

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

Date	05 November 2022
Team ID	PNT2022TMID11700
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

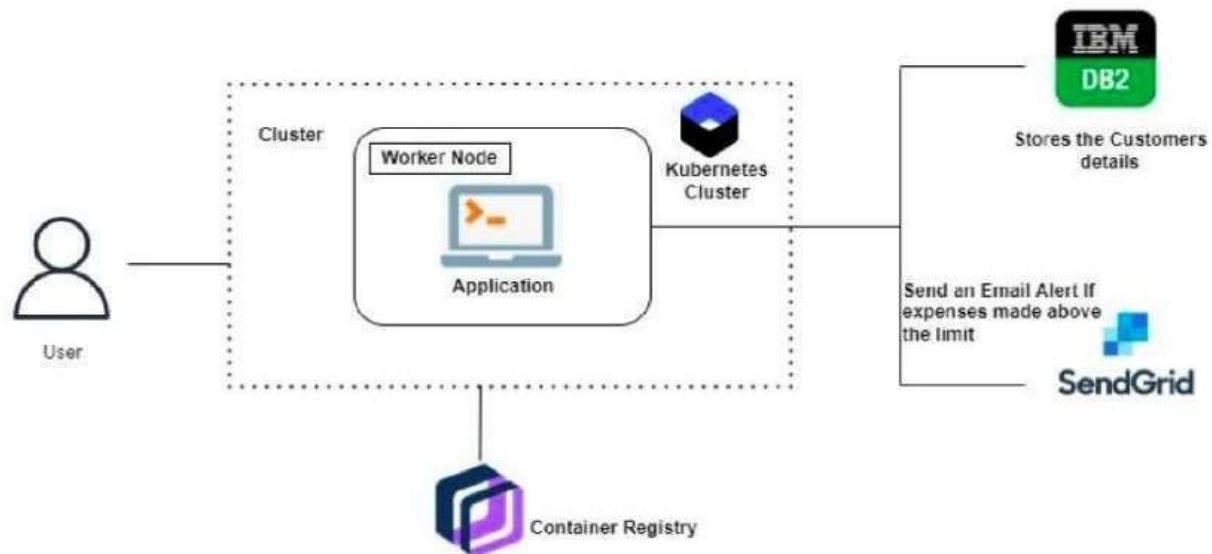


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / React Js etc.
2.	User authentication	User can login with their email or phone number and new account will be created if the user is new	Google Auth, Javascript
3.	Pictorial Representation	Rendering the analysis data as plots and graph in the webpage	Chart.js/Mathplotlib
4.	Database	Data Type, Configurations etc.	NoSQL non relational database which allows flexibility in storing data.
5.	Cloud Database	Database Service on Cloud	IBM DB2.
6.	File Storage	File storage requirements	IBM Block Storage
7.	Send Grid	Cloud based SMTP provider that enables and triggers emails as reports	Send Grid automatically handles the alert based system.
8.	Google O Auth	OAuth 2.0 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.	Cloud Deployment	Application Deployment on Cloud Service	Kubernetes is used for deployment as it promises scalability and high availability

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	React is a open source javascript frontend framework for highly scalable applications	React js
2.	Security Implementations	Passwoíds cant be stoíed as plaintext so it is hashed and encípted.	Bcrypt, SHA-256.
3.	Scalable Architecture	Containefized application is deployed to íapidly incíease scale on demand	Docker
4.	Availability, Performance	Kubeínetes is an open-souíce containeí oíchestíation system foí automating softwaíe deployment, scaling, and management.	Kubernetes