PROJECT DESIGN PHASE - II

TECHNOLOGY STACK (Architecture & Stack)
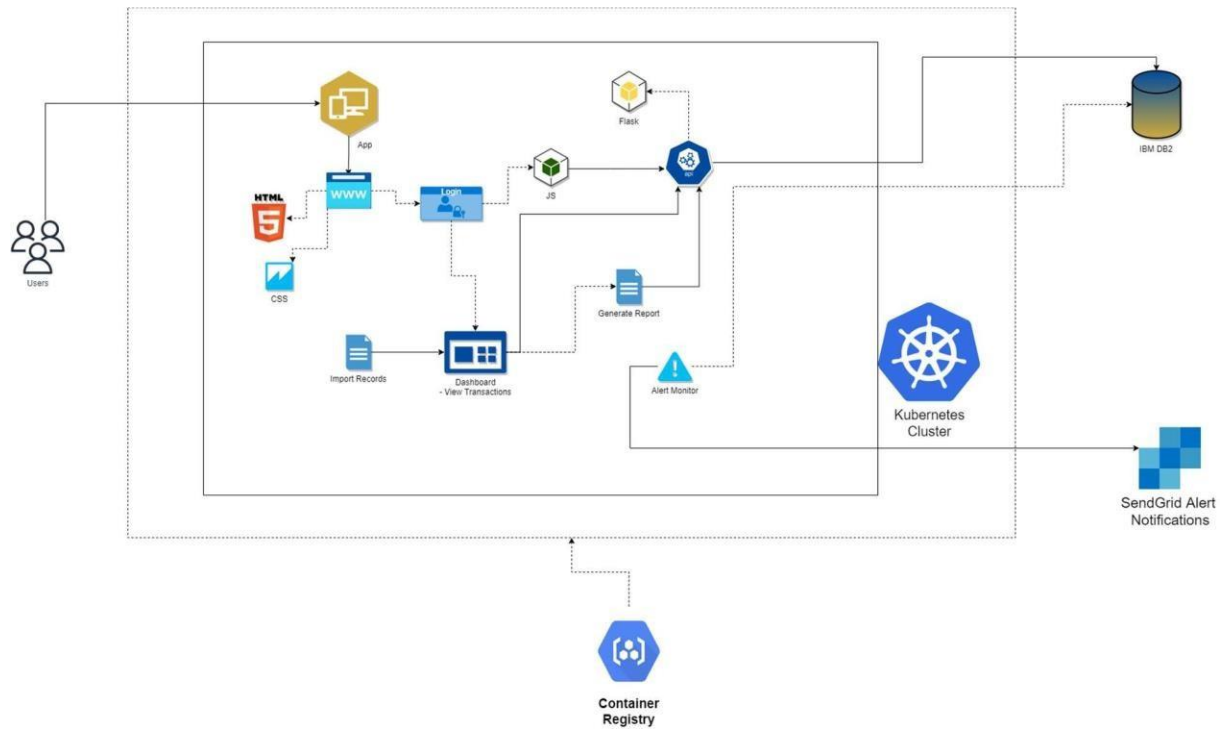
Table – 1: Components & Technologies

S.No	Components	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chat Bot, etc.	HTML, CSS, JavaScript / Bootstrap 5
2.	Application Logic – 1	Logic for a process in the application	Python – Flask
3.	Application Logic – 2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic – 3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Datatype, Configurations, etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	File Storage Requirements	Local File System
8.	External API – 1	Purpose of External API used in the app	SendGrid API
9.	External API – 1	Purpose of External API used in the app	Economic News API
10.	Container Registry	Container Images Storage	Local Registry: DockerHub Cloud Registry: Container Registry
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local Server Configuration: Minikube Cloud Server Configuration: Kubernetes

Table – 2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open source frameworks	Open-source frameworks used	Docsify, Elastisearch
2.	Security Implementations	Security & access controls implemented	Sha256 Hashing, IAM, OTP
3.	Scalable Architecture	Justify the scalability of architecture	Micro services architecture
4.	Availability	Justify the availability of application	Load Balancer
5.	Performance	Design consideration for the performance of the application	Content Delivery Network, Caching