

BikeShare Insights: Data Analysis of Washington D.C. Bike Sharing System

Project Description

This project aims to analyze the data from the Bike Sharing system in Washington D.C., specifically focusing on the hourly usage patterns and weather conditions. The analysis will provide insights into usage trends, peak hours, seasonality effects, and the influence of weather conditions on bike rentals.

Business Problem

With an increasing emphasis on sustainable transportation, bike sharing systems have become common in many cities. Understanding the usage patterns of these systems can help in better management, improve user satisfaction, and optimize resource allocation.

The goal of this project is to address the following business questions:

What are the peak hours and off-peak hours for bike rentals?

How do weather conditions affect bike rentals?

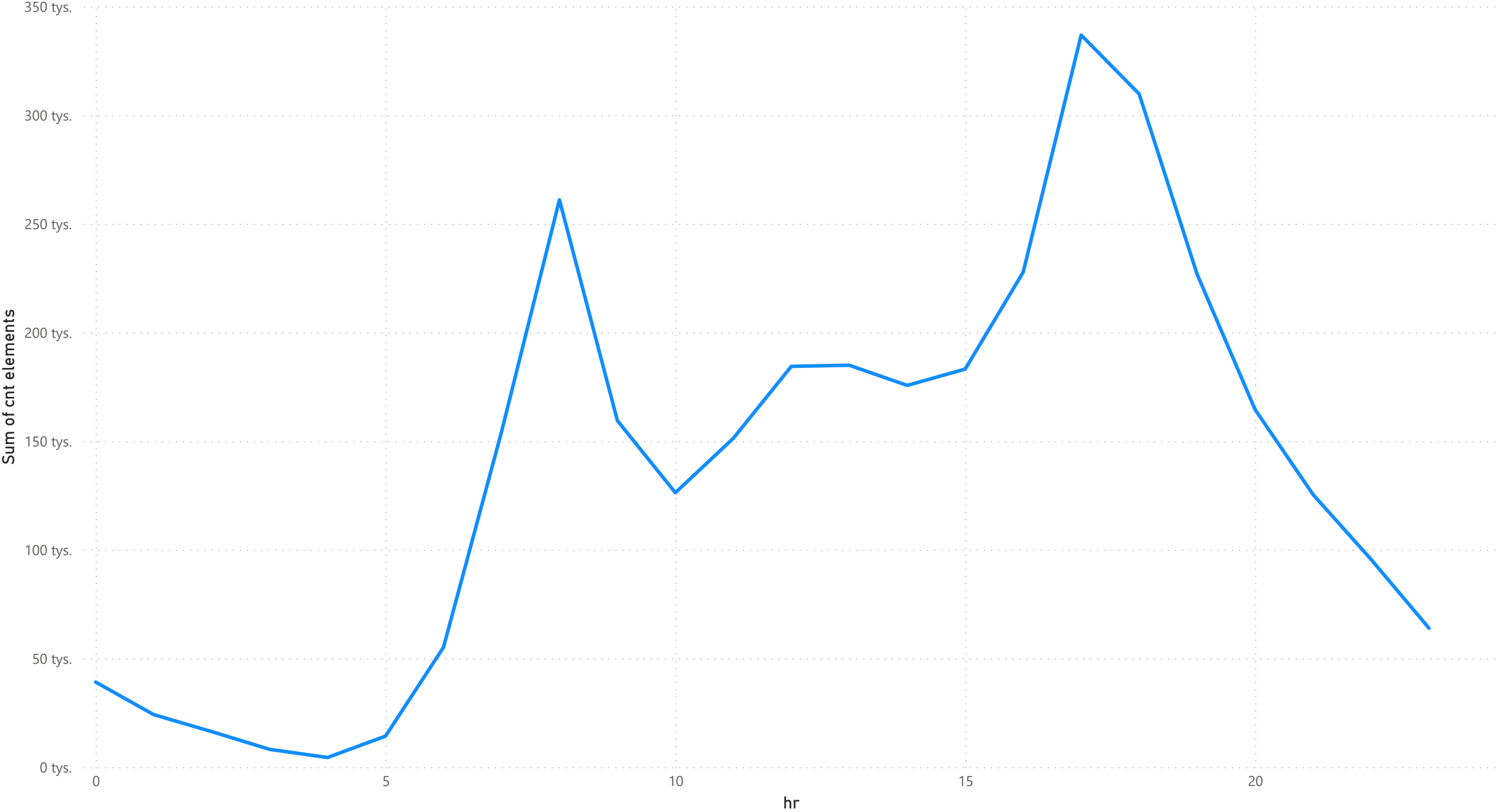
Are there any noticeable differences in the patterns of bike rentals between weekdays and weekends or between different seasons?

This PowerBI report titled "BikeShare Data Insights" presents three key visualizations that provide valuable insights into the bike rental data. The report includes the following visualizations:

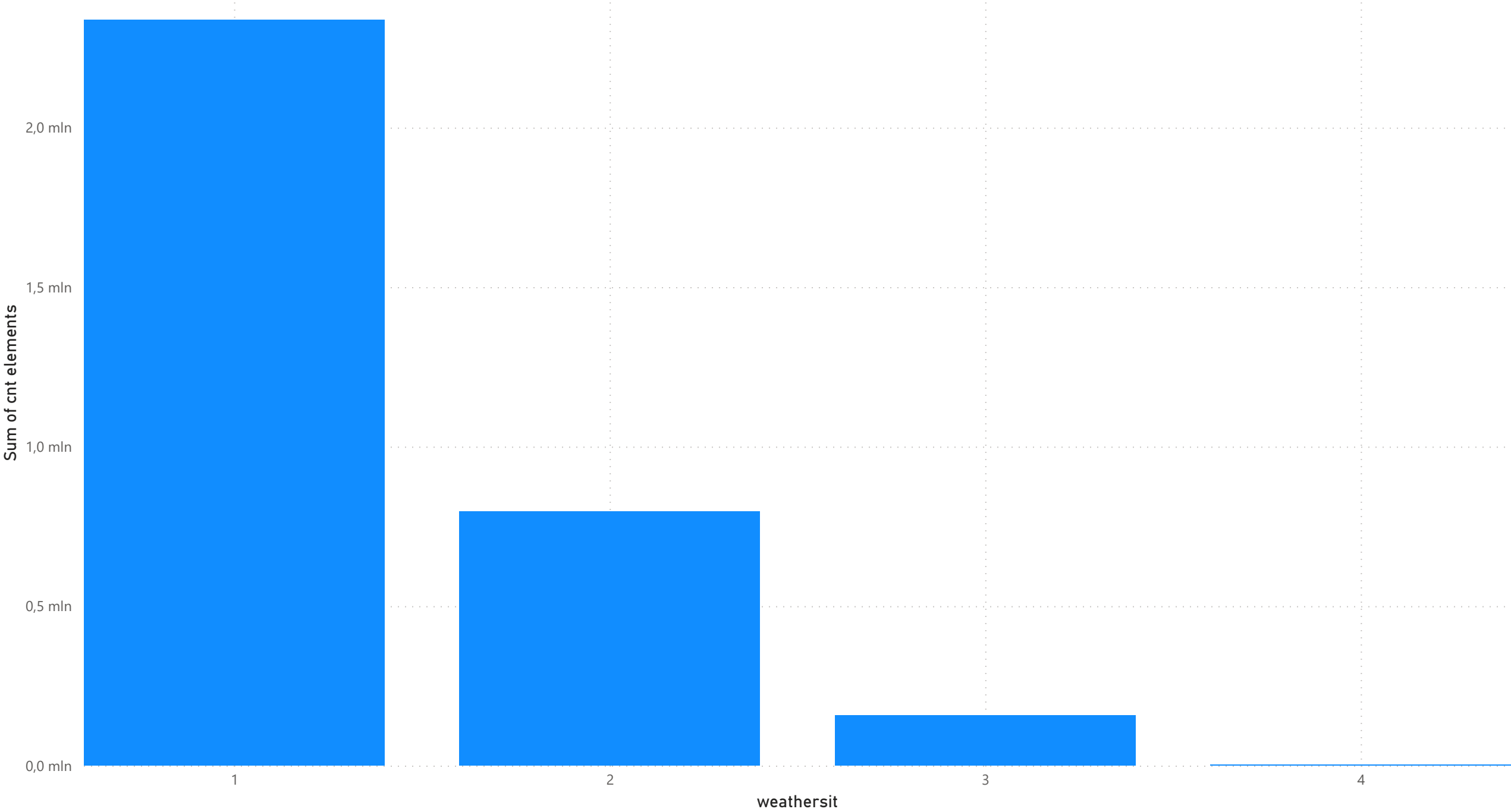
1. **Hourly Rentals:** This visualization showcases the trend of bike rentals throughout the day, allowing us to identify peak and off-peak hours of demand.
2. **Weather Conditions Impact:** This visualization illustrates how different weather conditions impact bike rentals, providing insights into the relationship between weather and rental patterns.
3. **Seasonal Distribution:** This visualization presents the distribution of bike rentals across different seasons, enabling us to understand the seasonal trends and variations in rental patterns.

These visualizations, combined with the accompanying analysis, help us gain a comprehensive understanding of the bike rental trends and the factors influencing the demand. The report serves as a valuable resource for stakeholders and decision-makers to make informed decisions based on the data-driven insights derived from the analysis.

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Sum of cnt elements wg weathersit



Sum of cnt elements wg season

