Tracker
Maximum Marks	4 Marks

Technical Architecture:

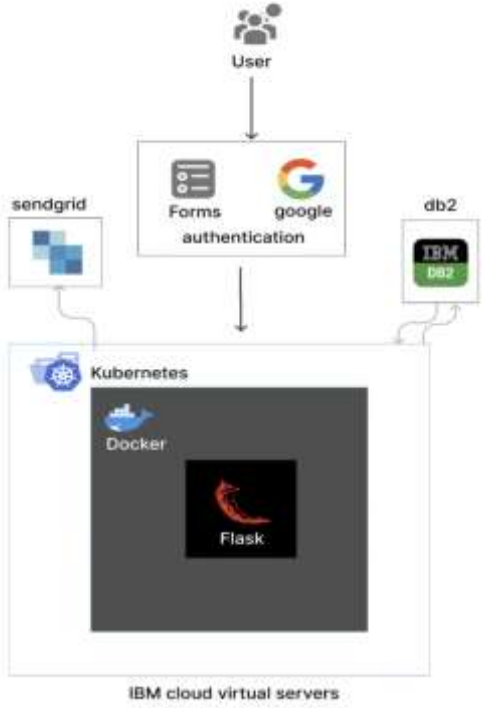

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user can interact with the application via web browser as a web application	HTML, CSS, React Js
2.	Application Logic-1	The application contains the register and login services to access the dashboard of the application	React Js, Python (Flask)
3.	Application Logic-2	Dashboard contains insights about income and expenses	React Js, Python (Flask)
4.	Application Logic-3	The user will get the reports weekly and monthly as email notifications	React Js, Python (Flask), SendGrid
5.	Database	Income and expense-related data stored In SQL Database	MySQL
6.	Cloud Database	User data are stored in a remote cloud database for high availability and insights	IBM DB2
7.	File Storage	User's financial reports are stored	IBM Block Storage
8.	Infrastructure (Server / Cloud)	Kubernetes application with Docker pods containing the application that can be deployed in IBM K8s clusters	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used to implement API	Flask
2.	Security Implementations	The IBM Container Registry in IBM Cloud provides high security to the user's data	Container Registry, K8s Cluster, IBM Cloud
3.	Scalable Architecture	Kubernetes cluster scales the application based on the traffic	Container Registry, K8s Cluster, IBM Cloud
4.	Availability	This application is available to the user at any part of the world at any time	IBM Cloud
5.	Performance	The performance will be high because of the scalability by k8 engine	Container Registry, K8s Cluster, IBM Cloud