

*Worksheet 5 - Oct 10, 2025*

**🎵 Data Visualization with Spotify Data**

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✨**Goal:** Learn how to create charts in Python to explore data visually.

🧩 Part 1: Load & Explore the Data

1️. Download **spotify\_mini.csv** from GitHub and upload it to your Colab sidebar (Files ➜ Upload).  
2️. Run this code:

A close-up of a computer code

Description automatically generated

**📝 Answer:**

* How many rows are in this dataset?
* What do you notice about the columns (what kind of information do they store)?

### 🎨 Part 2: Why Visualization?

Look at this question:

Which genre do you think people listened to the most?

We could count manually, but it’s easier to **see** it.  
Let’s make a picture of it!

📊 Part 3: Bar Chart – Top Genres

A screenshot of a computer code

Description automatically generated

**🧩 Try this:**

* Add color: palette="cool"
* Rotate x-labels: plt.xticks(rotation=45)

⏱️ Part 4: Histogram – How Often Are Songs Played?

A close-up of a white background

Description automatically generated

**🧩 Try this:**

* Change bins=10 → what happens?
* What does the tallest bar represent?

**📝 Answer:**  
The most common number of streams is around \_\_\_\_.

💬 Part 5: Scatterplot – Do Popular Songs Get Skipped Less?

A close-up of a white background

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**🧩 Try this:**

* Add color by genre:



* What pattern do you see?

**📝 Answer:**  
Describe the relationship:

As songs get more streams, the skip rate seems to \_\_\_\_\_.

📅 Part 6: Line Plot – Listening by Day of Week 🚀 You Try It!

🧭 **Hints:**  
1️. Use groupby() to sum minutes by day\_of\_week.  
2. Use sns.lineplot() to make your chart.  
3. Add a title to describe what your chart shows.

**📝 Questions:**

* Which day has the highest listening time?
* Why might that be?

### ✨ Part 7: Reflection (5 min)

🧠 Answer in your own words:

1. Why are charts useful when working with data?
2. Which type of chart helped you the most today — bar, histogram, scatter, or line?
3. One sentence:

“Data visualization helps me because …”

### 💡 Bonus Challenge (if time remains)

Make a chart showing your **top 5 songs** (by streams)