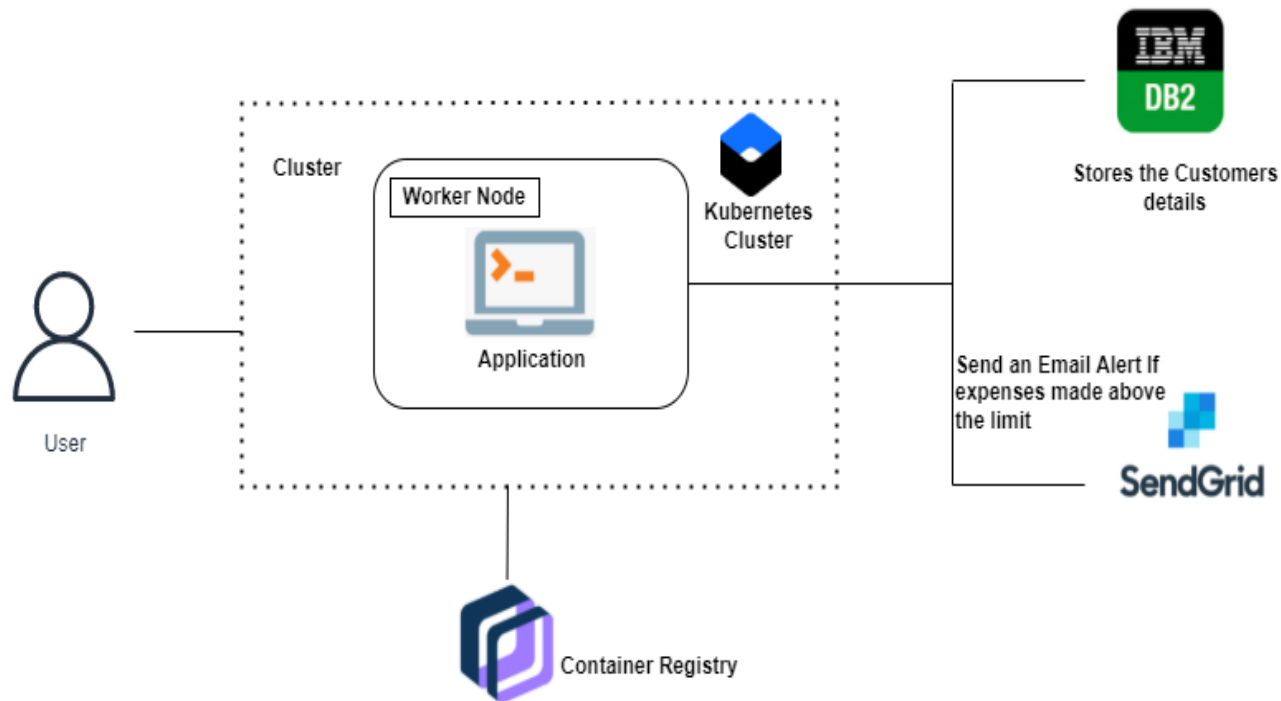


Project Design Phase-II Technology Stack (Architecture & Stack)

Date	13 October 2022
Team ID	PNT2022TMID04269
Project Name	Project – 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



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	The user interacts with the application through Mobile App, Chatbot.	Flask, HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application is written using python language.	Python
3.	Application Logic-2	To covert speech to text in the chatbot.	IBM Watson STT service
4.	Application Logic-3	To build conversational interfaces into the app.	IBM Watson Assistant
5.	Database	The data's are collected and stored in container registry.	MySQL
6.	Cloud Database	The IBM cloud object storage service is used to store dataset in cloud.	IBM DB2
7.	File Storage	The coding written and the images are stored in the file.	Container registry
8.	External API-1	To receive email notification.	Sendgrid API
9.	External API-2	Two factor authentication and secured authorizations.	Authy API
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration : IBM cloud service	Local, Cloud Foundry, Kubernetes.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Sendgrid to receive an email alert when the amount exceeds the limit.	Python
2.	Security Implementations	Data encryption, Access controls, Data validation, Remove unnecessary information.	Access controls, Encryptions
3.	Scalable Architecture	Micro services architecture is built as suite of small services, each with its code base.	Python

S.No	Characteristics	Description	Technology
4.	Availability	The application is available all the time, there is no time constraint.	IBM Cloud
5.	Performance	As the application is deployed in IBM cloud it can handle upto 1,00,000 requests per second.	IBM Cloudant technology