

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

Date	19 th October 2022
Team ID	PNT2022TMID35228
Project Name	Personal Expense Tracker
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

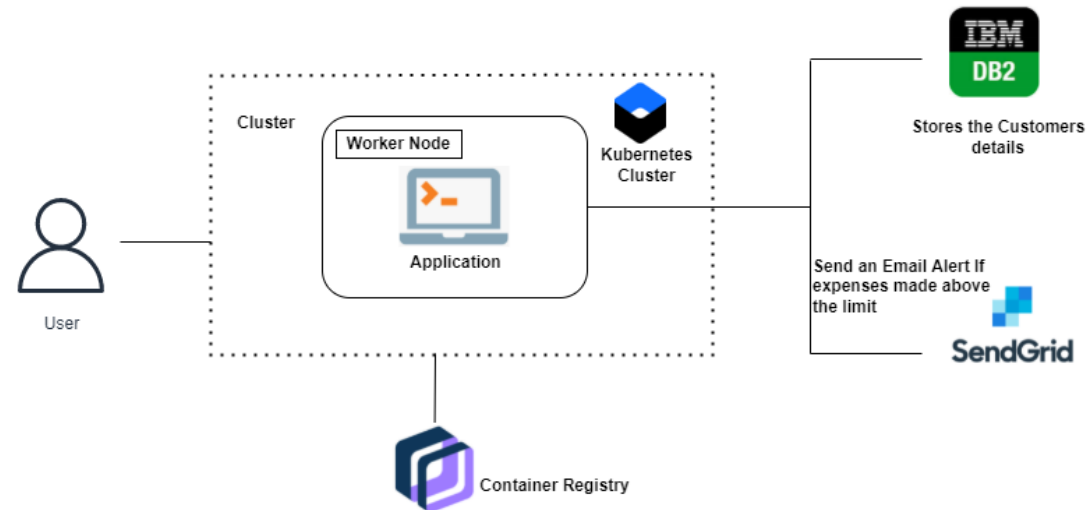


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Website UI	HTML, CSS, JavaScript, Python Flask, etc.
2.	User Login	Logging in to the website	Python Flask
3.	Graph Visualisation	Rendering plots and graphs	Seaborn, Matplotlib
4.	Database	Data Type, Configurations.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	File Storage	File storage requirements	IBM Object Storage
7.	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.
8.	Google OAuth	OAuth allows users to share specific data with an application while keeping their usernames, passwords, and other information private.	Enables login through Gmail account, thus making the application accessible
9.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	IBM Kubernetes Cluster

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python-based Flask is a microweb framework. A microframework is what it is because it does not call for specific tools or libraries	Python Flask Framework
2.	Security Implementations	SSL Certificate	SILA-256 Encryption
3.	Scalable Architecture	3 tier Architecture ,Micro Services	Kubernetes with 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	IBM DB2