

Car Prices Project Documentation

Project Overview

The Car Prices Project aims to analyze vehicle sales data to uncover trends and insights about consumer behavior, vehicle preferences, and market performance. This documentation details the project's methodology, insights, and deliverables.

Objectives

- Identify the top-performing car models and manufacturers.
 - Analyze sales patterns across states, days, months, and shifts.
 - Understand consumer preferences for vehicle types and colors.
 - Provide actionable recommendations for stakeholders.
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Data Source

The dataset includes sales data for various car models across multiple dimensions, including geography, transmission type, body style, color, and sales timing. The data was visualized using Excel dashboards.

Methodology

1. **Data Cleaning:** Ensured consistency in data formatting and removed duplicates or errors.
 2. **Exploratory Data Analysis (EDA):** Identified trends, outliers, and patterns using Excel charts and pivot tables.
 3. **Visualization:** Created dashboards to represent key metrics and insights.
 4. **Analysis:** Interpreted the visualizations to draw conclusions and form recommendations.
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Key Insights

Top 10 Best-Selling Cars

- Ford leads with models like F-150, Escape, and Fusion.
- Other significant contributors include Nissan Altima and Toyota Camry.

Sales by State

- **California:** Highest sales (\$1.15 billion).
- **Texas** and **New Jersey:** Notable performance.

Transmission Preferences

- Automatic transmissions dominate with 84.72% of total sales.

Body Types and Colors

- Sedans and SUVs are the most preferred body types.
- Black and white are the top color choices.

Sales Timing

- Most sales occur in the **Afternoon**.
- **Friday** is the best day, and **March** is the top month for sales.

Recommendations

1. **Focus on Best-Selling Models:** Increase production and promotion of popular models.
2. **Target High-Performing States:** Allocate resources to top-selling states like California and Texas.
3. **Emphasize Automatic Vehicles:** Meet the demand for automatic transmissions.
4. **Optimize Sales Timing:** Enhance marketing campaigns for peak times and days.
5. **Highlight Popular Colors:** Offer promotions for black and white vehicles.

Deliverables

1. **Excel Dashboard:** Visual representations of sales data.
2. **PowerPoint Presentation:** Summary of findings and recommendations.
3. **Documentation:** Detailed report of the project's methodology and insights.

Conclusion

The analysis provides comprehensive insights into car sales trends, aiding manufacturers and dealers in strategic decision-making. By leveraging these findings, stakeholders can align their offerings with market demand and improve overall performance.