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

| | |
|---|---|
| Team ID | PNT2022TMID39865 |
| Project Name | Estimate the crop yield using Data Analytics |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

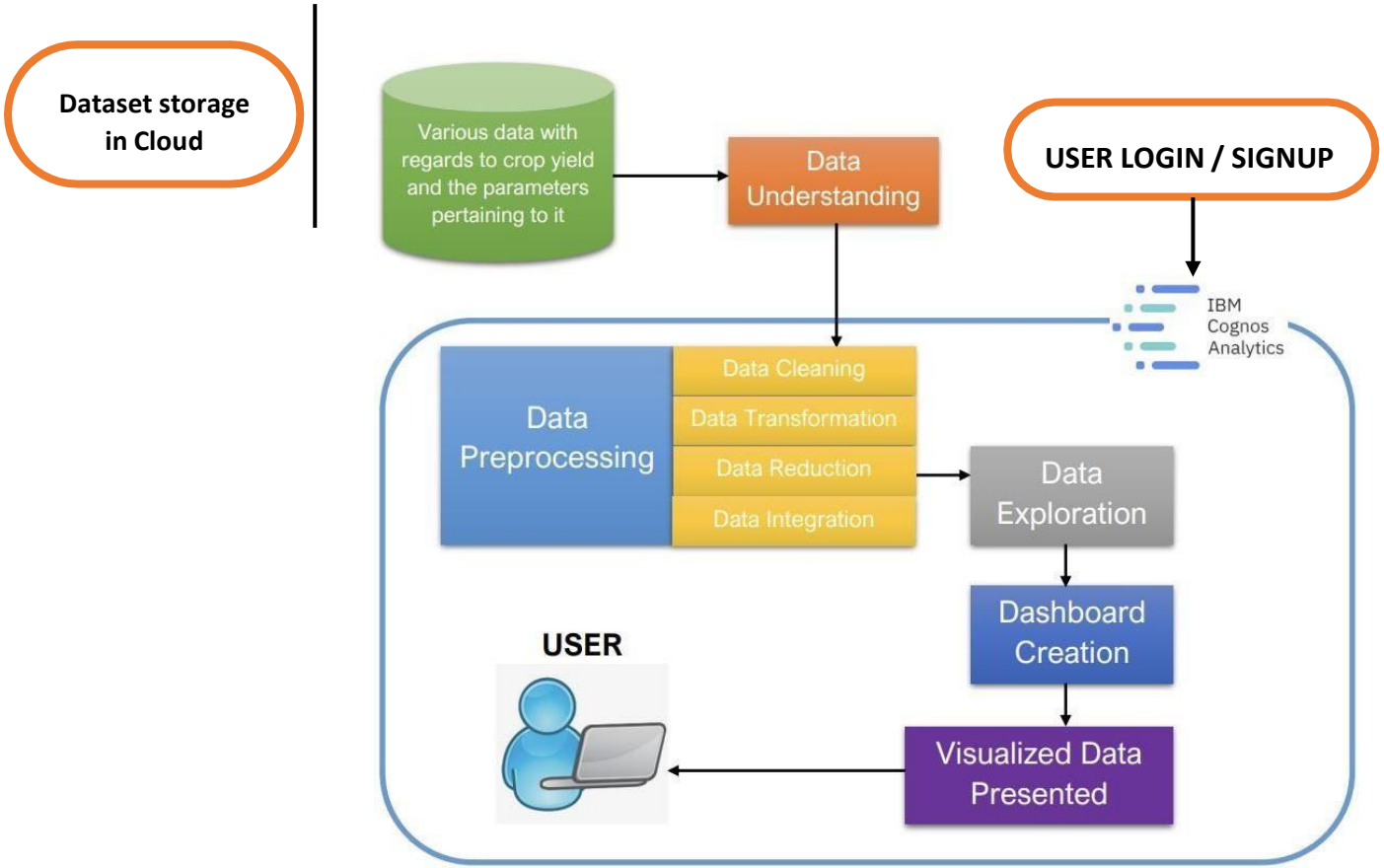


**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | IBM Cognos |
| 2. | Application Logic-1 | Logic for a process in the application | Java |
| 3. | Application Logic-2 | Logic for a process in the application | Cognos Assistant |
| 4. | Database | Data Type, Configurations etc. | MySQL, NoSQL, etc. |

| | | | |
|---|---|---|---|
| 5. | Cloud Database | Database Service on Cloud | COGNOSCS. |
| 6. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 7. | External API-1 | Purpose of External API used in the application | IBM Cognos Analytics REST API |
| 8. | External API-2 | Purpose of External API used in the application | - |
| 9. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud | IBM Cloud – IBM Cognos Analytics |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | List the open-source frameworks used | IBM Cognos Framework Manager |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | Security architecture present |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Business Intelligent architecture |
| 4. | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | Present on cloud and is present on demand |
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Highly available and fast processing |