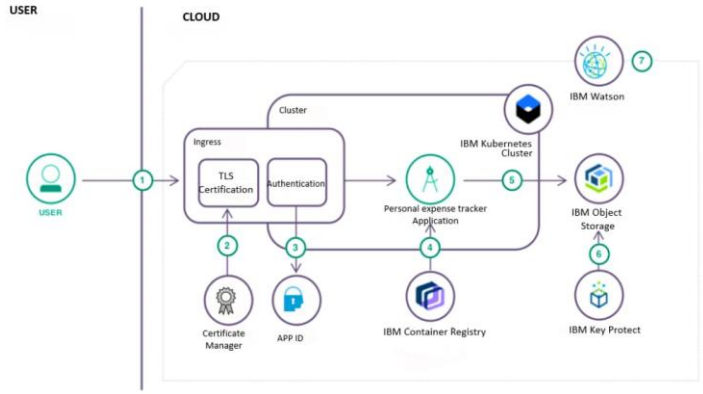
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID29782
Project Name	Personal Expense tracker application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

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 / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Python-Flask
3.	Email Service	For verify user and send alerts through mails	SendGrid
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	Chatbot	Get details of financial requirements and store	IBM Watson Assistant
7.	Infrastructure (Server / Cloud)	Application Deployment on Cloud System	Docker, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	open-source frameworks used	HTML, CSS ,Bootstrap , Javascript
2.	Security Implementations	User verification through Email service	SendGrid
3.	Scalable Architecture	Run the app in local and cloud system	Docker and Kubernetes
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Docker and Kubernetes
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc.	IBM Cloud, Kubernetes Cluster, Container Registry