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

| Date          | 15 October 2022                       |
|---------------|---------------------------------------|
| Team ID       | PNT2022TMID05855                      |
| Project Name  | Retail Store Stock Inventory Analysis |
| Maximum Marks | 4 Marks                               |

## **Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

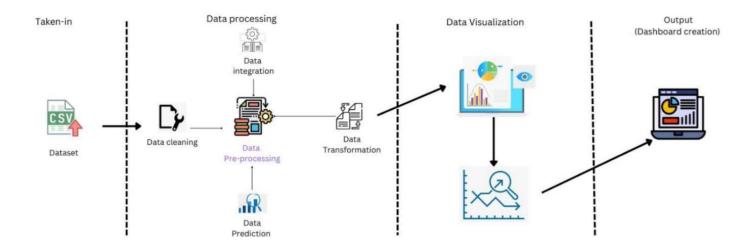


Table-1 : Components & Technologies:

| S.No | Component                 | Description   | Technology  |  |
|------|---------------------------|---|---|--|
| 1.   | User Interface            | How user interacts with application e.g. Web UI.                        | HTML, CSS, JavaScript / Angular Js / React Js etc.                |  |
| 2.   | Understanding the dataset | Understanding the logic and pre-requirements of the dataset             | IBM Cognos Analytics.   |  |
| 3.   | Loading the Dataset       | Loading the dataset in the Internet                                     | IBM Cognos Analytics.   |  |
| 4.   | Preparing the Dataset     | Preparing the dataset using the given datasets and add two calculations | IBM Watson Assistant  |  |
| 5.   | Cloud Database            | Database Service on Cloud   | IBM DB2   |  |
| 6.   | File Storage              | File storage requirements   | IBM Block Storage or Other Storage<br>Service or Local Filesystem |  |
| 7.   | Machine Learning Model    | Purpose of Machine Learning Model                                       | Linear Regression Model, KNN-<br>Classifiers etc.,                |  |

Table-2: Application Characteristics:

| S.No | Characteristics          | Description   | Technology  |  |
|------|--------------------------|---|---|--|
| 1.   | Open-Source Frameworks   | List the open-source frameworks used  | IBM Cognos Analytics, Python  |  |
| 2.   | Security Implementations | List all the security / access controls implemented, use of firewalls etc.  | Standard Encryption   |  |
| 3.   | Scalable Architecture    | 3 – tier, Micro-services  | HTML, CSS, JavaScript/ React Js Python, DB2                           |  |
| 4.   | Availability             | Justify the availability of application   | Not available for all users only authorized persons will have access. |  |
| 5.   | Performance              | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | ML Algorithms.  |  |