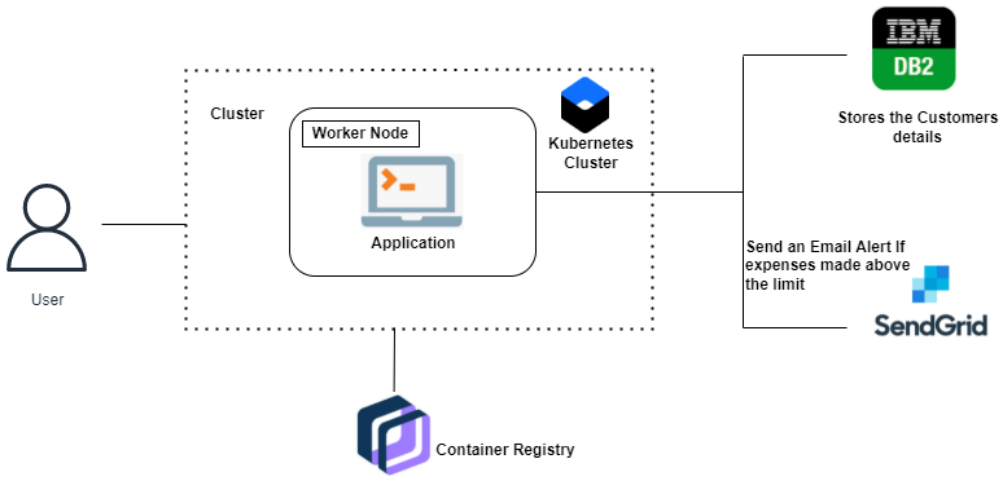
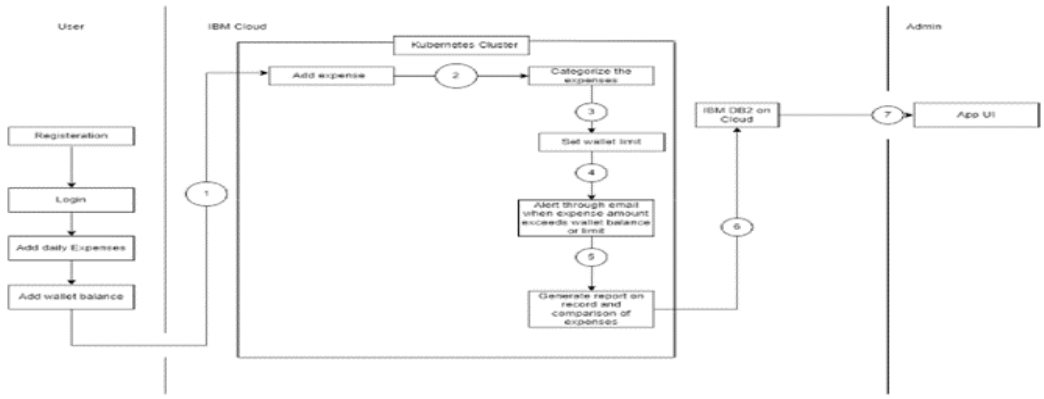
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID13851
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





S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, python with flask
2.	User authentication	They have to sign-in by their username and password	Google authentication , python ,docker
3.	Dashboard	Login to the dashboard allow user to enter their details	Python ,HTML ,CSS
4.	Tracking their expense	IBM container registry enable to store and pull docker images in a private registry ,managed registry	IBM cloud container registry
5.	Database	It stores the user details in MYSQL database.	MySQL
6.	Cloud Database	Database Service on Cloud where user data are stored in secure manner	IBM DB2.
7.	File Storage	IBM block storage used to stored the expenses data of user	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Send an email alert when the expense are exceed beyond the budget	IBM Send grid
9.	External API-2	Google authentication where keep username ,passwords ,and other information private	Enable login through gmail account , thus making the application accessible
10.	AI &Machine Learning Model	Provide an some need of help that customer needed	Watson assistance
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Kubernetes ,SendGrid	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is an application framework written in python used to implement the application	Flask
2.	Security Implementations	This provide an secure storage and security of human finance by using IBM cloud container registry	Container registry , Kubernetes
3.	Scalable Architecture	Three -tier architecture -user server ,application server and cloud server	Python, IBM cloud services
4.	Availability	This application will be available to the user at any part of time they needed	Container registry, Kubernetes
5.	Performance	the performance of the application is increases demand and number of user	IBM container registry