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

Date	18 October 2022
Team ID	PNT2022TMID14670
Project Name	Project - Personal Expense Tracker
Maximum Marks	4 Marks

Technical Architecture:
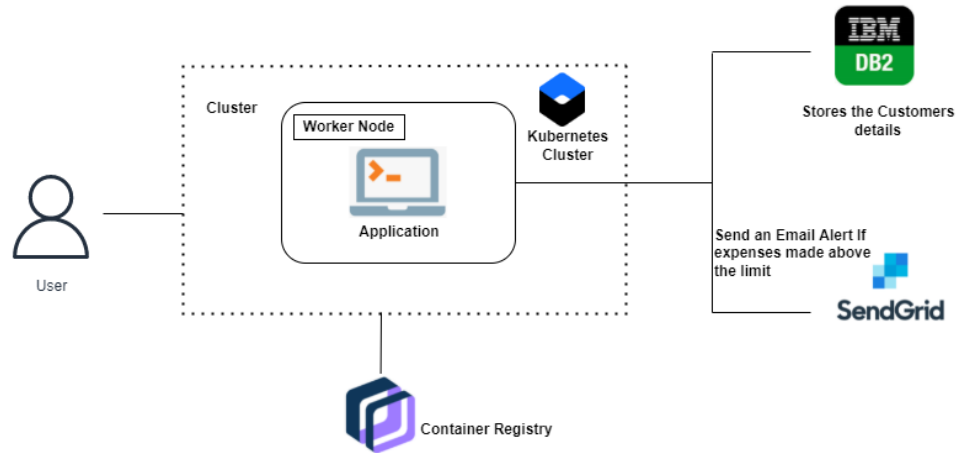
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application through Web UI or chatbot	HTML, CSS, JavaScript , IBM Watson Assistant
2.	Login	If the user is a registered user, the user should login	Python
3.	Register	If the user is new, he will be registered and added to database	Python

4.	Dashboard	To add expenses/income, view reports...	Python,IBM Watson Assistant
5.	Database	To store user's daily spendings	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	NA	NA
9.	External API-2	NA	NA
10.	Machine Learning Model	Vizualizing expenses	Matplotlib, other packages
11.	Infrastructure (Server / Cloud)	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	Flask framework in python is used to connect UI & backend	Flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Demand will increase when no of users increases	Kubernetes, Container Registry
4.	Availability	Application should be available for users to use anytime.	Kubernetes, Container Registry
5.	Performance	High performance since there will be no network traffic.	Kubernetes, Container Registry