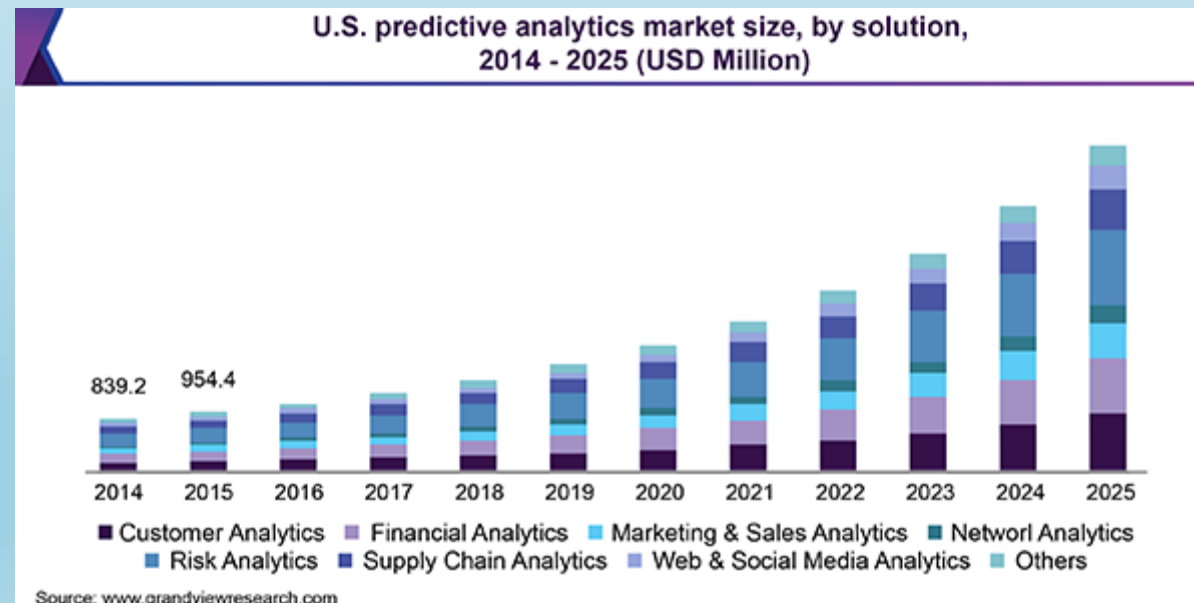


Global Sales Data Analytics

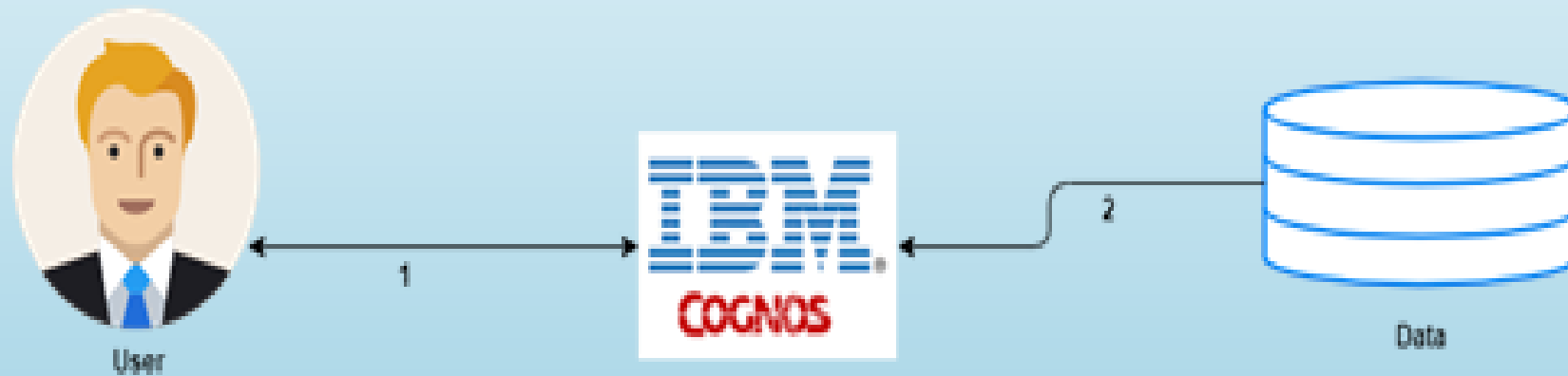


Global Sales Data Analytics

Shopping online is currently the need of the hour. Because of this COVID, it's not easy to walk in a store randomly and buy anything you want. So, try to understand a few things like, Customer Analysis and Product Analysis of this Global Super Store.



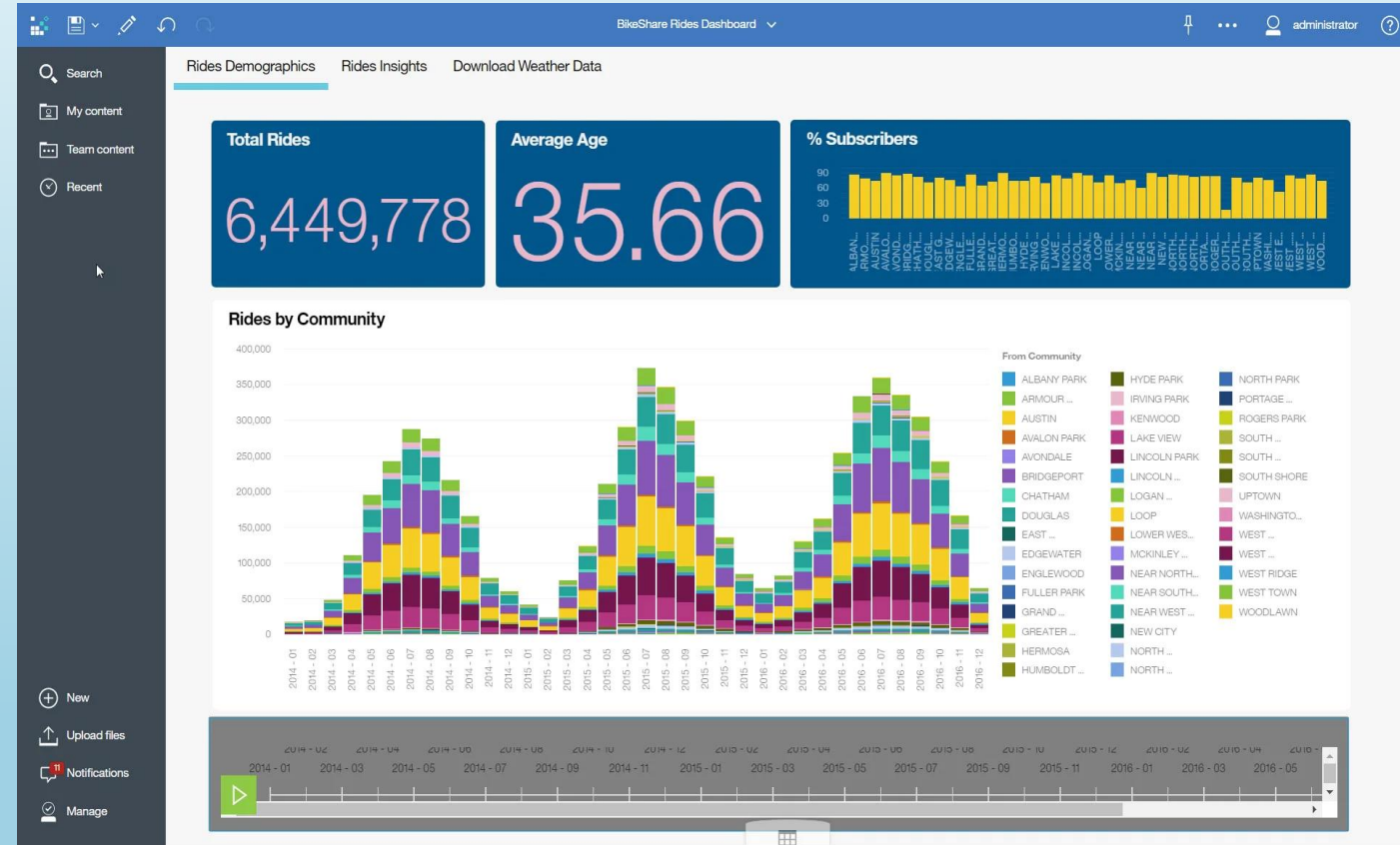
Technical Architecture



Solution Requirements

- IBM Cognos Analytics

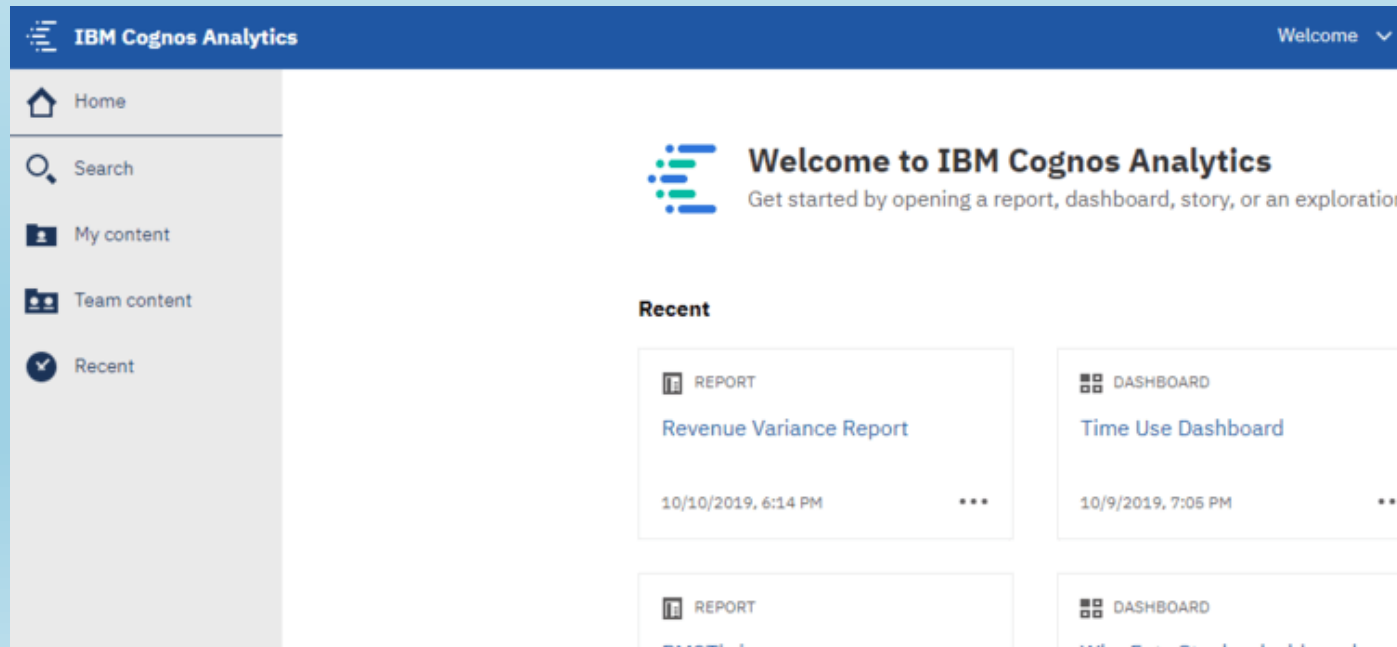
IBM Cognos Business Intelligence is a web-based integrated business intelligence suite by IBM. It provides a toolset for reporting, analytics, scorecarding, monitoring of events and metrics. The software consists of several components designed to meet the different information requirements in a company.



Project Objectives

By the end of this Project, you will:

- Know fundamental concepts and can work on IBM Cognos Analytics.
- Gain a broad understanding of plotting different visualizations to provide a suitable solution.
- Able to create meaningful Visualizations and Dashboard(s).



Project Flow

- Users create multiple analytical graphs/charts/Visualizations.
- Using the Analytical Visualizations, build the required Dashboard(s).
- Saving and visualizing the final dashboard in the IBM Cognos Analytics.



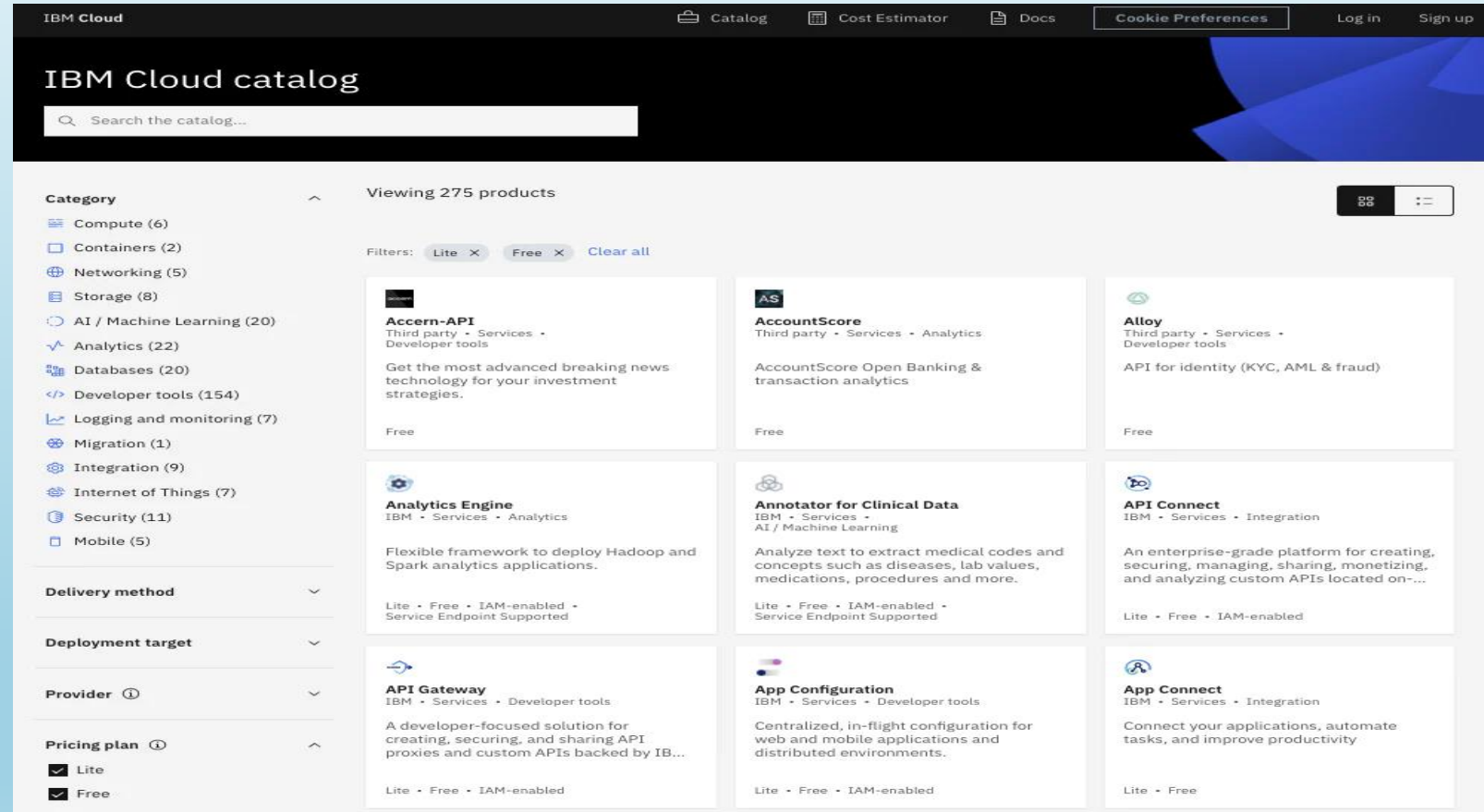
To accomplish this, we have to complete all the activities and tasks listed below:

IBM Cloud Account

Login to Cognos Analytics

Working with the Dataset

- Understanding the Dataset.
- Loading the Dataset.



Data Visualization Chart

Data visualization charts are **graphical representations of data that tell a story using symbols in order to improve the understanding of large amounts of data.** Visual data metaphors such as charts effectively engage human perceptual processes and amplify human cognition more so than semantic data alone.



Data Visualization Chart

Build the following visualizations

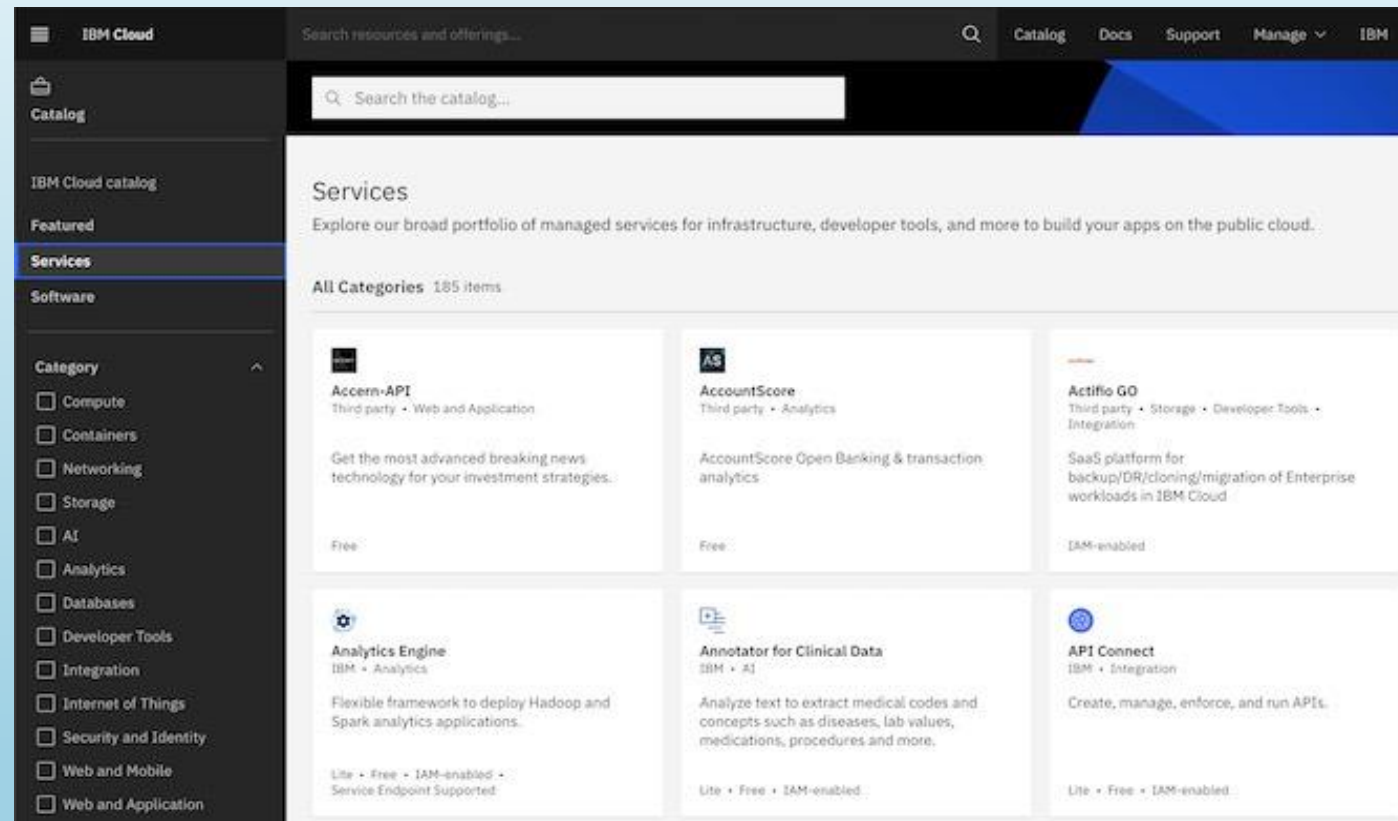
1. Global Superstore_Data Upload.
2. Global Superstore_DataPrep.
3. Date Calculations and Navigation path.
4. Segment wise Sales, Profit and Qty.
5. Use Pie to showcase Sales by Order Priority and Sales by Market.
6. Use a TreeMap to present Sales by Sub-Category
7. Using a Bar chart present Sales by Region by the Sales Order.
8. Present Regional Sales using Map Country points -- Showcase Top 10 countries.
9. Present Sales (Bar), Profit (line) by Sub-Category using Line and Column Chart.
10. Sales vs Profit Scatter Plot with Sub-Category points and Region in Colour.

Data Visualization Chart(cont)

11. Sales and Profit Forecast by Month Country as Region and Region as Filter.
12. Sales vs Profit forecast by Month by Order Priority.
13. Show the Min, Max, and Avg Sales by Sub-Category using the Box plot.
14. By setting a 10% extra Target for Sales Present Segment-wise Sales use Bullet Chart.
15. Present Sales using Hierarchy Bubbles by Market / Region.
16. Using a Legacy Map Present Sales vs Profit by Country / Region.
17. Showcase Quantity Sold by Radar Chart across various Regions.
18. Present Monthly Sales by Sub-Category using Waterfall chart.
19. Present Sales Vs Profit of Countries by Word Cloud.
20. Sales dashboard with Summary Cards.

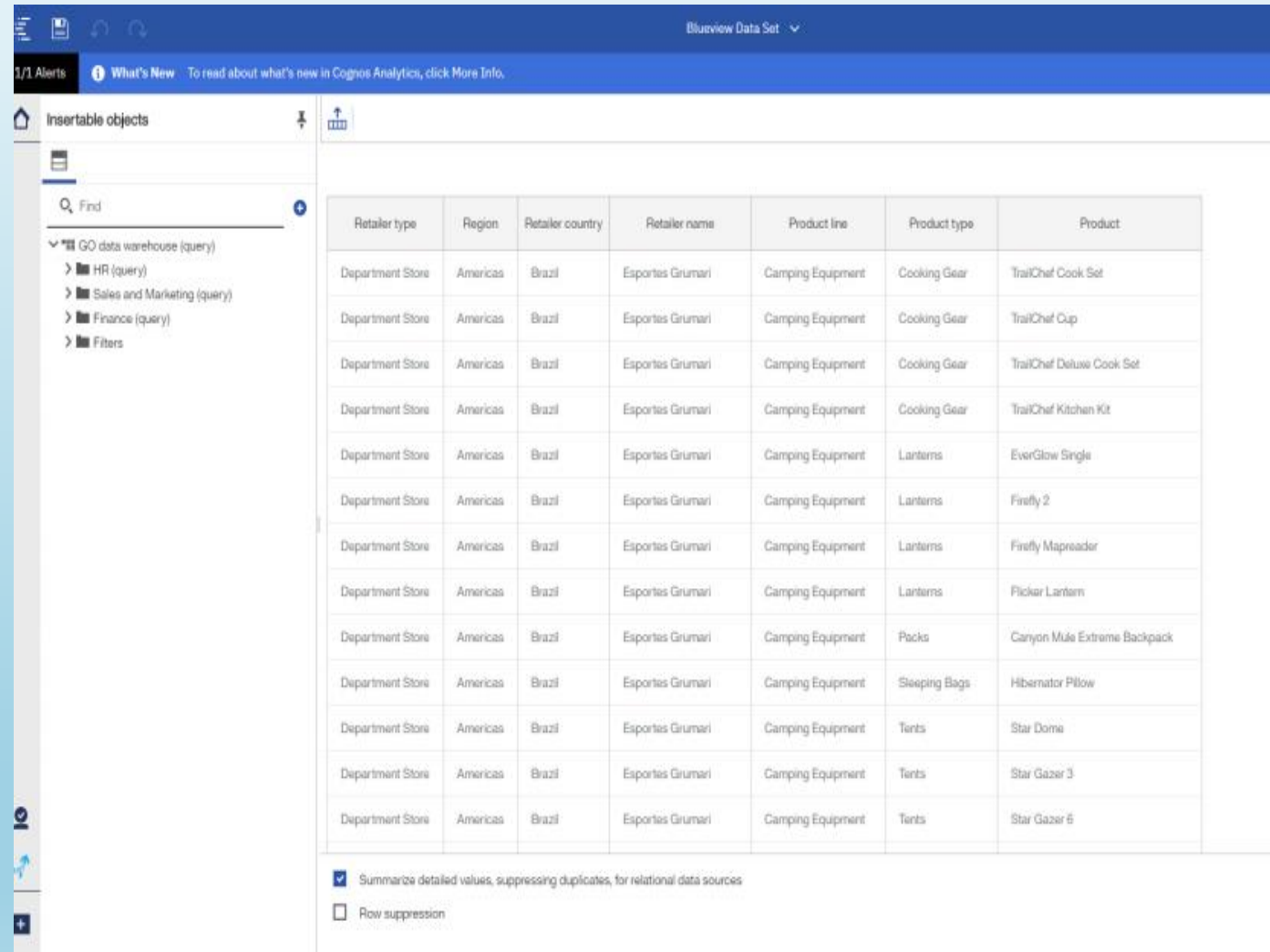
IBM Cloud Account

IBM Cloud is a suite of cloud computing services from IBM that offers both platform as a service (PaaS) and infrastructure as a service (IaaS). IBM Cloud platform supports access to other IBM tools and services -- including IBM Watson (Watson is an IBM supercomputer that combines artificial intelligence (AI) and sophisticated analytical software) and IBM Cloud Functions for serverless computing -- as well as those from third-party vendors.



Working With The Dataset

When you want to provide a suitable solution to the given problem statement, you need to understand the dataset, load it to the cloud environment, and prepare it as per the technology requirement such as - creating calculations, navigation paths, etc.



The screenshot displays the 'Blueview Data Set' interface. On the left, under 'Insertable objects', there is a search bar and a list of data sources: 'GO data warehouse (query)', 'HR (query)', 'Sales and Marketing (query)', 'Finance (query)', and 'Filters'. The main area shows a table with 7 columns: 'Retailer type', 'Region', 'Retailer country', 'Retailer name', 'Product line', 'Product type', and 'Product'. The table contains 15 rows of data. At the bottom, there are two checkboxes: 'Summarize detailed values, suppressing duplicates, for relational data sources' (checked) and 'Row suppression' (unchecked).

Retailer type	Region	Retailer country	Retailer name	Product line	Product type	Product
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Cooking Gear	TrailChef Cook Set
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Cooking Gear	TrailChef Cup
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Cooking Gear	TrailChef Deluxe Cook Set
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Cooking Gear	TrailChef Kitchen Kit
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Lanterns	EverGlow Single
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Lanterns	Firefly 2
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Lanterns	Firefly Mapreader
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Lanterns	Pickler Lantern
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Packs	Canyon Mule Extreme Backpack
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Sleeping Bags	Hibernator Pillow
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Tents	Star Dome
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Tents	Star Gazer 3
Department Store	Americas	Brazil	Esportes Grumari	Camping Equipment	Tents	Star Gazer 6

Sales Dashboard

The following Sales Dashboard represents various analytical visualizations for overall compartive study of Sales Business of the organization.

