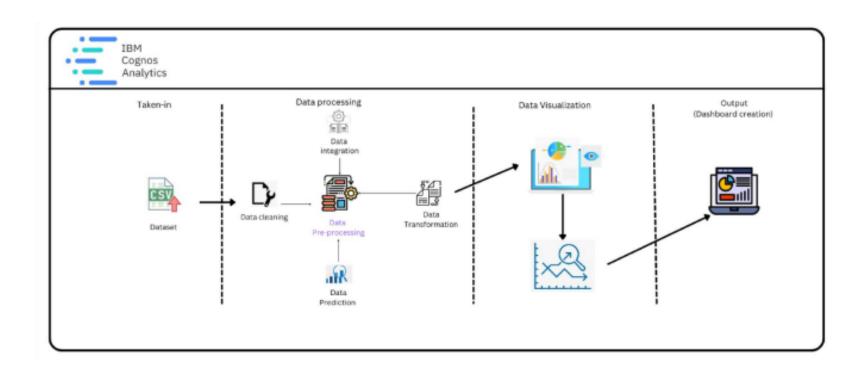
## Project Design Phase-II Technology Stack (Architecture & Stack)

| Date          | 29 October 2022                        |  |
|---------------|--|--|
| Team ID       | PNT2022TMID10307                       |  |
| Project Name  | Retail Store Stock Inventory Analytics |  |
| Maximum Marks | 4 Marks                                |  |

**Technical Architecture:** 



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

| S.N<br>o | Component          | Description   | Technology   |
|----------|--------------------|---|--|
| 1.       | User Interface     | The user interacts with application using Web UI  | HTML, CSS, JavaScript  |
| 2.       | Data Processing    | The data from the dataset is pre-processed  | IBM Cognos Analytics   |
| 3.       | Cloud Database     | The clean dataset is stored on IBM Cloud  | IBM Cloud  |
| 4.       | Data visualization | The data is visualized into different forms   | IBM Cognos Analytics, Python   |
| 5.       | Prediction         | These Algorithm techniques are used to predict the proper way to make the stock in store. | ML algorithms –Logistic<br>Regression, Linear Regression,<br>Random Forest,ABC Techniques. |

## **Table-2: Application Characteristics:**

| S.N<br>o | Characteristics        | Description                 | Technology                   |
|----------|------------------------|-----------------------------|------------------------------|
| 1.       | Open-Source Frameworks | Open-source frameworks used | IBM Cognos Analytics, Python |

| 2. | Security Implementations | Request authentication using Encryptions                             | Encryptions   |
|----|--------------------------|--|---|
| 3. | Scalable Architecture    | Scalability consists of 3-tiers                                      | Web Server – HTML, CSS,<br>Javascript Application Server –<br>Python<br>Database Server – IBM Cloud |
| 4. | Availability             | The application is available for cloud users                         | IBM Cloud Hosting   |
| 5. | Performance              | The user can know how to maintain the inventory to increase profits. | ML algorithms   |