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

Date	16 October 2022
Team ID	PNT2022TMID53373
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

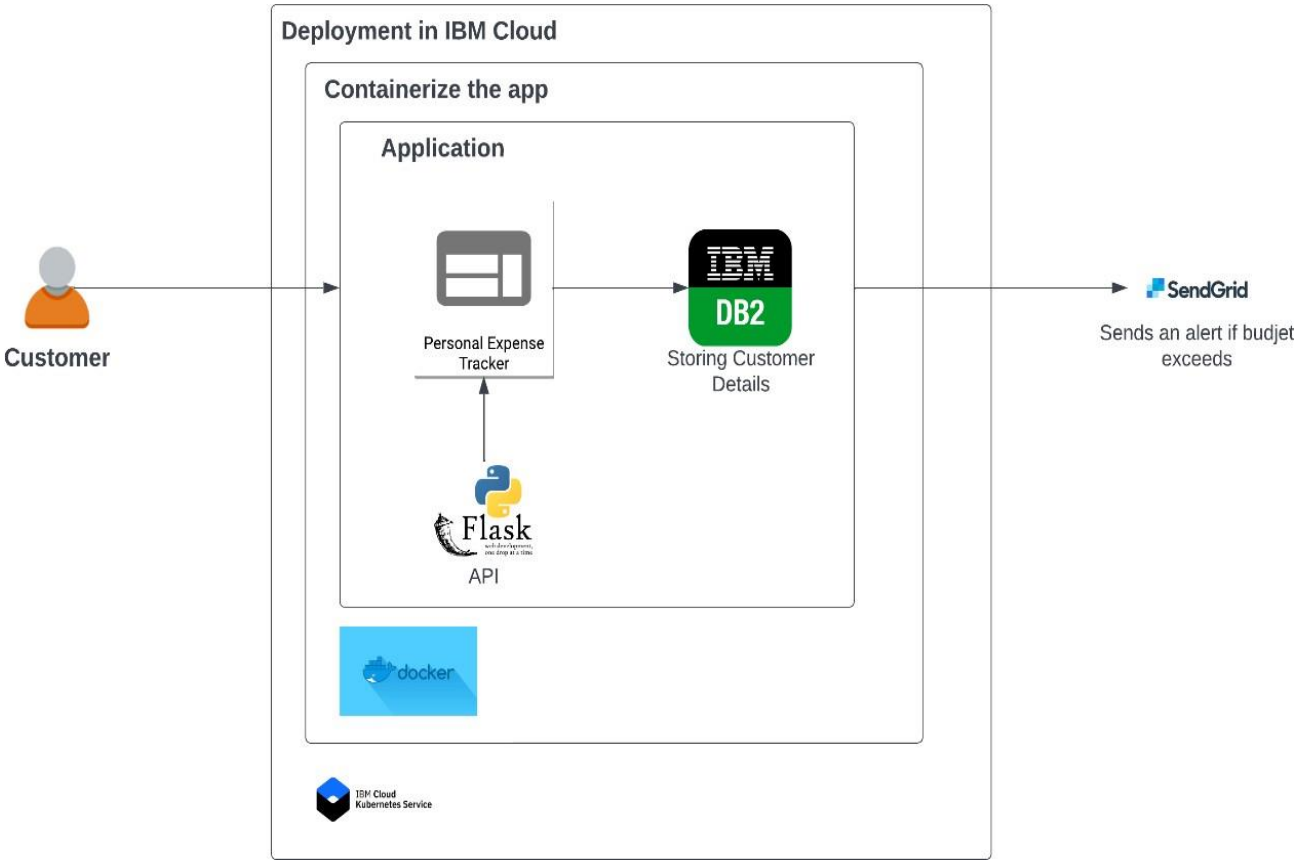

Table 1: Components & Technologies:

S No	Component	Description	Technology
1.	User Interface	The user can interact with the application with the use of a Chatbot.	HTML, CSS, JavaScript / ReactJS etc.
2.	Application Logic-1	This application has a sign-in/sign-up feature that allows users to access the main dashboard after signing up.	Python/Node JS

3.	Application Logic-2	The dashboard has fields for saving money, adding expenses, and adding revenue.	IBM Watson STT service
4.	Application Logic-3	The user will receive notifications if the expense cap is exceeded and also get an expense report in form of a graph	IBM Watson Assistant
5.	Database	The MySQL database contains income and expense information.	MySQL, NoSQL, etc.
6.	Cloud Database	The user data are saved in a secure manner while using a cloud-based database service.	IBM DB2, etc.
7.	File Storage	The user's financial data is stored on IBM Block Storage.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	A Chatbot made to interact with customers to automate answering queries.	IBM Watson API, etc.
9.	External API-2	The app sendGrid will be used for giving alerts.	sendGrid services
10.	External API-3	It's used to manage create and manage containers.	Docker Engine API

Table 2: Application Characteristics:

S No	Characteristics	Description	Technology
1.	Open-Source Frameworks Bootstrap Framework	Flask Framework in Python is used to implement this Application. Bootstrap is a CSS framework used to design the User Interface.	Python-Flask Bootstrap
2.	Security Implementations	The user's financial information is extremely secure. IBM cloud's Container Registry can be used to accomplish this.	Container Registry, Kubernetes Cluster
3.	Scalable Architecture	This application 'Expense Tracker' has lifetime access. When a user's income is high, this product will be in more demand.	Container Registry, Kubernetes Cluster
4.	Availability	The user will have access to this application at any time.	Container Registry, Kubernetes Cluster
5.	Performance	The performance will be high because there will be no network traffics in the application.	Kubernetes Cluster