

DATA ANALYTICS PROJECTS REPORT

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Duration: 45 Days

Introduction

This report summarizes the data analytics projects completed during my internship at Elevate Labs. The internship provided hands-on experience in applying data analysis, visualization, and predictive modeling techniques to real-world business problems in the domains of telecom and e-commerce.

Abstract

Two analytical projects were completed as part of this internship. The first, **Customer Churn Analysis for Telecom Industry**, focused on predicting customer attrition using machine learning and helping telecom companies retain clients. The second, **E-Commerce Return Rate Reduction Analysis**, analyzed product return data to identify causes of high return rates and proposed strategies to reduce losses. Both projects demonstrate the practical application of analytics for improving business performance.

Tools Used

- Python (Pandas, Scikit-learn, Matplotlib)
- SQL for data querying and aggregation
- Power BI for interactive dashboards
- Excel for data validation and reporting
- Streamlit for model deployment

Steps Involved in Building the Projects

1. Data Collection – Imported datasets from telecom and e-commerce sources.
2. Data Cleaning – Handled missing values, standardized formats, and removed duplicates.
3. Exploratory Data Analysis – Identified key patterns and influential variables.
4. Model Development – Built predictive models using Logistic Regression for churn and SQL analytics for return rate analysis.
5. Dashboard Visualization – Developed interactive dashboards using Power BI and Streamlit.
6. Insight Generation – Interpreted model outcomes and formulated actionable recommendations.

Conclusion

The internship enhanced my analytical, technical, and problem-solving abilities. Through these projects, I learned how to transform raw data into actionable business insights. Customer churn prediction and return rate reduction analyses highlight the role of data-driven decision making in improving customer satisfaction and business efficiency.