Data Analysis and Visualization

File Name: Head Count 2025

File Url:
https://docs.google.com/spreadsheets/d/1wCxJhoMiqDfw9j7DupgtZM_LdE6dVVUV/edit?usp=drive_link&ouid=106958420133225002242&rtpof=true&sd=true

Headcount Analysis

Example-1

You are a Mckinsey consultant and you need to prepare a presentation to my board on headcount analysis. Make sure to include visualizations and recommendations.

Example-2

I want you to calculate the average and total increment for each department. Further create a bar chart where the x axis represents the departments and y axis is the average increment received. Please put the respective number at the top of every bar.

Example-3

Claude

Department Average Increment (%) Total Increment (%) Engineering 9.146423 3631.13 Finance 9.135865 3380.27 Human Resources 8.861944 3190.3 IT Support 9.146667 3484.88 Legal 8.677 3210.49 Marketing 8.807827 3364.59 Operations 8.758301 3196.78 Sales 8.876293 3328.61

Look at the above table and create a bar chart where the x axis represents the departments and y axis is the average increment received. Please put the respective numbers at the top of every bar.

Example-4

I want you to look at the headcount csv and then find out the candidate "Sarah Verma", works in how many department , what designation he held and his salary. Put this in a table, where the first column will be the department, second is the designation and third is the salary.

Example-5

Gemini

You are a Mckinsey consultant and you need to prepare a presentation to my board on headcount analysis. Make sure to include visualizations and recommendations.

You are a Mckinsey consultant, look at the xl ad Please provide the analytics and the respective visualizations. List down what all analysis could be done.

Sales Analysis

Cohort analysis to analyze the behavior of the customer

File_Name: Customer Sales Data

File URL:
https://docs.google.com/spreadsheets/d/1PHr1OIH2GB8Kcb64m5dYME8IWPgu1XCo/edit?usp=sharing&ouid=106958420133225002242&rtpof=true&sd=trueExample-1

Monthly Retention Rate

Can you do a cohort analysis (visually) by month on retention rate. Generate a heatmap

Example-2

Monthly Sales Trend

Plot the total invoice amount per month across 2023 and 2024 to identify monthly sales trends. Highlight peak and low-performing months.

Example-3

Repeat vs. One-time Customers

Calculate how many customers made repeat purchases and how many made only one purchase. Show this in a bar or pie chart format.

Example-4

Average Invoice Value by Product

Compute and plot the average invoice value for each product category. Rank the products by average invoice amount from highest to lowest.

Example-5

Customer Retention Rate by Cohort Month

Perform a cohort analysis by customer acquisition month and calculate the retention rate over the next 6 months. Visualize it using a heatmap.

Example-6

Top 10 Customers by Lifetime Value

Identify the top 10 customers with the highest total invoice amount across all purchases. Display their Customer ID and total amount spent.

Quadratic

Link: https://www.quadratichq.com/

Generate Data

Generate a dataset with 100 rows of sample e-commerce order data. The columns should be:

- **Order ID**: Start from ORD2000 and increment sequentially.
- **Date**: Random dates between 01/01/2024 and 06/30/2025, in MM/DD/YYYY format.
- **Customer Name**: Random Indian names (first and last).
- **Email**: Constructed using the name in lowercase with a number at the end (e.g., meera.joshi65).
- **Product**: Choose randomly from a list: T-Shirt, Jeans, Sneakers, Loafers, Kurti, Jacket, Backpack, Hat, Sandals.
- **Category**: Either Clothing, Shoes, or Accessories based on product type.
- **Quantity**: Random integer between 1 and 5.
- **Price Per Unit**: Random float between 20 and 100 (two decimal places).
- **Total Price**: Multiply Quantity × Price Per Unit (two decimal places).
- **City**: Randomly chosen from: Mumbai, Delhi, Bangalore, Kolkata, Chennai, Hyderabad, Ahmedabad, Pune, Jaipur, Coimbatore.

Analytics and Visualization

- Show me sales insight by city?
- What are the buying trends in Bengaluru?
- What price points works the best for Mumbai?
- What bare the top selling products in each category?

- Show me what products are sold the most in every city?
- Show me the trends of popular items sold in Delhi?
- Show me the margin by category?

Use connections if you want to connect to the databases like Snowflake, MySql, Postgress, etc

Explore Example to see what you can do more

You can share the file with others, can collaborate with others

Dashboard Creation

Tool Name: Claude

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https://claude.ai/public/artifacts/59e5b99c-c9d1-4931-80ce-59fc10124cd9