🧪 Lab 1: Practice Transformation Methods

🔧 Lab Type:

Hands-on lab (real cloud environment, not a simulation)

⏱️ Duration:

1 hour 30 minutes

💰 Credits Required:

5 Qwiklabs credits

🎯 Level:

Beginner

🧠 AI Assistance:

This lab may include AI tools to support your learning.

⚠️ Important Guidelines

- 💻 **Use a desktop/laptop only** – mobile devices are not supported.
- 🔁 **Maximum 5 attempts** per lab.
- ❌ **No pause allowed** – once started, the timer runs continuously.
- ✅ **Mistakes are part of learning** – it's normal to retry tasks or questions.
- 📘 **Review the Lab Technical Tips** for troubleshooting and best practices.

📋 Activity Overview

As a **cloud data analyst**, you'll apply **data transformation techniques** to prepare data for **storage and analysis**.

🔍 Why Transform Data?

- Understand data distribution and quality.
- Prepare data for exploratory analysis.

🛠️ Techniques You'll Practice:

1. **Limiting** – restricts the number of rows returned in a query to improve readability and performance.
2. **Sampling** – selects a representative subset of data to analyze characteristics.
3. **Aggregation** – summarizes data into manageable formats (e.g., totals, averages).

👷 Scenario:

You work for **TheLook eCommerce** and are collaborating with teams from merchandising, logistics, and marketing.
Meredith, the head merchandiser, suspects the **product return numbers** in your report may be incorrect.

Your task:
Explore the `thelook_ecommerce` dataset using **SQL in BigQuery** to identify potential data quality issues like **duplicates**.

🧭 Steps You'll Follow:

1. Explore the `products` table.
2. Retrieve total rows and count of distinct product names.
3. Determine item counts per category.
4. Filter out categories with few items.
5. Sample the `products` table.
6. Explore the `order_items` table.

🛠️ Lab Setup Instructions

✅ Before You Start:

- Use **Chrome browser** in **Incognito mode** to avoid account conflicts.
- Do **not** use your personal Google Cloud account – this may incur charges.

🚀 Starting the Lab:

1. Click **Start Lab**.
2. Use the **temporary credentials** provided in the Lab Details panel.
3. Click **Open Google Cloud Console** (preferably in Incognito).
4. Sign in using the provided **username and password**.
5. Accept terms, skip recovery options, and avoid signing up for free trials.

🧭 Navigation Tip:

Use the **Navigation menu** (top-left corner) in the Google Cloud Console to access products and services.