Internship Project Report

Used Car Price Prediction and Analysis

Internship Program – Data Analyst Intern

Project Duration: 22 September 2025 – 22 October 2025

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1 Project Overview

The objective of this project is to analyze a comprehensive dataset of used cars listed in India and derive meaningful insights through Exploratory Data Analysis (EDA) and interactive dashboard creation. Interns will also explore predictive modeling opportunities, particularly in forecasting used car sale prices.

2 Dataset Description

The dataset contains **7,400 used car listings** with **29 attributes**, covering numerical, categorical, and boolean features.

Key Columns

- **car_name:** Name of the car (e.g., Maruti Swift, Hyundai i10).
- **yr_mfr:** Year of manufacture.
- **fuel_type:** Petrol, Diesel, CNG, Electric, etc.
- **kms_run:** Kilometers driven.
- **sale_price:** Final listed selling price (target variable).
- **city:** City where the car is listed.
- **body_type:** Hatchback, Sedan, SUV, etc.
- **transmission:** Manual / Automatic.
- **total_owners:** Number of previous owners.
- **car_rating:** Condition rating (Excellent, Good, Fair, etc.).
- **warranty_avail:** Warranty availability (True/False).

3 Project Tasks

Interns are expected to complete the following tasks:

- Perform **Exploratory Data Analysis (EDA)** to identify key factors influencing used car prices.
- Apply regression and classification techniques to demonstrate predictive modeling (optional but encouraged).

- Design and develop an **Interactive Dashboard** to visualize:
  - Market trends across cities.
  - Effect of fuel type, car make, and kilometers run on pricing.
  - Buyer preferences and demand patterns.
- Provide clear insights and interpretations from the data.

4 Submission Guidelines

To ensure uniformity, interns must follow the below submission instructions:

- Maintain all work in a **GitHub repository**.
- Upload EDA scripts, notebooks, and supporting files to GitHub.
- Create an **Interactive Dashboard** (e.g., using Power BI, Tableau, Streamlit, or Dash).
- Record a short **demo video** explaining the dashboard.
- Upload the video to **Google Drive** and include the link in the GitHub README file.
- Ensure the repository is well-documented with:
  - README file containing project overview, dataset details, and instructions.
  - Screenshots or GIFs of the dashboard.
  - Link to the dashboard demo video.

5 Project Timeline

- **Project Start Date:** 22 September 2025
- **Submission Deadline:** 22 October 2025

6 Evaluation Criteria

The project will be evaluated on the following parameters:

- **Data Exploration:** Quality and depth of EDA.
- **Dashboard Design:** Interactivity, clarity, and usability of insights.
- **Insights:** Relevance and accuracy of conclusions drawn from the data.
- **Documentation:** Clear, structured GitHub repository and README.
- **Presentation:** Quality of dashboard demo video.

7 Certification

Interns who successfully submit the project before the deadline and meet the required criteria will be awarded a **Certificate of Completion**. Projects failing to follow the submission guidelines or missing the deadline will not be considered for certification.

This report outlines the official project requirements and submission instructions for Data Analyst interns.