Project Overview

This SQL Visualization Project utilized the AdventureWorks dataset to analyze sales data and provide actionable insights. By leveraging SQL queries and visual storytelling with SandDance, the project explored sales trends, product category performance, and regional sales variations. Visualizations were designed to help businesses optimize inventory, marketing strategies, and regional targeting based on the data insights.

Key Components

1. **Monthly Sales Order Trends**

   o Query Purpose: To analyze the total number of sales orders per month, highlighting fluctuations in demand and seasonal patterns.

   o Visualization: Vertical bar chart showing monthly sales order counts, colored by order count.

2. **Category-Wise Monthly Sales**

   o Query Purpose: To examine the quantity of sales for each product category over the course of the year, identifying customer preferences and top-performing categories.

   o Visualization: Horizontal bar chart displaying monthly sales quantities by category, colored by category.

3. **Year-to-Date (YTD) Sales by Country**

   o Query Purpose: To aggregate total YTD sales for each country, providing insights into regional sales performance.

   o Visualization: Treemap showing YTD sales figures for countries, colored by country.

4. **Regional Sales by Category**

   o Query Purpose: To connect sales quantities by category to corresponding countries, uncovering region-specific demand for product types.

   o Visualization: Horizontal bar chart linking product categories with their corresponding countries, colored by category.

Project Impact
This project demonstrated how SQL and data visualization can be applied to real-world datasets to derive meaningful insights. By combining storytelling with technical analysis, the project delivered clear visualizations that assist in strategic planning and decision-making across inventory management, marketing optimization, and market development.