

Hands-on Lab: Generative AI for Creating Dashboards

Estimated time needed: 30 minutes

Overview

In this lab, you will learn how to use generative AI to generate various visuals and insights to prepare a dashboard on your dataset.

For this lab, you will be required to create your login on <https://chartpixel.com/>

Objectives

After completing this lab, you will be able to:

1. Sign in on <https://chartpixel.com/>
2. Upload a Dataset
3. Generate the charts and customize them
4. Include AI insights on the charts
5. Select the most appropriate charts for Dashboard creation

Prerequisites:

- Knowledge of data visualization (basic chart types)
- Login credentials on chartpixel platform

Dataset

The dataset "eletronics_dataset.csv" is generated using a generative AI prompt. Keeping the Ctrl pressed, you can download it from [here](#).

The attributes of the dataset 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: Log in on chartpixel.com

Step1: Click the link below and then click signup, if you do not have login credentials

<https://www.chartpixel.com/>

Step 2: Click **Start the free trial** and follow the instructions to create your login credentials for chartpixel.

Sign up

Learn everything about your data in seconds



Sign up with Google

Name

Email

Password

What role describes you?

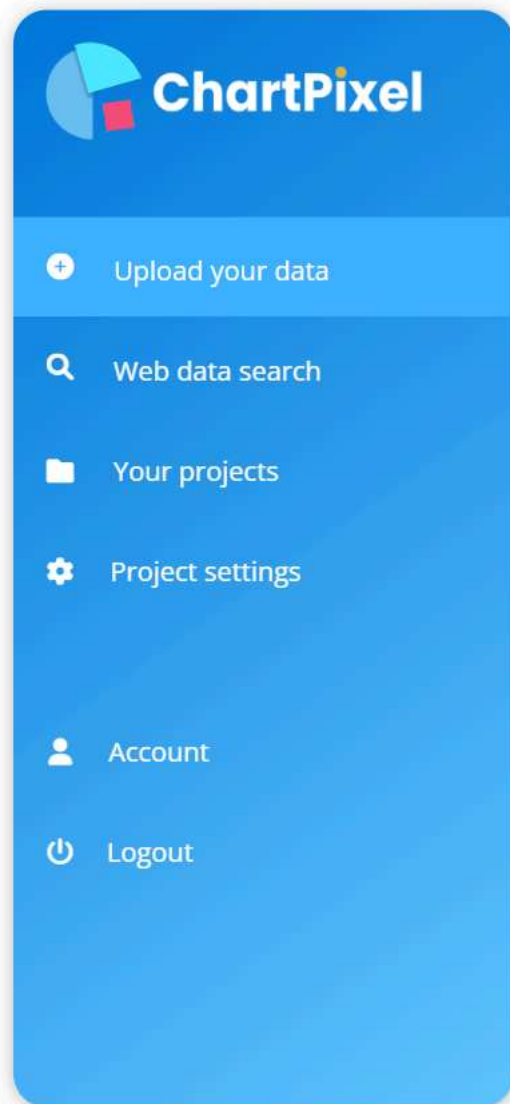
How proficient are you in data analysis?

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 **Upload your data** on the left panel.

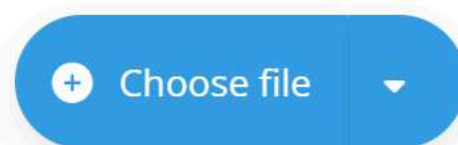
Step 2: Then click **Choose file** and select the file 'eletronics_dataset.csv' from the location where you have saved the file on your machine. You can download it from [here](#) if you have not downloaded the file.



DATA UPLOAD

Please upload or drop your data here. The file format needs to be [XLSX](#) or [CSV](#), and preferably in a raw format as shown in the image.

You can also explore other upload options, such as, linking with a [Google Sheet](#) or directly copying from your [clipboard](#).



See our [blog](#) for detailed instructions on how your file should look like.

No data at hand? Visit our [data library](#) for learners.



ChartPixel is in **Beta** and free to use. Our core features are still being developed and not all uploads may work as

| | A | B | C | D | E | F | G |
|----|----|------------|--------|----------------|-----------|---------|-----------|
| | ID | Date | Gender | Job title | Salary | Country | Remote Wo |
| 2 | 1 | 18/04/2023 | M | Data Analyst | \$123,000 | US | 30% |
| 3 | 2 | 11/05/2023 | M | Data Analyst | \$172,000 | DE | 25% |
| 4 | 3 | 04/08/2023 | F | Data Analyst | \$108,000 | IN | 15% |
| 5 | 4 | 01/04/2023 | F | Data Analyst | \$170,550 | FR | 75% |
| 6 | 5 | 15/05/2023 | M | Data Scientist | \$142,000 | CO | 50% |
| 7 | 6 | 16/07/2023 | F | Data Engineer | \$160,000 | CO | 10% |
| 8 | 7 | 09/02/2023 | M | Manager | \$200,000 | US | 90% |
| 9 | 8 | 12/03/2023 | M | Manager | \$130,000 | US | 85% |
| 10 | 9 | 15/03/2023 | M | Data Scientist | \$190,000 | FR | 15% |
| 11 | 10 | 01/02/2023 | F | Data Scientist | \$165,000 | US | 10% |
| 12 | 11 | 21/06/2023 | F | Researcher | \$165,000 | JP | 30% |
| 13 | 12 | 05/05/2023 | M | Researcher | \$145,000 | US | 60% |
| 14 | 13 | 23/05/2023 | F | Scientist | \$222,200 | IN | 20% |
| 15 | 14 | 24/05/2023 | F | Scientist | \$136,000 | US | 30% |
| 16 | 15 | 25/05/2023 | F | Director | \$336,400 | US | 45% |
| 17 | 16 | 26/05/2023 | M | Director | \$201,000 | US | No |
| 18 | 17 | 27/05/2023 | F | Data Scientist | \$189,000 | US | 0 |

Example of raw data



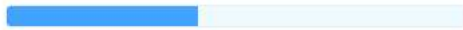
We are committed to data **privacy** and s highest standards. Click on the security i

It will take a while to upload and process the dataset, you will see a progress bar on the 'Data upload' screen.

DATA UPLOAD

Upload or drop a CSV or Excel file
and get charts and insights in 30
seconds.

Processing column LandAverageTemperature...



Step 3: Once the processing is complete, you can click **Ready. Click here to open** message above the progress bar.

DATA UPLOAD

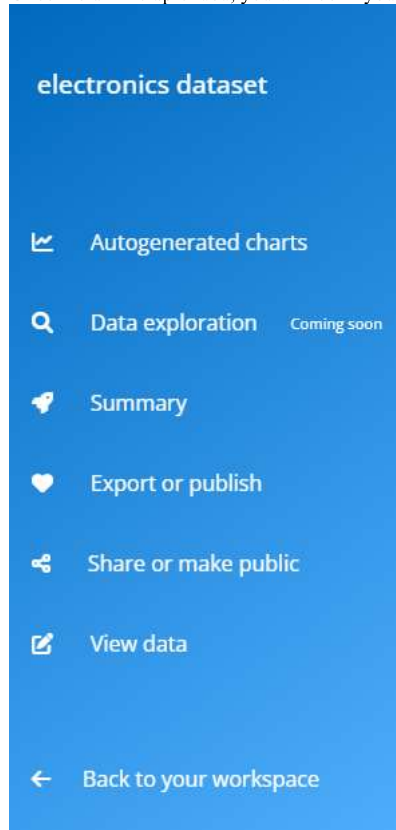
Upload or drop a CSV or Excel file
and get charts and insights in 30
seconds.

Ready. Click here to open.

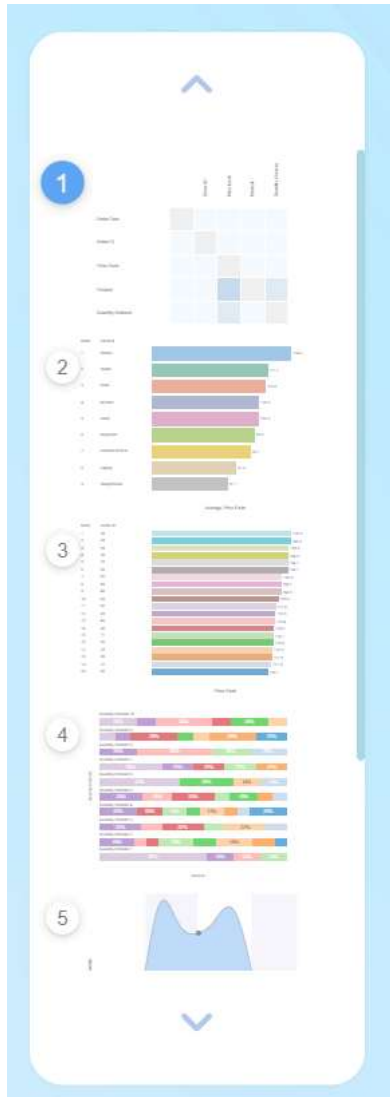


Task 3: Exploring the workspace

Once the data is uploaded, you will be in your project space. On the left side, you will have the left panel to move between your projects, go back to your workspace, etc.



Then, there is a panel for all the charts generated by chartpixel based on the dataset on the right side. The chart selected from this panel is displayed in the main center window.



Step 2: Click **Description** to get the details about the chart.

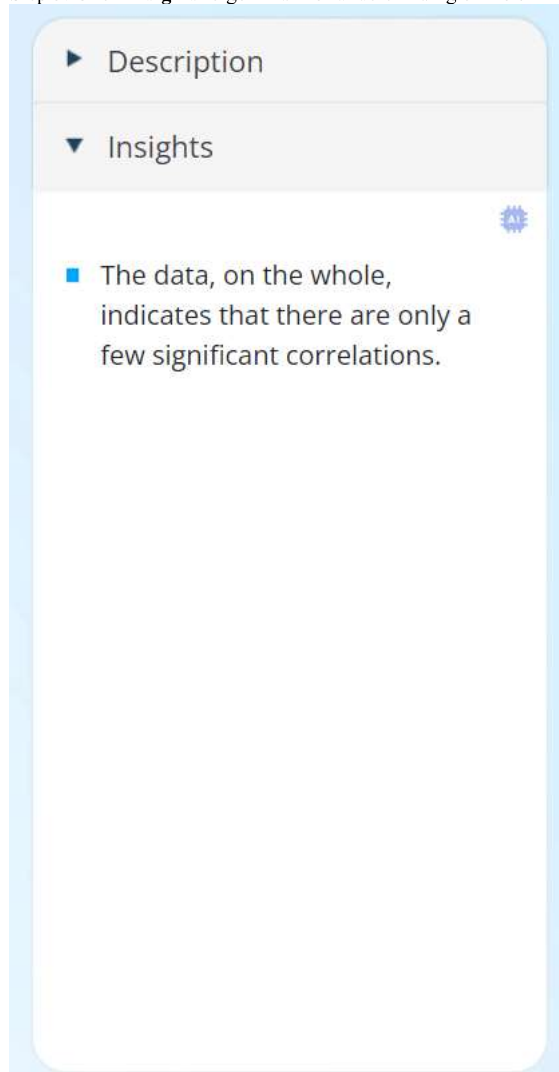
▼ Description



- This matrix demonstrates the predictive ability of one column in relation to another. It utilizes a Predictive Power Index (PPI) that can identify both linear and more complex relationships. The PPI is measured on a scale from 0 (indicating a failure to predict) to 100 (indicating a perfect prediction).
- The squares in darker shades indicate stronger predictions, making them more significant for generating meaningful charts. Additionally, the legend displays both positive and negative correlations, while squares shaded in ■ represent undetermined correlations.

► Insights

Step 3: Click **Insights** to get a further understanding of the chart.



Step 4: You can click the options at the bottom to get an AI insight, change the color, download the chart, delete the chart, and save to export the chart.



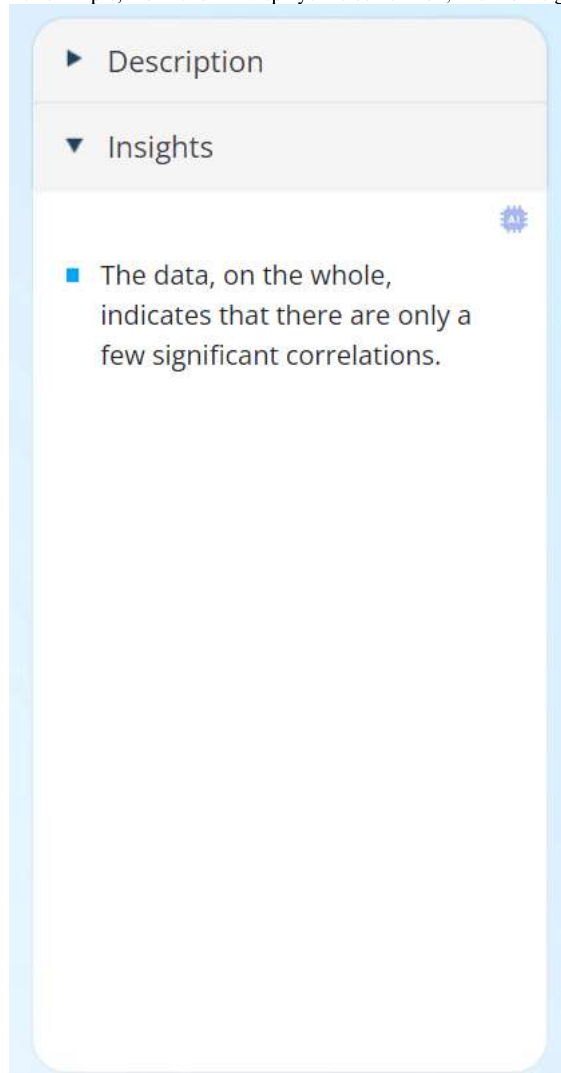
Task 4: Exploring the charts and saving them for the dashboard

For your dataset, chartpixel has generated 5 charts.

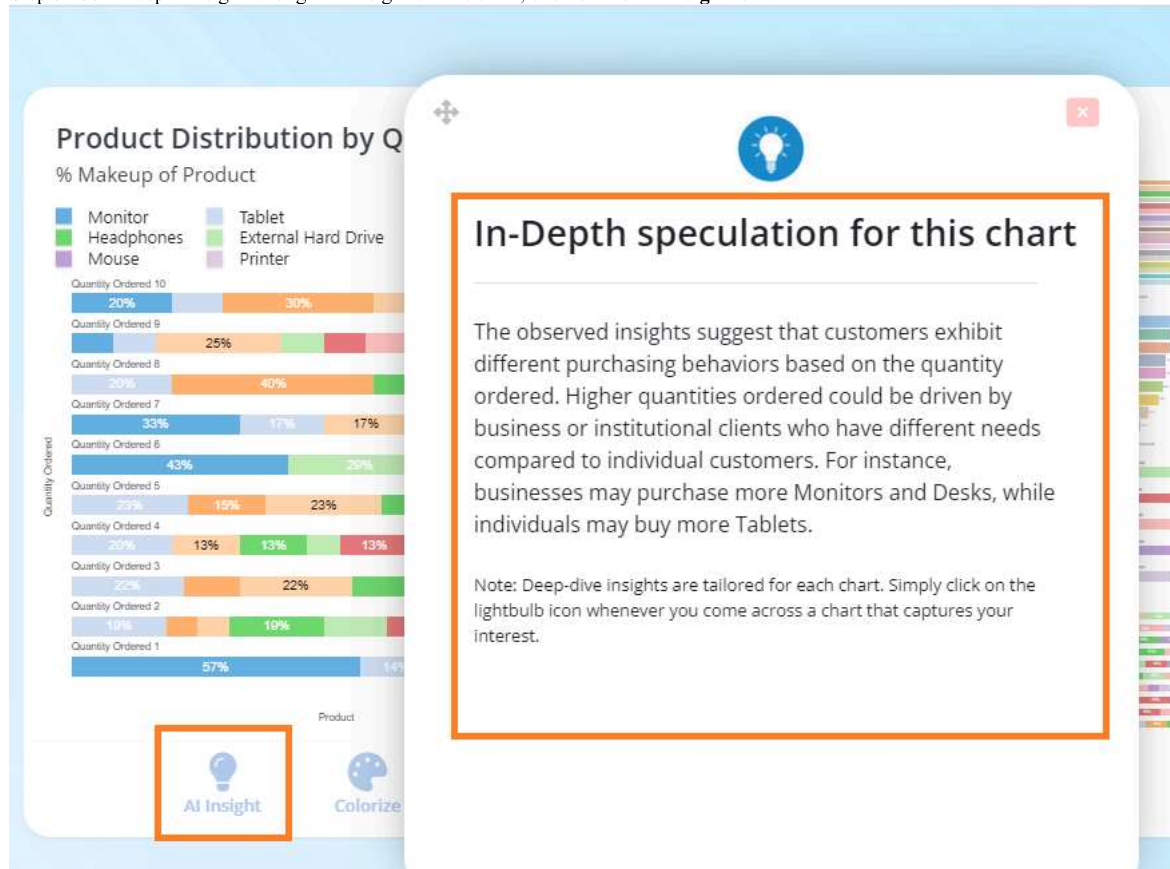
Step 1: Click each chart in the left panel one by one.

Step 2: Go through the insights and description for each chart. This will help you know which charts you want to keep for your final dashboard.

For example, the first chart displays the correlation, and the insight displays: "The data, on the whole, indicates that there are only a few significant correlations."



Step 3: Get in-depth insight through AI Insight on this chart; click on the **AI Insight** icon.



Step 4: Download the chart, if you want to prepare your dashboard on your local machine or save the chart for preparing the presentation later through chartpixel.

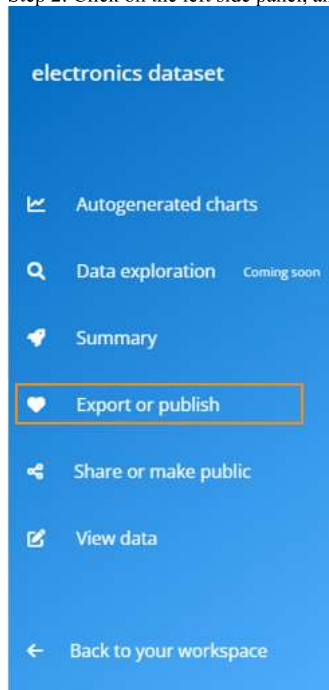
Note: Downloading of the charts is not yet enabled on the chartpixel Dashboard.

Task 5: Exporting the charts

Step 1: Click the **Save** icon at the bottom to save the chart(s) you want to save and export.




Step 2: Click on the left side panel, and then click **Export or publish**.




Step 3: Select on the file type to export the charts for dashboard. (As of now, only PowerPoint is available in the free trial version.)


Click on a file type to start exporting your favorite charts




PowerPoint



Word




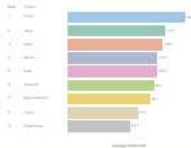
Excel





Dashboard

Review or edit your favorite charts









about:blank

12/14

The exported PowerPoint will have the chart, insight, and description as notes for further reference.

Slides Outline

electronics dataset
29th December, 2023

Price Each rankings; Strong spread across Order IDs
Top 10 Products

Printer dominates Price Each rankings
Top 9 Products averaged by Prices Each

Similar Product Category Counts
Source: For the 10 categories, select Product ID

Slide 3 of 6 "Office Theme" English (India)

Printer dominates Price Each rankings

Top 9 Products averaged by Prices Each

The average price of each Printer Product is at the top of the Prices Each table, significantly surpassing the price of Tablet Products and other items.

| Rank | Product | Average Price Each |
|------|--------------------|--------------------|
| 1 | Printer | 134.2 |
| 2 | Tablet | 111.7 |
| 3 | Desk | 109.6 |
| 4 | Monitor | 103.3 |
| 5 | Chair | 102.9 |
| 6 | Keyboard | 99.2 |
| 7 | External Hard D... | 95.1 |
| 8 | Laptop | 81.6 |
| 9 | Headphones | 72.7 |

Average Price Each

This bar chart displays the top nine average values for Price Each, categorized by Product, with a minimum sample size of 5. The bars are arranged in descending order, from the highest to the lowest Price Each. For instance, the Printer category exhibits the highest value of 134.2.

Step 4: You can also share the charts through a shareable link. Click **Share or make public** in the left panel, and then click **Make shareable via the link** toggle button to make your project public.

The screenshot shows the ChartPixel interface. On the left is a blue sidebar with the title 'electronics dataset'. It contains several menu items: 'Autogenerated charts', 'Data exploration' (with a 'Coming soon' tag), 'Summary', 'Export or publish', 'Share or make public' (highlighted with an orange box), 'View data', and 'Back to your workspace' at the bottom. The main area on the right is light blue and displays the 'Project sharing settings' panel. At the top of this panel, the 'Make shareable via link' toggle is turned on and highlighted with an orange box. Below this, text explains that the project is public and provides instructions on what visitors can and cannot do. A public link, 'chartpixel.com/project?id=JT555g8e', is displayed in a light blue box with an orange border. At the bottom of the panel, there is a toggle for 'Allow visitors to view the data for this project' (which is currently off) and a view count of 0.

Conclusion

In this lab, you learned how to use generative AI to generate various visuals and insights to prepare a dashboard on your dataset using the chartpixel tool.

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Skills Network