Project Design Phase-II
Technology

Personal Expense Tracker

Technical Architecture:
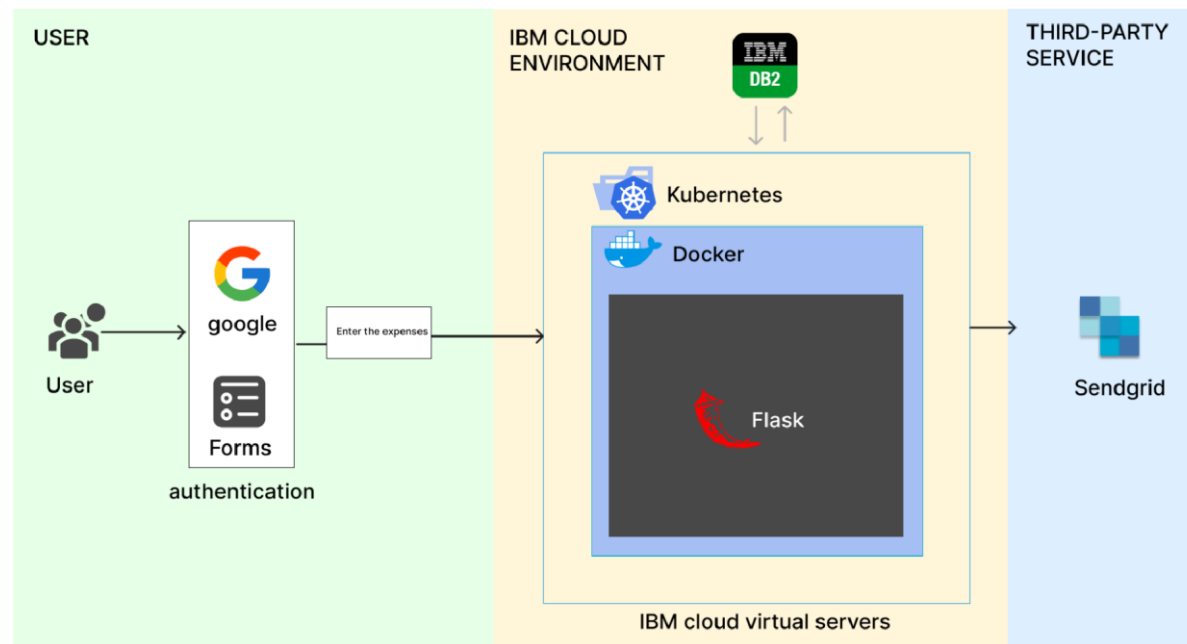
Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application	HTML, CSS, JavaScript / React Js
2.	Authentication	Authenticate the user to the application	Python, IBM DB2, and Google OAuth
3.	Business Logic	Complete process of the application	IBM DB2, Python (flask), Docker
4.	Database	Store the user's data in an organized manner	IBM DB2
5.	External API-1	Alert the user when the limit of the expense exceeds	Sendgrid
6.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Server Configuration	Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	React-js, Flask, React Charts, and Chakra-UI
2.	Security Implementations	List all the security/access controls implemented, use of firewalls etc.	e.g. AES-128 Encryptions, IAM Controls, OWASP
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	python, unicorn
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Cloud Load Balancer
5.	Performance	Design consideration for the performance of the application	IBM Cloud Content Delivery Network