A/B Test Analysis

Statistical Testing for the NYC Taxi & Limousine Commission (TLC)

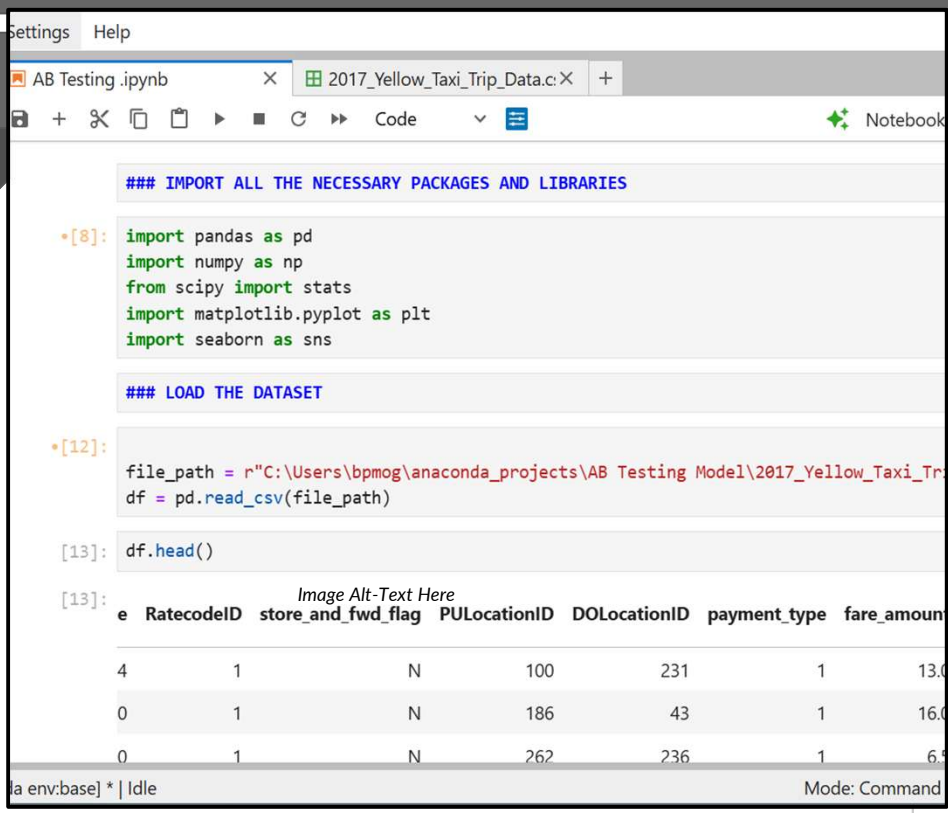
Project Overview

This project explores whether customers who pay with a credit card pay significantly higher taxi fares than those who pay with cash. An A/B test (two-sample t-test) was conducted using cleaned data from the 2017 NYC Yellow Taxi Trip dataset.

Key Insights

- A statistically significant difference was found in fare amounts between credit card and cash-paying customers
- .On average, credit card users paid $13.43, while cash users paid $12.22.
- The p-value from the t-test was < 0.0001, leading to the rejection of the null hypothesis.

Details



Next Steps

- Promote credit card payments through marketing or incentive programs.
- Investigate why credit card payments are associated with higher fares (e.g., distance, tipping behavior).
- Explore additional customer segments and payment types for deeper insights.