

Data Analysis Project Assignment

Project Description

You will analyze our e-commerce platform's customer behavior data. This **analysis** aims to identify key purchasing patterns and customer segments driving business growth. The project involves working with real transaction data from the past 12 months.

Technical Requirements

The analysis requires proficiency in Python, particularly with pandas and scikit-learn libraries. You will need to perform data cleaning, exploratory data analysis, and create meaningful visualizations of key insights. The project emphasizes efficient handling of large datasets while maintaining data integrity throughout the analysis process.

Expected Deliverables

Prepare a comprehensive analysis report covering customer segmentation, purchase frequency patterns, and revenue trends. Your submission must include both technical documentation of the analysis process and business-oriented presentations of your findings. Ensure all code is properly documented and version controlled.

Timeline

The project spans two weeks. Dedicate the first week to data cleaning and exploratory analysis. Focus the second week on in-depth analysis and preparation of final deliverables. Regular check-ins will be scheduled to monitor progress and provide guidance as needed.

Available Resources

You will have access to our internal data warehouse, documentation of previous analyses, and technical mentorship from the data science team. Support will be provided through weekly team meetings and code review sessions.