PROJECT DESIGN PHASE 2
TECHNOLOGY STACK (ARCHITECTURE AND STACK)

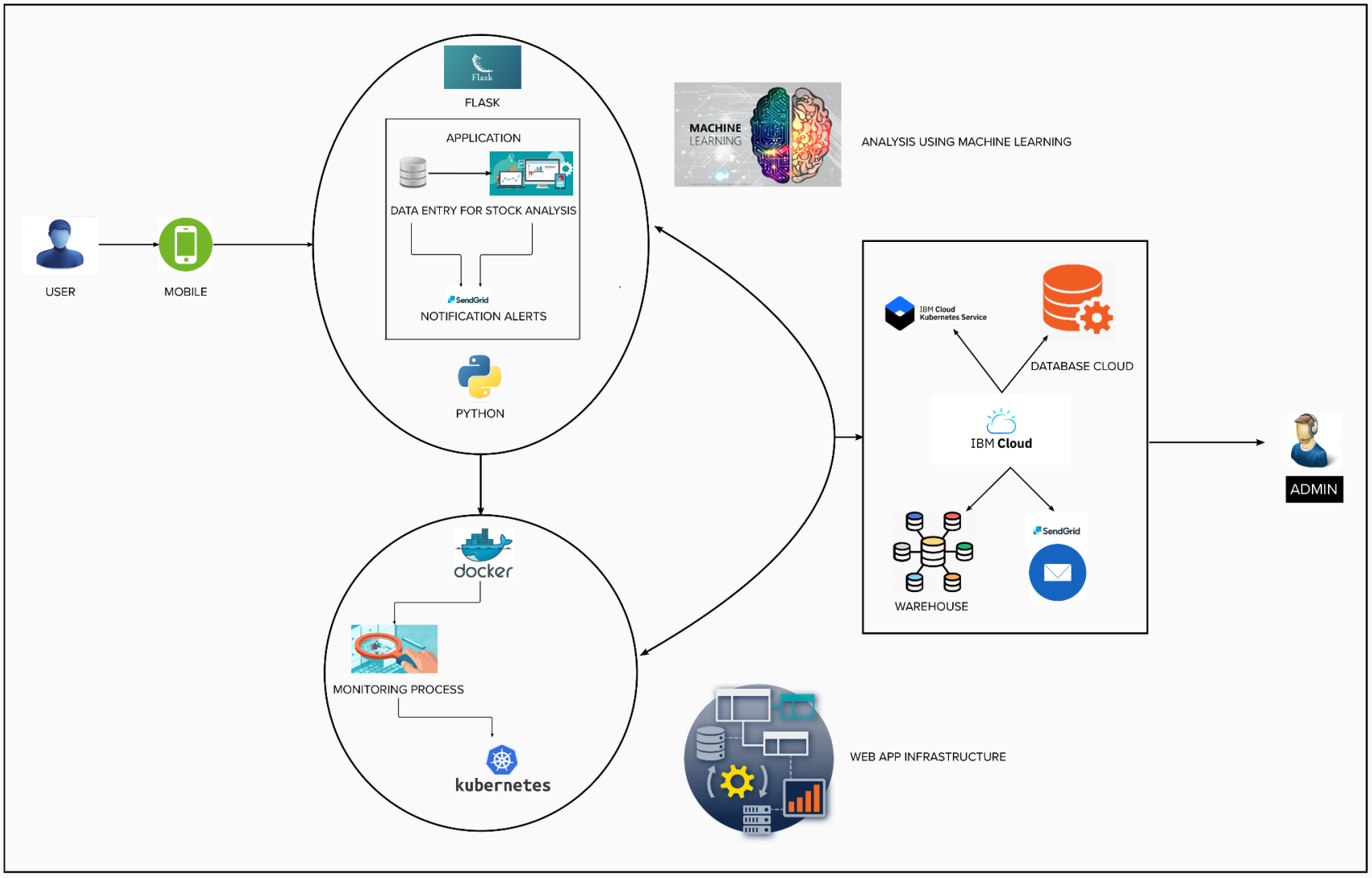
DATE	30.10.2022
TEAM ID	PNT2022TMID42656
PROJECT NAME	INVENTORY MANAGEMENT SYSTEM FOR RETAILERS

Table 1: Components and Technologies

S.No	Component	Description	Technology
01	User Interface	User Interaction with web app	HTML, CSS, JAVASCRIPT,etc…
02	Application Logic 1	Creating and interfacing web app	Flask, Python
03	Application Logic 2	Alert Notification to user	SendGrid, Python
04	Database	Data type, Configurations	MySQL, No SQL etc.
05	Cloud Database	Database Service on cloud	IBM DB2
06	File Storage	File Storage Requirements	IBM Block Storage
07	Machine learning models	To predict the stock sales	Causal Model
08	RFID Tags	To get the count of products	Python
09	Infrastructure (Server/Cloud	Application Deployment on Cloud Server Configuration	Local System, Kubernetes,

Table 2: Application Characteristics

S.No	Characteristics	Description	Technology
01	Open-Source Frameworks	We use HTML, CSS, Bootstrap and Flask as the open source for our application	HTML, CSS, Javascript, Bootstrap, Python-Flask
02	Security Implementations	User login and authentication are done to provide secure access to their account	IBM Cloud Security, Cookies
03	Scalable Architecture	The system can be scalable easily by using these technologies as to optimise, improve and add new features, allocate sufficient bandwidth to allow more users at a time, etc	Docker, Kubernetes Cluster
04	Availability	System availability is high as we make sure the unwanted database access is minimised through SQL and code optimisation.	IBM Db2, IBM Container Registry
05	Performance	Deployment is easy and fast by containerizing the application. Providing fast access time and responsiveness by deploying the application in cloud	Flask, Docker, IBM Db2



TECHNOLOGY ARCHITECTURE