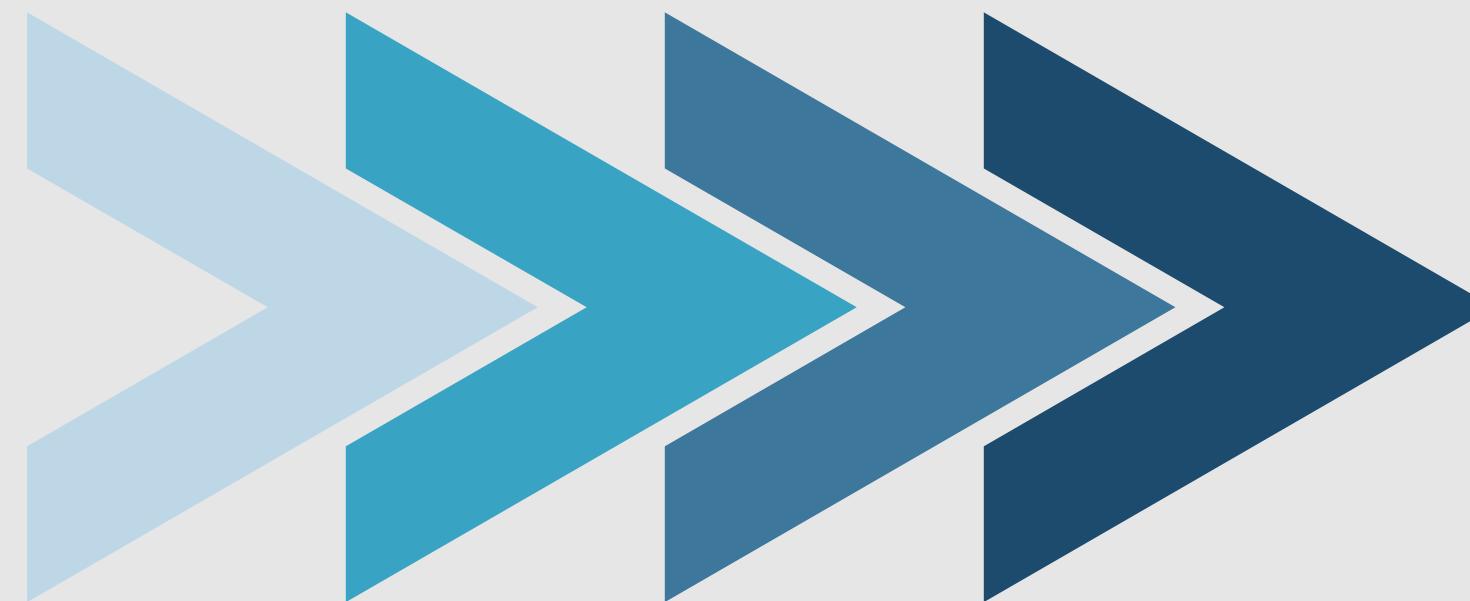


# Vanguard **DIGITAL TRANSFORMATION** Project

A|B Tests results 2007

# Agenda



- 1 Context of the project
- 2 Data Overview
- 3 EDA Results
- 4 KPI's Analysis
- 5 Tableau Visualizations
- 6 Challenges and Learnings
- 7 Conclusion



# Context of the Project

## User Centered Design

To provide the best service in  
the market

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Research and Analysis to ensure that the client  
will have the most fluid and easiest experience  
while using our online process.

# Data Overview

## Four Datasets include:

- Client demographics and usage of current platforms (website and phone)
- A/B test data from the UI team in two files
- Client identification with their respective A/B test group (Control or Test)



# Who is the Primary Client Using our Online Platform?

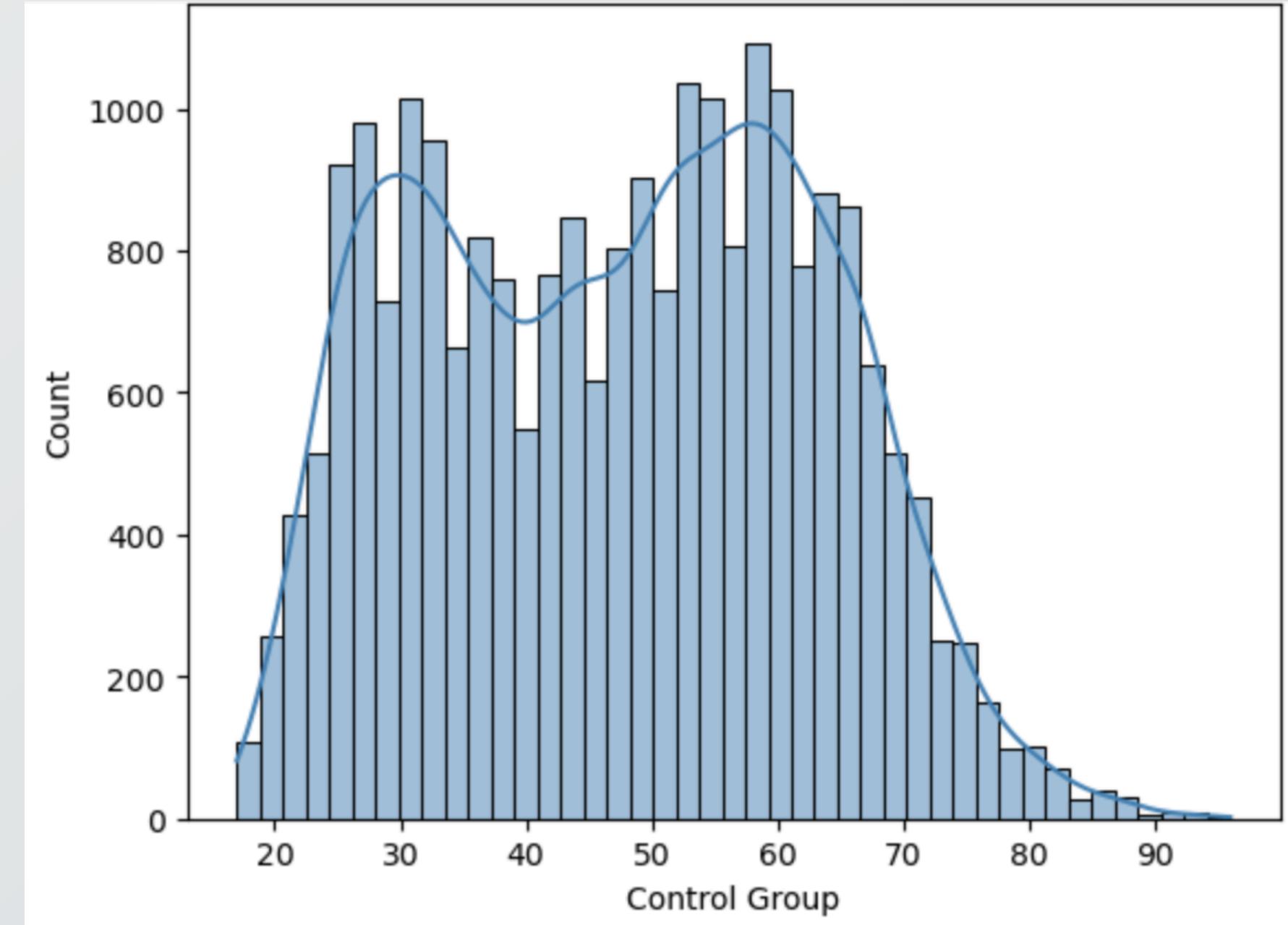
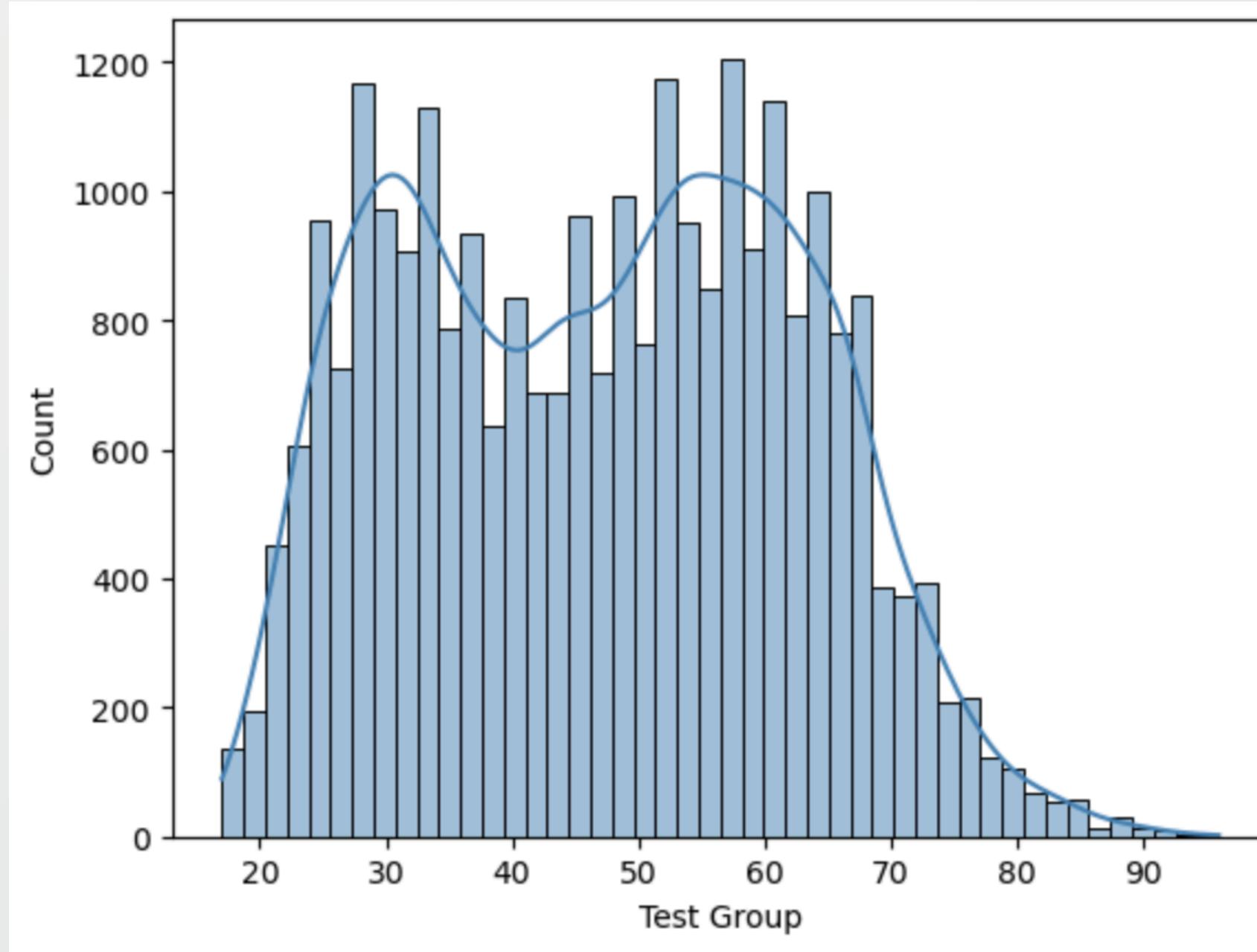


1. Cleaning and Filtering Data
2. EDA Analysis
3. Visualizations - SNS | PLT

# EDA Results

## Client Behavior Analysis

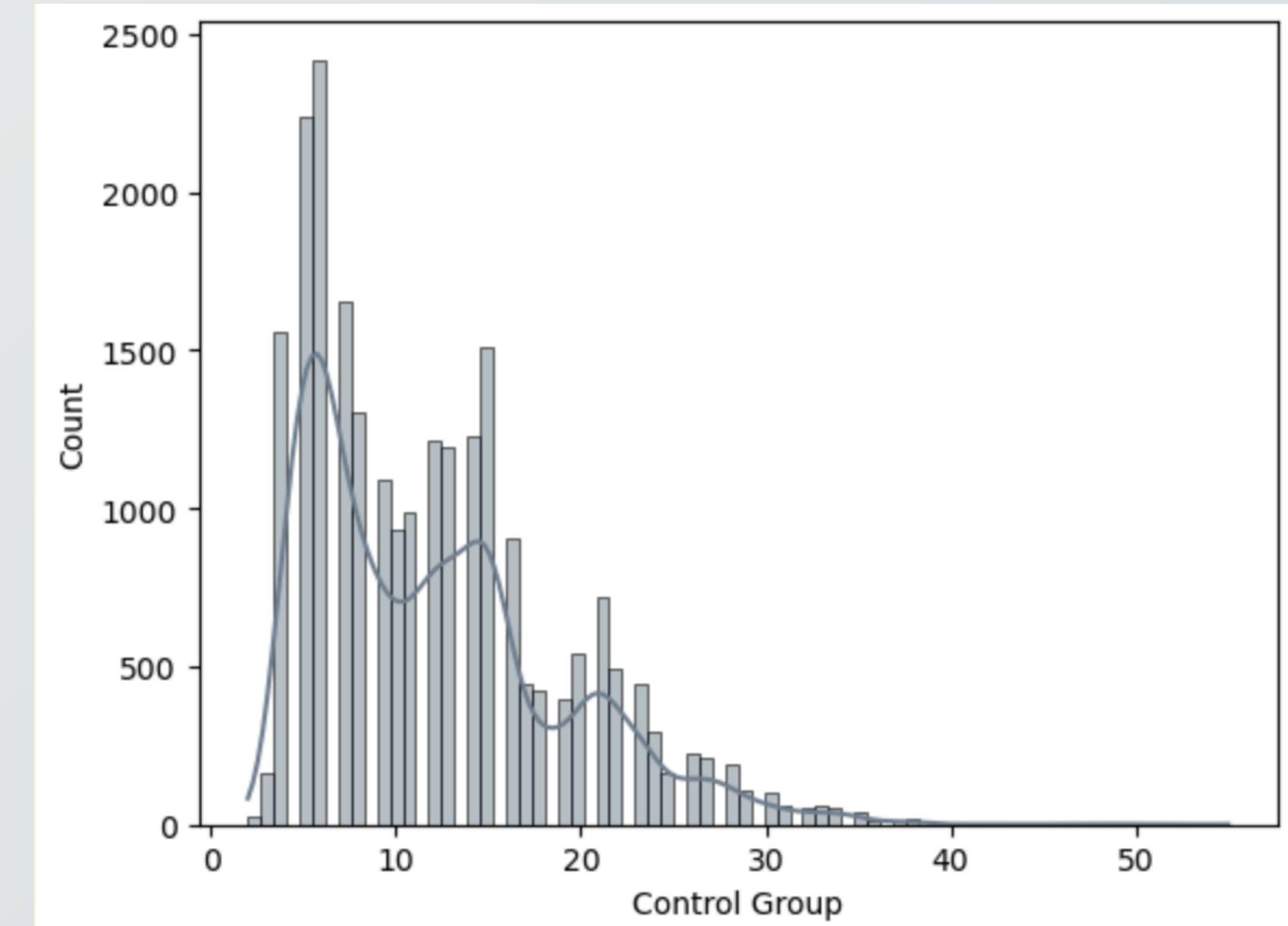
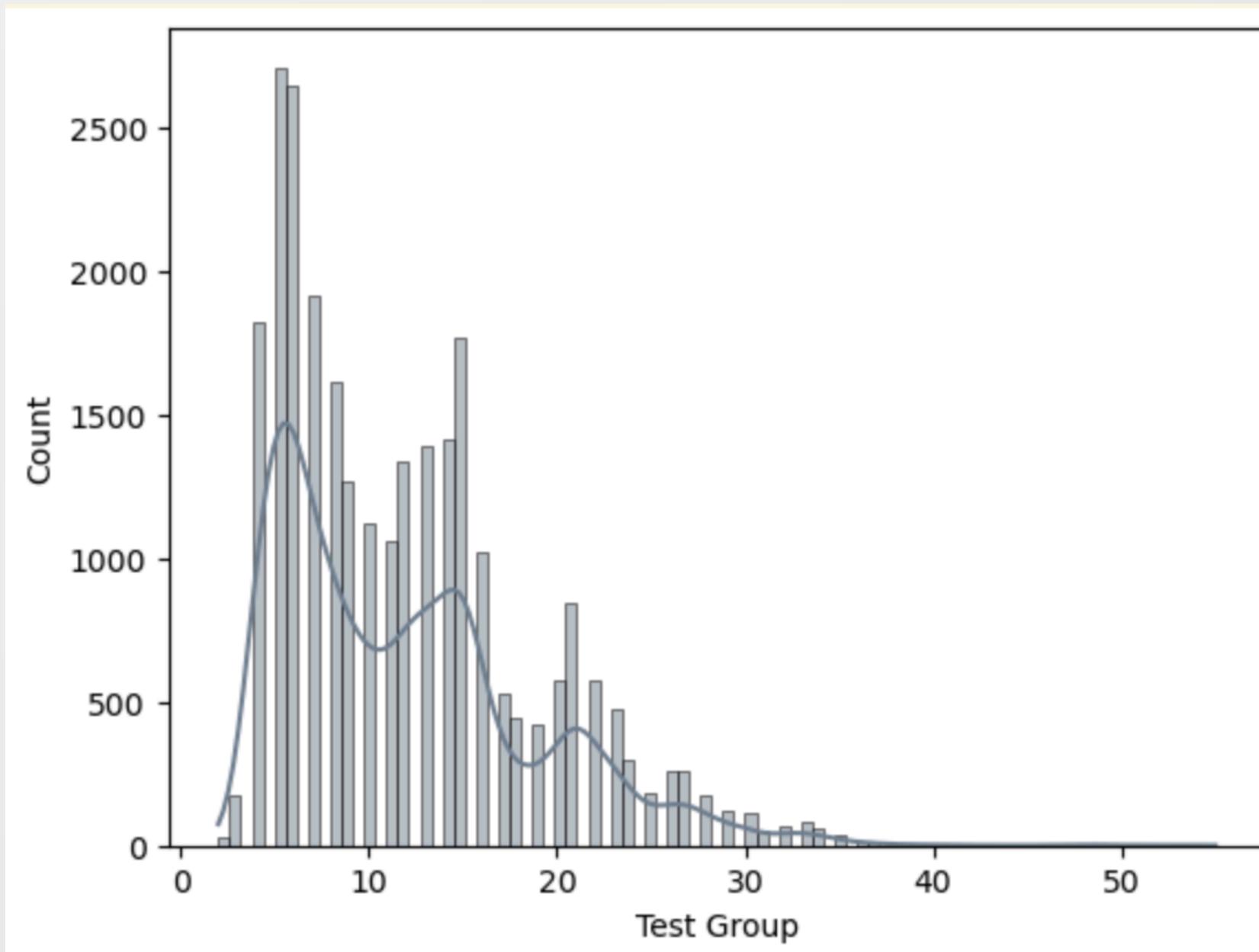
→ Client's Age Distribution



# EDA Results

## Client Behavior Analysis

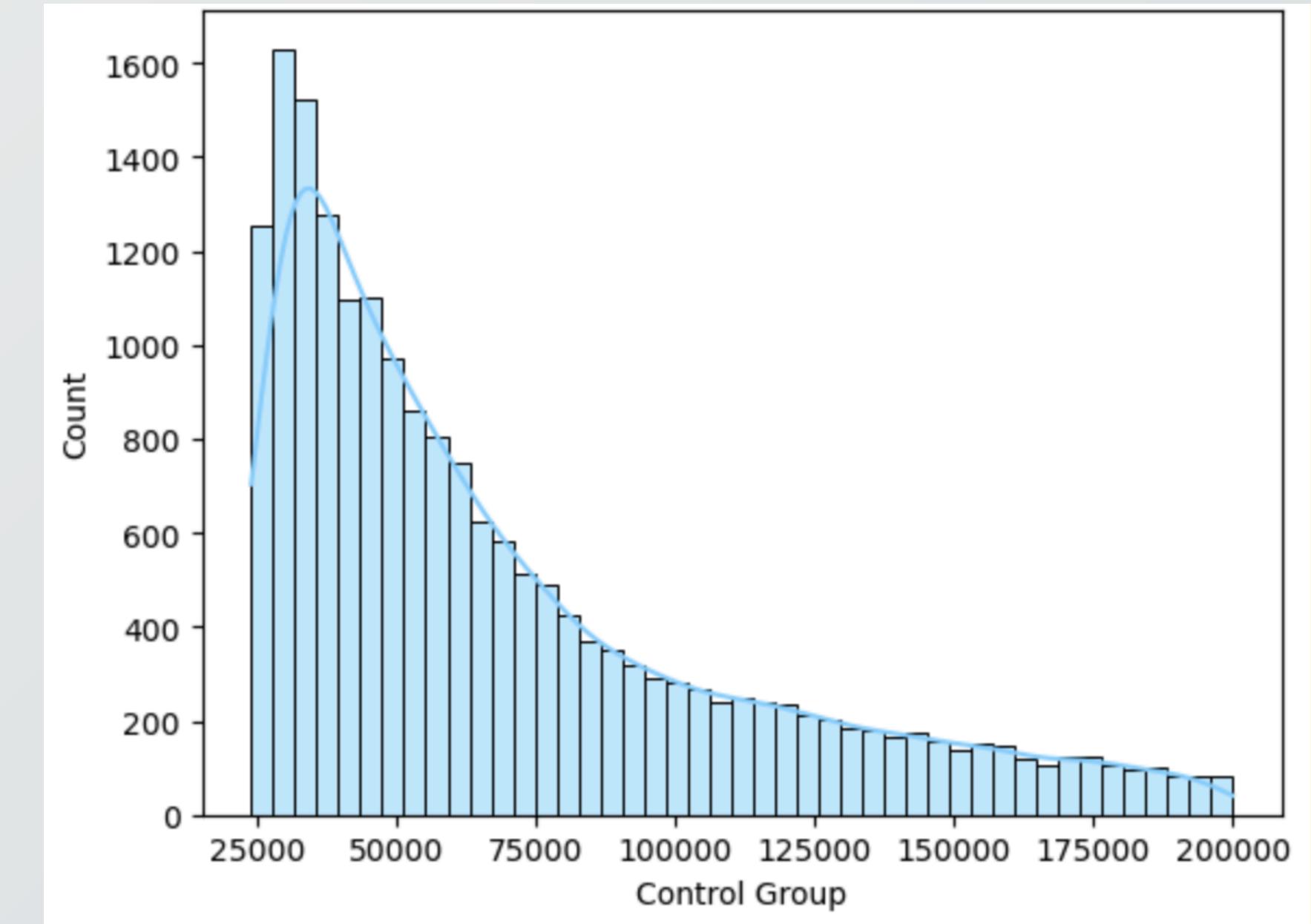
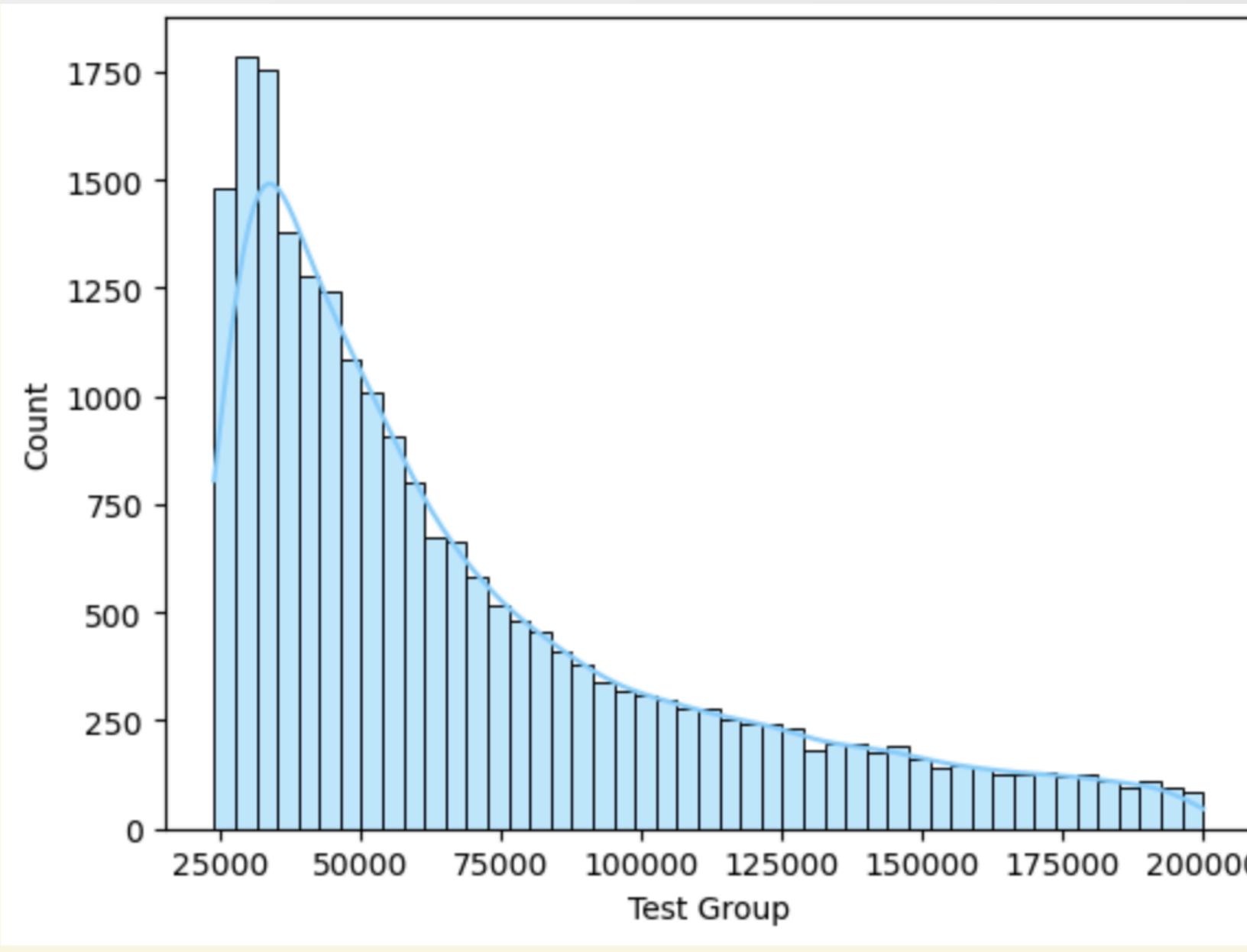
→ Client's Tenure Years Distribution



# EDA Results

## Client Behavior Analysis

→ Client's Balance Distribution



# KPI Definitions

## Completion Rate

How many clients managed to achieve the "confirm" step divided by the total of clients.



## Journey Duration

Total time needed by each client to achieve the last step of his visit during the test.



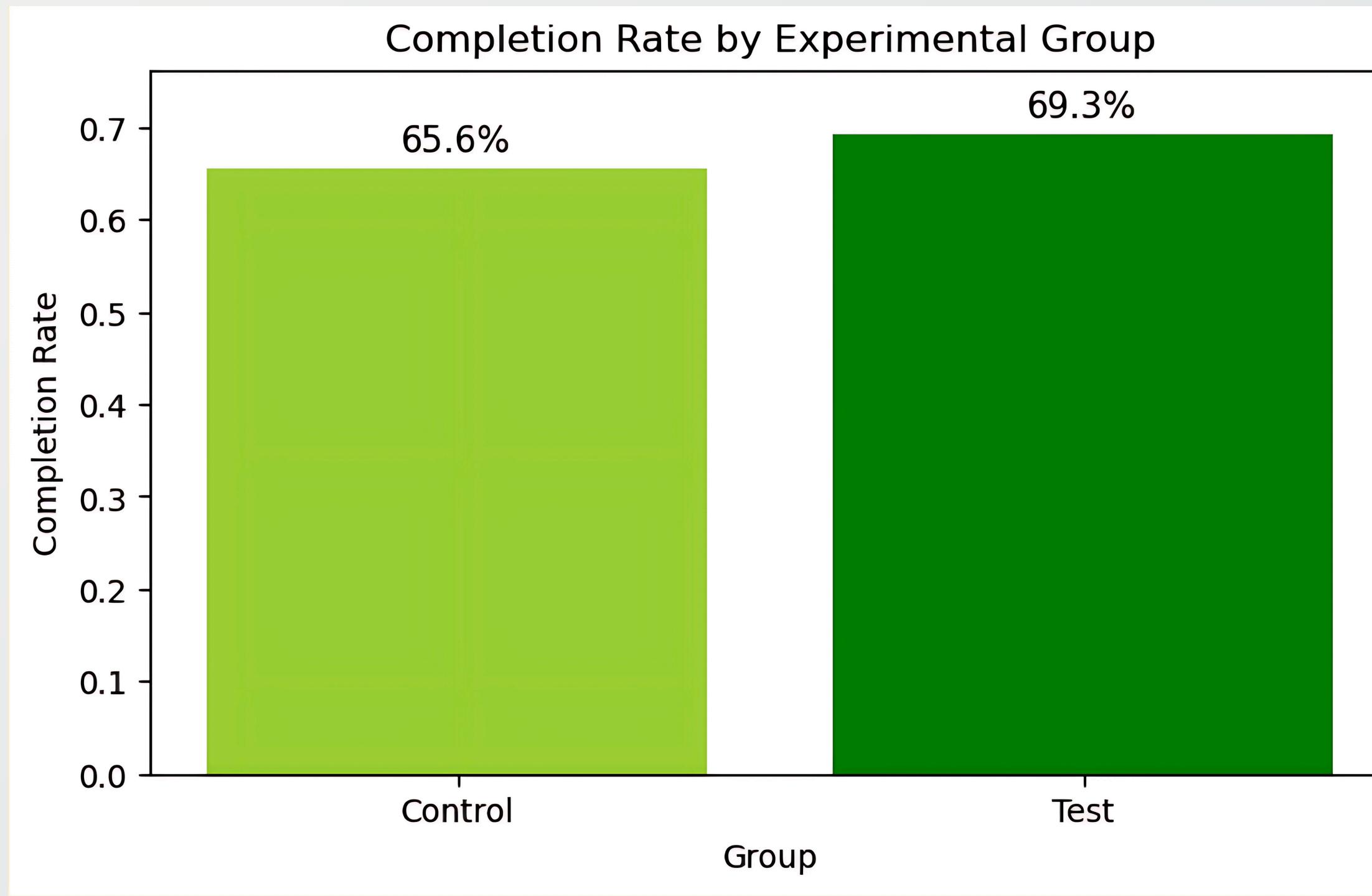
## Error Rate

How many times clients had to go one step backwards during their visit.



# Hypothesis Testing

→ Completion rate: Proportions Z-test



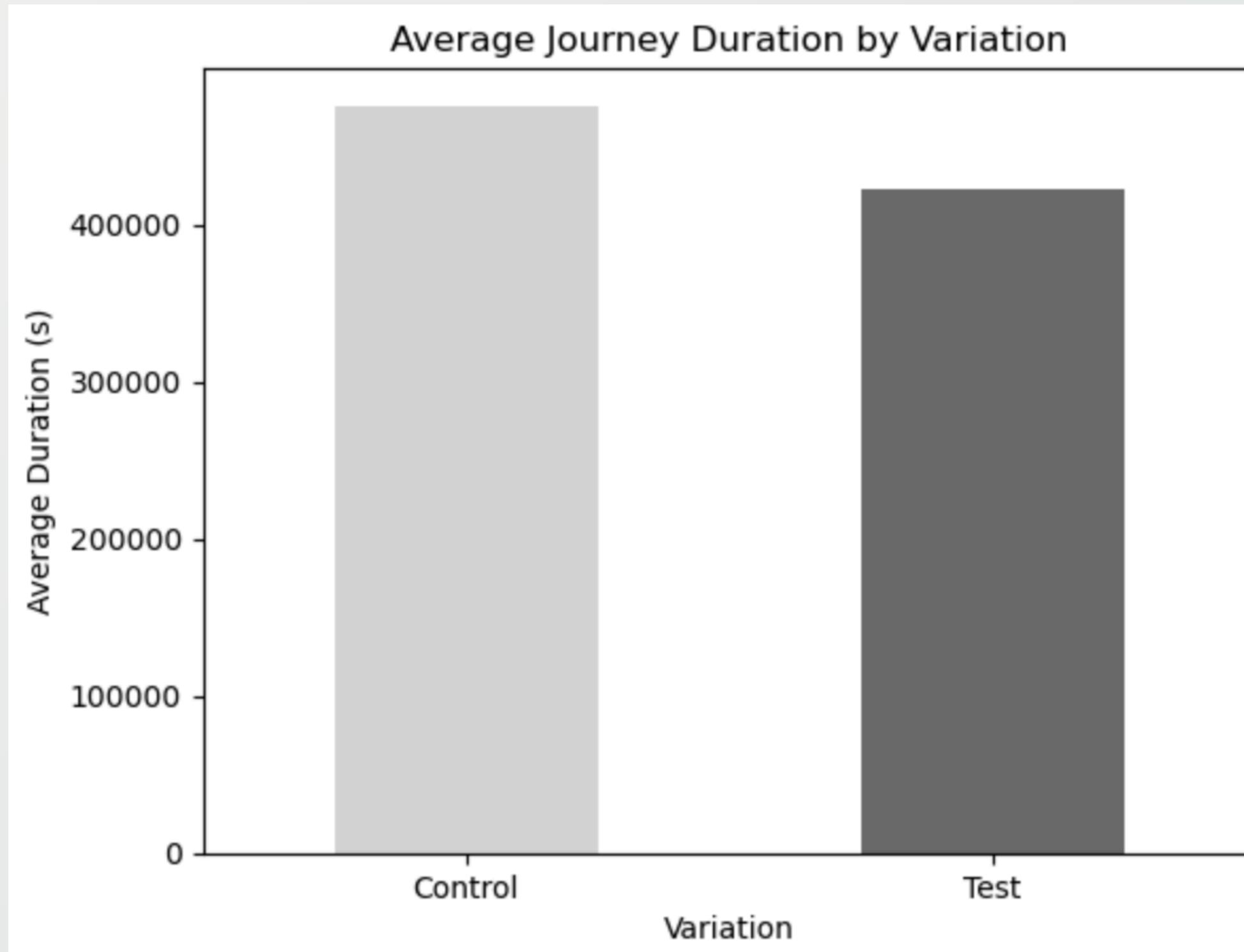
Significant difference between  
**Control** and **Test** groups  
Completion Rate ( $p < 0.05$ )



**Improvement of the  
Usability of the  
the New Design**

# Hypothesis Testing

→ Journey duration: Ttest

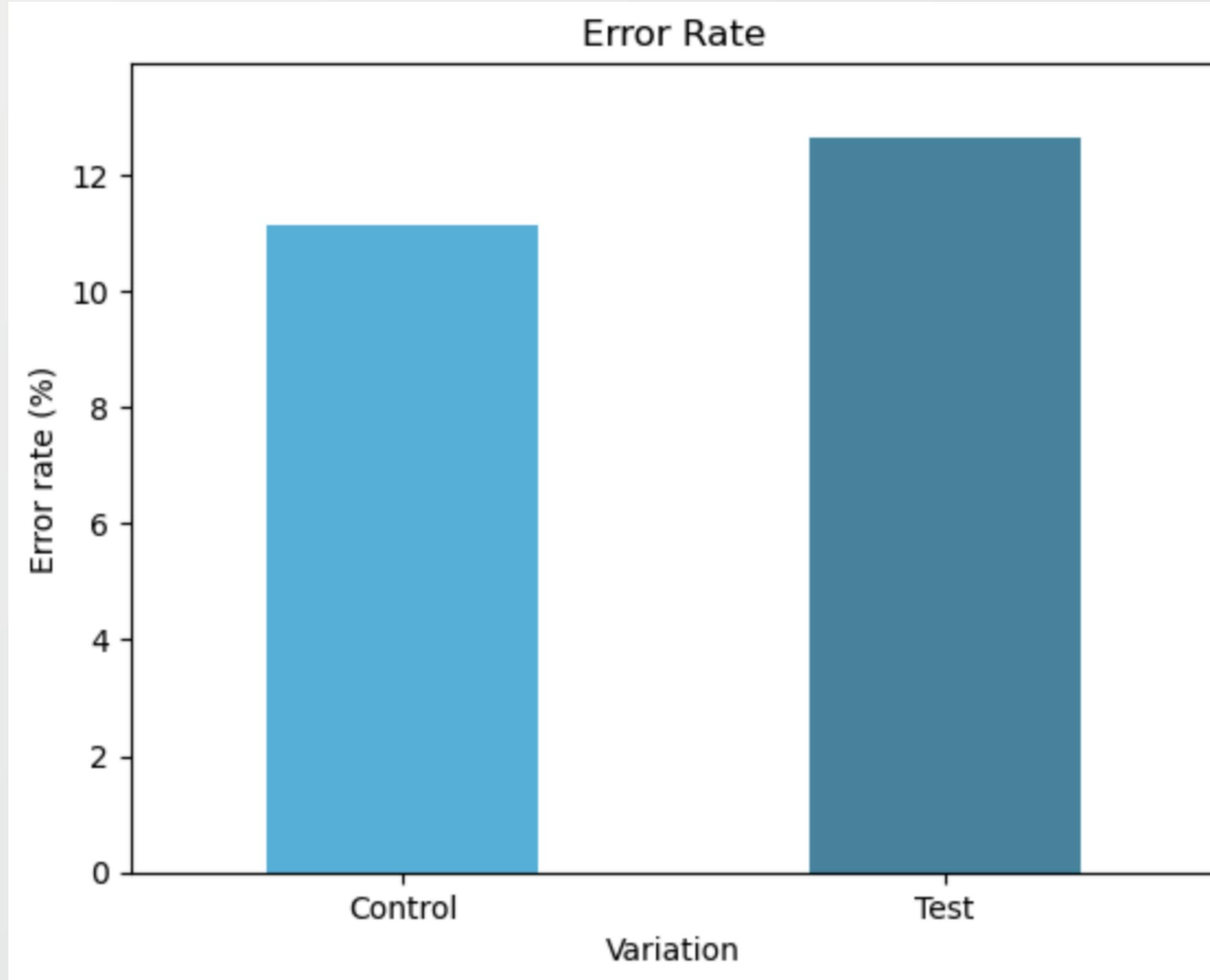


Significant difference between  
***Control*** and ***Test*** groups  
Journey Duration ( $p < 0.05$ )

Proof of improved UX of  
the New Design

# Hypothesis Testing

→ Error rate: Proportion Z-test



The difference is significant  
between **Control** and **Test** groups  
Error rates ( $p < 0.05$ )

# Tableau Visualizations

Now,

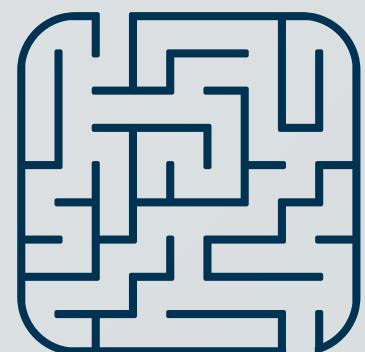
Let's explore the Insights in Tableau.

## Vanguard Dashboard



# Challenges and Learnings

- Dealing with the varied Datasets and determining the right merging strategy
- Feeling a little bit overwhelmed that it's too much to learn at once
- Exploring and getting hands-on with Tableau



# Conclusion



The Dataset showed similar distributions across age, tenure, and balance variables



The Hypothesis tests on the defined KPIs confirmed a statistically significant improvement with the new design.



The Dashboard will improve data accessibility and usability across teams.

# THANK YOU

*For your attention!*



Célestine Tsondo



Laura Suemitsu