Hands-On Lab: Generative AI for Q and A

Estimated time needed: 30 minutes

Overview

In this lab, you will learn how to use generative AI to get insights into data through question answers. For this lab, you will need to create your login on https://app.akkio.com/

Objectives

After completing this lab, you will be able to:

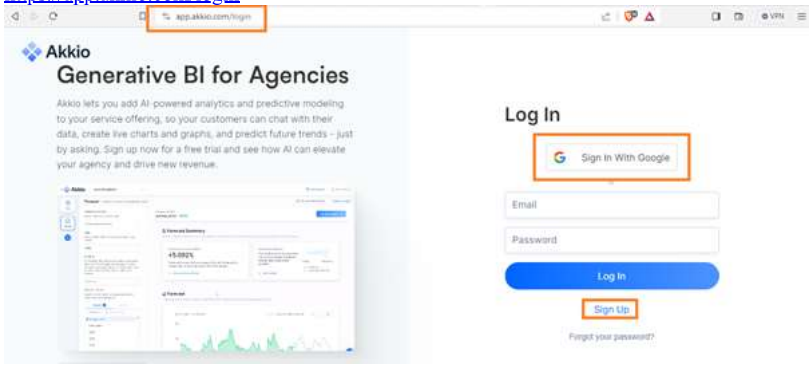
1. Sign in on https://app.akkio.com/
2. Upload data set
3. Q and A to know the dataset

Dataset

The data set is generated using a generative AI prompt. Keep the Ctrl key pressed and download it from here.
The data set's attributes include product ID, title, price, sales rank, brand, category, and availability. These attributes provide product details, such as identification, pricing, popularity (sales rank), brand, category, and availability status.

Task 1: Signing in on Akkio

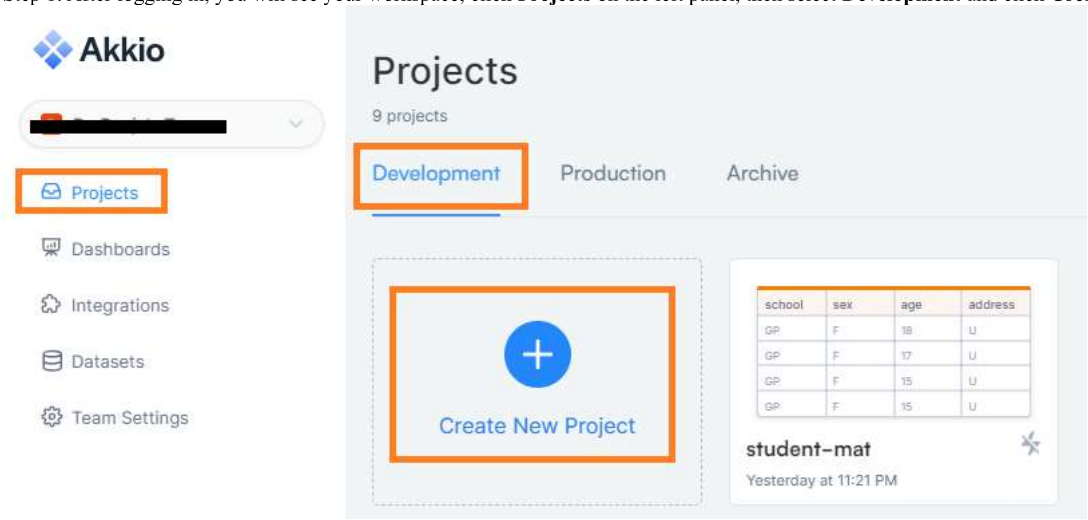
Step 1: Click the link below and then click **Sign Up**; if you do not have login credentials.
https://app.akkio.com/login



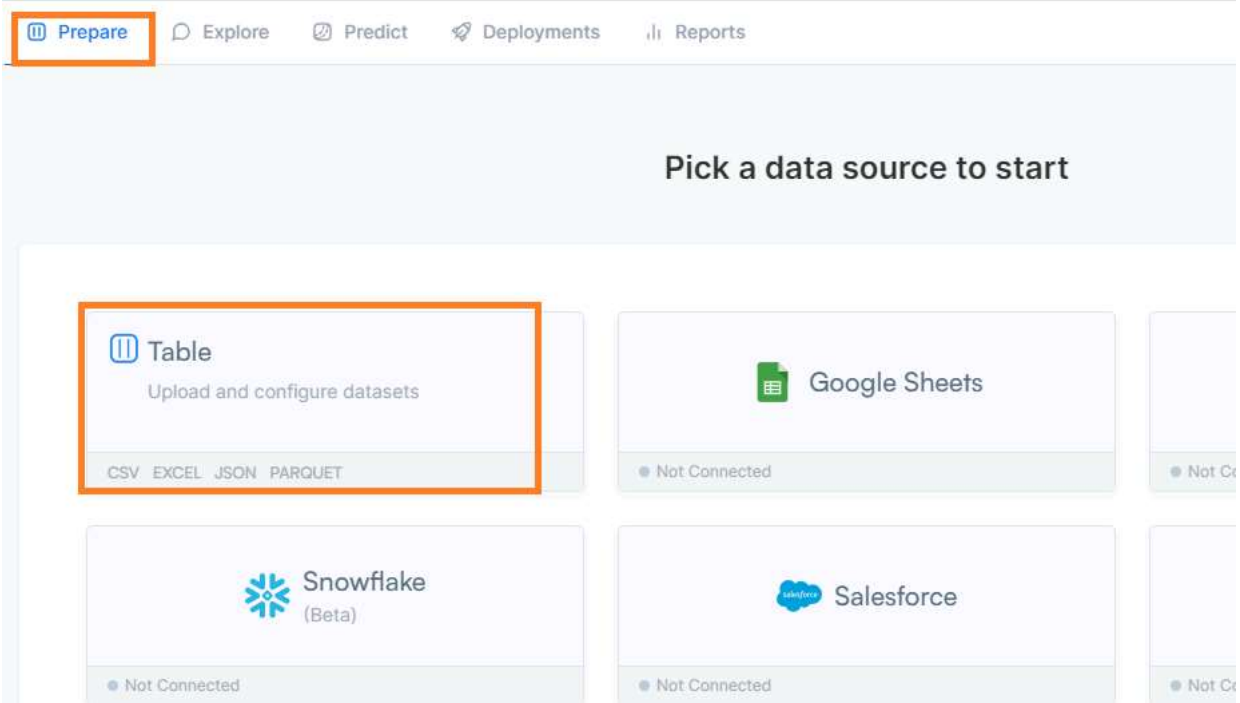
Step 2: Click **Start the free trial** and follow the instructions to create your login credentials for Akkio.
Once the signup process is complete, log in to the platform.

Task 2: Upload the dataset

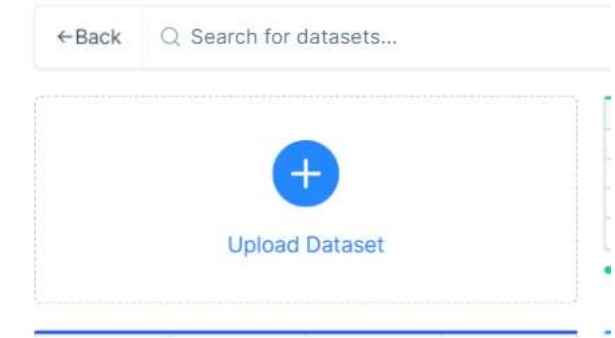
Step 1: After logging in, you will see your workspace; click **Projects** on the left panel, then select **Development** and click **Create New Project**.



Step 2: A new window will pop up; select **Prepare** and then click **Table** to upload the CSV file of 'electronics_dataset.csv'.



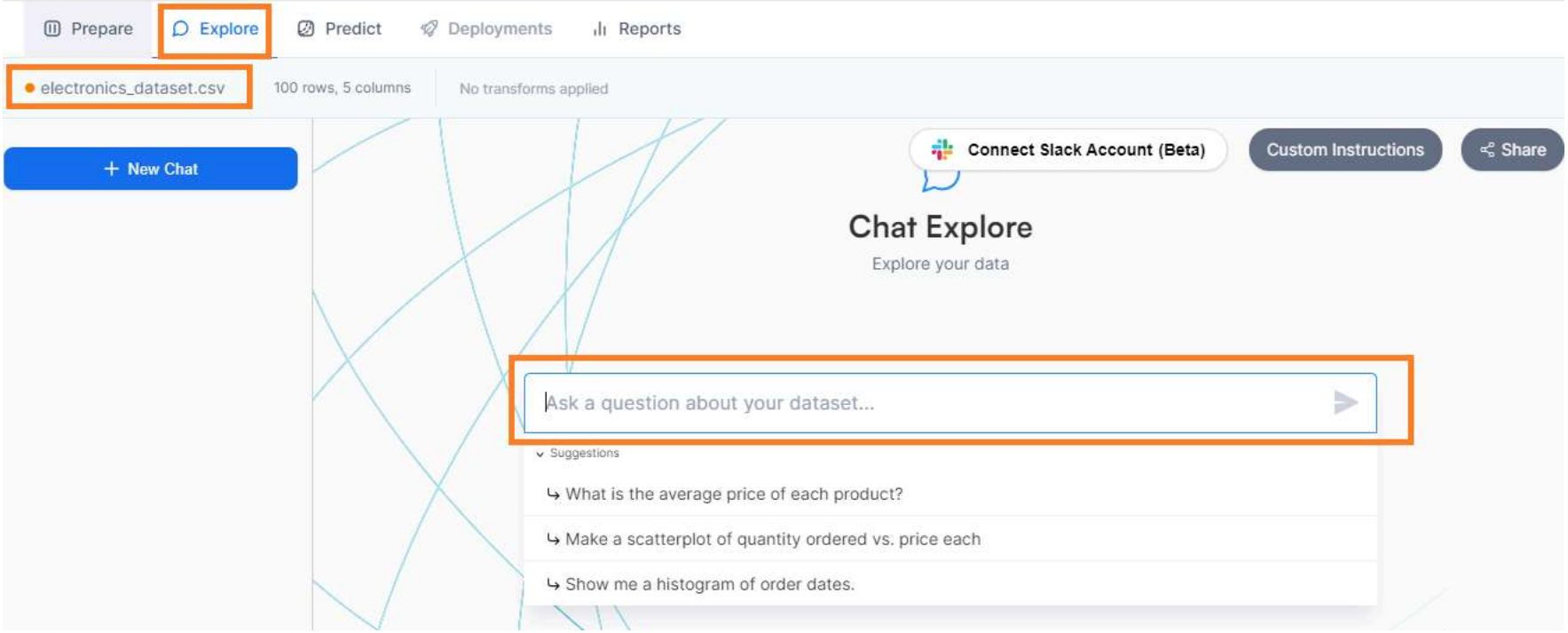
Step 3: Click **Upload Dataset** and select the file 'electronics_dataset.csv' from where you saved it on your machine. Keep the Ctrl key pressed and download it from here if you still need to do so.



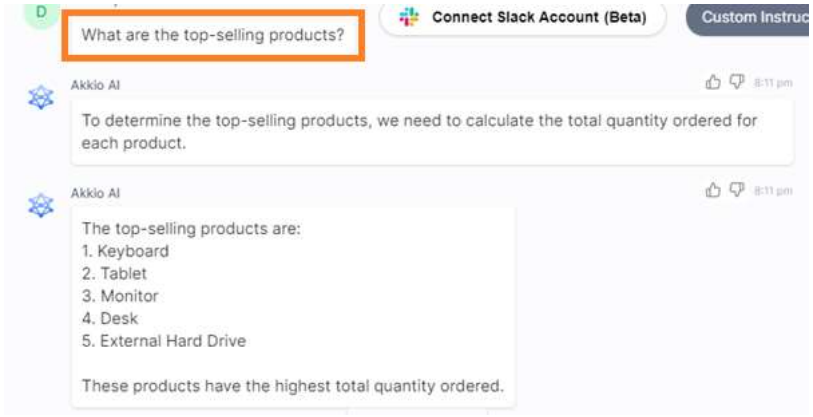
Note: DO NOT describe the goal of this project to get your AI-generated report. Close this window.

Task 3: Q and A the data set for better insights

Once the data set is uploaded, you must explore it with natural language-based questions.
Step 1: Click the **Explore** tab. Check for the dataset's name to ensure you have questions on the correct data, and then in the chat text box, start with your questions. You can begin with the suggested questions as given below.



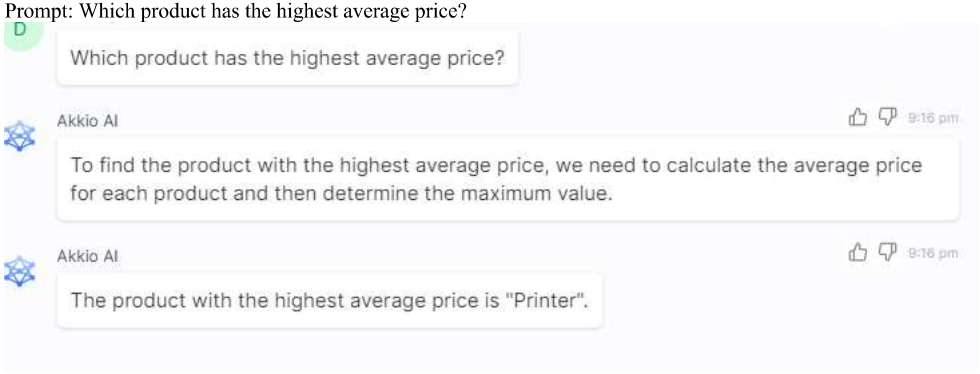
Question 1: Identify the products with the highest sales.
Prompt: What are the top-selling products?



Now you know that the top-selling products are keyboards, tablets, and so on.

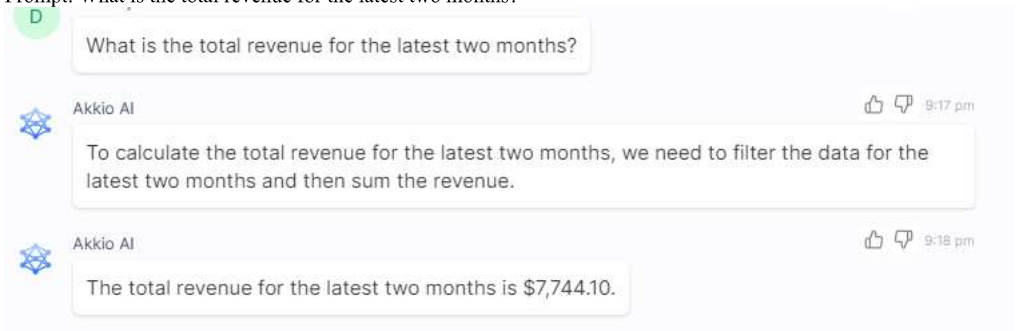
Question 2: Determine which product has the highest average selling price by calculating the average price for each product.

Prompt: Which product has the highest average price?



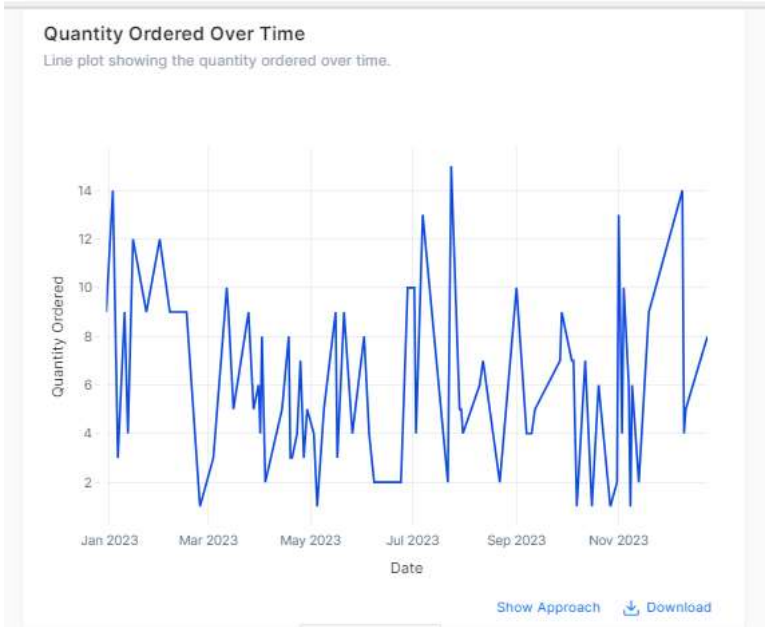
Question 3: Determine the total revenue for the specified time frame.

Prompt: What is the total revenue for the latest two months?

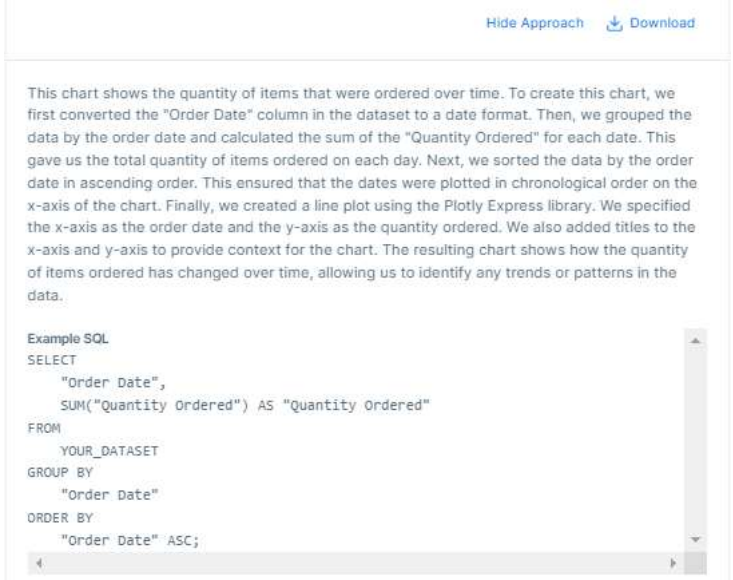


Question 4: See patterns in the number of items ordered over a period.

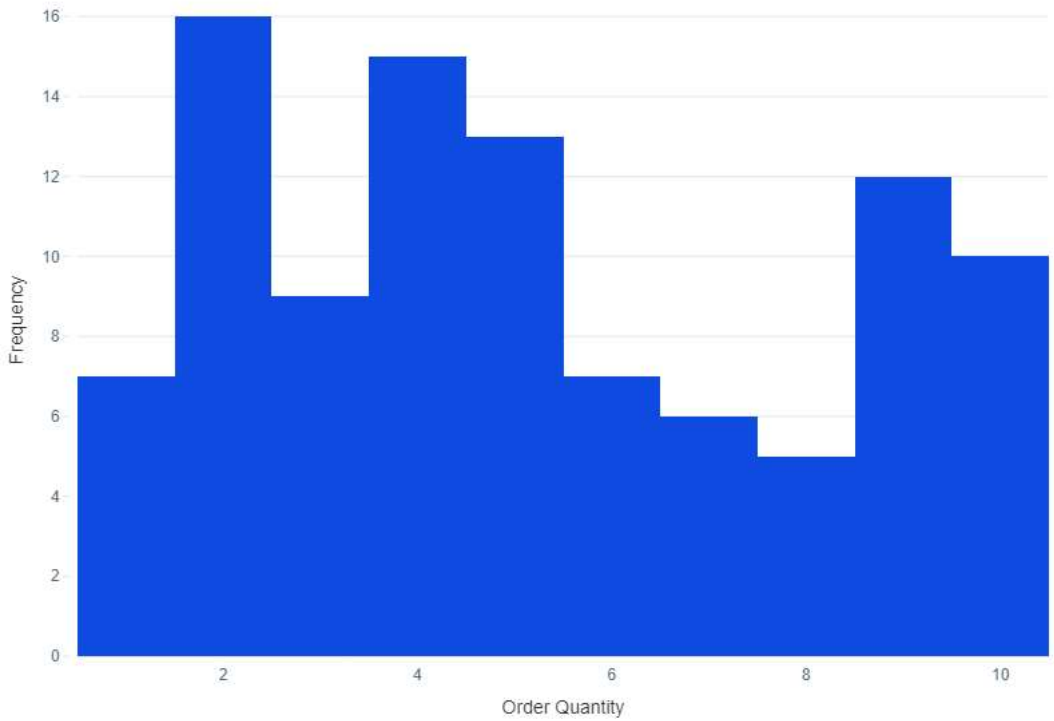
Prompt: How has the quantity ordered changed over time?



Click the **Show Approach** at the end of the chart and see the description of how the chart is developed.



Question 5: Determine typical order sizes by histogram of the distribution of order quantities.
Prompt 5: What is the distribution of order quantities?



Question 6: Determine the count of orders placed for different quantities of items.
Prompt 6: How many orders were placed for different quantities of items?
A CSV will be generated for this prompt.

Order Count by Quantity
Number of orders placed for different quantities of items.

index	Quantity	Order Count
6	1	7
0	2	16
5	3	9
1	4	15
2	5	13
7	6	7
8	7	6
9	8	5

Question 7: Explain if there's a relationship between the quantity ordered and the price of each.
Prompt 7: Are there any correlations between the quantity ordered and price each?

Question 8: Analyze sales patterns to identify the most profitable days.
Prompt 8: Which day of the week has the highest sales?

Question 9: Describe the typical order size.
Prompt 9: What is the average order size?

Practice Q and A

1. Look for co-occurrence patterns to find goods commonly bought together.
2. Monitor a product's sales performance to spot trends and seasonality.

Conclusion

In this lab, you learned how to use generative AI to get insights into data through question answers using the Akkio tool.

Author(s)

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