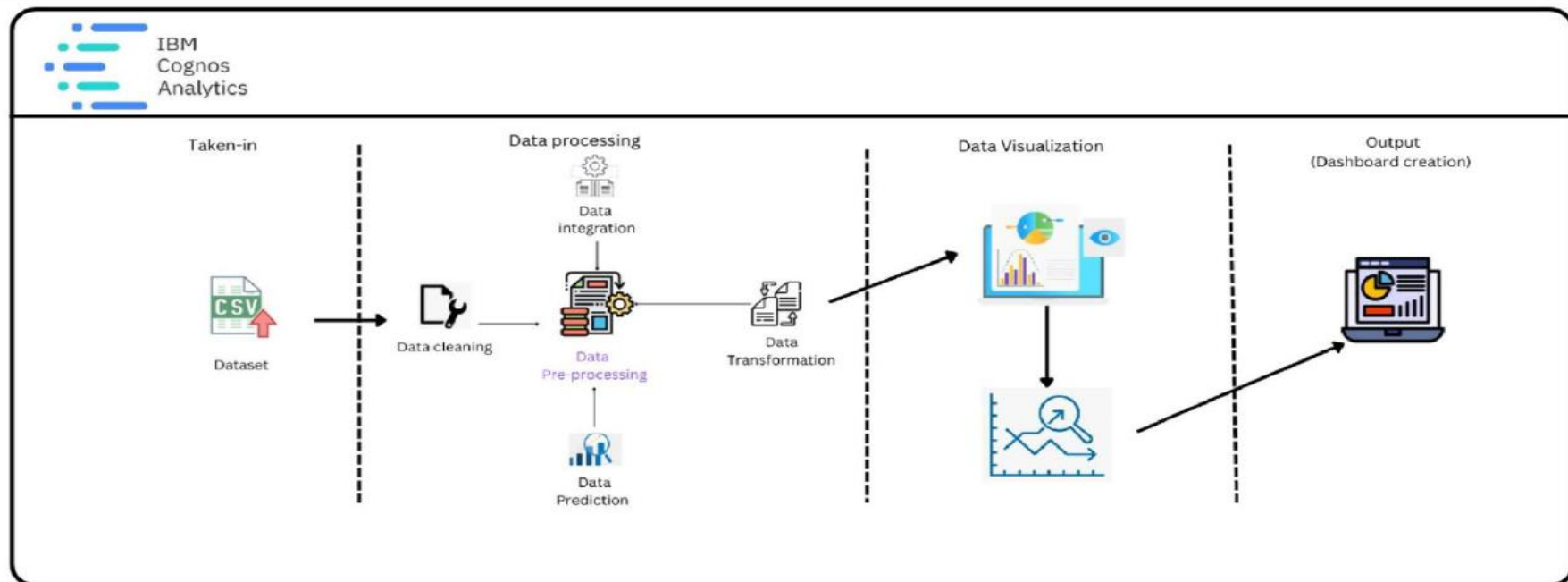


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID32520
Project Name	Project - Retail Store Stock Inventory Analytics
Maximum Marks	4 Marks

### Technical Architecture:



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

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application using Web UI	HTML, CSS, JavaScript
2.	Data Processing	The dataset is loaded and pre-processed	IBM Cognos Analytics
3.	Cloud Database	Loading, Preparing and processing the dataset is stored in IBM Cloud	IBM Cloud
4.	Data Visualization	The processed data modules are visualized as charts and Dashboards	IBM Cognos Analytics, Python using packages like matplotlib
5.	Pattern Prediction	Using various algorithm training the sample data sets are trained and tested using Testing dataset	Python, Machine Learning Algorithms
6.	Displaying the Analysis Pattern	Dynamic dashboard which shows the real time analysis report	Python, IBM Cognos Analytics

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	These frameworks are used to develop our model	IBM Cognos Analytics, Python
2.	Security Implementations	Authentication and Encryption	Encryption using algorithm
3.	Scalable Architecture	Scalability consists of 3-tiers	Web Server – HTML, CSS, JavaScript Application Server – Python Database Server – IBM Cloud
4.	Availability	Available for all users	Web Hosting service providers
5.	Performance	Analysing and predicting the pattern	Machine Learning Algorithms