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

Team ID	PNT2022TMID27692
Project Name	Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

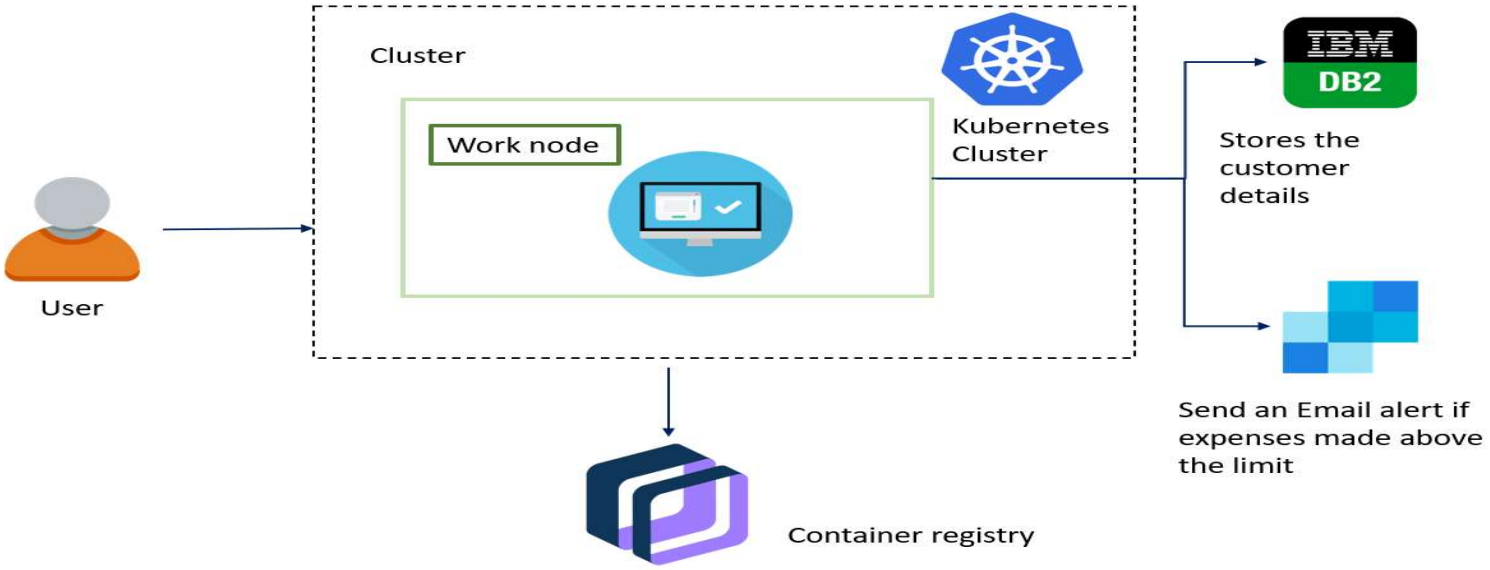

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application with the use of Chabot	HTML, CSS, JavaScript in Python Flask
2.	User Login	The user can login either through their Gmail account or an account in the app server	Python Flask
3.	Graph Visualisation	Rendering plots and graphs based on the user spending data	Seaborn, Matplotlib
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	SendGrid	A cloud-based SMTP provider that allows you to send email without having to maintain email servers.	SendGrid is used to trigger mail to user emails when a particular condition is met.
7.	File Storage	File Storage requirements	IBM Block Storage
8.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	Cloud Foundry, Kubernetes etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is a micro web framework written in Python. It is classified as a micro framework because it does not require particular tools or libraries.	Python Flask Framework
2.	Security Implementations	Passwords can't be stored as plaintext so it is hashed and salted	Using crypto algorithms
3.	Scalable Architecture	Containerized application is deployed to rapidly increase scale on demand	Docker
4.	Availability	This application will be available to user at any point of time.	Container Registry, Kubernetes cluster
5.	Performance	The performance will be high because the traffic will be less in the application	Technology used