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**Role: Data Analyst**

**Introduction** This report provides an overview of the analysis conducted on an automobile dataset. The analysis was performed using Python libraries such as Pandas, NumPy, Matplotlib, and Seaborn. Various data visualization techniques were applied to understand the dataset better and extract meaningful insights.

**Data Overview** The dataset consists of 398 entries and 9 columns, including:

* Name
* MPG (Miles per Gallon)
* Cylinders
* Displacement
* Horsepower
* Weight
* Acceleration
* Model Year
* Origin

**Data Preprocessing**

* Missing values were handled by filling them with the median value.
* Seaborn styles were used to improve the visualization quality.

**Exploratory Data Analysis (EDA)**

1. **Histogram Analysis**: A histogram was plotted to analyze the distribution of numerical features.
2. **Boxplot Analysis**: Boxplots were used to detect outliers in the dataset.
3. **Correlation Heatmap**: A heatmap was created to examine correlations among different features.
4. **Scatter Plots**: Relationships between MPG and weight, horsepower, and cylinders were analyzed using scatter plots.

**Findings**

* MPG has an inverse relationship with weight and horsepower.
* The number of cylinders significantly impacts MPG.
* The dataset contains some outliers which may need further investigation.

**Conclusion** The analysis provided a clear understanding of the dataset's characteristics and relationships among different variables. Further work could involve predictive modeling to estimate automobile efficiency based on the available data.

This report summarizes the findings from the provided dataset and the Python-based analysis conducted on it. Let me know if you need additional details or modifications.