Project Design Phase-II

Technology Stack (Architecture &Stack)

Date	28 October 2022
Team ID	PNT2022TMID34843
Project Name	Project – Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

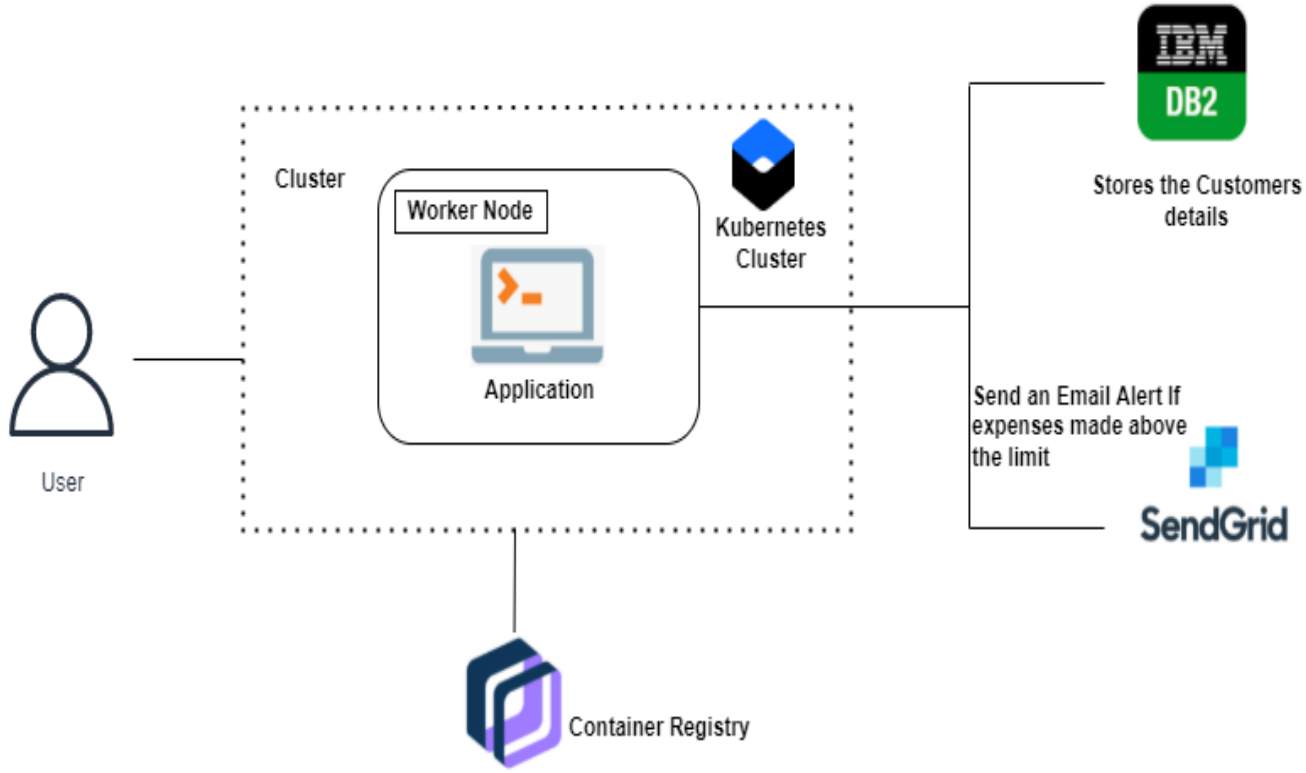

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular JS / React JS etc.
2.	User Login	User can login either through their gmail account or an account in the app server	Google OAuth for Google Signin. Hashed password in DB
3.	Graph Visualisation	Rendering plots and graphs based on the user spending data	Seaborn, Mathplotlib
4.	Accounts	User can view and mange all their financial accounts for real-time tracking of expenses	Python, Flask and Trusted bank database for verification
5.	Notifications	Alerts and suggestions on expenses and earning/saving money techniques	InfoSphere MDM Notification Framework
6.	Database	The Income and Expense data are stored in the MySQL database	MySQL, NoSQL, etc.
7.	Cloud Database	Database service on Cloud	IBM DB2, IBM Cloudant etc.
8.	File Storage	Used to store the Financial data of the user	IBM Block Storage or Other Storage Service or Filesystem
9.	Google OAuth	Allows user to share their information and permission from the users to store files in their Google Drives	Google Drives
10.	Cloud Deployment	Application Deployment on Local System/Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc

Table-2: Application characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	IBM Open-Source and other options available	Python-Flask
2.	Security Implementations	List all the security/ access controls implemented, use of firewalls etc.	Container Registry, Kubernetes Cluster
3.	Scalable Architecture	Data-driven vertical architecture	Container Registry, Kubernetes Cluster
4.	Availability	Maintaining the availability of application by using distributed	Container Registry, Kubernetes Cluster

		servers and high performance IBM frameworks	
5.	Performance	Increasing the UI performance and customer satisfaction with latest technology and support	Kubernetes Cluster