

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

| | |
|---------------|--|
| Date | 02 November 2022 |
| Team ID | PNT2022TMID08254 |
| Project Name | INVENTORY MANAGEMENT SYSTEM FOR RETAILERS |
| Maximum Marks | 4 Marks |

Technical Architecture Diagram:

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

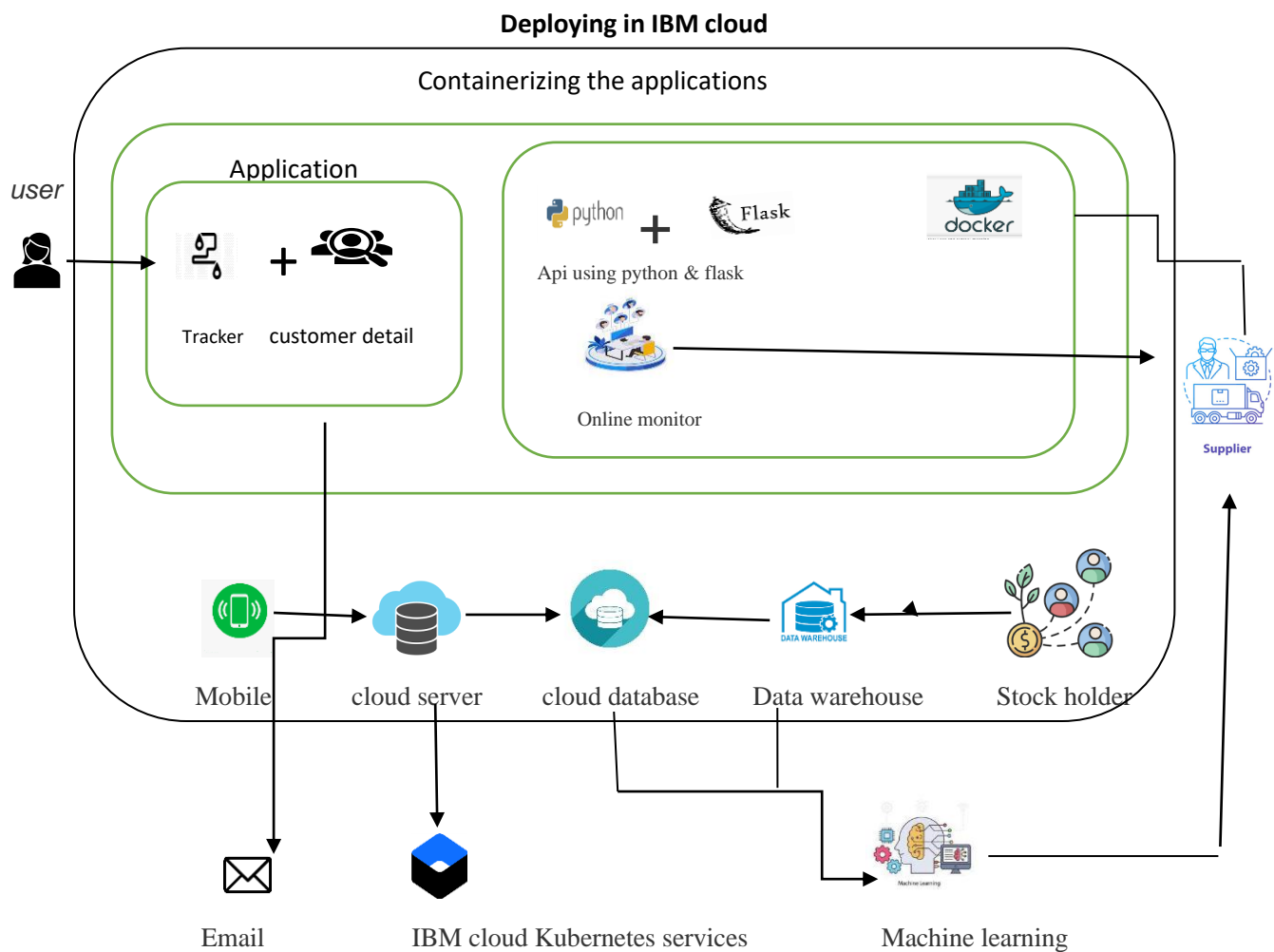


Table-1: Components & Technologies:

| S.NO | COMPONENT | DESCRIPTION | TECHNOLOGY |
|------|--------------------------------|---|---|
| 1 | User interface | Mobile app | python |
| 2 | Application logic-1 | User login signs through the application | Jupyter Watson |
| 3 | Application logic-2 | Detecting the sign language | IBM Watson |
| 4 | Application logic-3 | Convert sign language into text or speech | IBM Watson Assistant |
| 5 | Cloud database | Database service on cloud | IBM Cloudanet |
| 6 | File storage | Files are stored in the cloud | IBM block storage or other storage service or local files |
| 7 | External API-1 | Purpose of external API used in the application | IBM weathers API |
| 8 | Deep learning Model | To recognitions of sign language and convert to text format | Object reorganization Model |
| 9 | Infrastructure (Server/ Cloud) | IBM cloud configuration is a cartelized feature-management and configuration service on IBM cloud | IBM cloud Foundry |

Table-2: Application Characteristics:

| S.no | Characteristics | Description | Technology |
|------|--------------------------|---|----------------------|
| 1 | Open-Source Frameworks | There are no open-source frameworks in this application | Python |
| 2 | Security Implementations | Block chain technology is used for security implementations | Blockchain |
| 3 | Scalable Architecture | User can communicate with sign language recognitions | IBM cloud |
| 4 | Availability | Users are provided with sign language learning source and assistant like search engines | IBM Watson assistant |
| 5 | Performance | Convolutional Neural Network algorithm is used to produced output with high accuracy | CNN |