

Project Overview

This project simulates a digital media company (similar to iTunes) and is built upon a structured PostgreSQL database and a custom-designed star schema.

Agenda

The core agenda behind this project is to deliver insights about the company's performance to support data-driven decisions, in order to help prioritize investment decisions and strategic actions.

Provided insights

To support this agenda, the report provides answers to the following key business questions:

- Which regions generate the highest revenue?
- Is revenue increasing or declining over time?
- What is the trend in customer demand?
- Which genres and products are most popular, and whether current inventory and engagement meet customer demand?

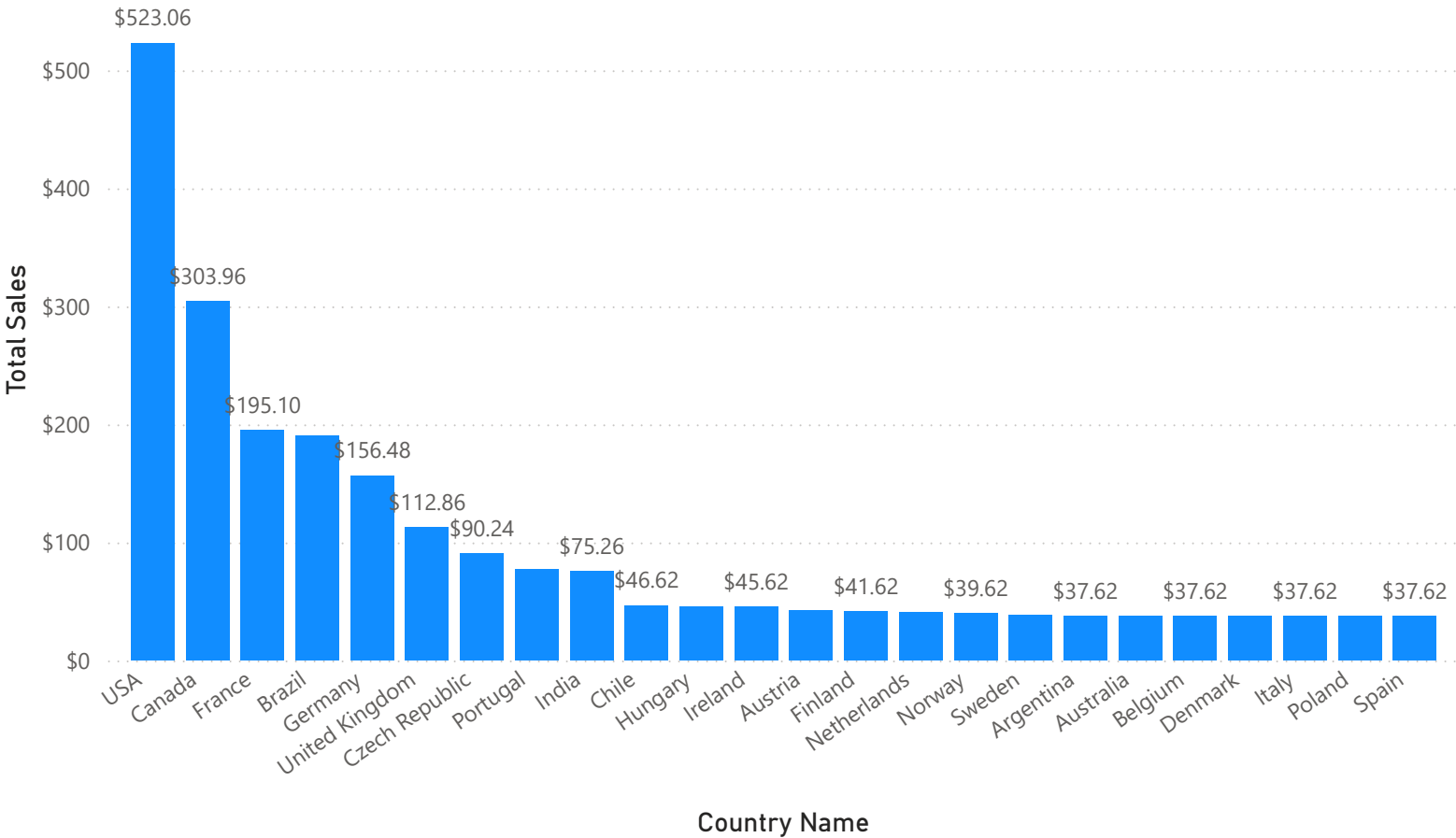
These insights enable smarter decisions around marketing allocation, regional expansion, and identifying growth opportunities or weak points in the business model.

Project goals

1. **Enable Decision Making:** Provide stakeholders with clear, interactive visibility into critical business data.
2. **Deliver Actionable Insights:** Present strategic recommendations based on in-depth analysis, helping the company act effectively on the data.

Top-Down Geography Analysis

Total Sales by country name



Year

All

country_name

All

Total Sales

\$2,328.60

Tracks sold

1984

Genre performance

year	2021		2022		2023	
genre_name	Revenue	Tracks Sold	Revenue	Tracks Sold	Revenue	Tracks Sold
Alternative	0.000	0	5.940	6	3.960	4
Alternative & Punk	62.370	63	39.600	40	45.540	45
Blues	10.890	11	10.890	11	19.800	20
Bossa Nova	0.990	1	1.980	2	7.920	8
Classical	0.000	0	13.860	14	9.900	10
Comedy	0.000	0	3.980	2	1.990	2
Drama	0.000	0	17.910	9	11.940	12
Easy Listening	2.970	3	1.980	2	2.970	3
Electronica/Dance	1.980	2	3.960	4	1.980	2
Total	449.460	454	481.450	455	469.580	442

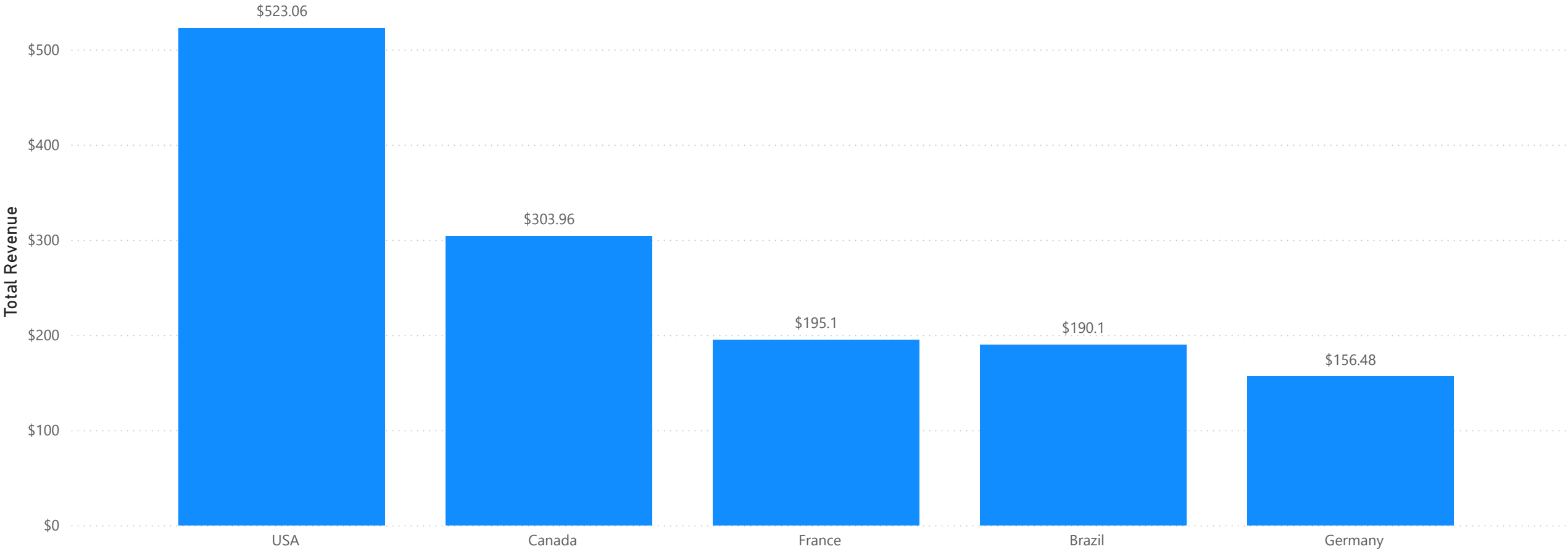
Revenue by Region

country_name	2021	2022	2023	2024	2025	Total
Argentina	0.000	11.880	0.990	0.000	24.750	37.620
Australia	11.880	0.990	1.980	22.770	0.000	37.620
Austria	1.980	27.770	0.000	11.880	0.990	42.630
Belgium	6.930	0.000	24.750	0.000	5.940	37.620
Brazil	37.620	41.600	19.800	53.460	37.620	190.100
Canada	57.420	76.260	55.440	42.570	72.270	303.960
Chile	15.840	17.910	5.940	6.930	0.000	46.620
Czech Republic	10.890	0.000	13.860	10.890	26.750	62.370
Total	449.460	481.450	469.580	477.530	450.580	2328.600

Revenue Trend Over Time

year	Revenue	Tracks Sold
2021	449.460	454
2022	481.450	455
2023	469.580	442
2024	477.530	447
2025	450.580	442
Total	2328.600	2240

Top 5 Countries by Total Revenue



country	▼		
<input type="checkbox"/> Brazil			
<input type="checkbox"/> Canada			
<input type="checkbox"/> France			
<input type="checkbox"/> Germany			
<input type="checkbox"/> USA			

Brazil	5	\$38.02	\$0.89
	Total Customers	Avg Spend of Customers	Spend Standard Deviation
Canada	8	\$38	\$0.74
	Total Customers	Avg Spend of Customers	Spend Standard Deviation
France	5	\$39.02	\$1.14

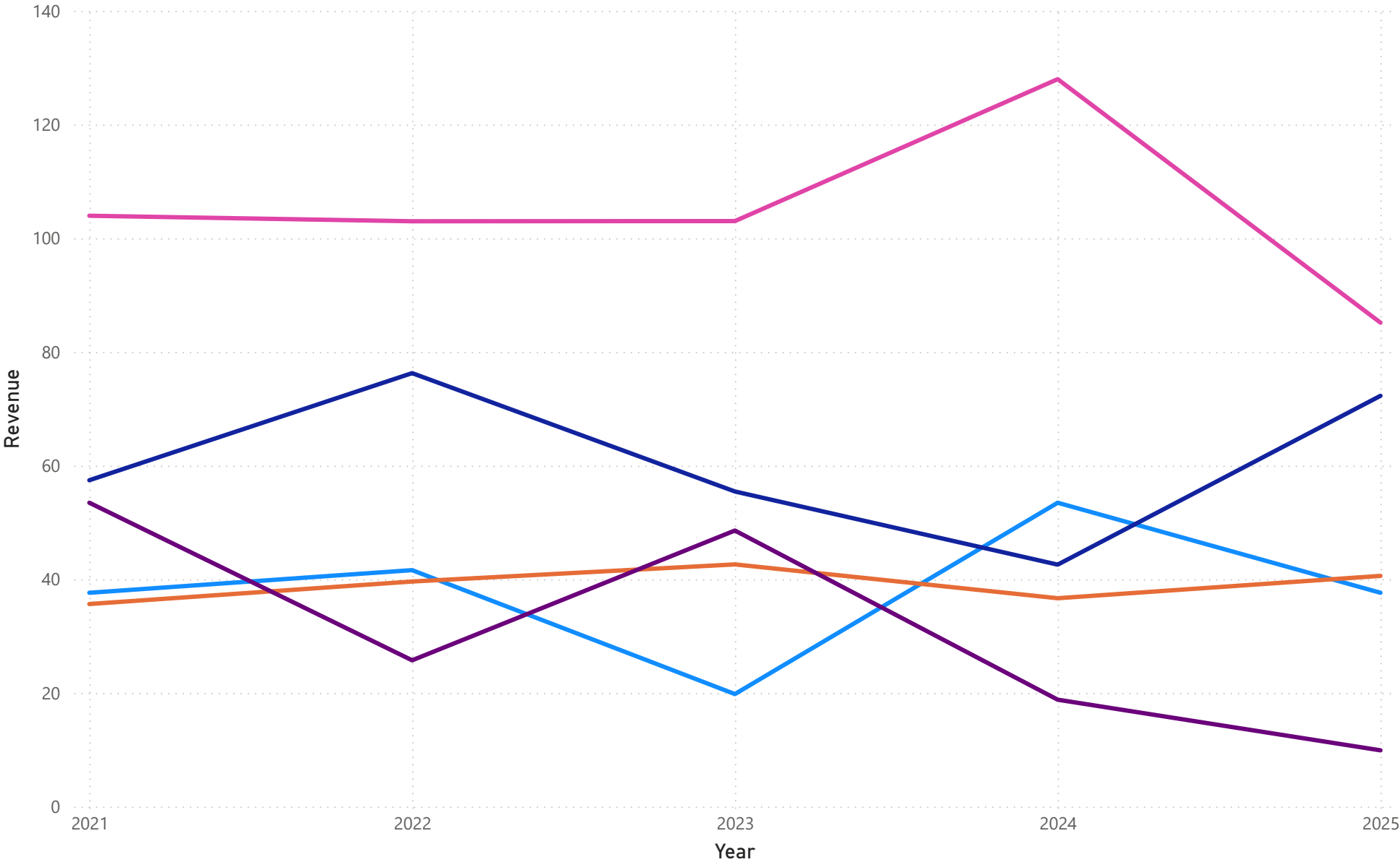
The U.S. is our highest-paying and largest market, followed by Canada.

U.S. not only generates the most revenue but also had the highest spending per customer, reinforcing its strategic importance

Our customer spend is consistent across top markets, indicating reliable pricing strength.

Yearly Revenue by Country

country_name Brazil Canada France Germany USA

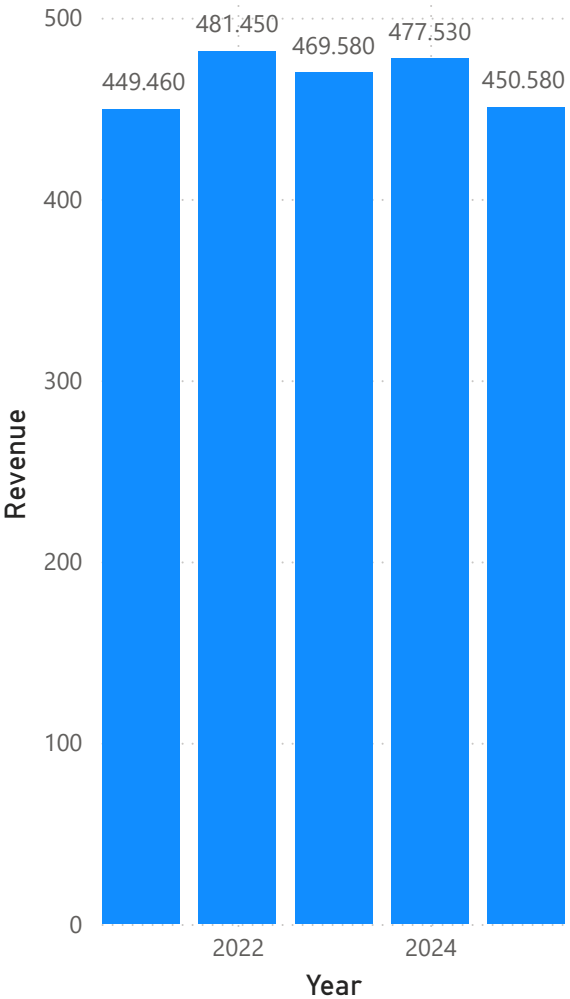


Revenue stability was dramatically disrupted in 2025, particularly in key markets like the U.S., Germany, and Brazil

Country Names

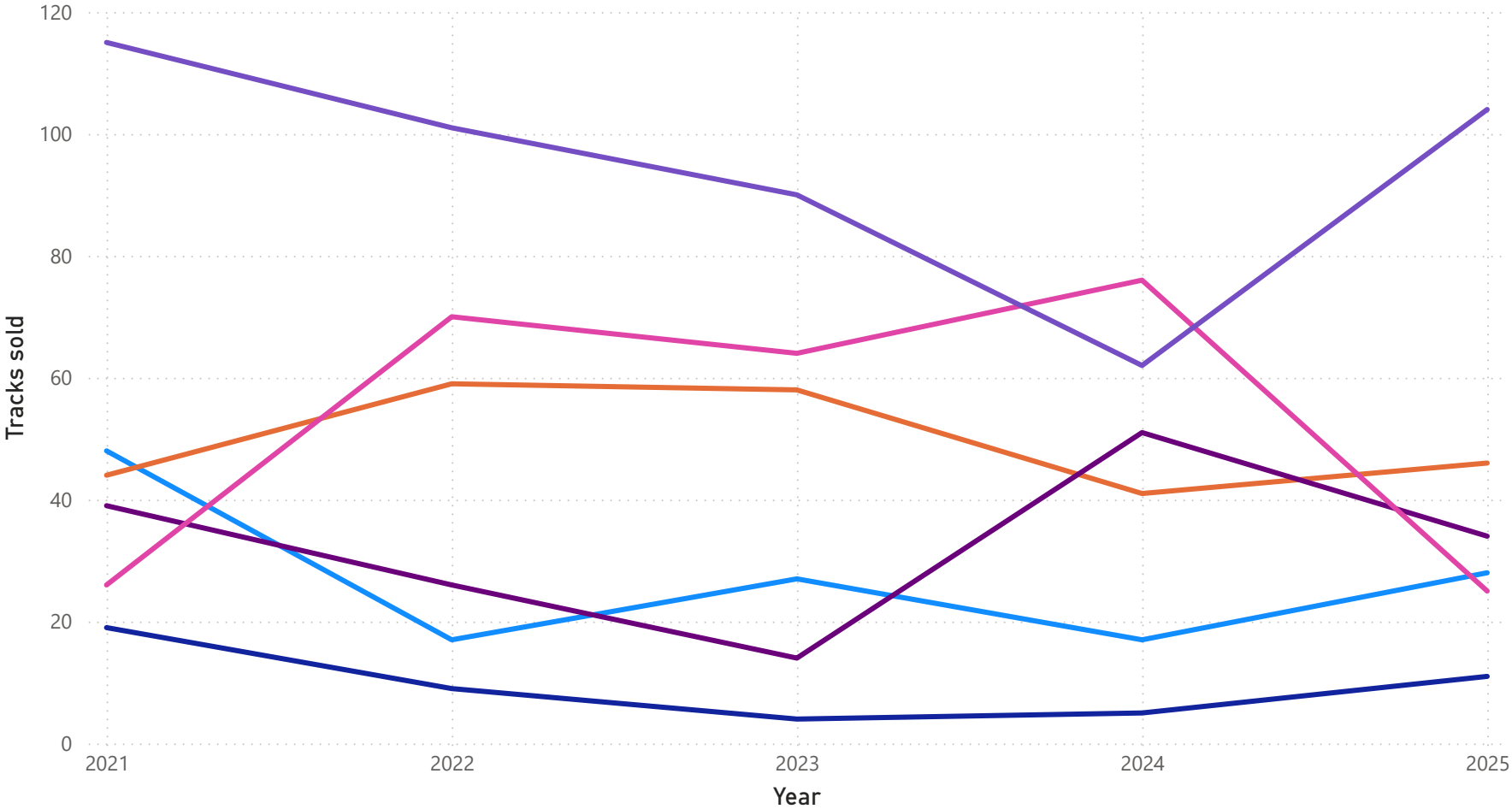
- Brazil
- Canada
- France
- Germany
- USA

Revenue by Year

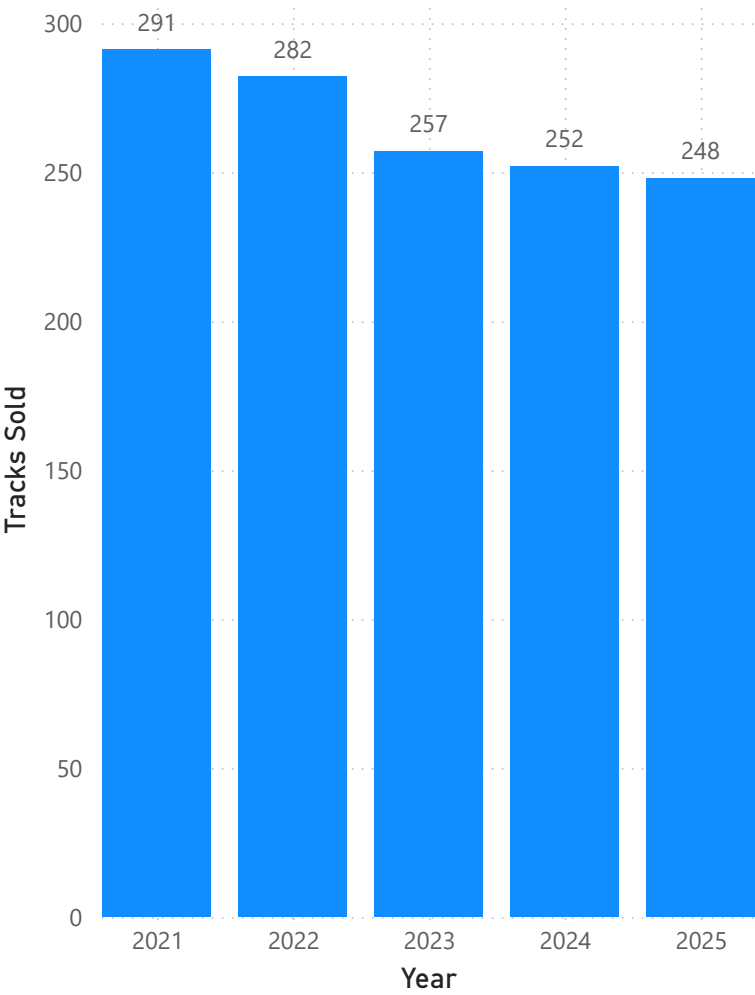


Genre Demand Over Time

Genre_Grouped Alternative & Punk Jazz Latin Metal Others Rock



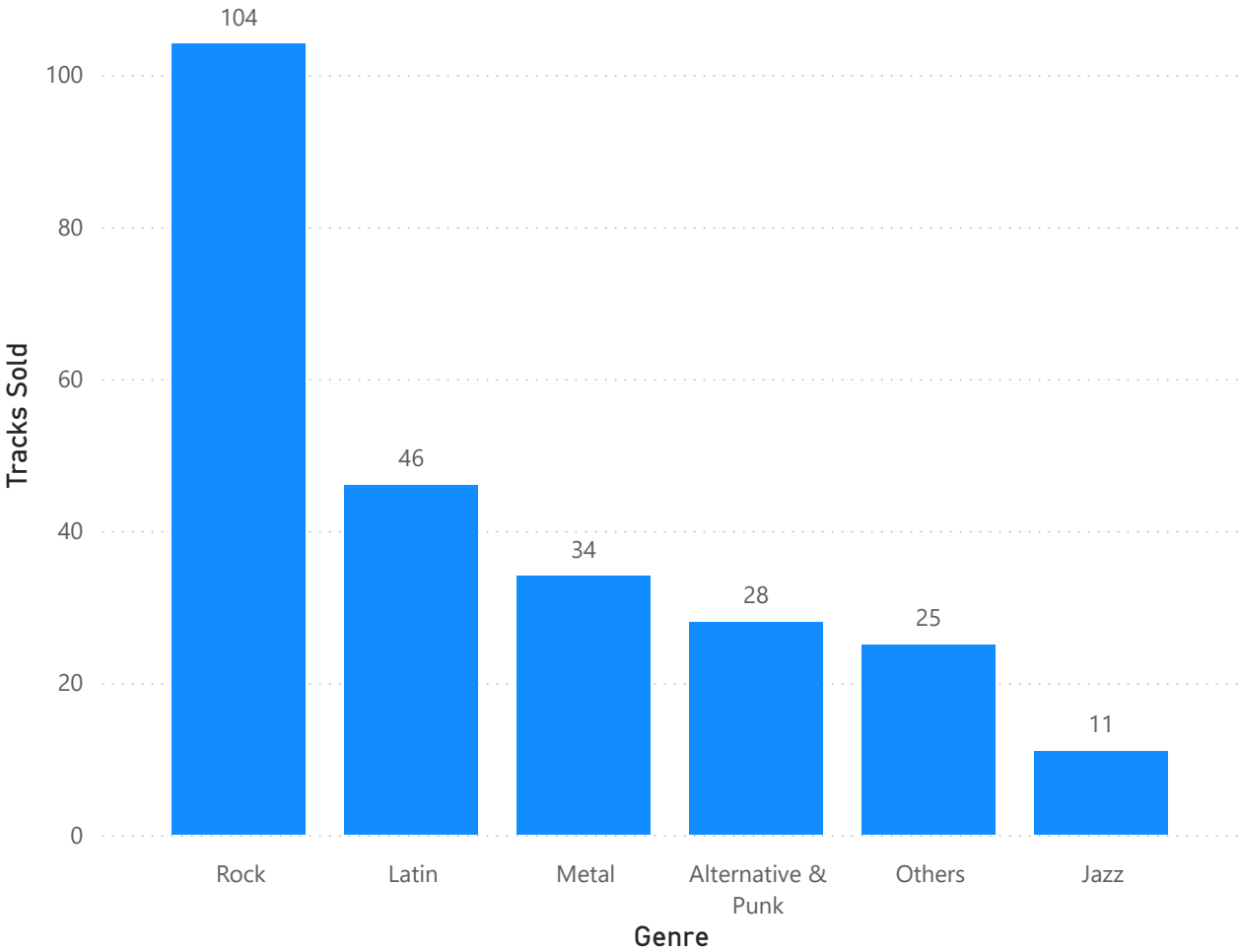
Tracks sold by year



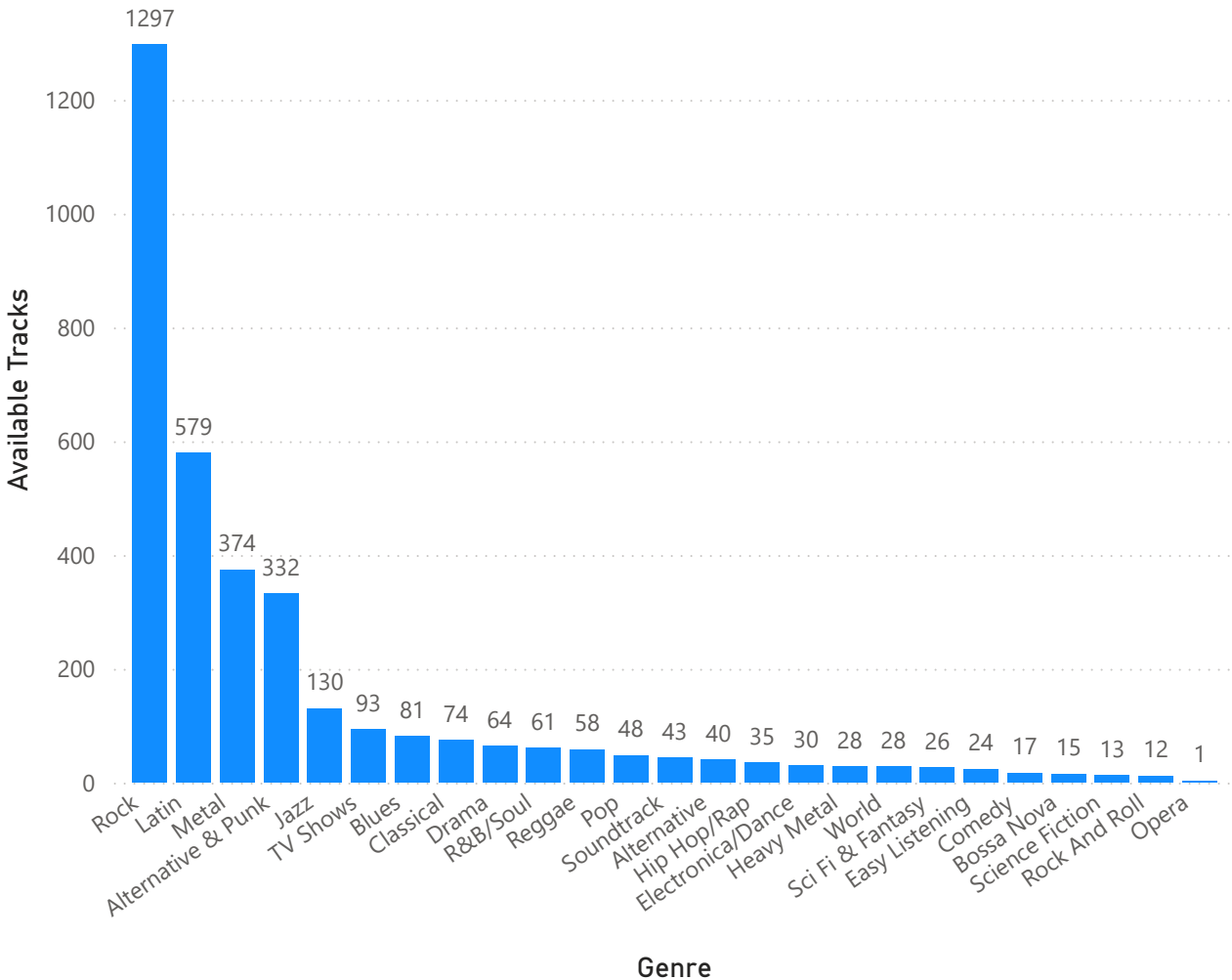
- country
- ☐ Brazil
 - ☐ Canada
 - ☐ France
 - ☐ Germany
 - ☐ USA

Music is our dominant category.
Current best-sellers are Rock, Latin, and Metal.
Customer preferences are shifting, highlighted by a significant drop in Metal popularity in Germany and France during 2025.
Furthermore, we're losing significant ground in Germany.

Top-Selling Genres in 2025



Available Tracks by Genre



- country
- ☐ Brazil
 - ☐ Canada
 - ☐ France
 - ☐ Germany
 - ☐ USA

Track variety directly impacts sales.
Countries experiencing declining revenue typically have limited variety in their most preferred genres.
This raises critical questions:
1) Is the revenue drop due to lack of content, or declining interest?
2) Specifically for movies, is there genuinely no demand, or are we just not offering enough variety?

Why Revenue is Declining and How We'll Fix It

Root Cause of Decline

Lack of content variety is directly reducing customer spending.

Customers **haven't lost interest**—they're simply **not finding** enough of what they love.

Critical genres (Rock, Latin, Metal) are underserved, significantly affecting top markets (**Germany & USA**).

Recommendations for next steps:

Immediate Action

Accelerate content expansion in key genres (Rock, Latin, Metal) to capture unmet demand in core markets.

Rebuild market presence in Germany through **focused advertising** campaigns, **genre-based promotions**, and **tailored offers** to win back valuable customers.

Short-Term Validation

Run an **A/B test** between two similar customer groups:

- Group A gets increased variety immediately.
- Group B remains unchanged (control group).

Measure the impact on revenue and customer retention.

Strategic Long-Term Stability

Operation side

Introduce quarterly **genre-demand reviews** to proactively adjust content offerings.

Implement a **personalization strategy** to align recommendations precisely with individual user interests, driving higher engagement.

Technical side

Enhance data tracking by adding a 'Date Added' field to the Track table, enabling **time-based performance analysis**.