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

Date	03 October 2022
Team ID	PNT2022TMID12477
Project Name	Inventory management system for retailers
Maximum Marks	4 Marks

Technical Architecture:

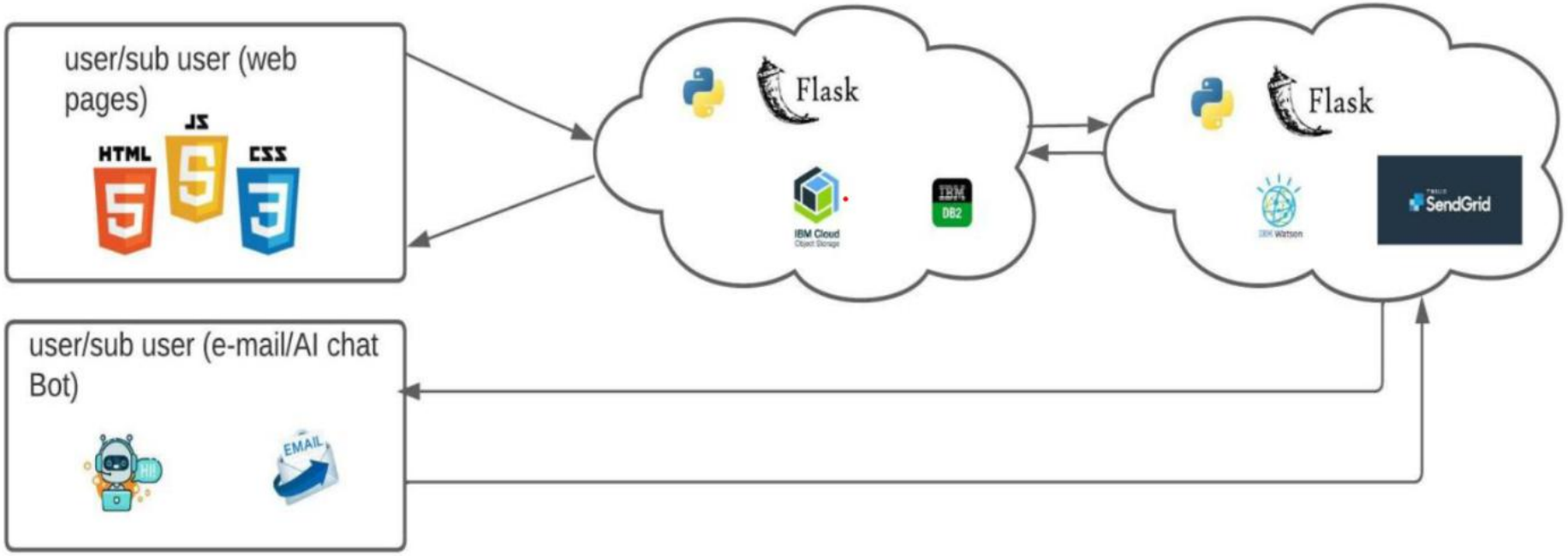

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript React Js
2.	Application Logic-1	Login/Registeration page- In this, the user can create an account for their inventory system	Python flask
3.	Application Logic-2	Contains dashboard which displays their activity, stock details and also customer details.	Python flask
4.	Application Logic-3	Notification/alert about the stock status	Python flask
5.	Database	Stores user and sub users details using database.	MySQL, NoSQL
6.	Cloud Database	Stores details about stock and updated automatically through cloud services	IBM DB2, IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage
8.	External API-1	Purpose of sendgrid is to send an alert email to the user regarding stocks	Sendgrid
9.	External API-2	Enables us to store and retrieve dicker images throughout the container	IBM container registry
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration:flask Cloud Server Configuration : Kubernetes	Local, Cloud Foundry, Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Styling our page,Python flask, sending email alert through sendgrid and storing DB using IBMDB2	flask,sendgrid,Kubernetes,IBMDB2
2.	Security Implementations	User can only login using their credentials, their password will hashe making It secure to use	IBM container registry
3.	Scalable Architecture	Large data can be stored easily using kubernetes	Web server - HTML, CSS, Javascript Application server - Python Flask, Docker, Container Registry Database server - IBM DB2

S.No	Characteristics	Description	Technology
4.	Availability	System will be always available and handy to use	IBM loadbalancer
5.	Performance	Fast and efficient. DB is maintained so data can be accessed easily.	IBMDB2 ,flask,kubernetes,Docker