1.Define Analysis Objectives

Clearly outline the objectives of your product sales analysis. What insights are you hoping to gain from the data? For example:
Identify top-selling products.
Analyze sales trends over time.
Understand the impact of promotions on sales.
Evaluate the performance of different sales channels.
Identify geographical patterns in sales.

2.Collect Sales Data

Collect the sales data from the source shared with you. Ensure that the dataset includes relevant information such as:
Product details (name, category, etc.).
Sales date and time.
Sales amount.
Customer information (optional).
Any additional relevant information for your analysis.

	A	B	C	D	E	F	G	H	I
1	ID	Date	Reg	City	Catego	Product	Qty	Unit	Tota
2	ID07351	1-Jan	East	Boston	Bars	Carrot	33	1.77	58.41
3	ID07352	4-Jan	East	Boston	Crackers	Whole Whe	87	3.49	303.6
4	ID07353	7-Jan	West	Los Angele	Cookies	Chocolate C	58	1.87	108.5
5	ID07354	10-Jan	East	New York	Cookies	Chocolate C	82	1.87	153.3
6	ID07355	13-Jan	East	Boston	Cookies	Arrowroot	38	2.18	82.84
7	ID07356	16-Jan	East	Boston	Bars	Carrot	54	1.77	95.58
8	ID07357	19-Jan	East	Boston	Crackers	Whole Whe	149	3.49	520
9	ID07358	22-Jan	West	Los Angele	Bars	Carrot	51	1.77	90.27
10	ID07359	25-Jan	East	New York	Bars	Carrot	100	1.77	177
11	ID07360	28-Jan	East	New York	Snacks	Potato Chip	28	1.35	37.8
12	ID07361	31-Jan	East	Boston	Cookies	Arrowroot	36	2.18	78.48
13	ID07362	3-Feb	East	Boston	Cookies	Chocolate C	31	1.87	57.97
14	ID07363	6-Feb	East	Boston	Crackers	Whole Whe	28	3.49	97.72
15	ID07364	9-Feb	West	Los Angele	Bars	Carrot	44	1.77	77.88
16	ID07365	12-Feb	East	New York	Bars	Carrot	23	1.77	40.71
17	ID07366	15-Feb	East	New York	Snacks	Potato Chip	27	1.35	36.45
18	ID07367	18-Feb	East	Boston	Cookies	Arrowroot	43	2.18	93.74
19	ID07368	21-Feb	East	Boston	Cookies	Oatmeal Rai	123	2.84	349.3

3.Load the Data into IBM Cognos

Open IBM Cognos Analytics.
Create a new project or open an existing one.
Import the sales dataset into Cognos. This can usually be done through a data connection or by uploading a file.

4.Data Cleaning and Preprocessing

Clean and preprocess the data to ensure accuracy and reliability:
Handle Missing Data: Check for missing values in the dataset and decide on a strategy to handle them (e.g., imputation or removal).
Remove Duplicates: Eliminate duplicate entries to avoid skewing the analysis.
Data Formatting: Ensure that data types are appropriate for analysis. Convert date strings to date objects, and numeric values to the correct format.
Outlier Detection: Identify and handle outliers that may distort your analysis.

5.Data Exploration

Explore the data to understand its characteristics:

Descriptive Statistics: Calculate basic statistics such as mean, median, and standard deviation.

Data Distribution: Visualize the distribution of key variables using histograms or box plots.

6. Define Key Performance Indicators (KPIs)

Based on your analysis objectives, define the KPIs that will help you measure success. Examples include total sales, average sales per product, or sales growth over time.

7. Build Visualizations

Use IBM Cognos to create visualizations that represent your data and KPIs. Common types of visualizations include:

Line Charts: For tracking trends over time.
Bar Charts: To compare sales across products or categories.
Pie Charts: To show the proportion of sales by category.
Geospatial Maps: If your data includes geographic information.

8. Conduct Analysis

Perform the analysis based on your defined objectives and KPIs. Interpret the visualizations to draw meaningful insights from the data.

9.Document Findings

Document your findings and insights. This documentation will be valuable for sharing results with stakeholders and for future reference.

10.Iterate and Refine

Review your analysis and visualization with stakeholders. If needed, iterate on your approach, refine visualizations, or explore additional aspects of the data.
By following these steps, you should be on your way to building a comprehensive product sales analysis using IBM Cognos for effective visualization.

KEY PERFORMANCE INDICATOR:

KPI stands for key performance indicator, a quantifiable measure of performance over time for a specific objective. KPIs provide targets for teams to shoot for, milestones to gauge progress, and insights that help people across the organization make better decisions.