Technical Architecture:

Project Design Phase-II

Technology Stack (Architecture & Stack)

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| Date | 18October 2022 |
| Team ID | PNT2022TMID10625 |
| Project Name | Online organic store management |
| Maximum Marks | 4Marks |

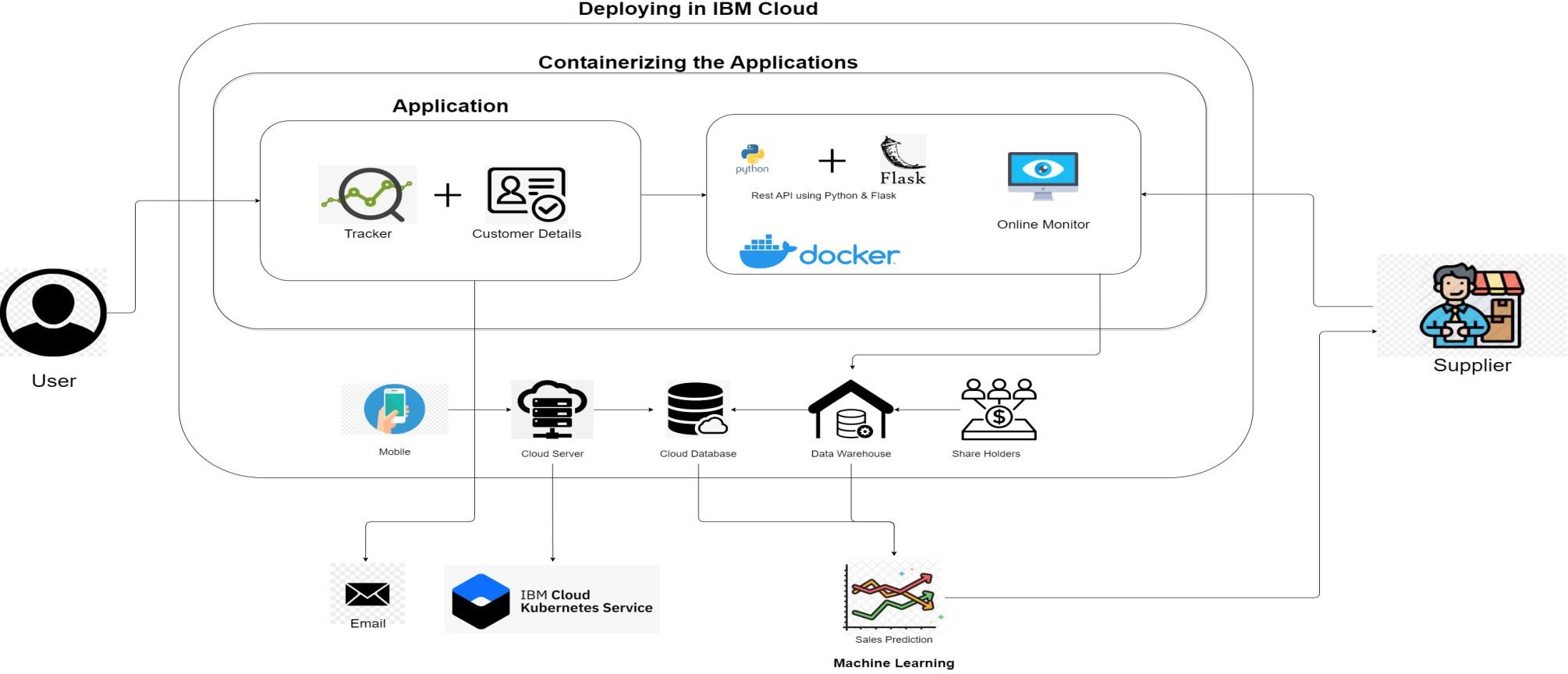


Table-1:Components&Technologies:

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| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | How user interacts with application e.g. Web UI ,Mobile App, Chat bot, etc. | HTML, CSS, JavaScript, IBM Cloud Object Storage, Python-Flask,Kubernetes,Docker,IBMDB2, IBM  Container Registry. |
| 2. | Application Logic | The logic for a process in the application | Python-Flask. |
| 3. | Database | Data Type Configuration etc. | My SQL, etc. |
| 4. | Chat Box | Chat box for users to access help from a virtual assistant on the application. | IBM Watson Assistant |
| 5. | Cloud Database | Database Service on Cloud | IBMDB2 |
| 6. | File Storage | File storage requirements | IBM Cloud Object Storage |
| 7. | App Container | Contain the whole application in a single container. | Docker Container, IBM Container Registry |
| 8. | Infrastructure(Server/Cloud) | ApplicationDeploymentonLocalSystem/CloudLocalServerConfiguration:port5000  Cloud Server Configuration: | Local, Cloud Foundry, Kubernetes. |
| 9. | Send Mail | To send emails when low stock is present in the inventory to retailers. | IBM Send Grid |

Table-2:ApplicationCharacteristics:

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| --- | --- | --- | --- |
| **S. No** | **Characteristics** | **Description** | **Technology** |
| 1. | Open-Source Frameworks | We use HTML, CSS, Bootstrap and Flask as the open source for our application | HTML, CSS, JavaScript, Bootstrap, Python-Flask. |
| 2. | Security Implementations | Userloginandauthenticationaredonetoprovidesecureaccesstotheiraccount. | IBM Cloud Security ,Cookies.. |
| 3. | Scalable Architecture | The system can be scalable easily by using these technologies as to optimize, improve and add new features, allocate sufficient bandwidth to allow  More users at a time, etc. | Docker, Kubernetes Cluster |
| 4. | Availability | System availability is high as we make sure the unwanted database access is minimized through SQL and code optimization. | IBMDb2,IBMContainerRegistry |
| 5. | Performance | Deployment is easy and fast by containerizing the application.  Providing fast access time and responsiveness by deploying the application in cloud. | Flask, Docker, IBMDb2. |

References:[https://careereducation.smartinternz.com/Student/guided\_project\_info/48229](https://c4model.com/)#