

Project Title: Sales and Customer Analysis for Adventure Works

Project Duration: 1 Week

Project Overview:

In this one-week project, you will explore and analyze the Adventure Works dataset using Microsoft Power BI. The objective is to gain insights into sales performance and customer behavior to help the Adventure Works company make data-driven decisions. The project will be divided into the following phases:

Day 1: Data Exploration and Preparation

- Task: Import the Adventure Works dataset into Power BI.

Subtasks:

- Examine the dataset's structure and relationships between tables.
- Clean and preprocess the data if necessary (e.g., handle missing values).
- Create a data model with appropriate relationships.

Day 2: Sales Performance Analysis

- Task: Create visualizations to analyze sales performance.

Subtasks:

- Create a line chart to visualize monthly sales over time.
- Generate a bar chart to show sales by product category.
- Calculate and display key performance metrics (e.g., total revenue, average order value).

Day 3: Customer Segmentation

- Task: Segment customers based on their behavior.

Subtasks:

- Create customer segments (e.g., loyal customers, one-time buyers).
- Analyze the purchasing patterns of different customer segments.
- Visualize customer demographics and preferences.

Day 4: Product Analysis

- Task: Analyze product performance.

Subtasks:

- Identify the top-selling products and product categories.
- Create visualizations to show product sales trends.
- Explore product-related insights (e.g., best-sellers by region).

Day 5: Customer Churn Prediction

- Task: Build a model to predict customer churn.

Subtasks:

- Identify factors that may lead to customer churn.
- Visualize the results and discuss strategies for retaining customers.

Day 6: Dashboard Design

- Task: Design an interactive dashboard for stakeholders.

Subtasks:

- Combine the visualizations and insights from previous days into a cohesive dashboard.
- Add slicers and filters for interactivity.
- Create a visually appealing and user-friendly layout.

Day 7: Presentation and Documentation

- Task: Prepare documentation for stakeholders.

Subtasks:

- Write a report documenting the data analysis process, visualizations, and recommendations.
- Practice presenting the project to peers or instructors.

Project Deliverables:

- Power BI file with the complete data analysis and interactive dashboard.
- Project documentation (PDF or Word) detailing the data analysis process.

Assessment Criteria:

You will be evaluated based on the completeness of their Power BI project, the quality of visualizations, the depth of analysis, and the clarity of your documentation.