Project Development Part – 1

Product Sales Analysis
Phase 3

Date	24 October 2023
Project Name	Product Sales Analysis

Phase 3:

- Data Collection
- Prepare the dataset
- Data Cleaning and preprocessing

Data Collection:

Data collection is the pivotal first step in constructing a dataset for analysis, machine learning, or any data-driven project. It involves systematically gathering information from diverse sources, which can encompass structured data from databases and spreadsheets, as well as unstructured data from text, images, and more. The process begins with clearly defining project objectives to guide the selection of appropriate data sources. Subsequently, data is extracted, transformed, and cleansed to ensure high quality and accuracy. Attention to data privacy and security is essential to safeguard sensitive information during collection. Detailed documentation of the process is maintained, and if data collection is ongoing, continuous monitoring is established to keep the dataset current and reliable. Effective data collection forms the bedrock upon which robust datasets are built, enabling organizations and individuals to derive meaningful insights from their data.

Download the Dataset:

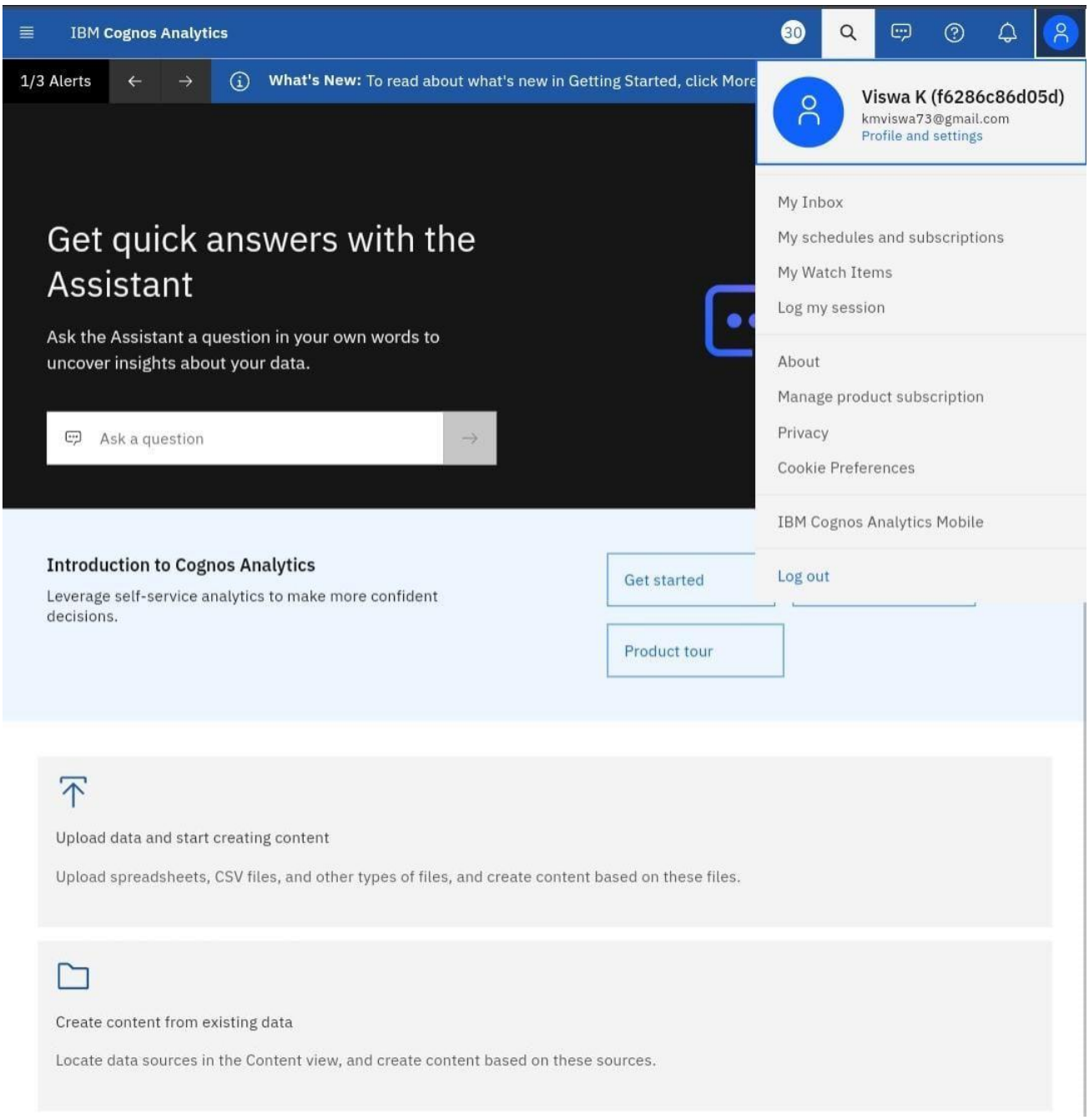
https://www.kaggle.com/datasets/ksabishek/product-sales-data

Load the Dataset:

Tool used: IBM Cognos Analytics

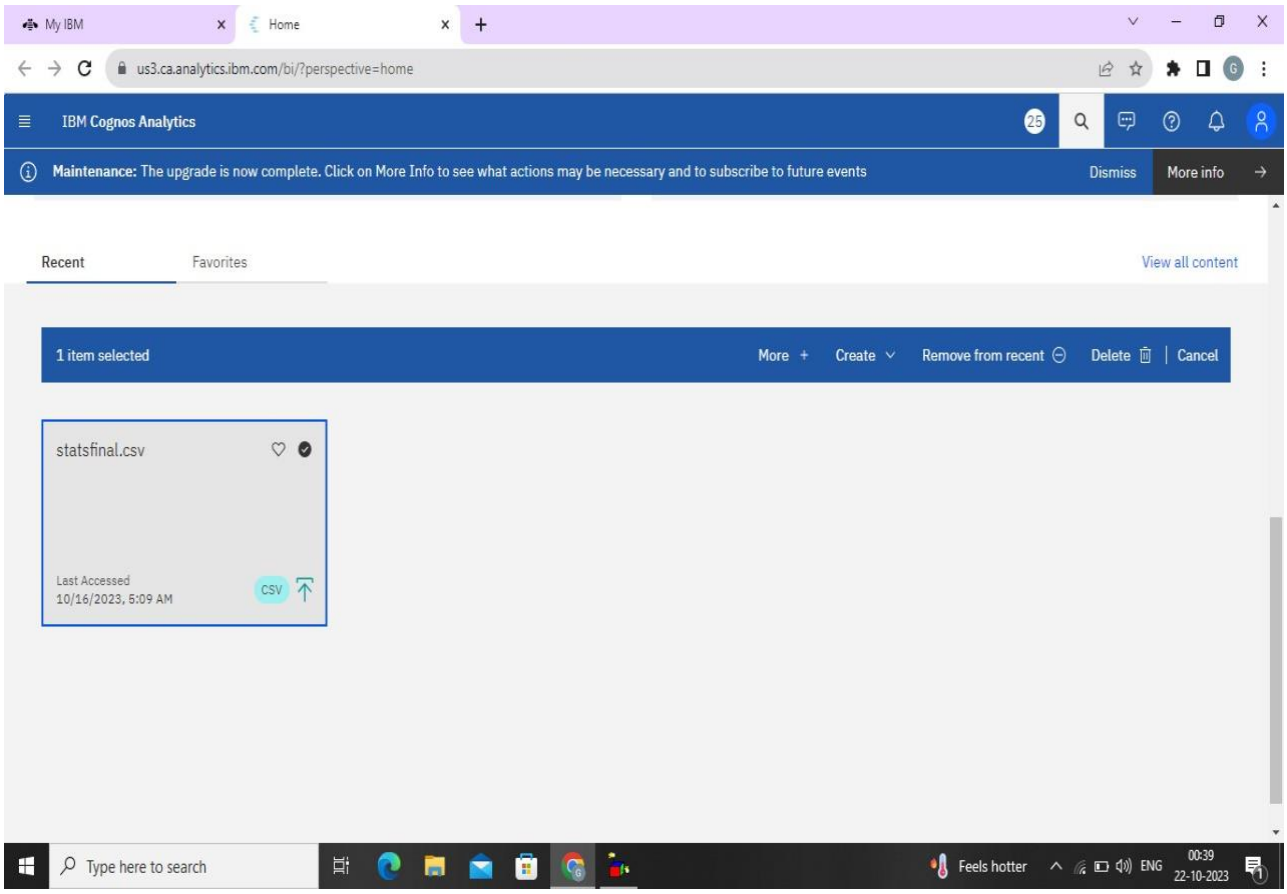
IBM Cognos Analytics:

IBM Cognos analysis is a powerful tool for extracting actionable insights from data. This platform offers a wide range of analytical features, including data visualization, reporting, and predictive analytics, to help organizations make informed decisions. With Cognos, users can explore data, create interactive dashboards, and generate comprehensive reports that provide a clear understanding of business performance. Its ability to seamlessly integrate with various data sources, along with features for data exploration, makes it a valuable asset for data-driven organizations seeking to uncover trends,



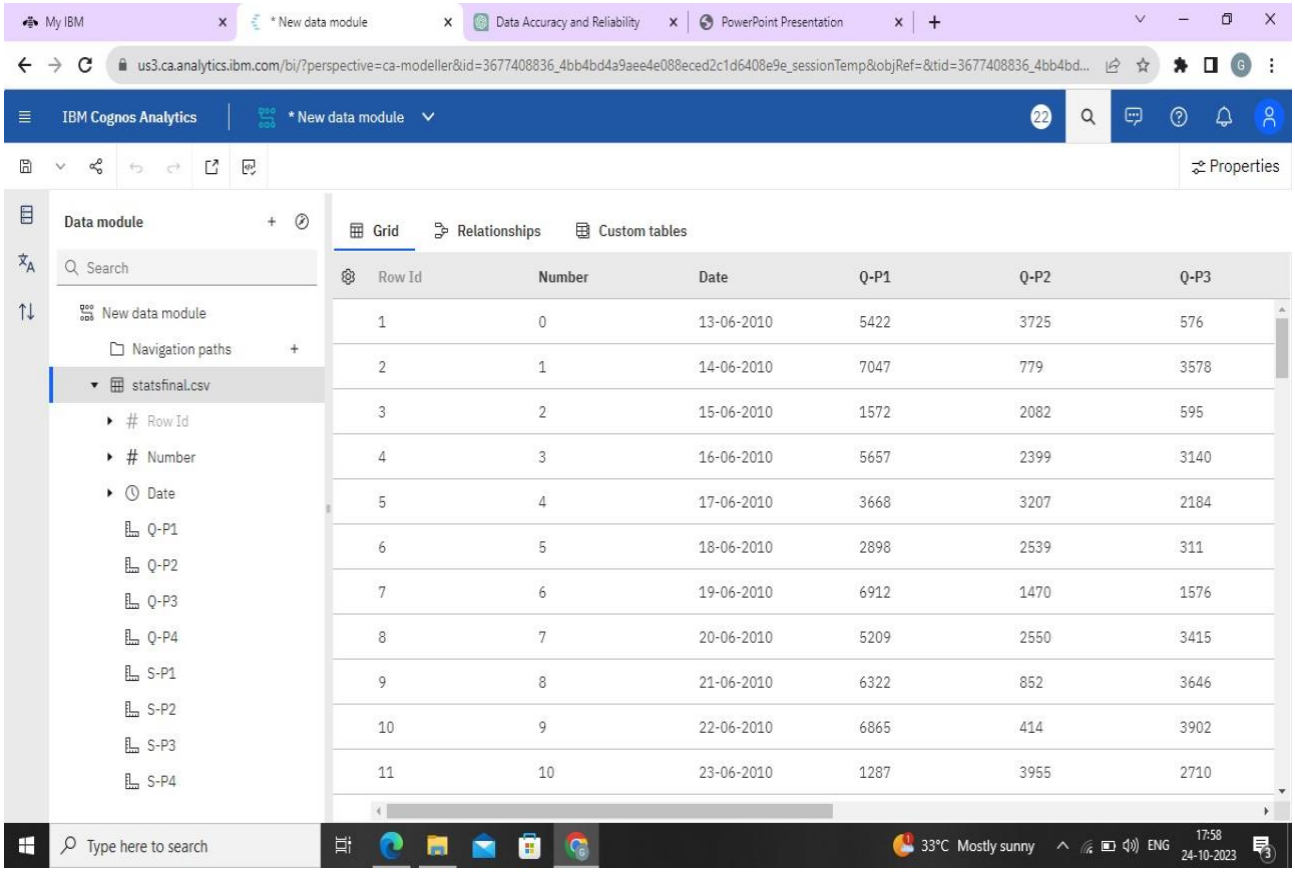
Load the dataset:

Loading datasets in IBM Cognos analysis is a straightforward yet crucial step for data-driven insights. This process involves importing and connecting data from various sources, including databases, spreadsheets, and cloud services, into the Cognos environment. Users can then prepare, transform, and clean the data to create a unified, structured dataset suitable for analysis. By providing a seamless integration with multiple data sources, Cognos streamlines the process, ensuring that data is readily available for reporting, visualization, and advanced analytics. This efficient dataset loading feature empowers organizations to harness the full potential of their data for informed decisionmaking and actionable insights.



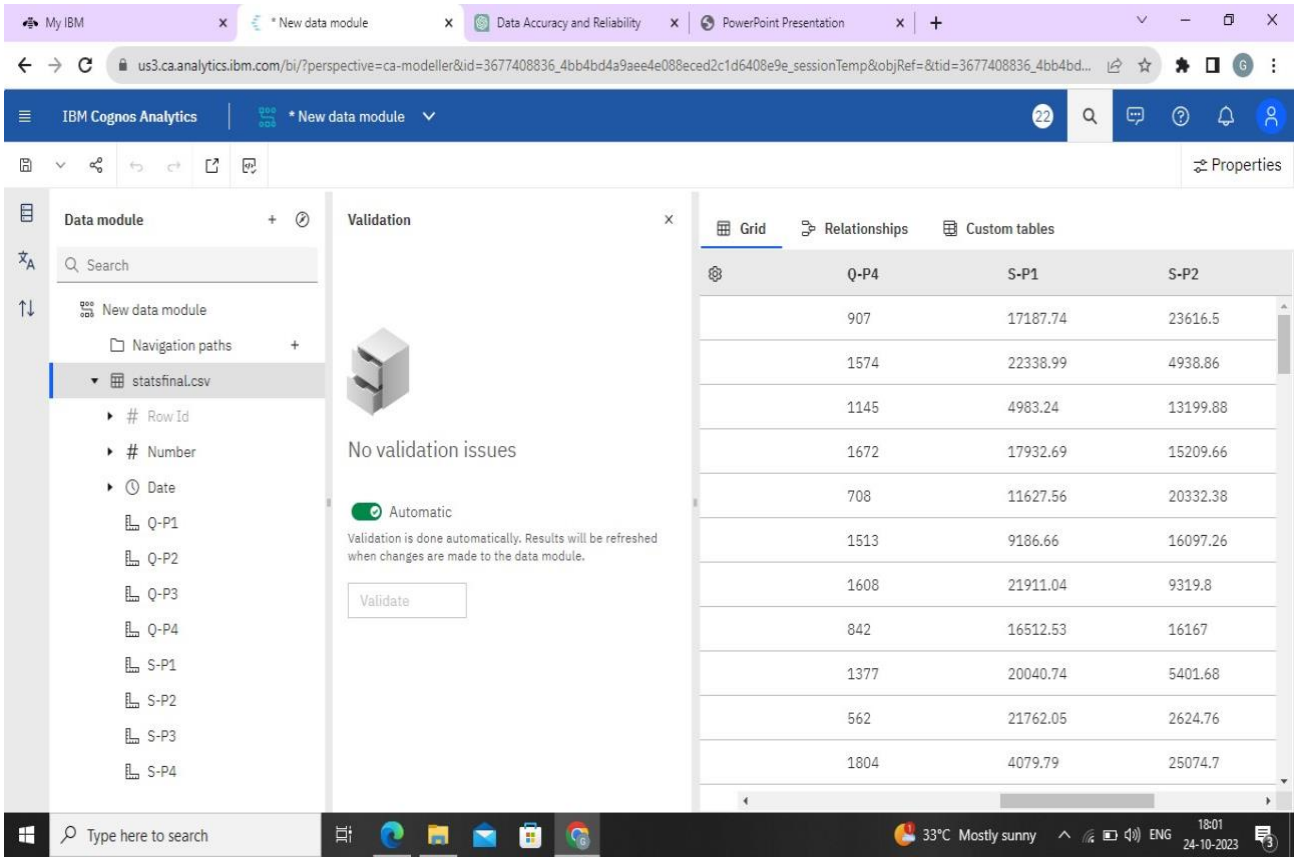
Data Preparation:

Data preparation in IBM Cognos analysis is a crucial phase where raw data is refined into a usable and valuable asset. This process involves tasks such as cleansing, transformation, and structuring of data to ensure accuracy and consistency. With Cognos, users can easily reshape data, handle missing values, and create calculated fields, making it ready for analysis. Data preparation in Cognos enables organizations to work with cleaner, more meaningful datasets, thus improving the quality and reliability of insights and reports generated within the platform. It's a vital step that empowers users to uncover patterns, trends, and actionable information from their data with confidence.



Data Cleaning:

Data cleaning in IBM Cognos analysis is the process of refining and enhancing the quality of your data. It involves identifying and rectifying errors, inconsistencies, and inaccuracies within your datasets. With Cognos, users can detect and address issues such as duplicate records, missing values, outliers, and data discrepancies. By employing various data cleaning techniques, Cognos ensures that your data is accurate, consistent, and reliable. Clean data is the foundation for producing trustworthy reports and insights, ultimately enabling more informed decision-making and analysis within the Cognos platform.



Product Sales Analysis data:

About Dataset

REC corp LTD. is small-scaled business venture established in India.

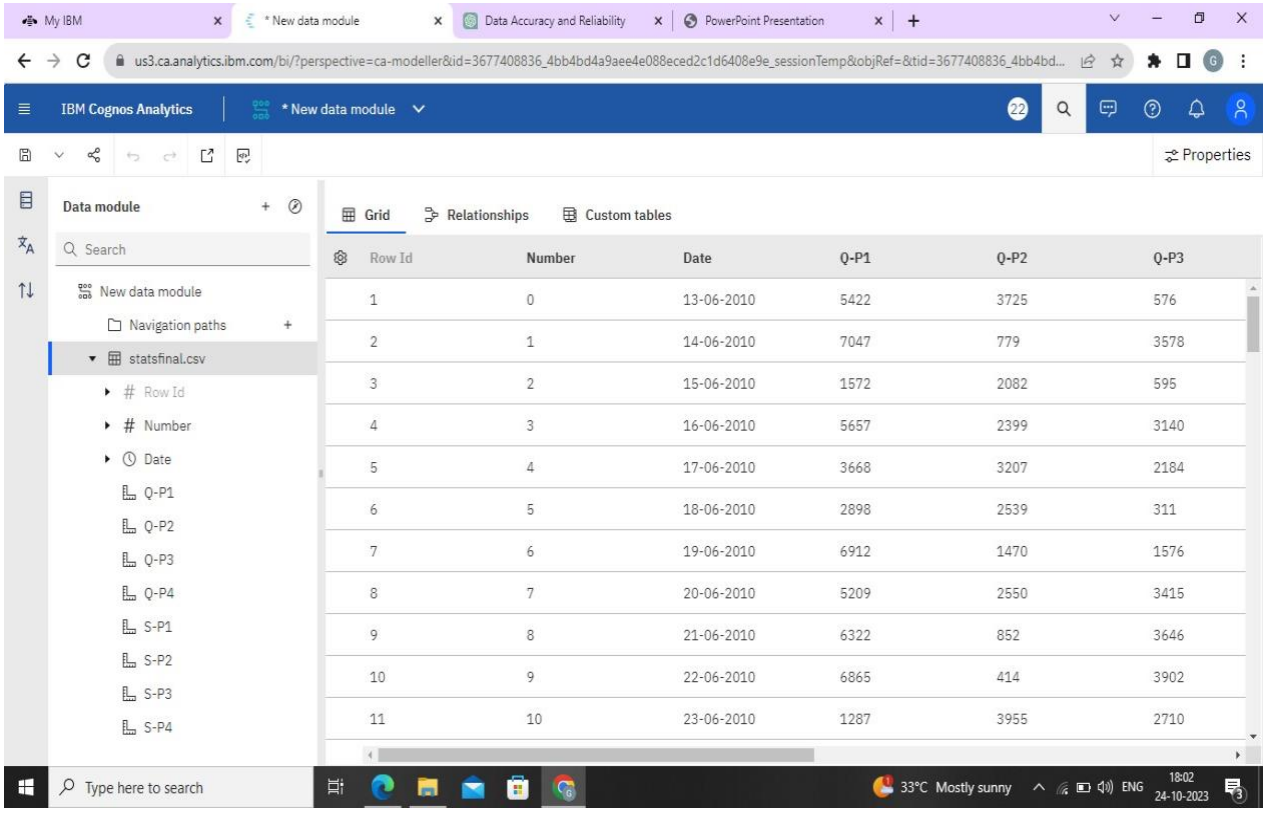
- They have been selling FOUR PRODUCTS for OVER TEN YEARS.
- The products are P1, P2, P3 and P4.

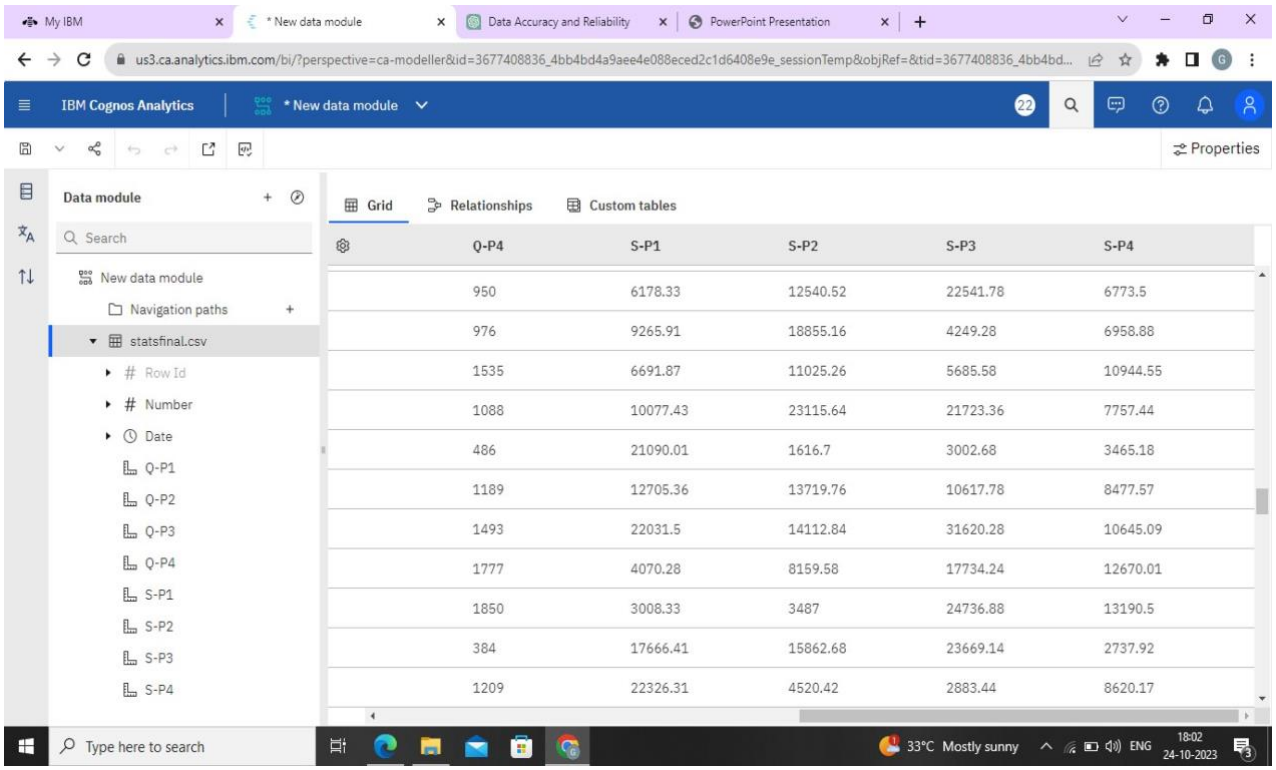
- They have collected data from their retail centers and organized it into a small csv file.

The excel file contains about 8 numerical parameters:

- Q1- Total unit sales of product 1 • Q2- Total unit sales of product 2
- Q3- Total unit sales of product 3 • Q4- Total unit sales of product 4

- S1- Total revenue from product 1 • S2- Total revenue from product 2
- S3- Total revenue from product 3
- S4- Total revenue from product 4




My IBM
* New data module
Data Accuracy and Reliability
PowerPoint Presentation
us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=3677408836_4bb4bd4a9aee4e088eced2c1d6408e9e_sessionTemp&objRef=&tid=3677408836_4bb4bd...
IBM Cognos Analytics
* New data module
Properties
Data module
Search
New data module
Navigation paths
statsfinal.csv
Row Id
Number
Date
Q-P1
Q-P2
Q-P3
Q-P4
S-P1
S-P2
S-P3
S-P4
Grid
Relationships
Custom tables
Q-P4 S-P1 S-P2 S-P3 S-P4
950 6178.33 12540.52 22541.78 6773.5
976 9265.91 18855.16 4249.28 6958.88
1535 6691.87 11025.26 5685.58 10944.55
1088 10077.43 23115.64 21723.36 7757.44
486 21090.01 1616.7 3002.68 3465.18
1189 12705.36 13719.76 10617.78 8477.57
1493 22031.5 14112.84 31620.28 10645.09
1777 4070.28 8159.58 17734.24 12670.01
1850 3008.33 3487 24736.88 13190.5
384 17666.41 15862.68 23669.14 2737.92
1209 22326.31 4520.42 2883.44 8620.17
Type here to search
33°C Mostly sunny
ENG
18:02
24-10-2023