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

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|---|---|---|
| Date | | October 2022 |
| Team ID | | PNT2022TMID49218 |
| Project Name | | Retail Store Stock Inventory Analytics |
| Maximum Marks | | 4 Marks |

**Technical Architecture:**



UI       Cloud DB       Data Analysis

Dataset       Output

Login       Database       Prediction
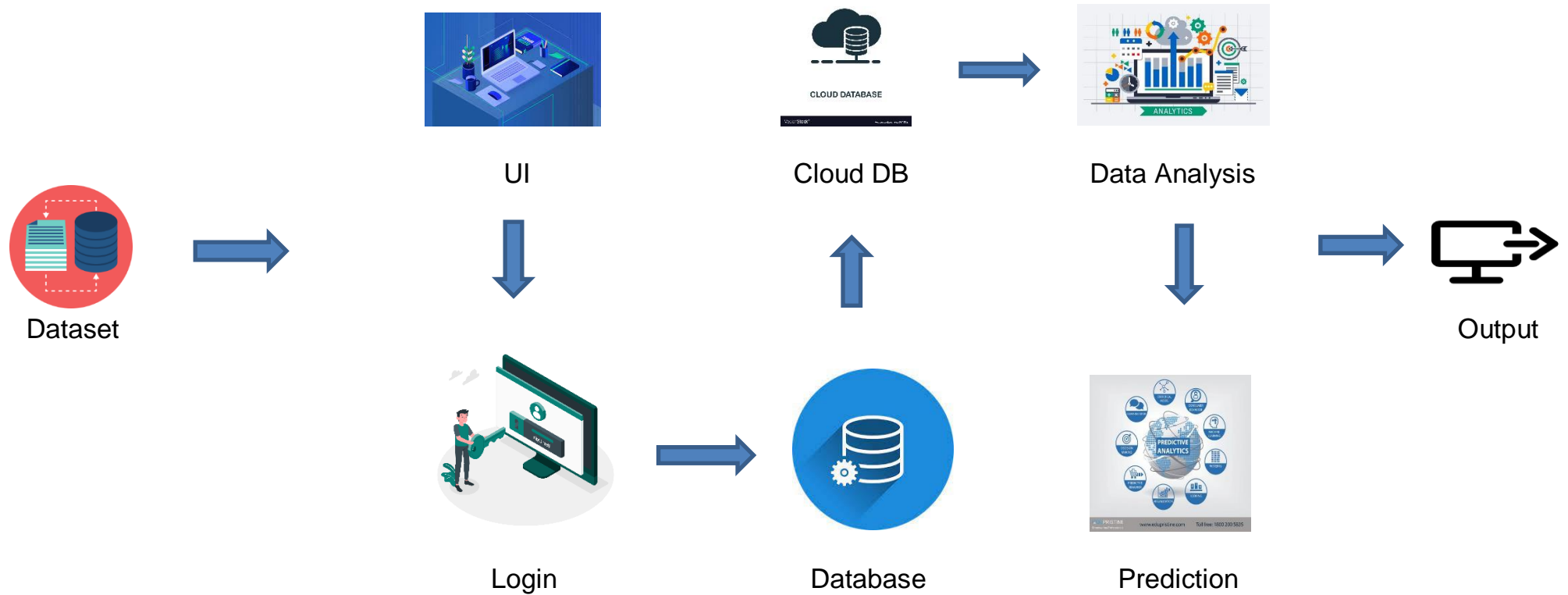
**Table-1 : Components & Technologies**

| Components | Description | Technology/Tools |
|---|---|---|
| User Interface (UI) | UI helps to participate the applicants to interact with the application. | HTML, CSS, JS |
| Application Logic | Logic for the logging in to the application. | Java, Python |
| Database | For to store the data of retail stocks | MySQL, NoSQL |
| Data Analysis | For to analyze the data using data analytics tools | IBM Cognos Analytics Tools, Python/MS Excel/Tableau |
| Cloud DB | For to store the stocks data in the cloud. | IBM DB2, Microsoft Azure |
| Prediction | Algorithms which is use to predict the future data | ML algorithm : Linear Regression, Random Forest, XGBoost, KNN |

**Table-2: Application Characteristics:**

| Characteristics | Description | Technology |
|---|---|---|
| Open Source Frameworks | Used by anyone to see, modify and distribute data source code. | Python, R-Studio |
| Security Implementation | Encryption of data for to secure the information. | Firewall, Data masking |
| Scalable Architecture | Architecture used to scale up to meet increased work loads. | Apps, Platforms,3 - tiers |
| Availability | Applications available for users whenever needed. | Cloud Hosting |
| Performance | Enhancement of the business and to increase the profits. | ML algorithm is used. |