

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

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| Date | 16 October 2022 |
| Team ID | PNT2022TMID51970 |
| Project Name | Inventory Management System for Retailers |
| Maximum Marks | 4 Marks |

Technical Architecture:

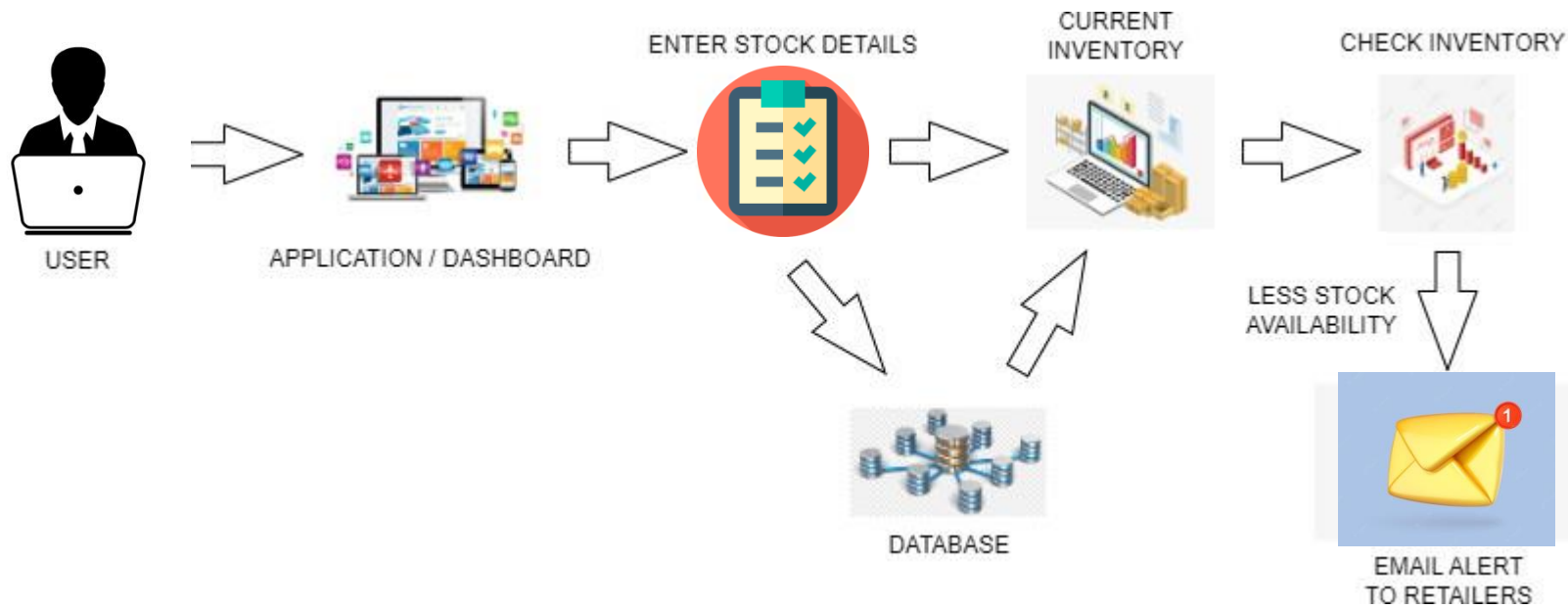


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|-------------|---------------------------------|---|--|
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript |
| 2. | Application Logic-1 | Logic for a process in the application | Python |
| 3. | Application Logic-2 | Logic for a process in the application | IBM Watson Assistant |
| 4. | Database | Data Type, Configurations etc. | MySQL |
| 5. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 6. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 7. | External API | Purpose of External API used in the application | SendGrid |
| 8. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc. |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|---|
| 1. | Open-Source Frameworks | Micro web framework based on python | Flask |
| 2. | Security Implementations | Cloud access, user authentication and authorization | Bcrypt, Encryptions, IAM Controls, etc. |
| 3. | Scalable Architecture | Kubernetes is an open source container orchestration engine for automating deployment, scaling, and management of containerized applications. The open source project is hosted by the Cloud Native Computing Foundation | Kubernetes |
| 4. | Availability | To customize settings for the docker CLI. The configuration file uses JSON. | Docker CLI |
| 5. | Performance | Database caching allows you to dramatically increase throughput and lower the data retrieval latency associated with backend databases, which as a result, improves the overall performance of your applications. | Browser caching |