Automobile Risk & Pricing Analytics
Excel Project Documentation

1. Introduction

This document provides comprehensive documentation for the Automobile Risk & Pricing Analytics project. The project uses a structured automobile dataset supported by a data dictionary to analyze how vehicle attributes influence pricing and insurance risk ratings.

2. Purpose of the Project

The purpose of this project is to understand automobile data using a structured data dictionary, analyze the relationship between vehicle features and pricing, examine insurance risk ratings, and demonstrate disciplined Excel-based analytics practices.

3. Dataset Overview

The dataset contains automobile-level information including vehicle identifiers, insurance risk ratings, physical characteristics, engine specifications, fuel type, and pricing data.

4. Importance of the Data Dictionary

The data dictionary ensures accurate interpretation of variables, correct classification of data types, and prevents analytical misinterpretation.

5. Data Preparation

Data preparation involved reviewing variable definitions, identifying missing values, validating ranges, and preparing the dataset for exploratory analysis in Excel.

6. Analytical Approach

The analysis included descriptive, relationship, and comparative analysis using Excel tools such as sorting, filtering, and pivot tables.

7. Key Analytical Questions

The project addresses questions related to key pricing drivers, insurance risk variation, and vehicle configuration impact on cost and risk.

8. Tools and Techniques Used

Microsoft Excel, data dictionary documentation, pivot tables, and descriptive analytics techniques were used.

9. Business Value

Insights from this project support pricing strategy optimization, insurance risk assessment, and data-driven decision-making in the automotive domain.

10. Limitations

The analysis is descriptive in nature, based on a static dataset, and does not include predictive modeling.

11. Future Enhancements

Future enhancements may include dashboard creation, predictive analysis, and automation of data preparation.

12. Conclusion

This project demonstrates how structured data understanding and Excel-based analysis can generate meaningful business insights.

13. Disclaimer

This project is created for educational and portfolio purposes only. The dataset used is publicly available and anonymized.