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

Date	14 October 2022
Team ID	PNT2022TMID14560
Project Name	**Personal Expense Tracker**
Maximum Marks	4 Marks

Technical Architecture:
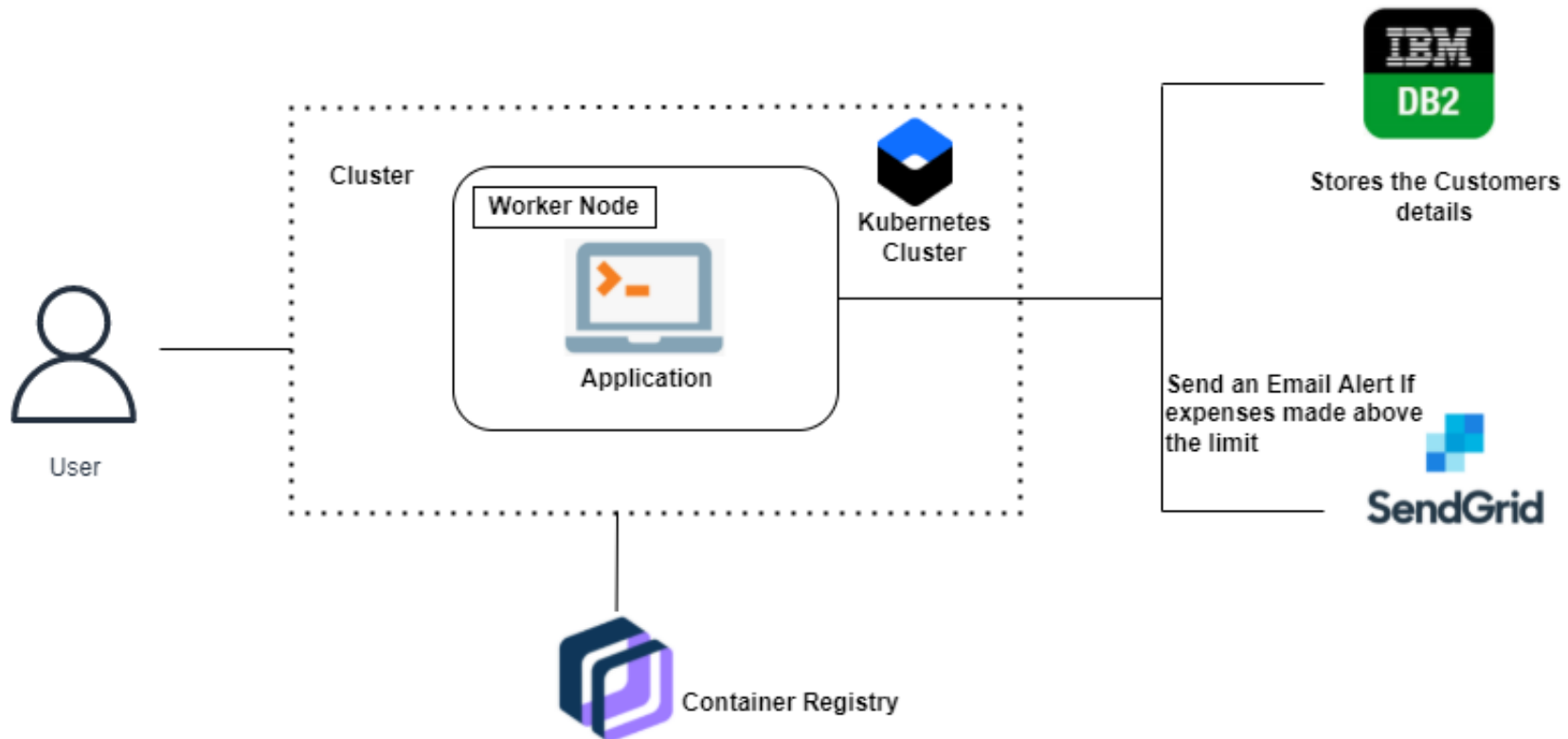
Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application through Web App.	HTML, CSS, JavaScript / Angular Js / React Js.
2.	Registration	A Sign-in and Sign-up page for give users access to the dashboard.	Python Flask.
3.	Alert Notification	The user will get an alert or email when the monthly limit for expense exceeds.	SendGrid
4.	Dashboard	A Dashboard to provide options like input expense, budget and to maintain wallet	HTML, CSS, Kubernetes
5.	Database	Data collected from the users such as email, expense and income.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System/Cloud	Local, Cloud Foundry, Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask Framework of Python – to implement the backend.	Python-Flask
2.	Security Implementations	Security can be done by IBM cloud registry	SHA-256, Encryptions, IBM DB2
3.	Scalable Architecture	The System can be scalable according to the needs.	Kubernetes Cluster, Docker
4.	Availability	The Load Balancer runs on every node and can load balance requests across the containers or the hosts in the container.	IBM Cloud
5.	Performance	Number of requests may increase but that does not affect the performance of the Cloud based application.	IBM DB2, Kubernetes cluster, Docker.