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

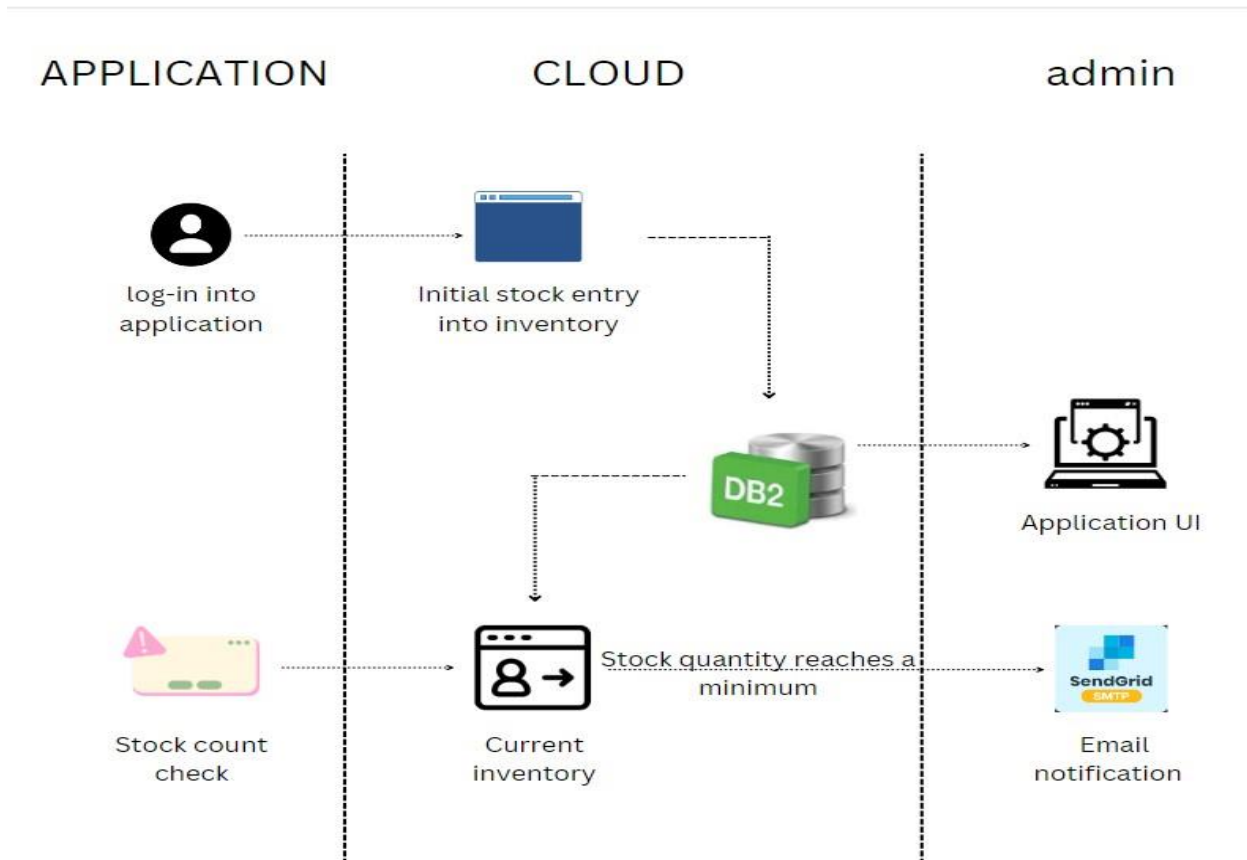| Date	22 October 2022
Team ID	PNT2022TMID02315
Project Name	Inventory Management System for Retailers
Maximum Marks	4 Marks

Technical Architecture:

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Dashboard	Web UI	Python, Flask
2.	Updating Stock count values	Updating the stock count into the database	HTML, CSS, JavaScript, Bootstrap
3.	Alert and Notification	Email notification when the stock count gets a minimum	SendGrid
4.	Web chat	Chatbot assistant	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL/SQLite
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	Storing all the necessary data in the file system	IBM Block Storage
8.	Infrastructure (Server / Cloud)	Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes

Table 2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Server, Query Engine, Styling frameworks, Runtime environments	Python, Flask, HTML, CSS, Javascript,
2.	Security Implementations	For data privacy and security	IAM controls, SSL Certificates
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3-tier
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Use of Load Balancers
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	50 Request Per Second