

Customer Data Management , Analysis, and Churn Prediction

By: DEPI Project Team

October, 2024





Meeting Agenda For Today

1

Project Overview

2

Data Engineering

3

Data Analysis

4

Data Science

5

Streamlit App

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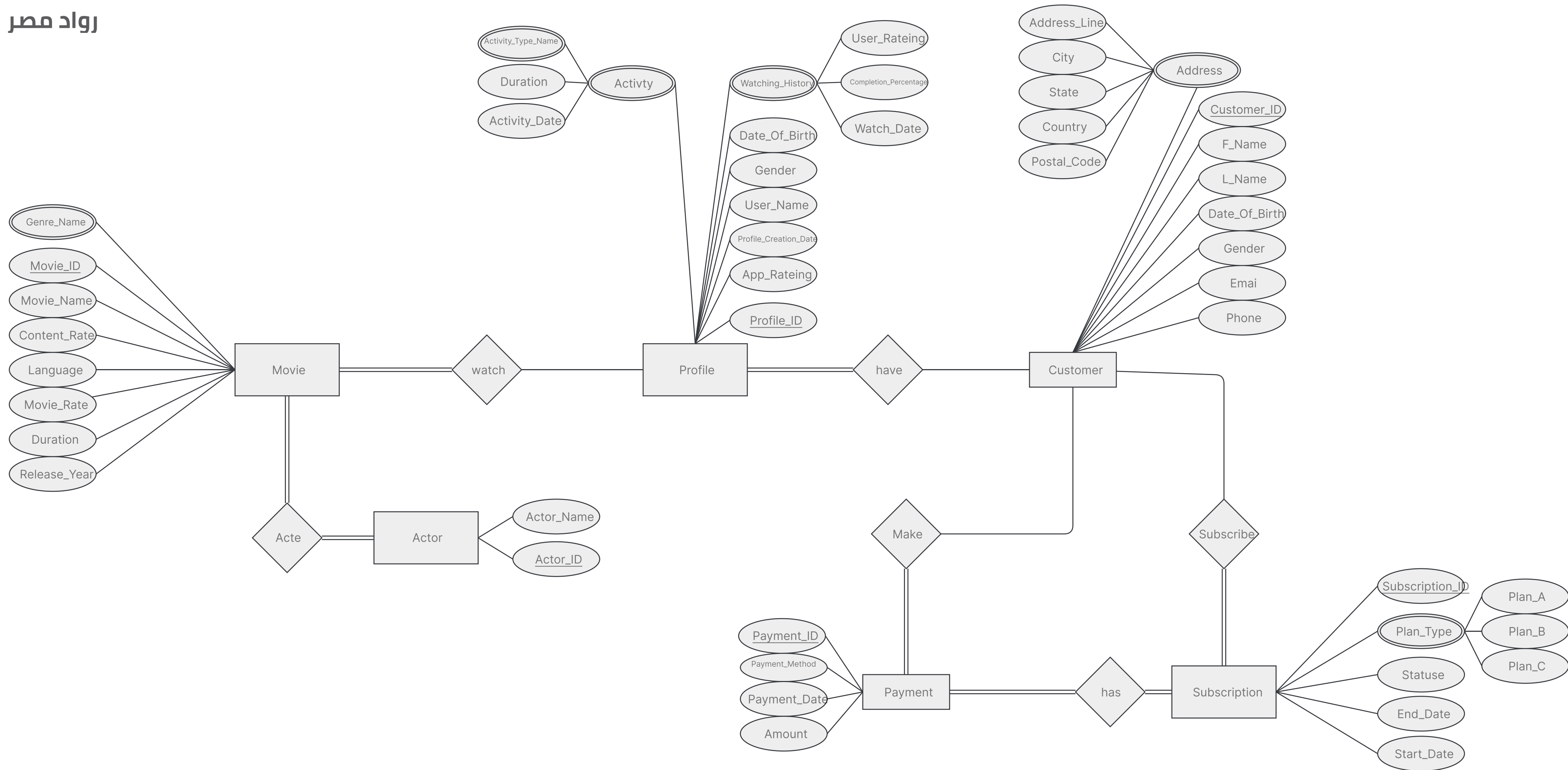
End

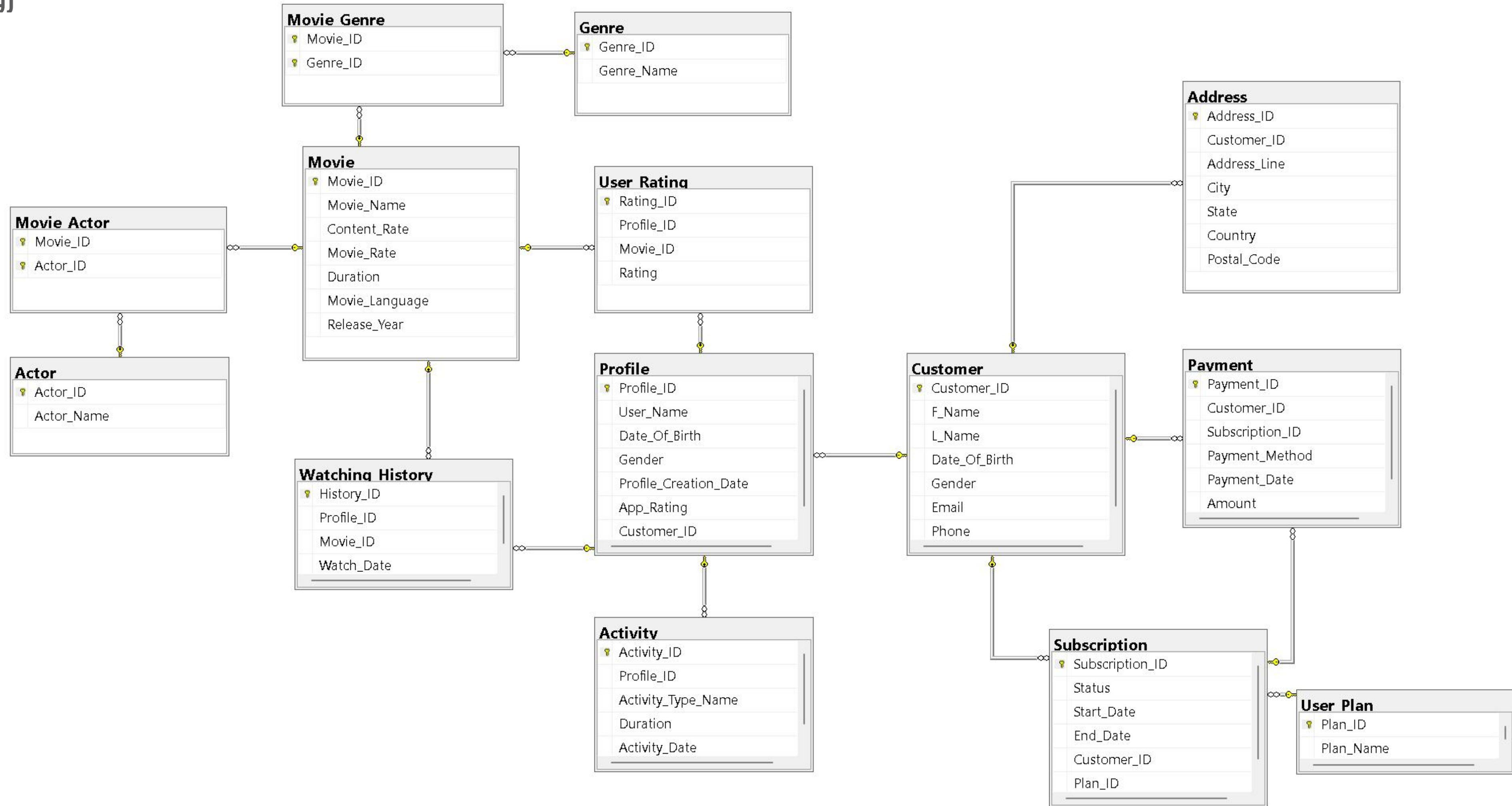


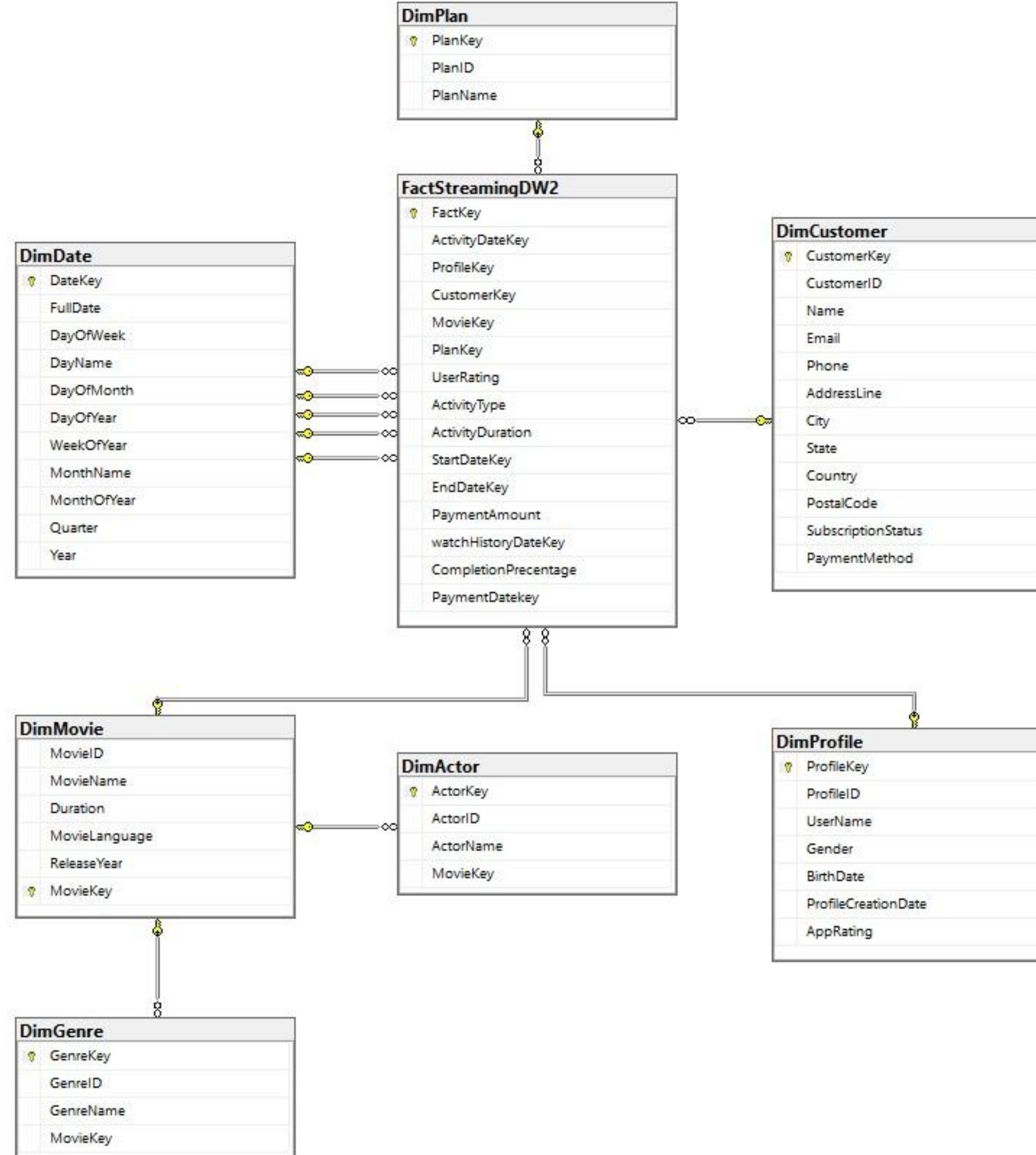
Problem Statement

In today's competitive business landscape, effectively managing and analyzing customer data is crucial for organizations to enhance customer experience, improve retention, and drive business growth. However, companies often face challenges in managing large volumes of customer data, performing predictive analysis, and seamlessly integrating modern tools like cloud services for machine learning and data analysis. To address these challenges, the Customer Data Management and Analysis Project aims to design and implement a comprehensive solution for managing customer data, building predictive models (e.g., churn prediction), and deploying machine learning models using advanced cloud services.



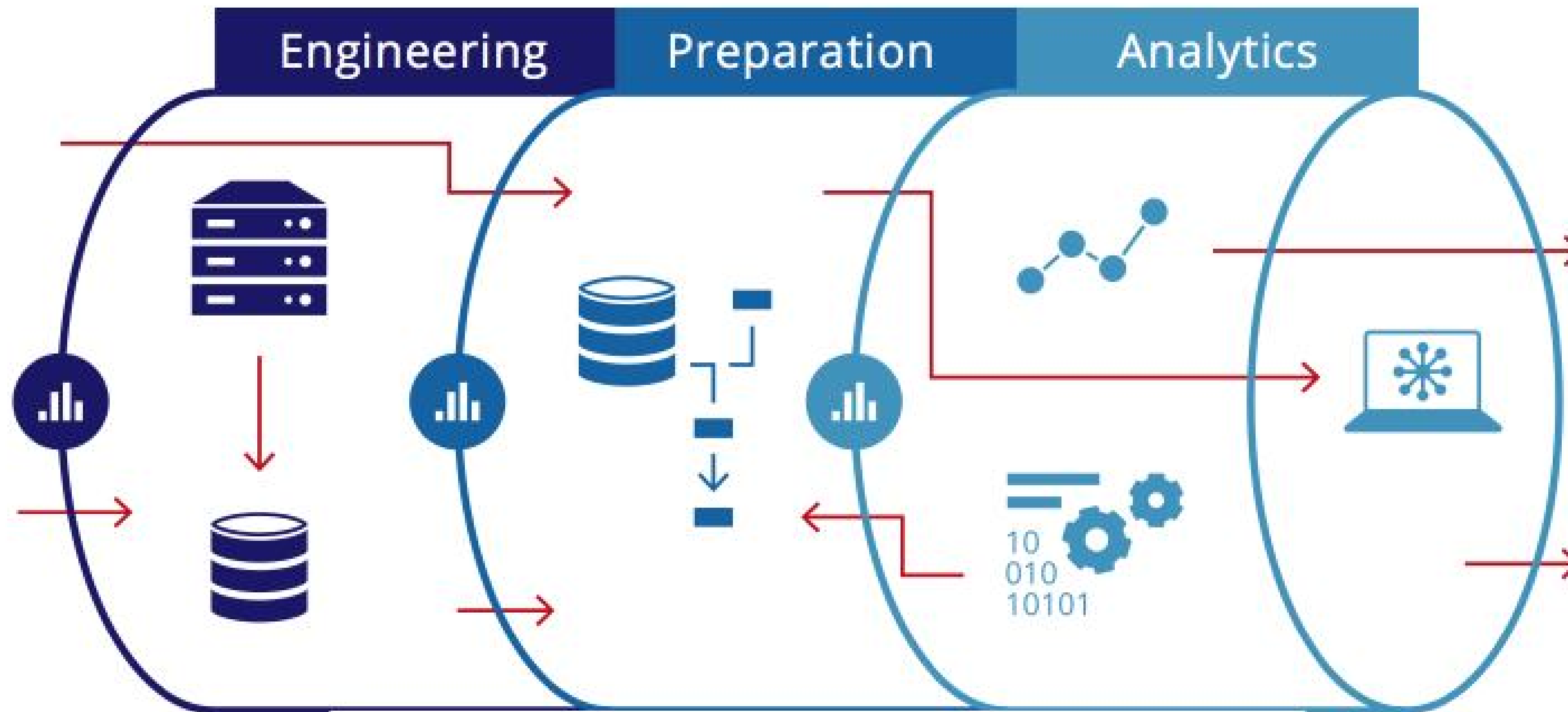




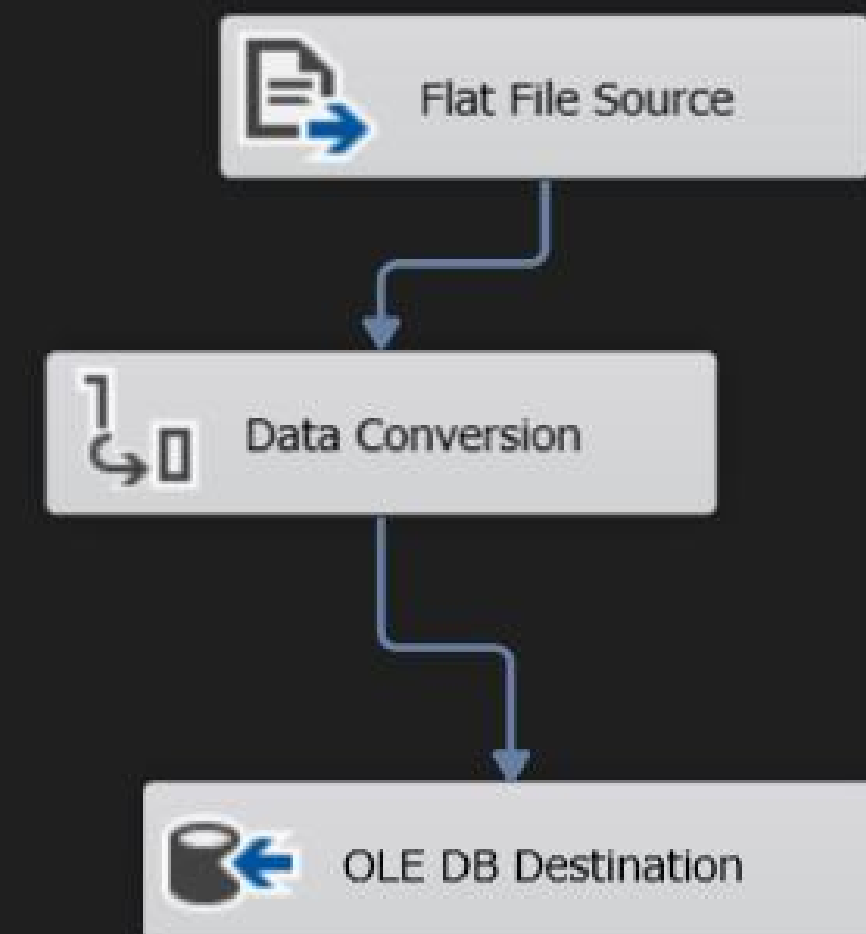
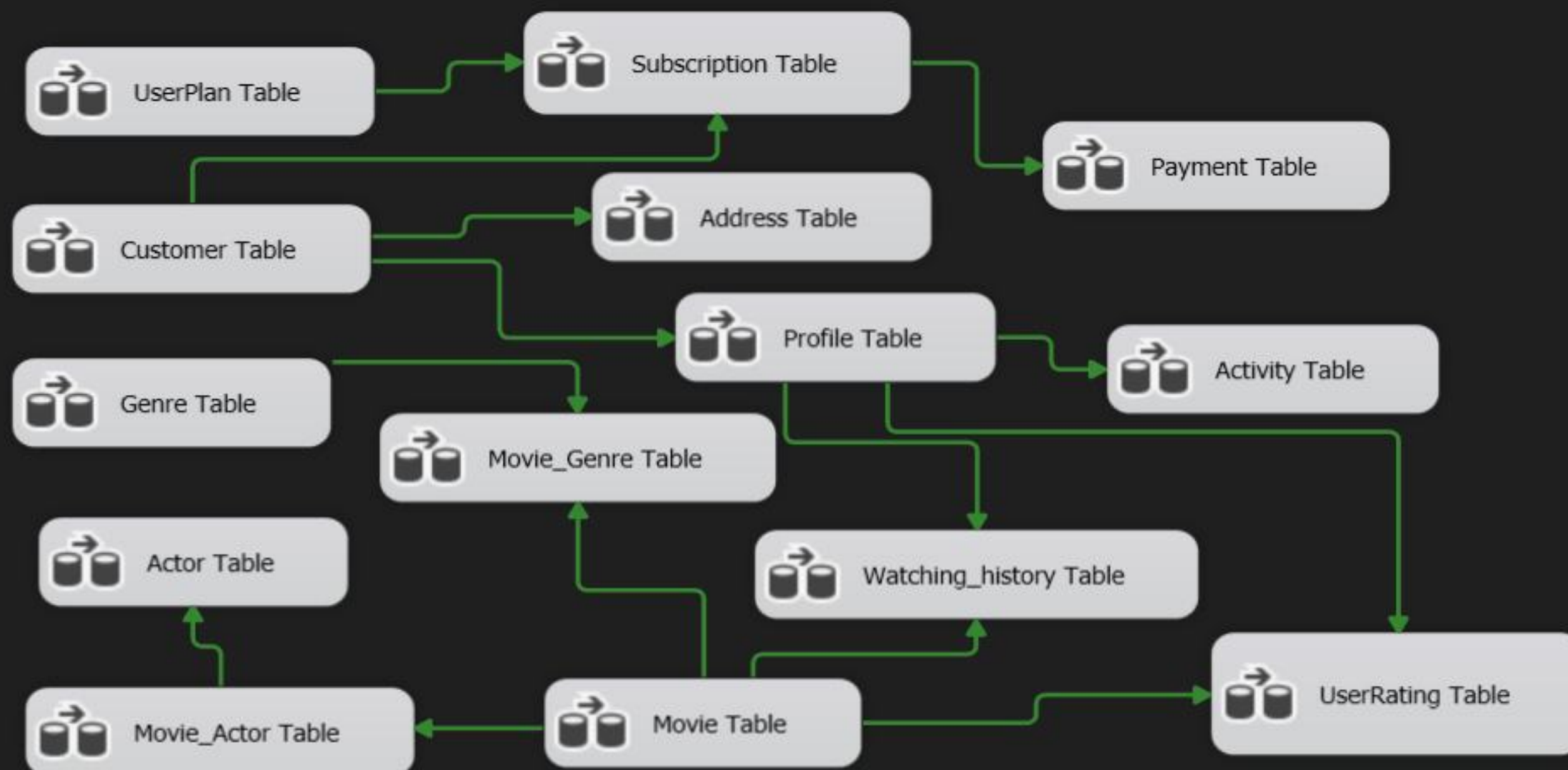


2

Data Engineering

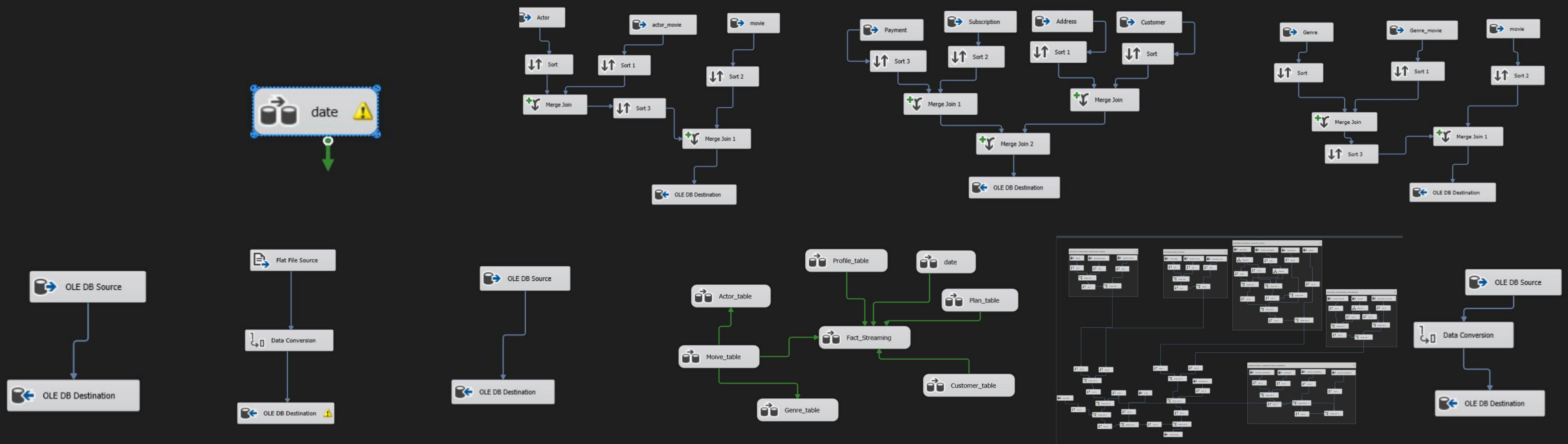


Database Insertion with the SSIS



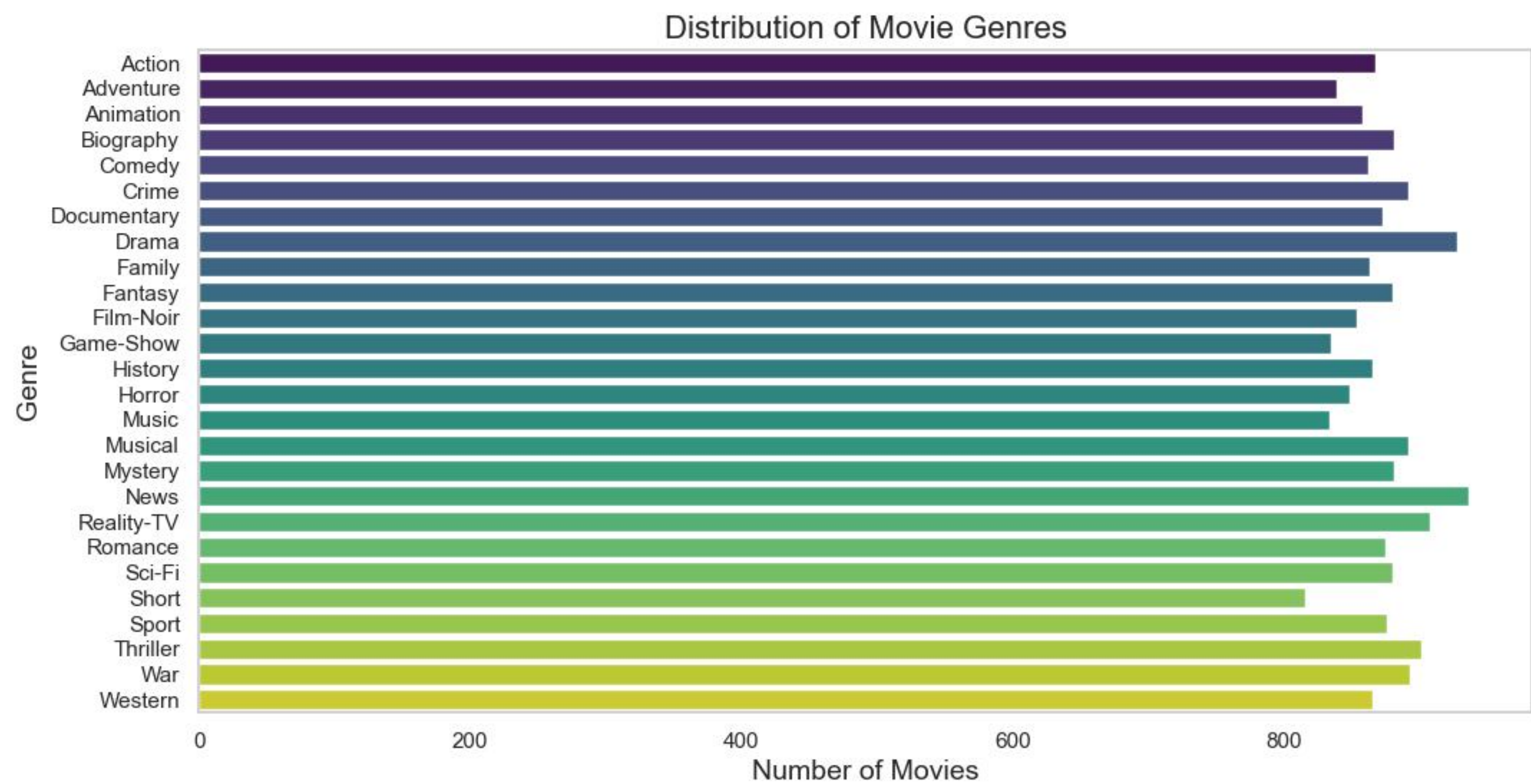


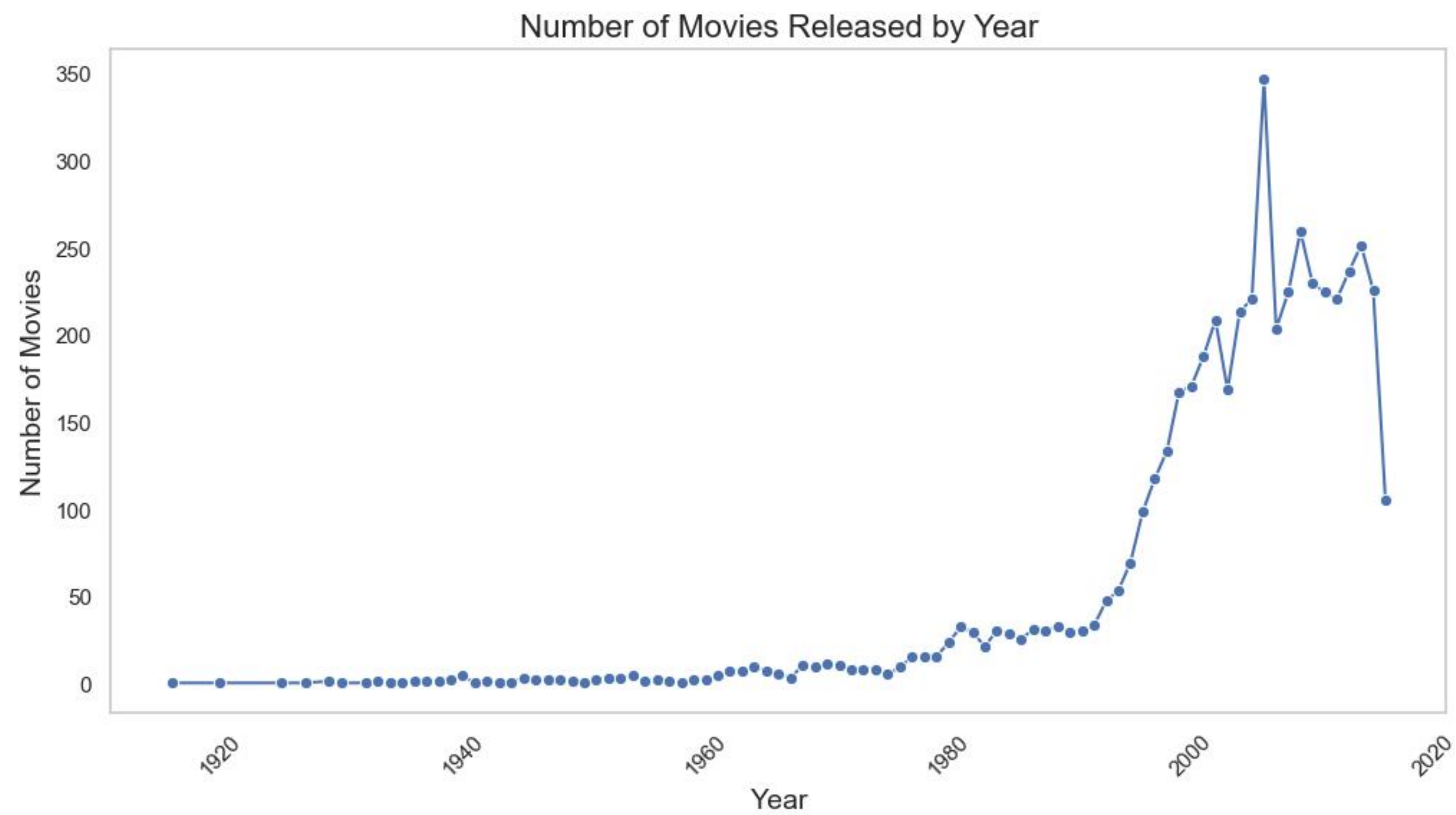
ETL for The Data Warehouse

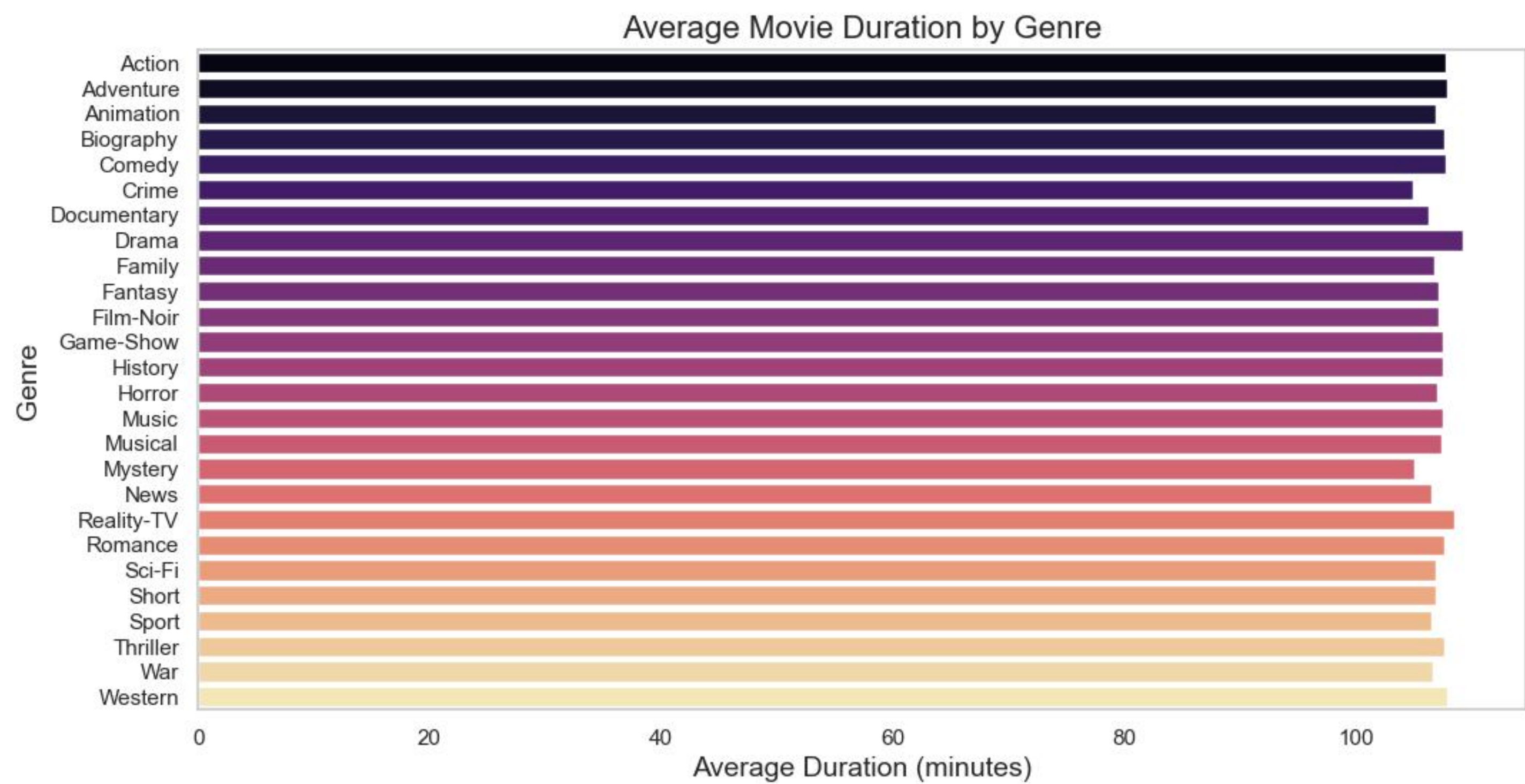


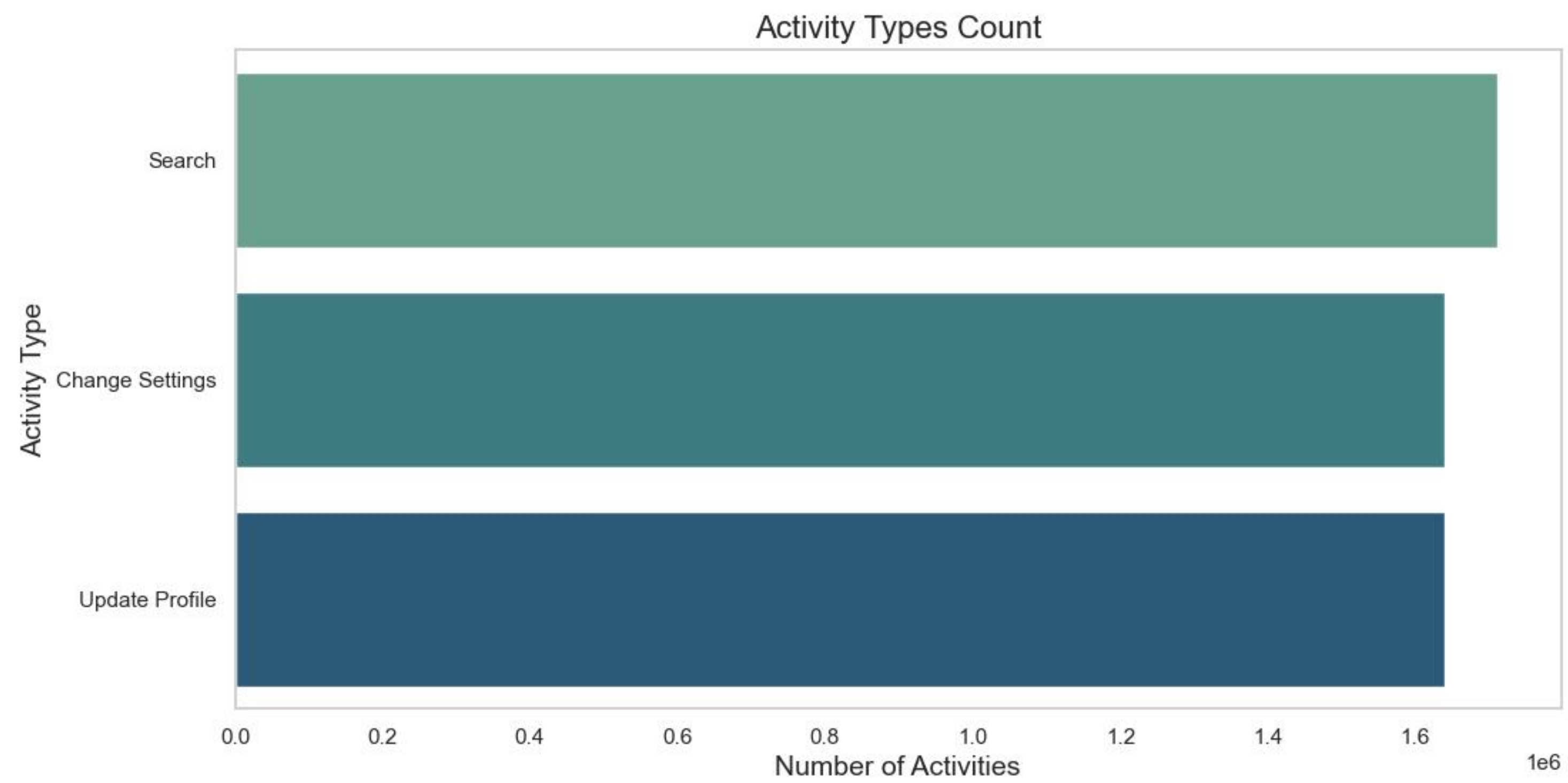
3 Data Analysis

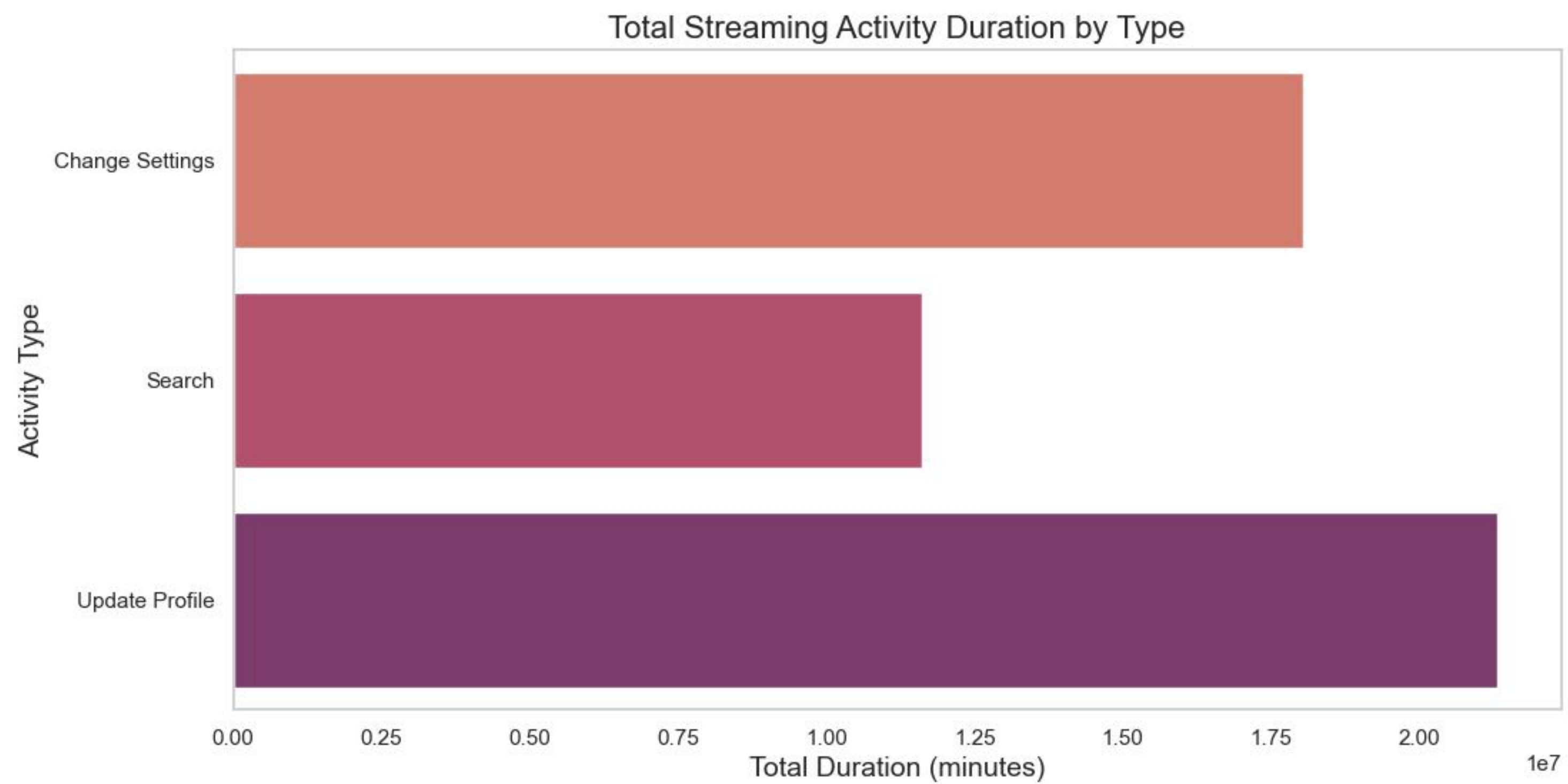


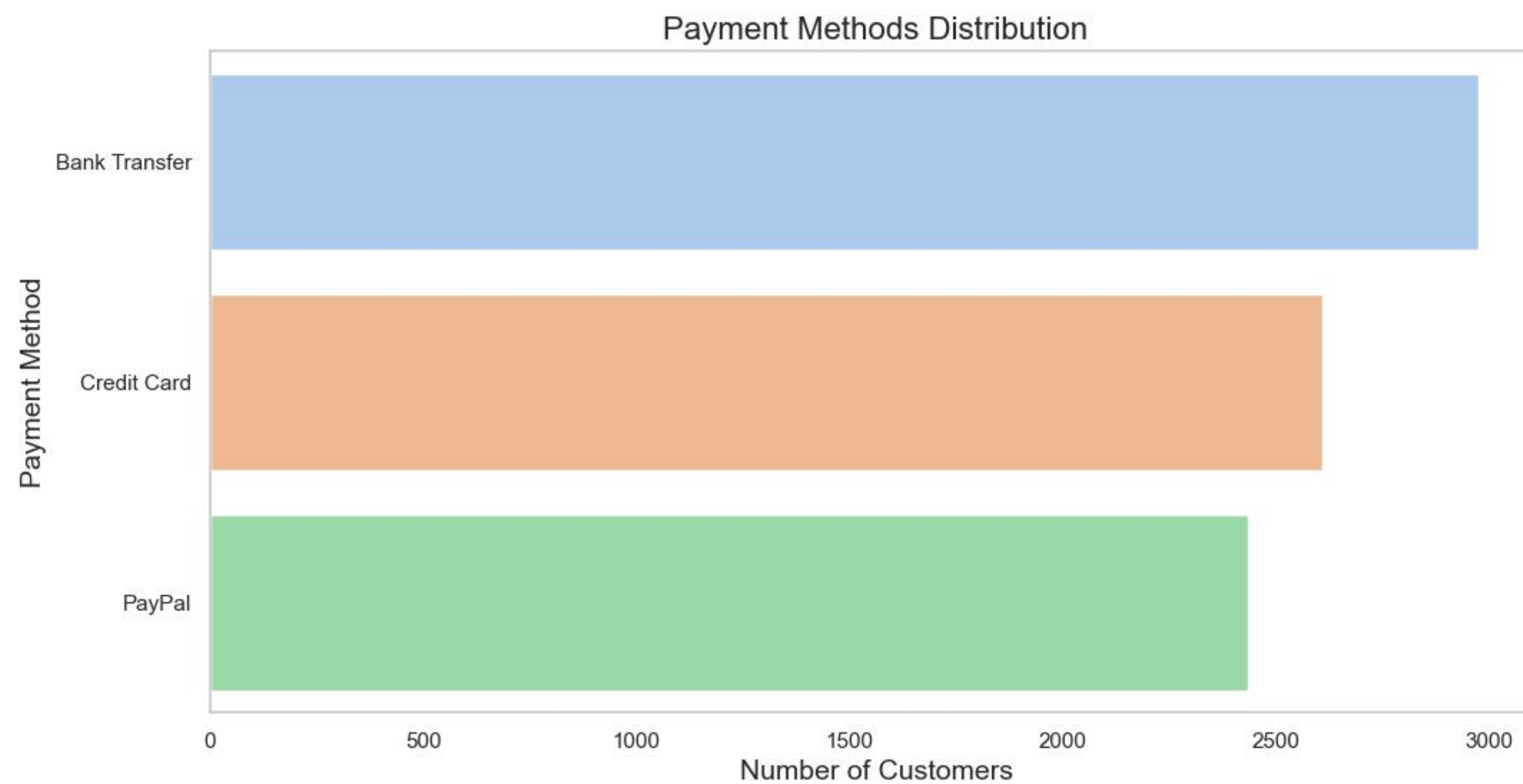


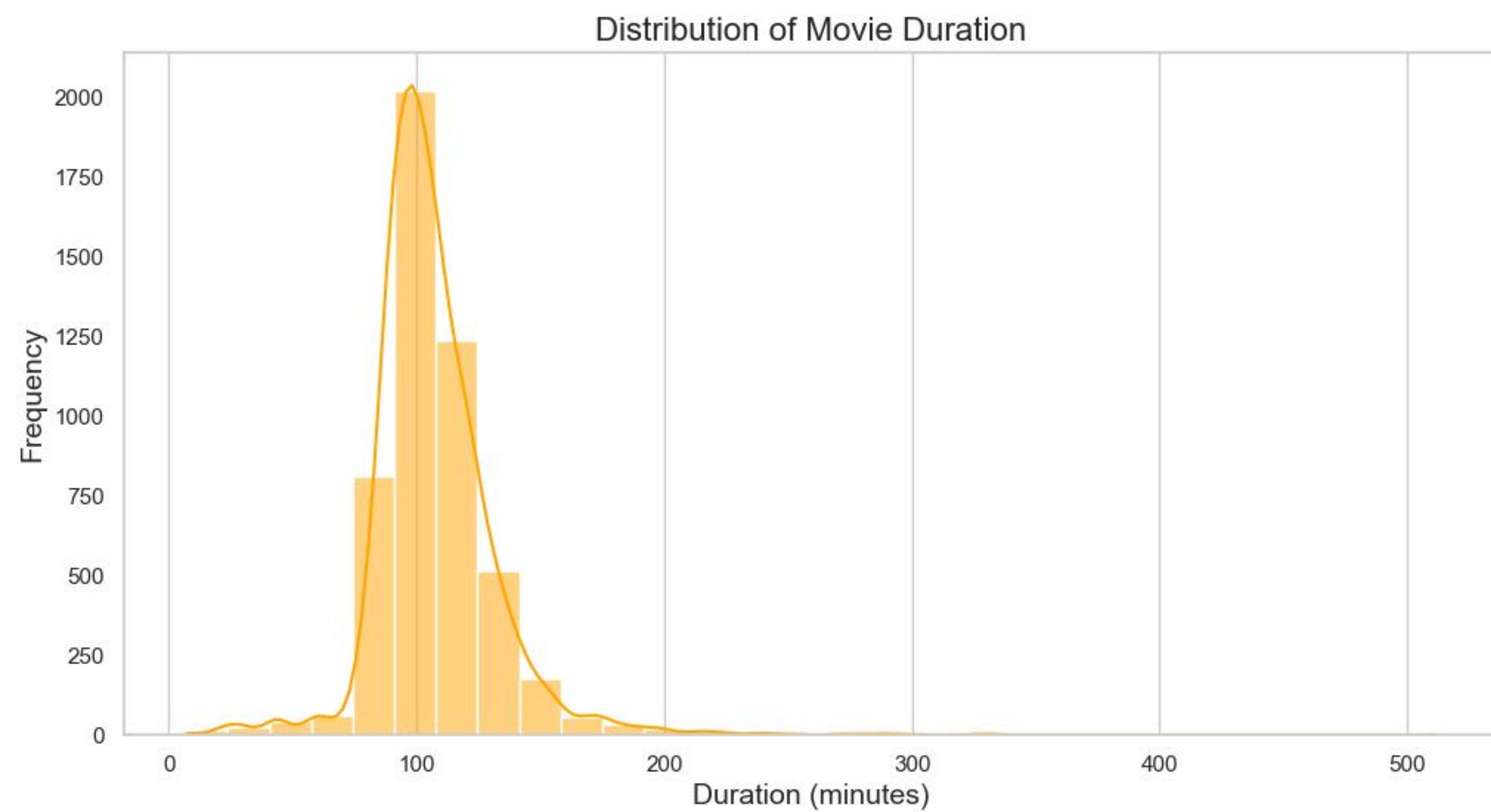


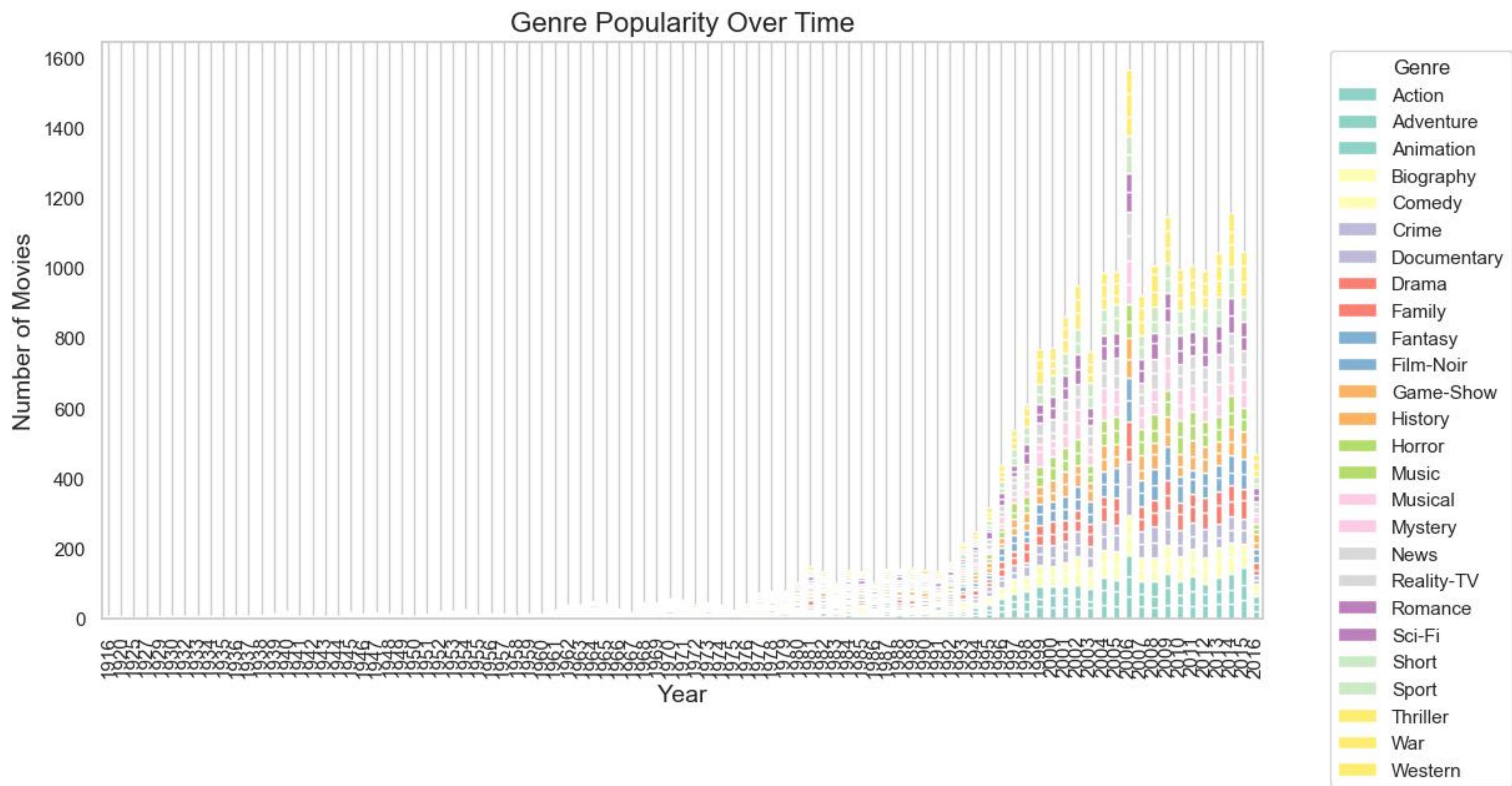


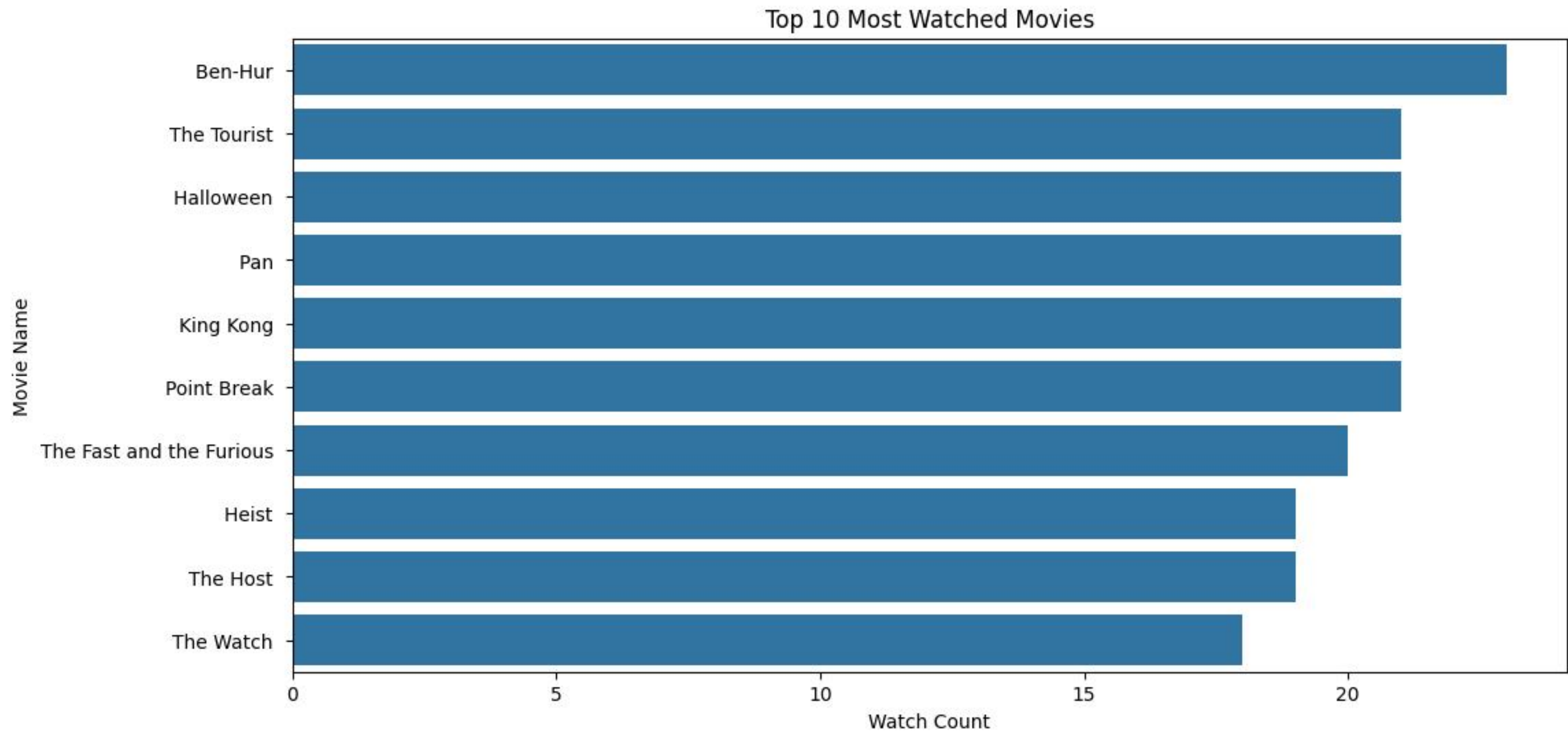


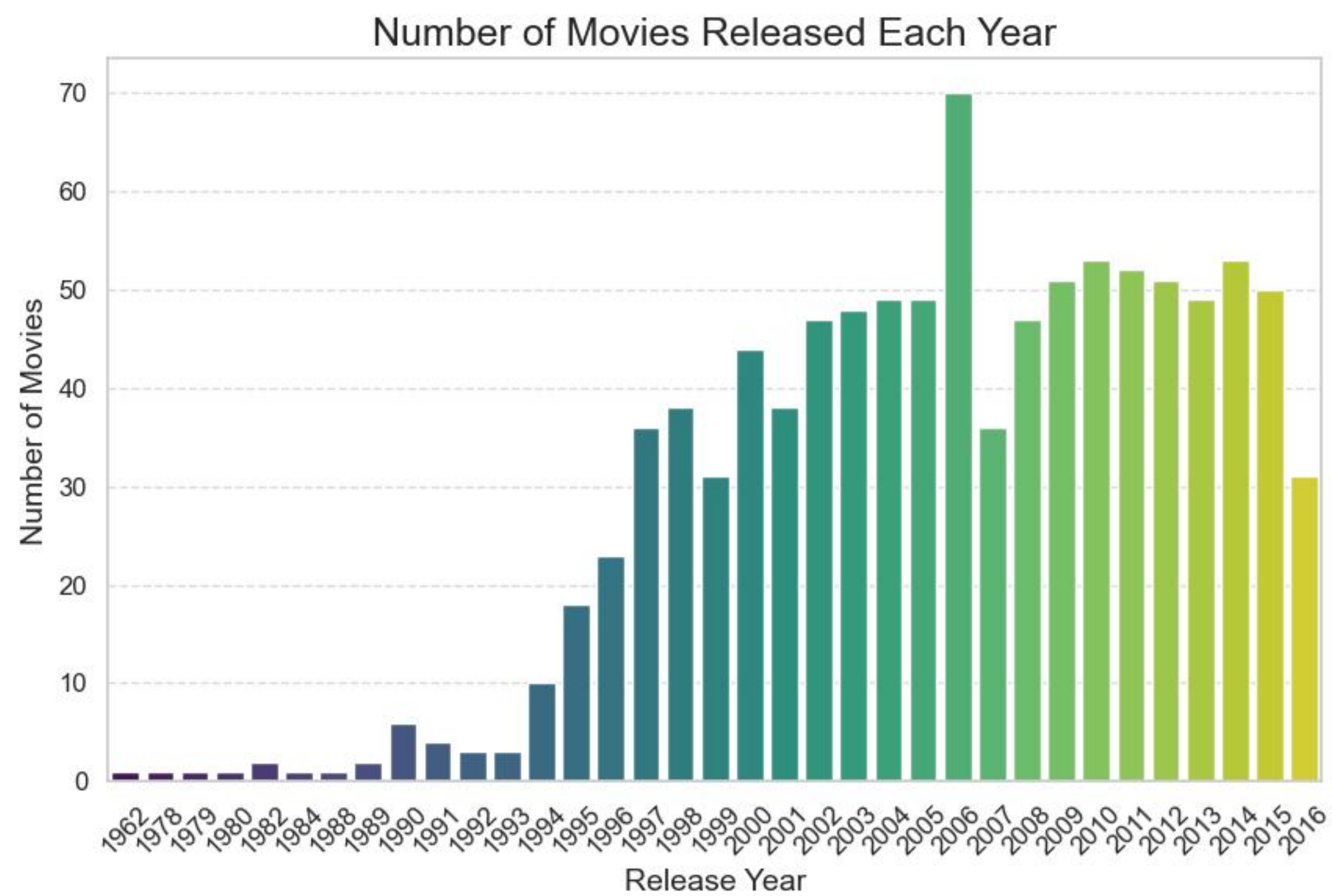


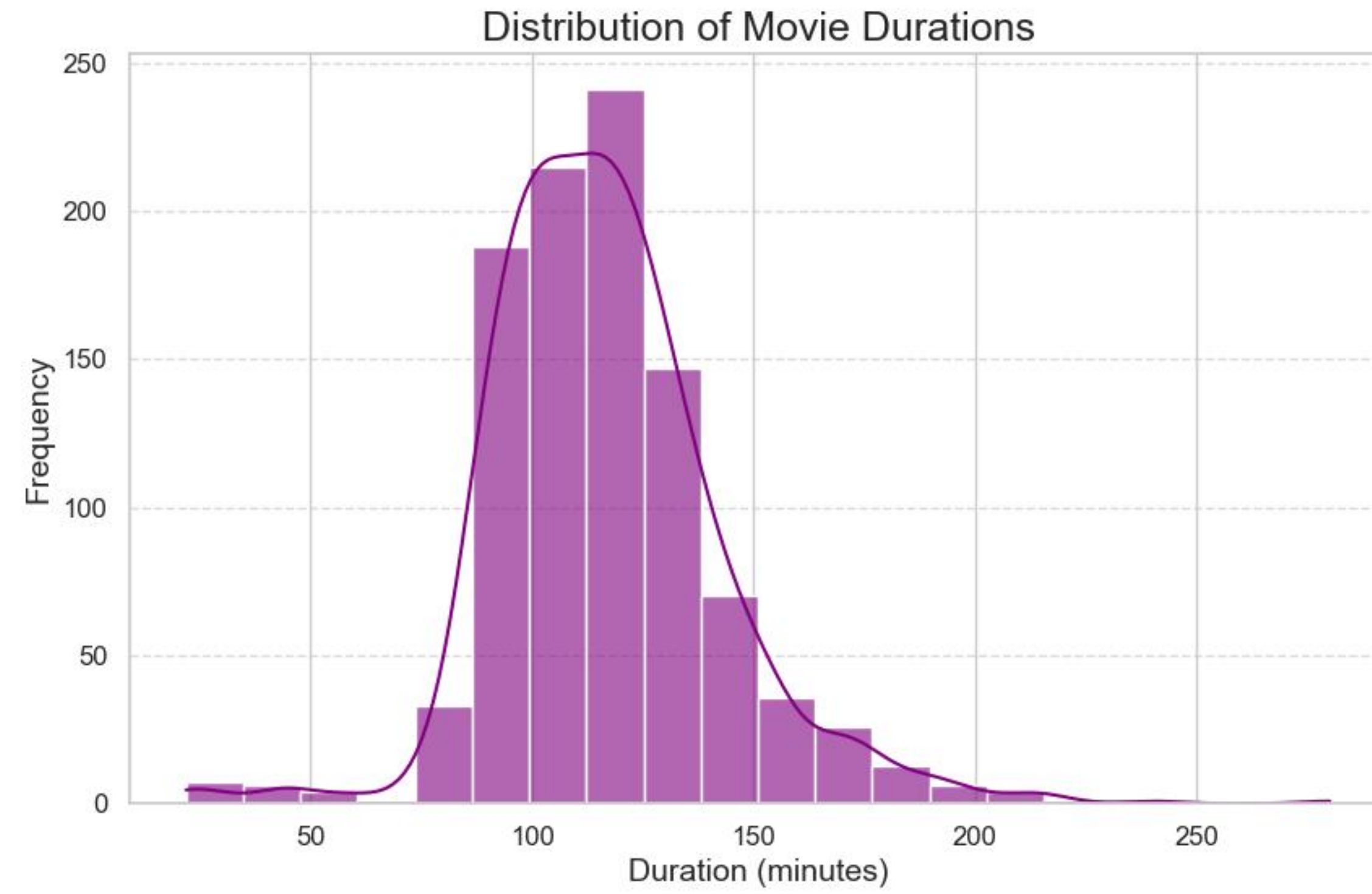


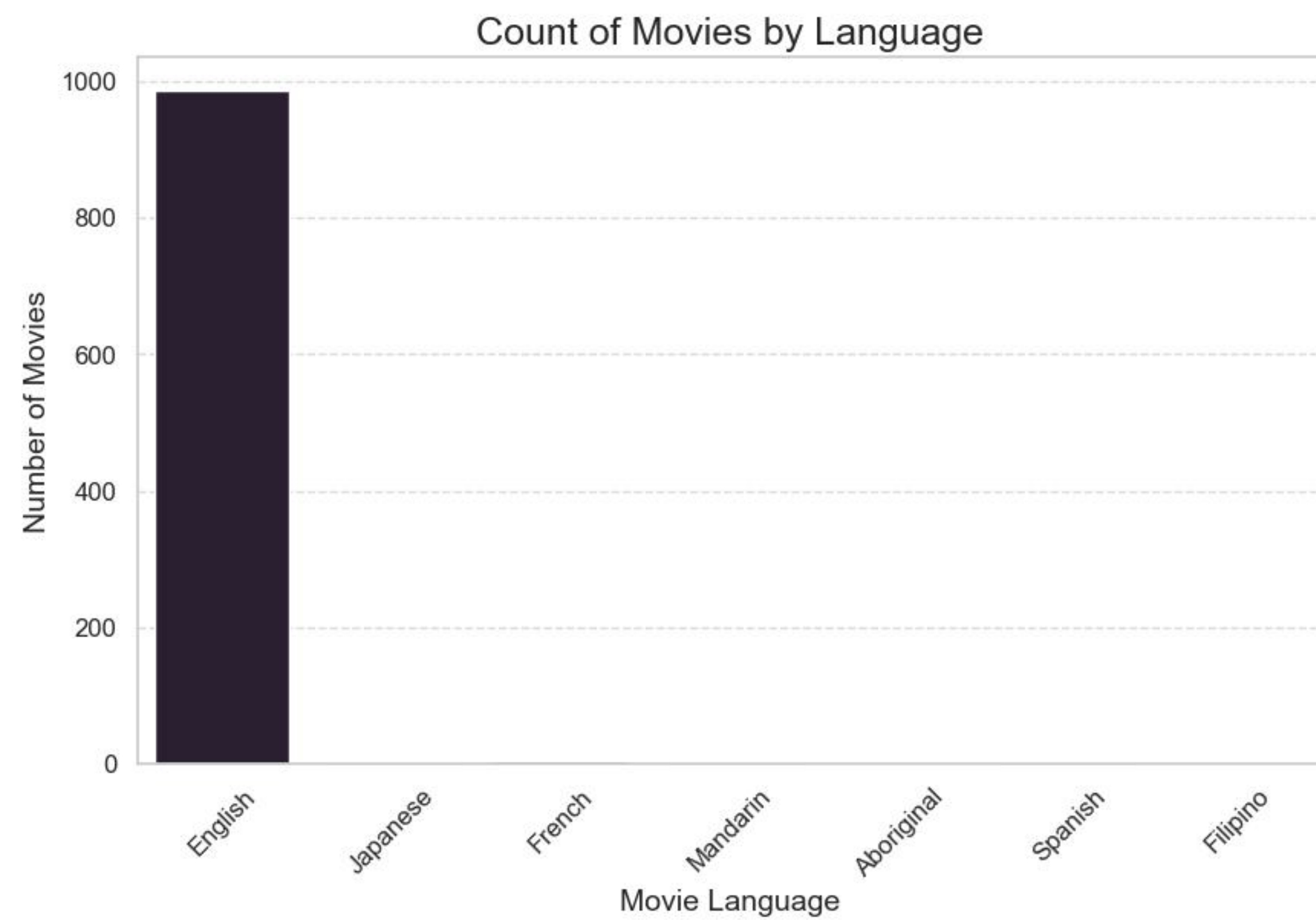


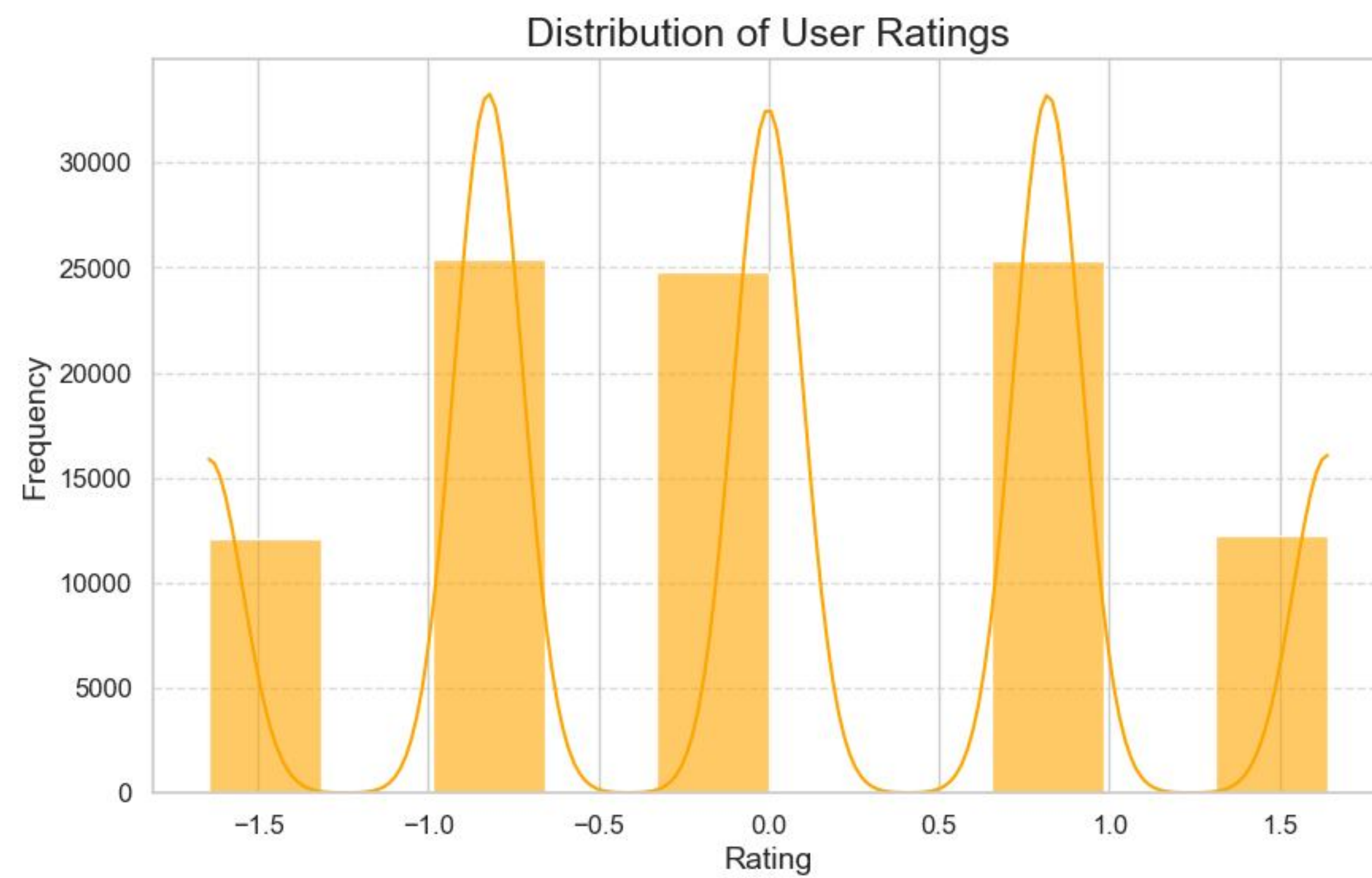






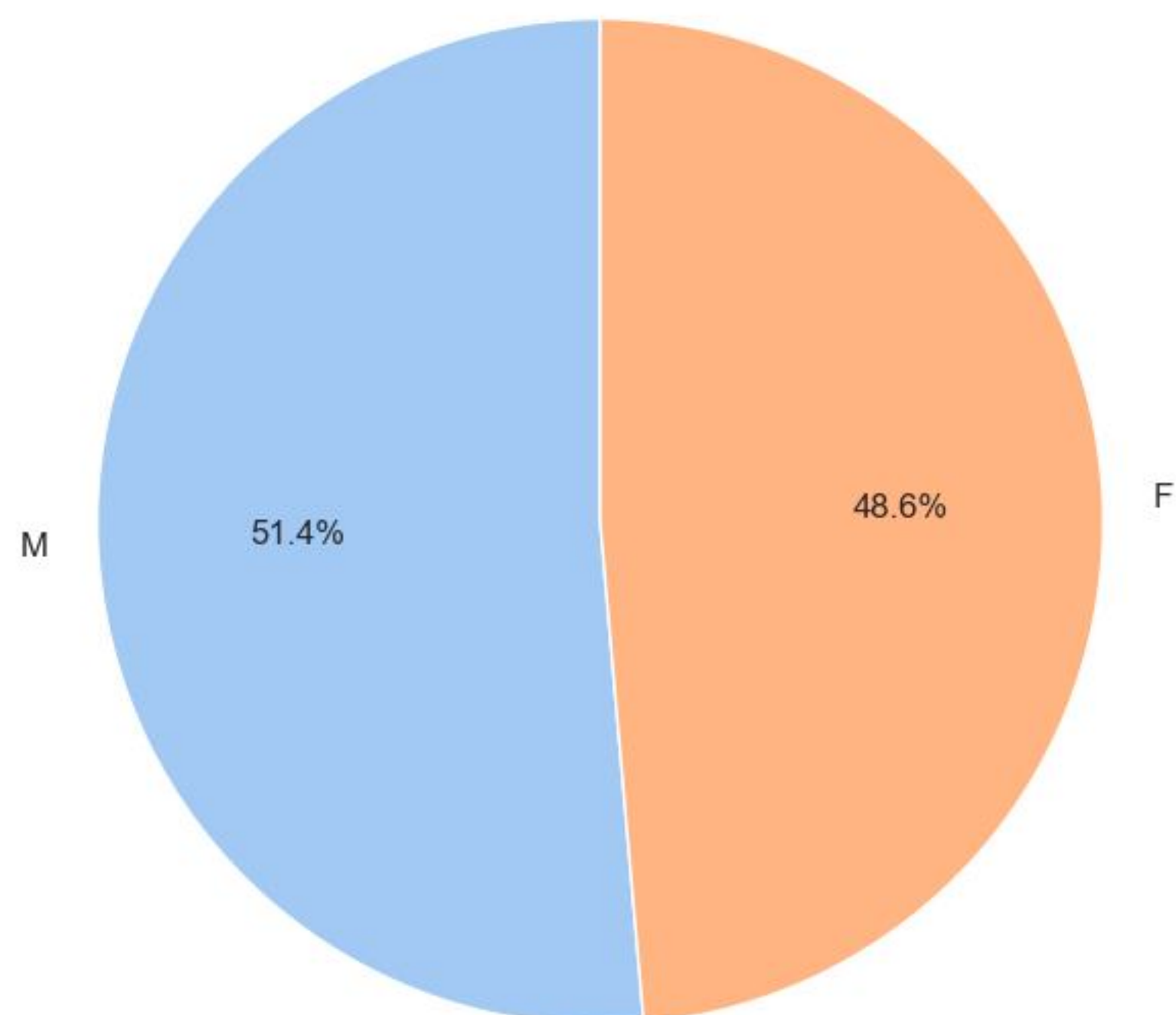


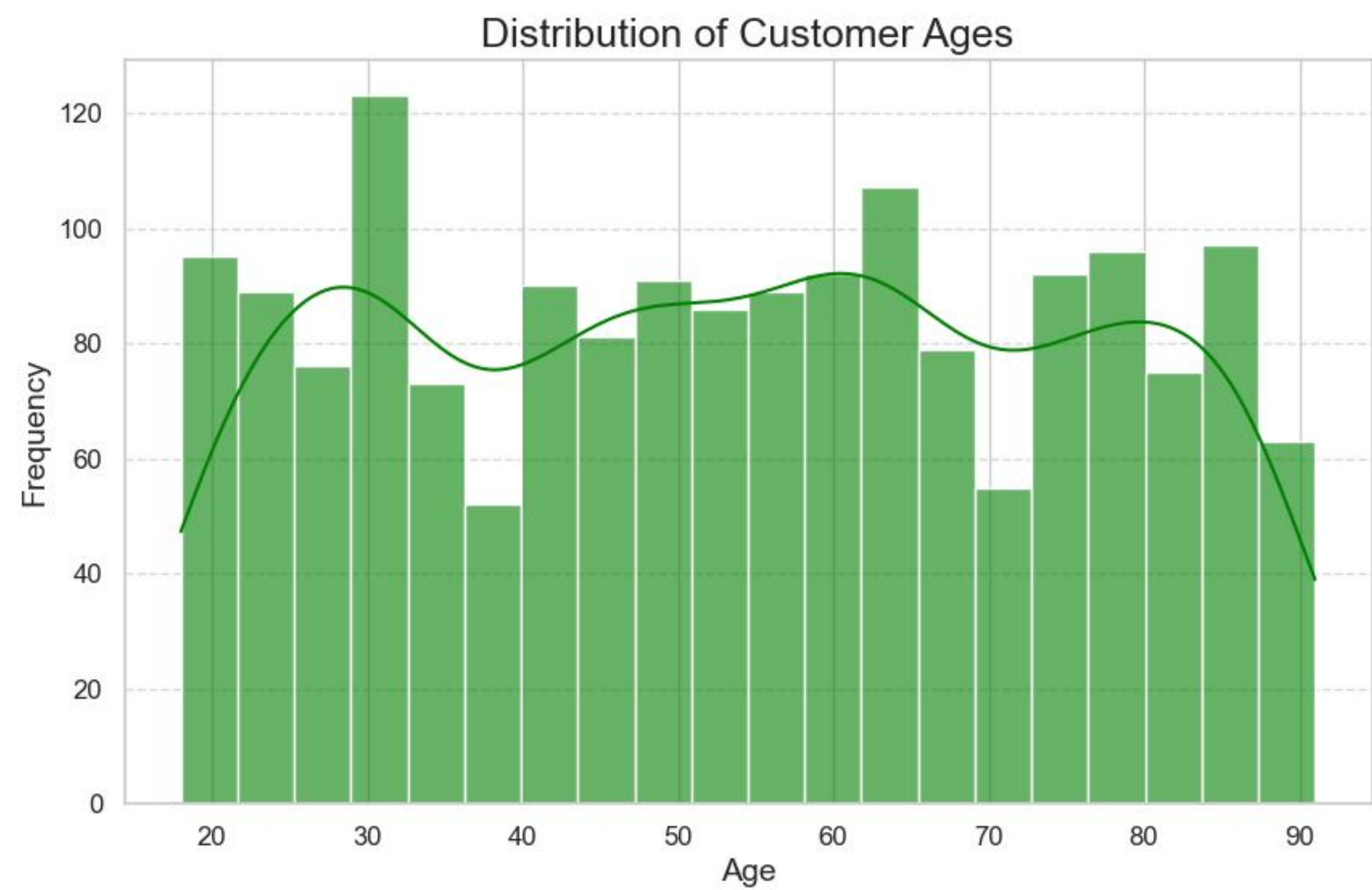






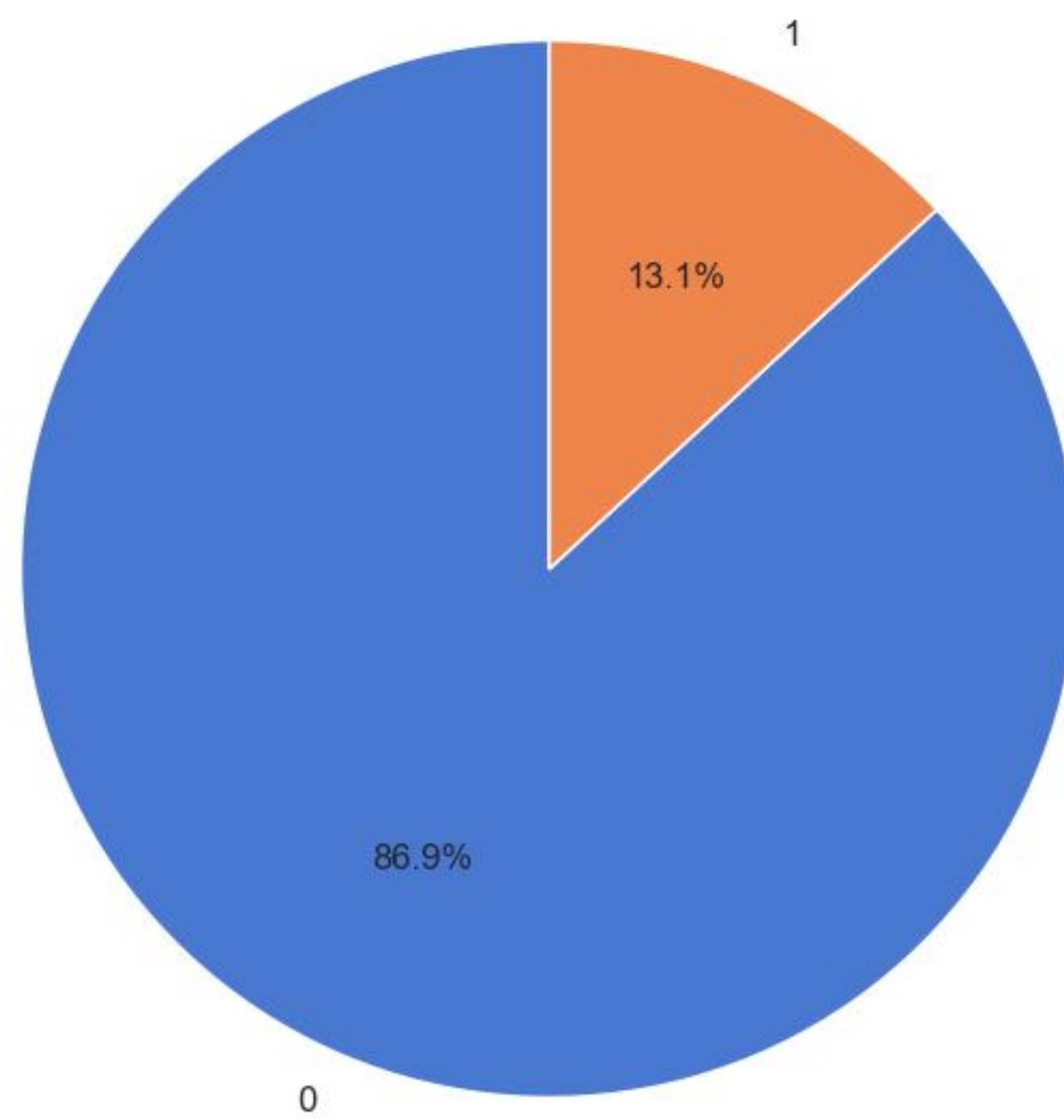
Customer Gender Distribution

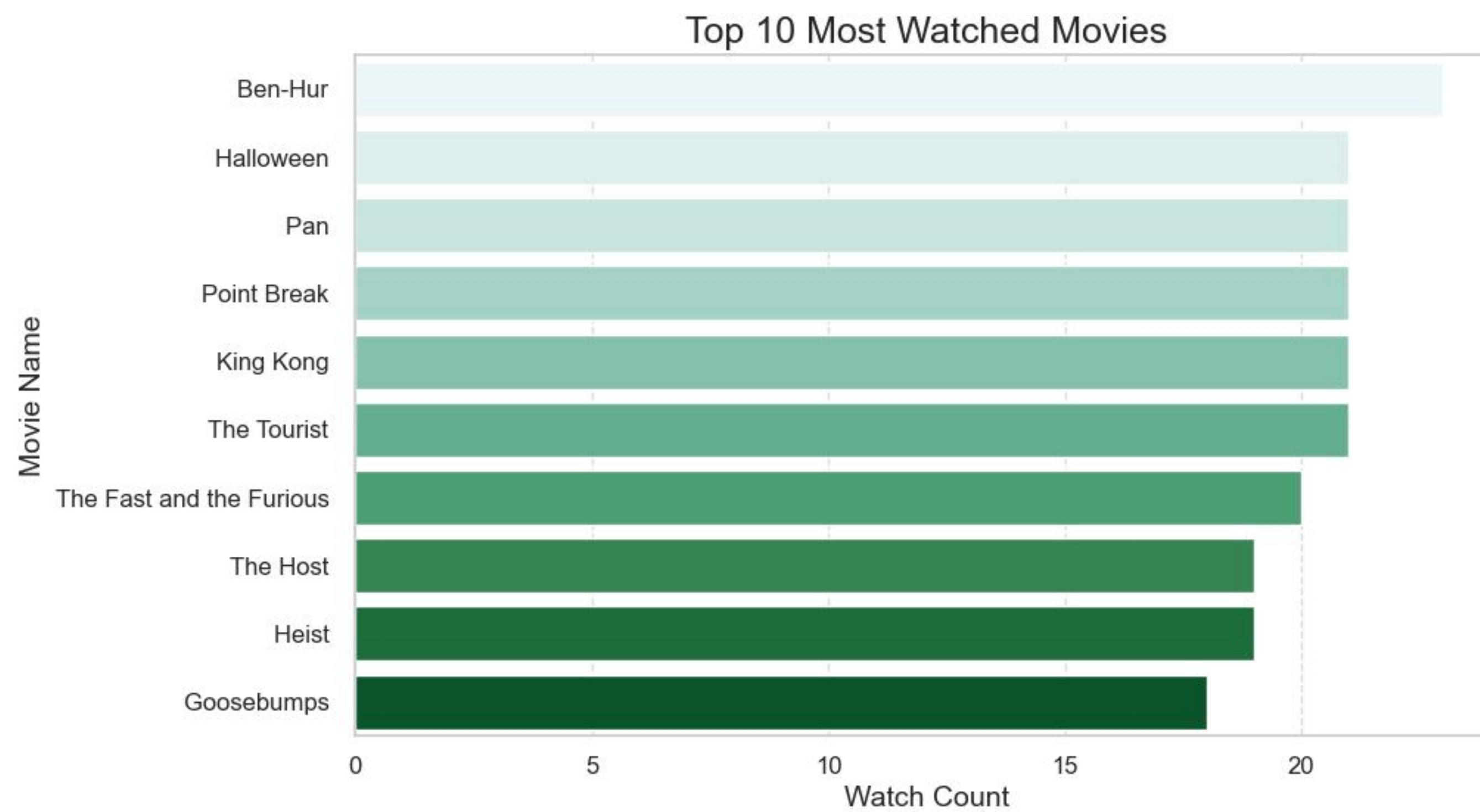


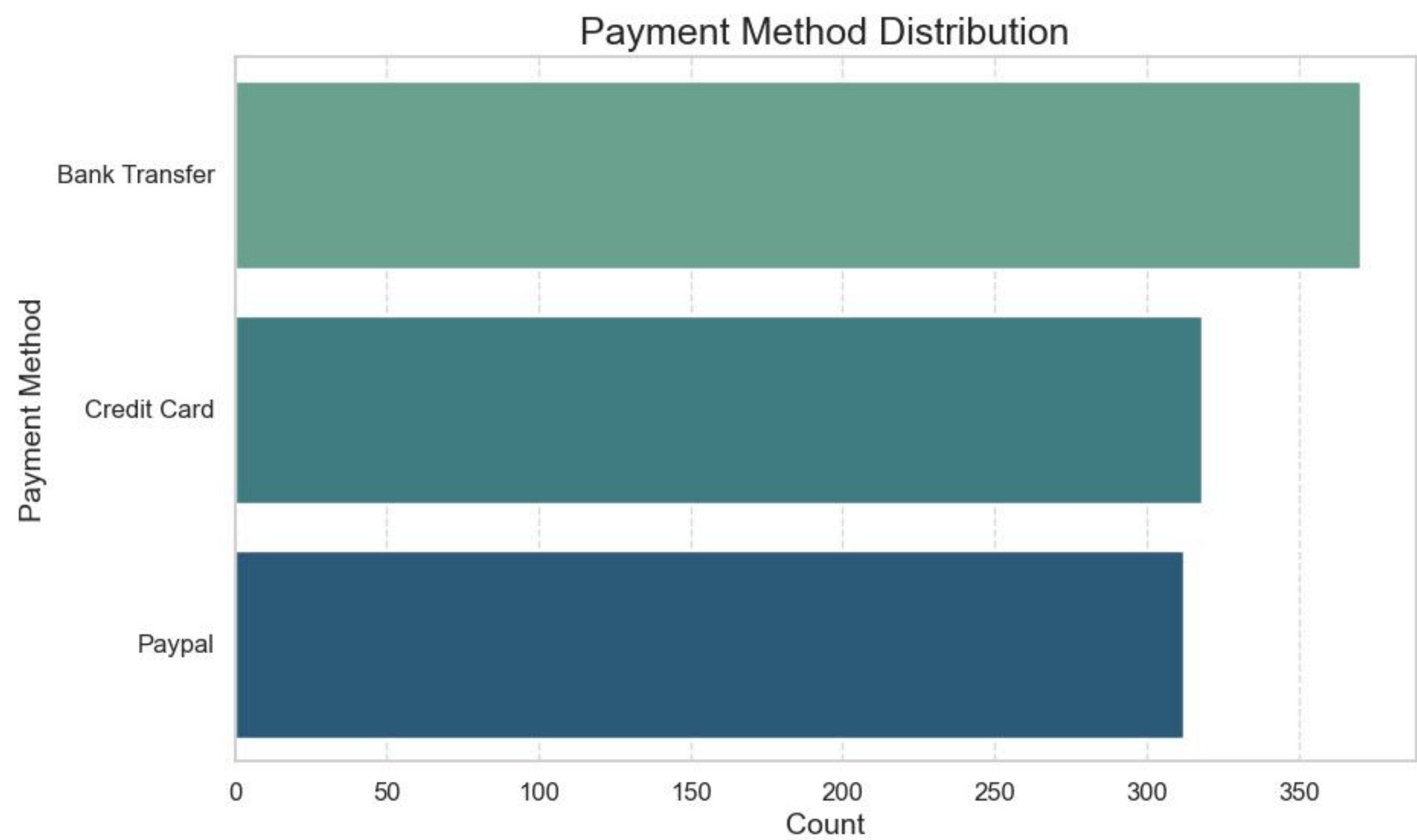


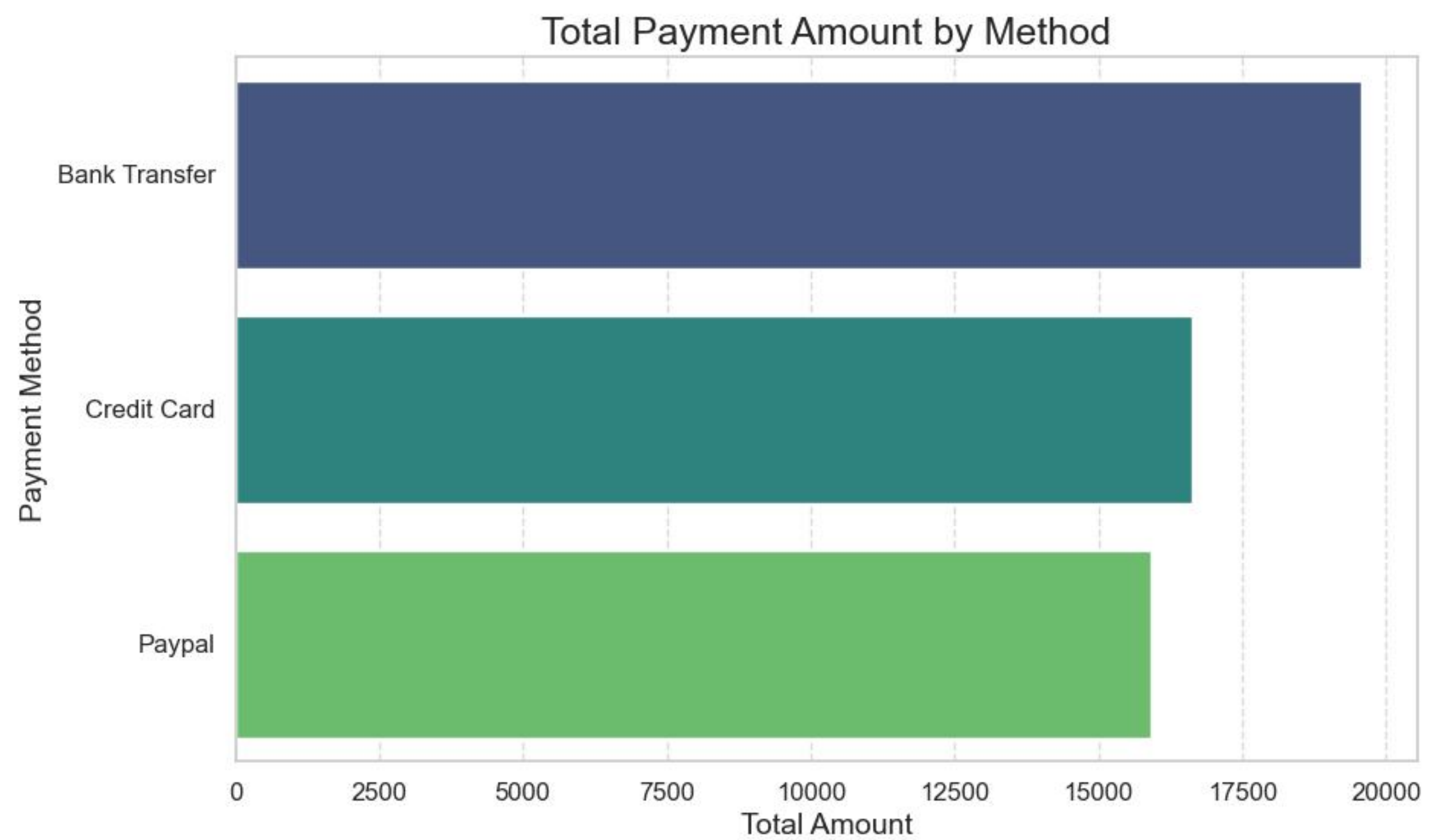


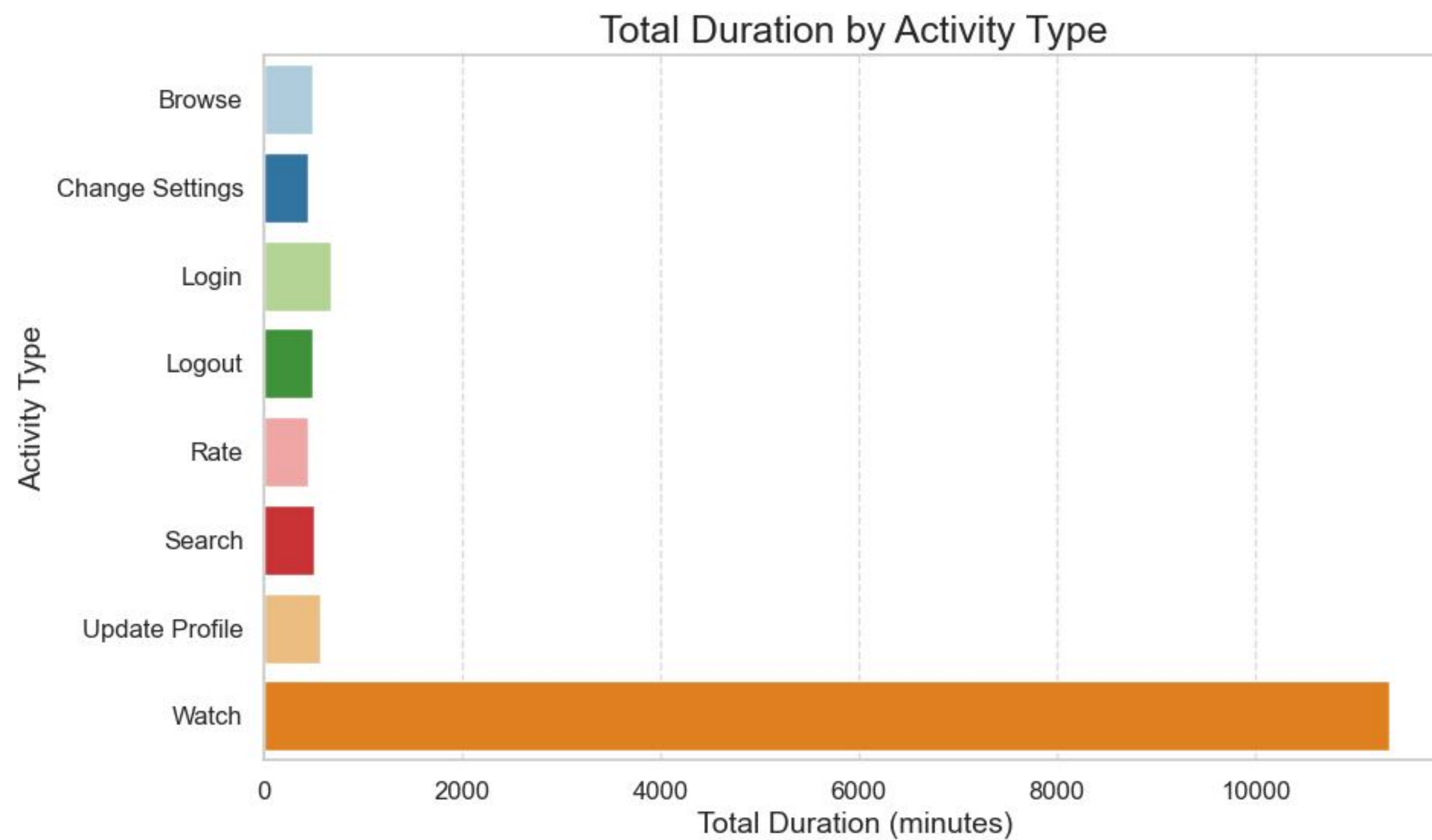
Subscription Status Distribution

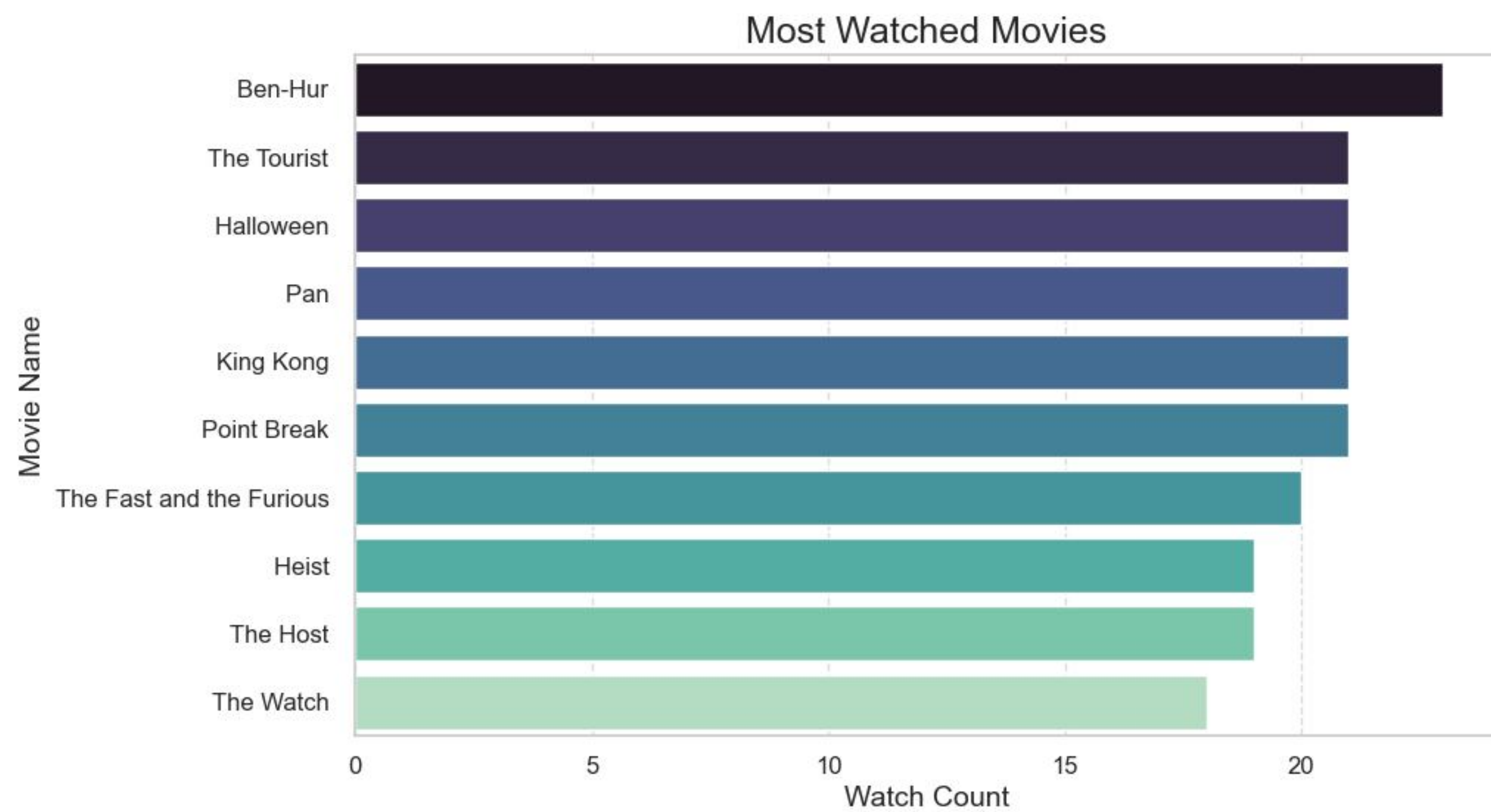












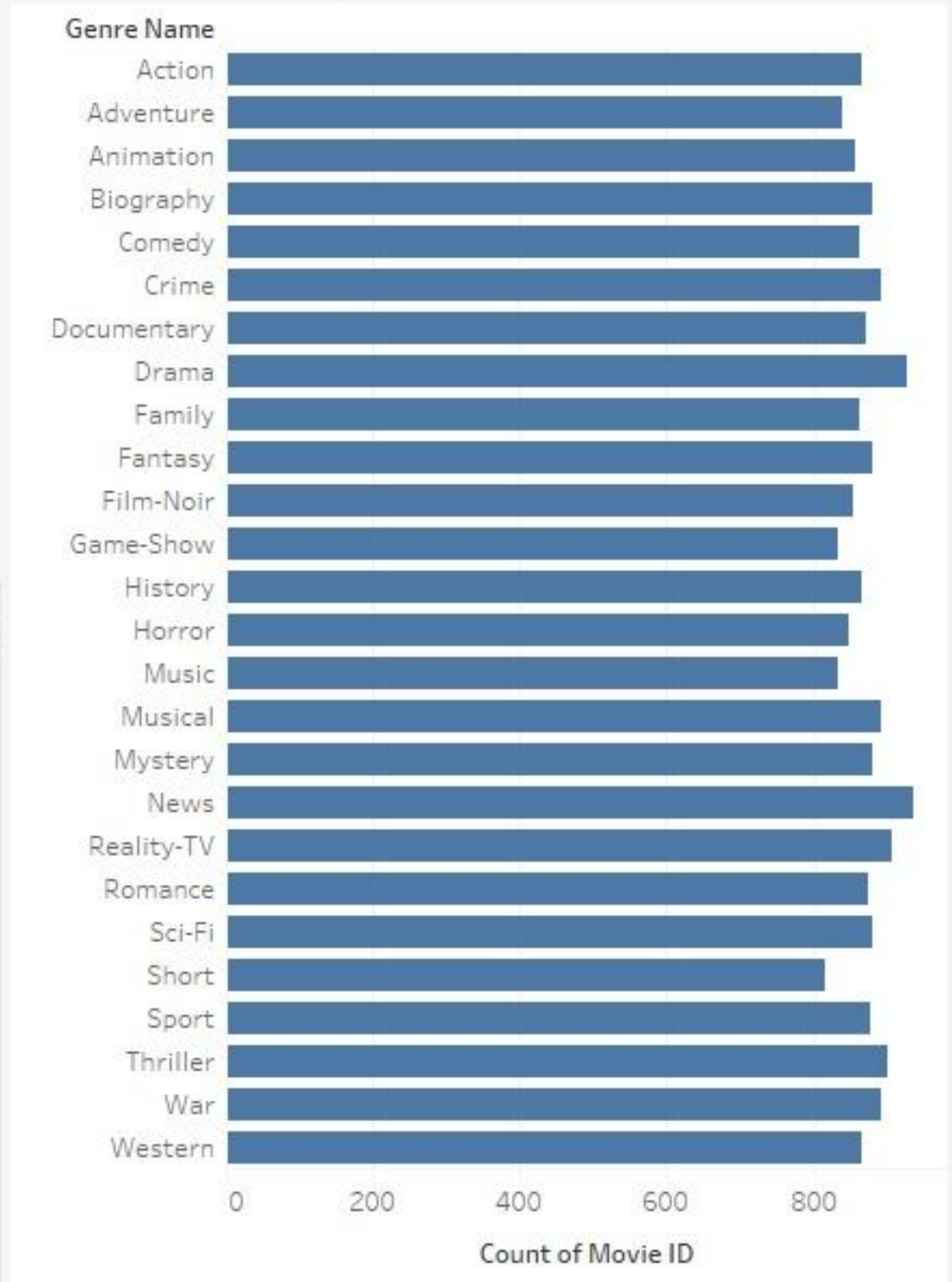
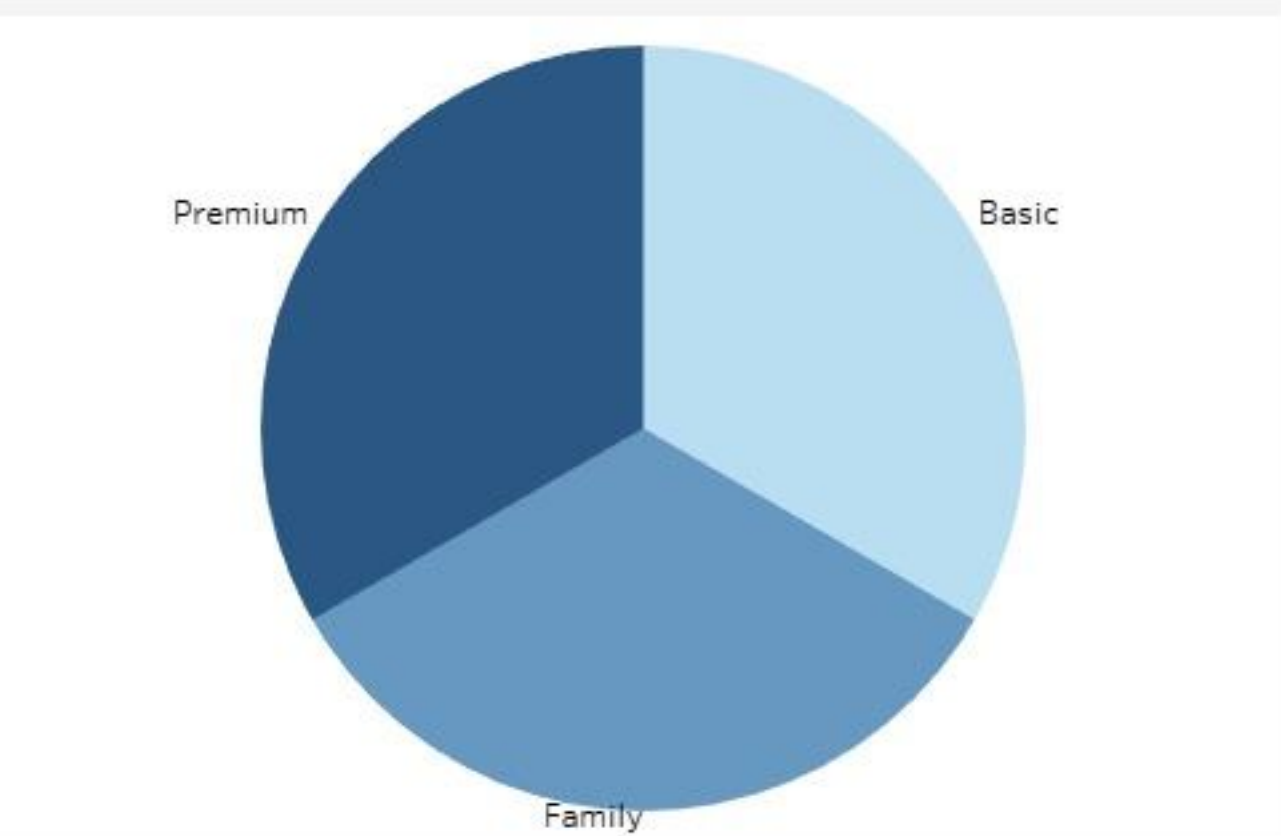
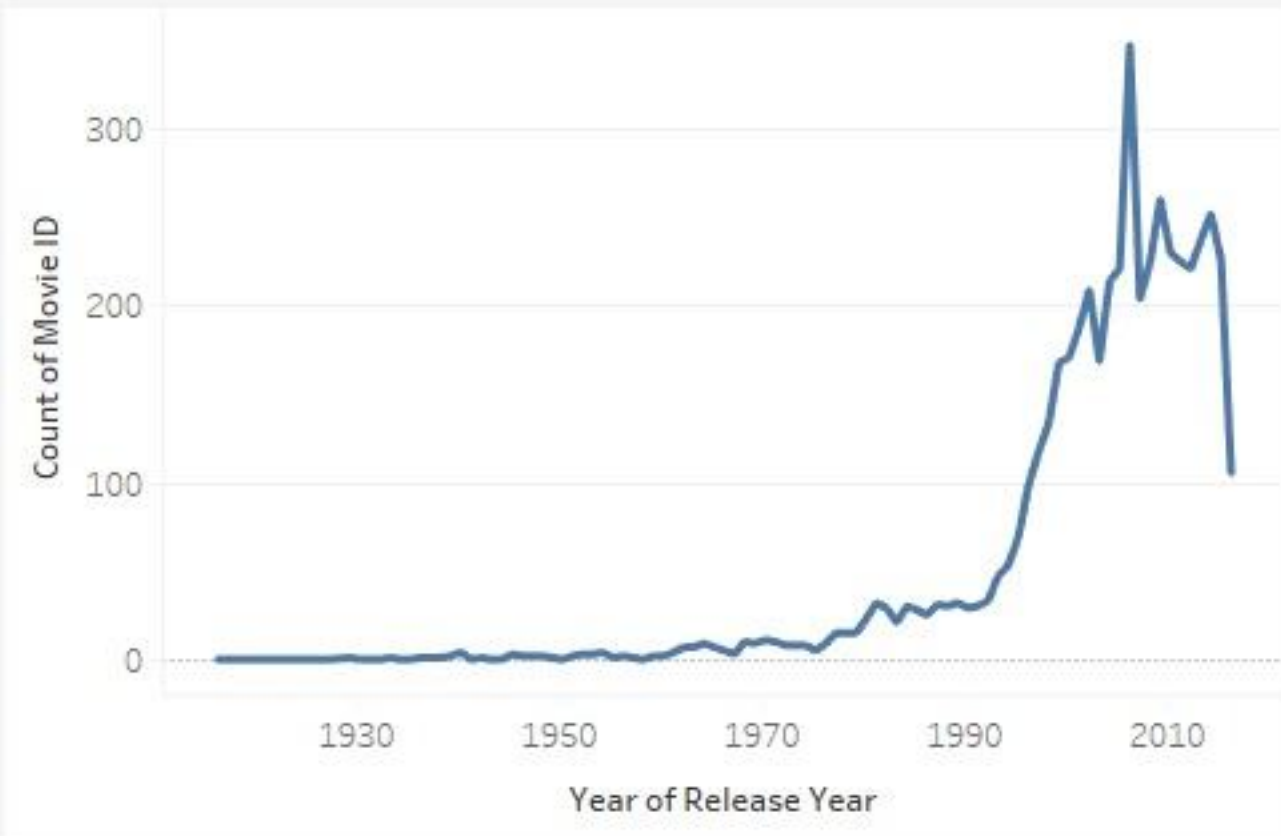
Dashboard



Change Settings

Search

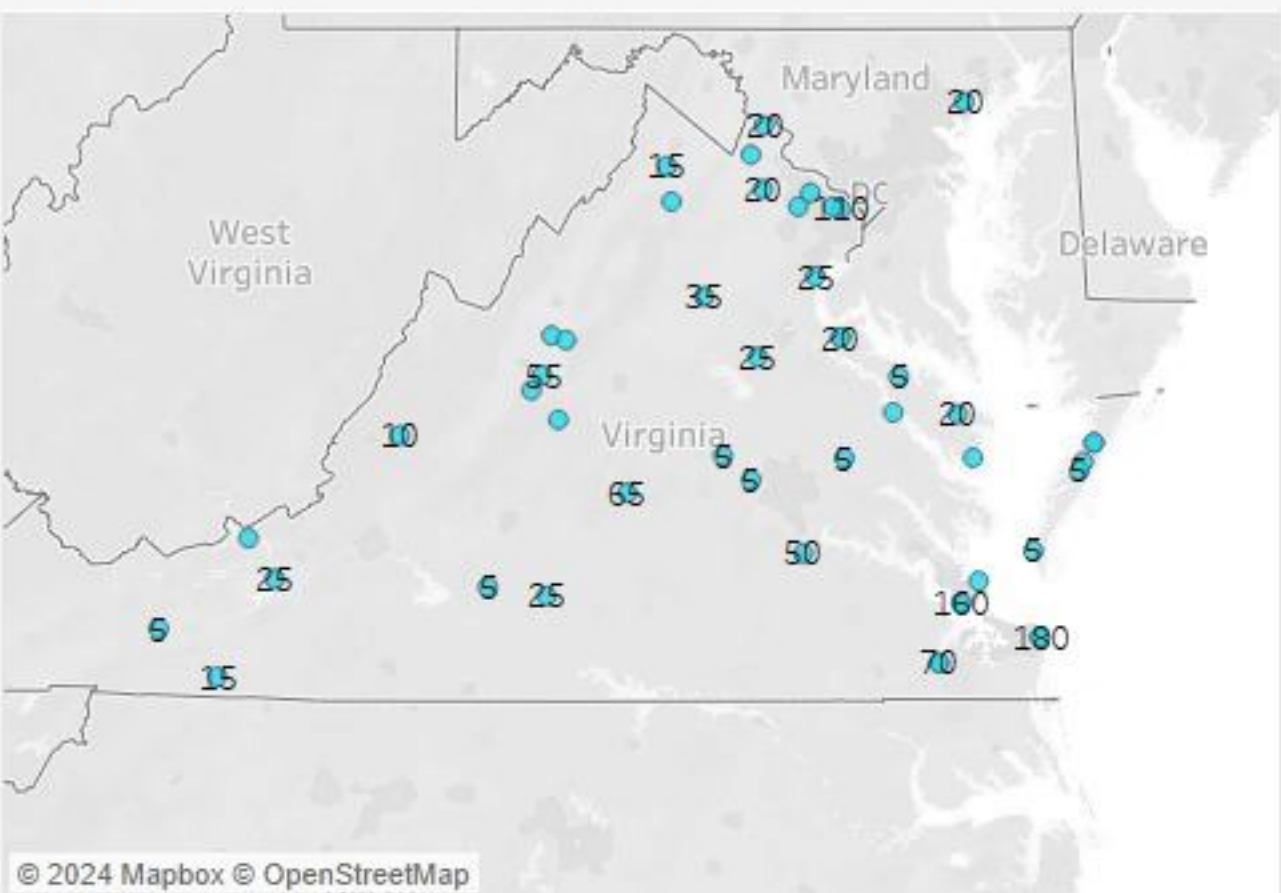
Update Profile



Country

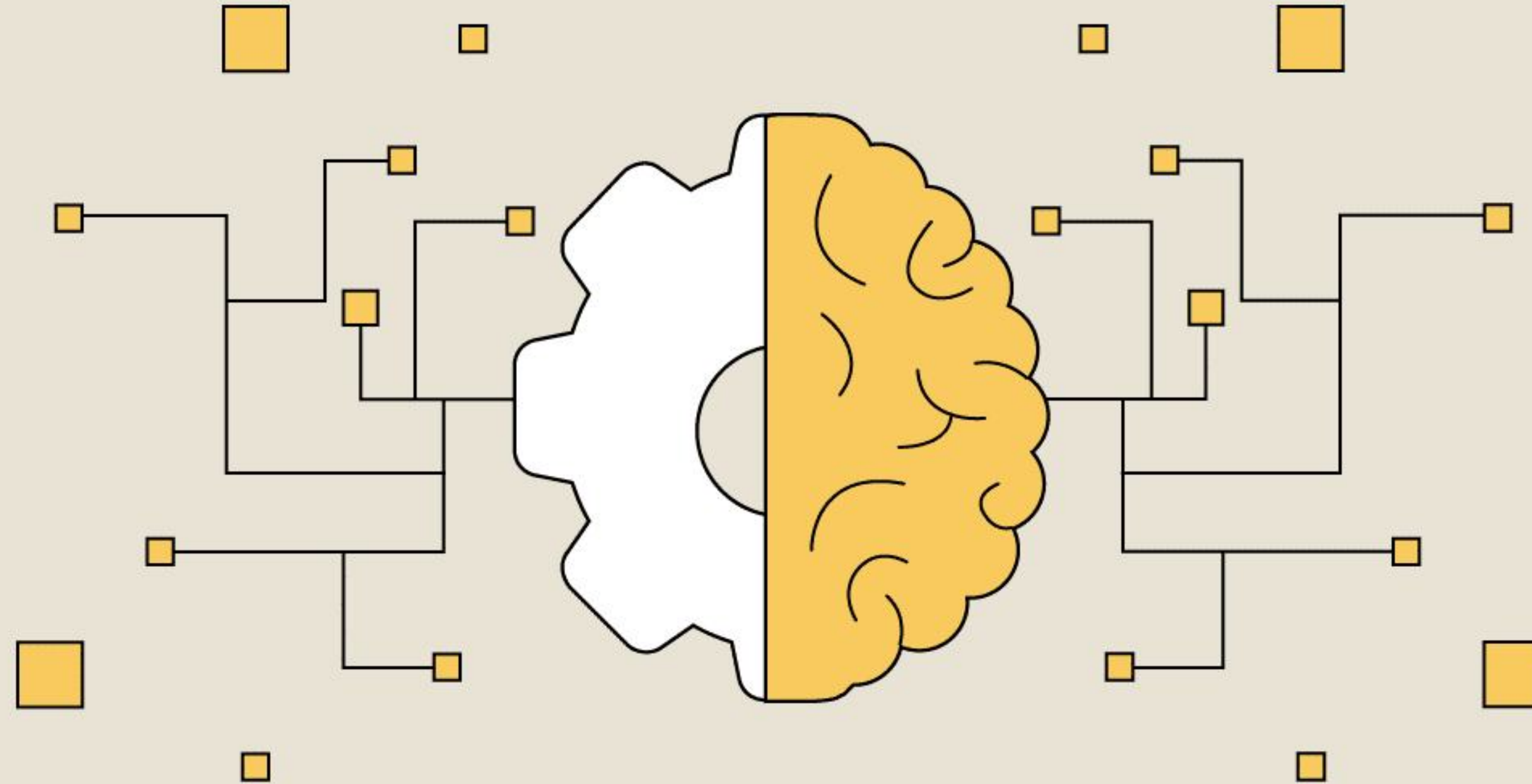


City



4

Data Science

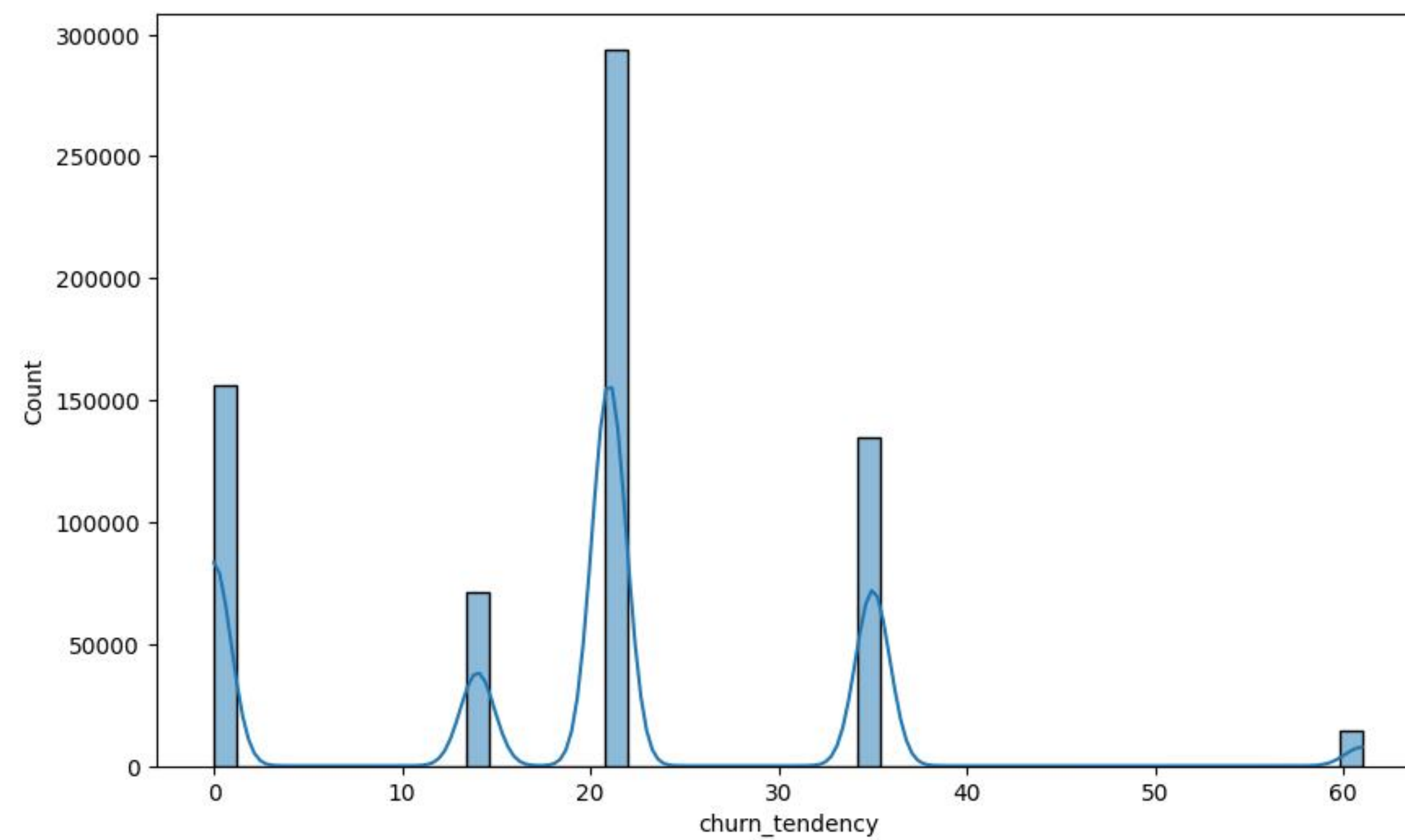


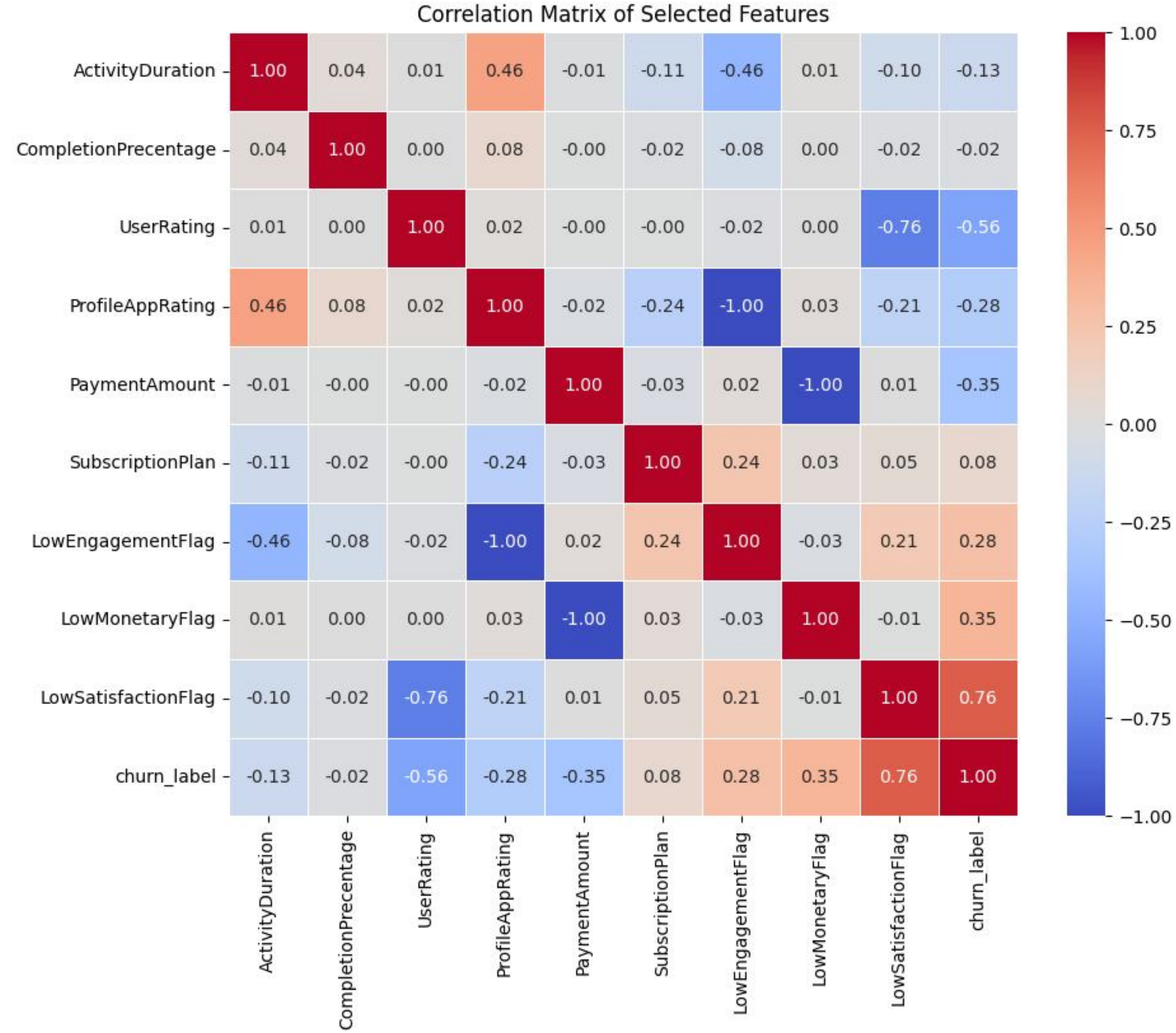
Initial Selected Features:

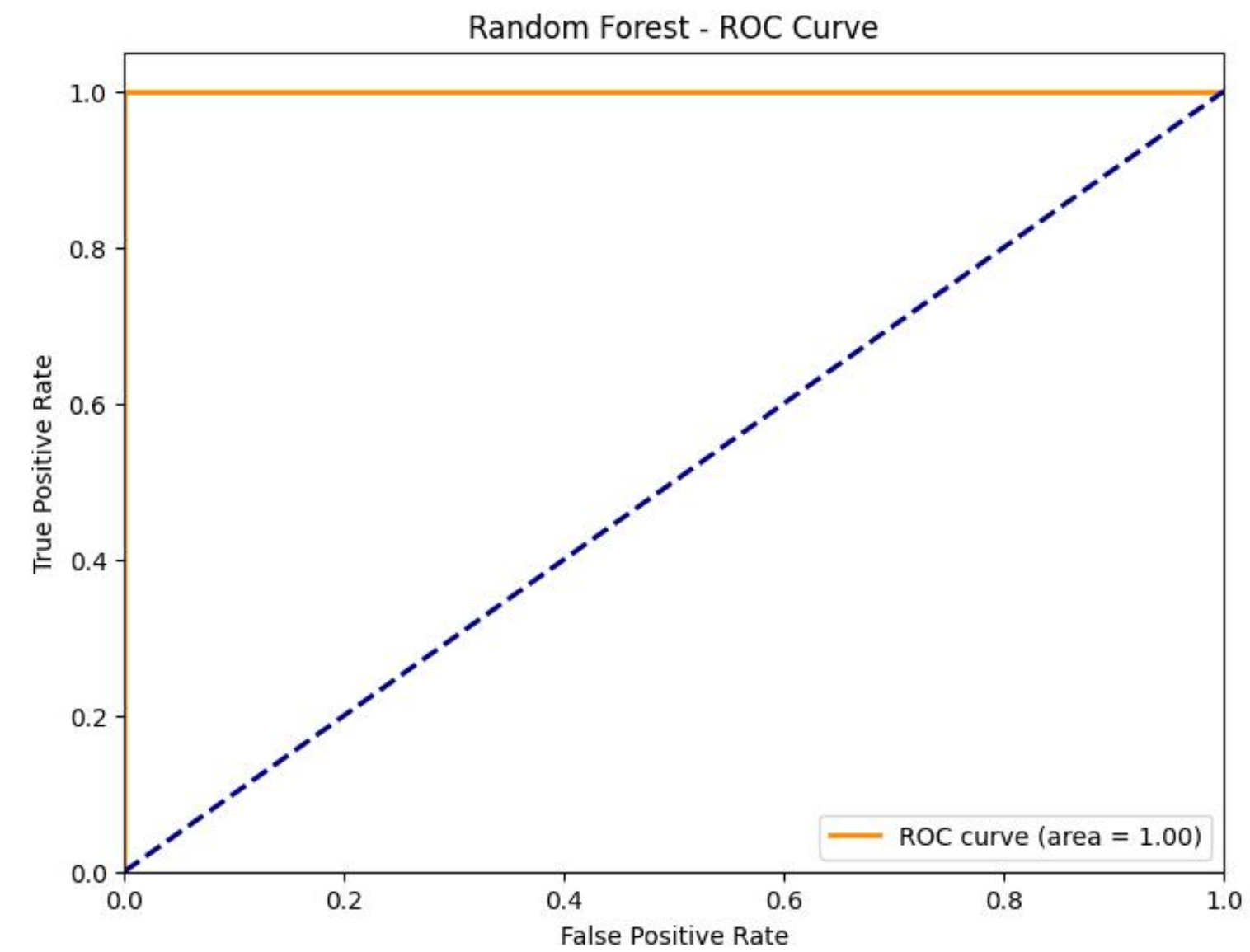
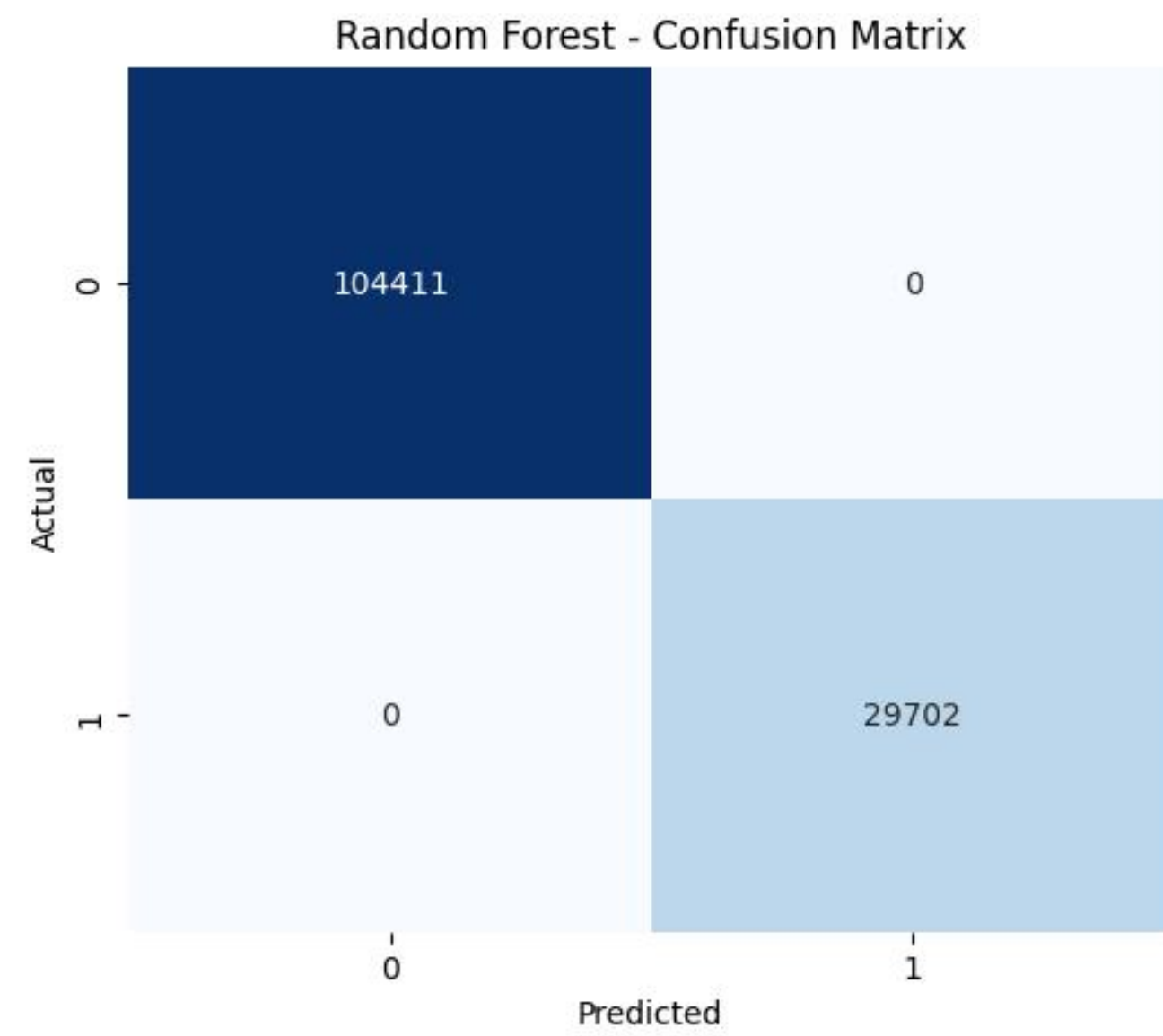
Feature Category	Features
Customer Activity	ActivityDuration
Customer Activity	CompletionPercentage
Customer Activity	UserRating
Financial	PaymentAmount
User Profile	ProfileAppRating
User Profile	SubscriptionPlan
Customer Demographics	CustomerState
Customer Demographics	CustomerCity
Customer Demographics	CustomerCountry
Customer Demographics	ProfileGender
Customer Demographics	ProfileBirthDate
Engagement	LowEngagementFlag
Satisfaction	LowSatisfactionFlag

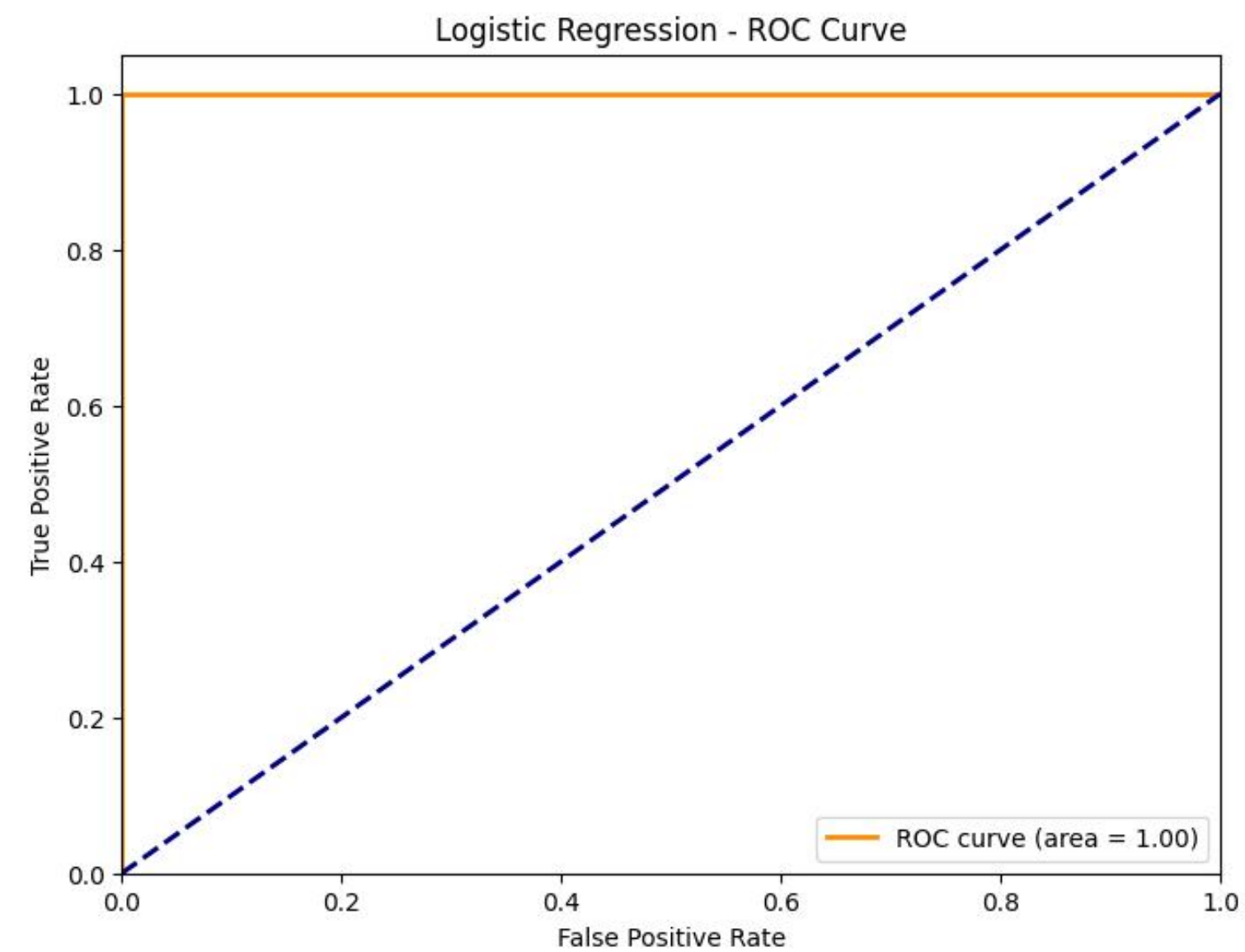
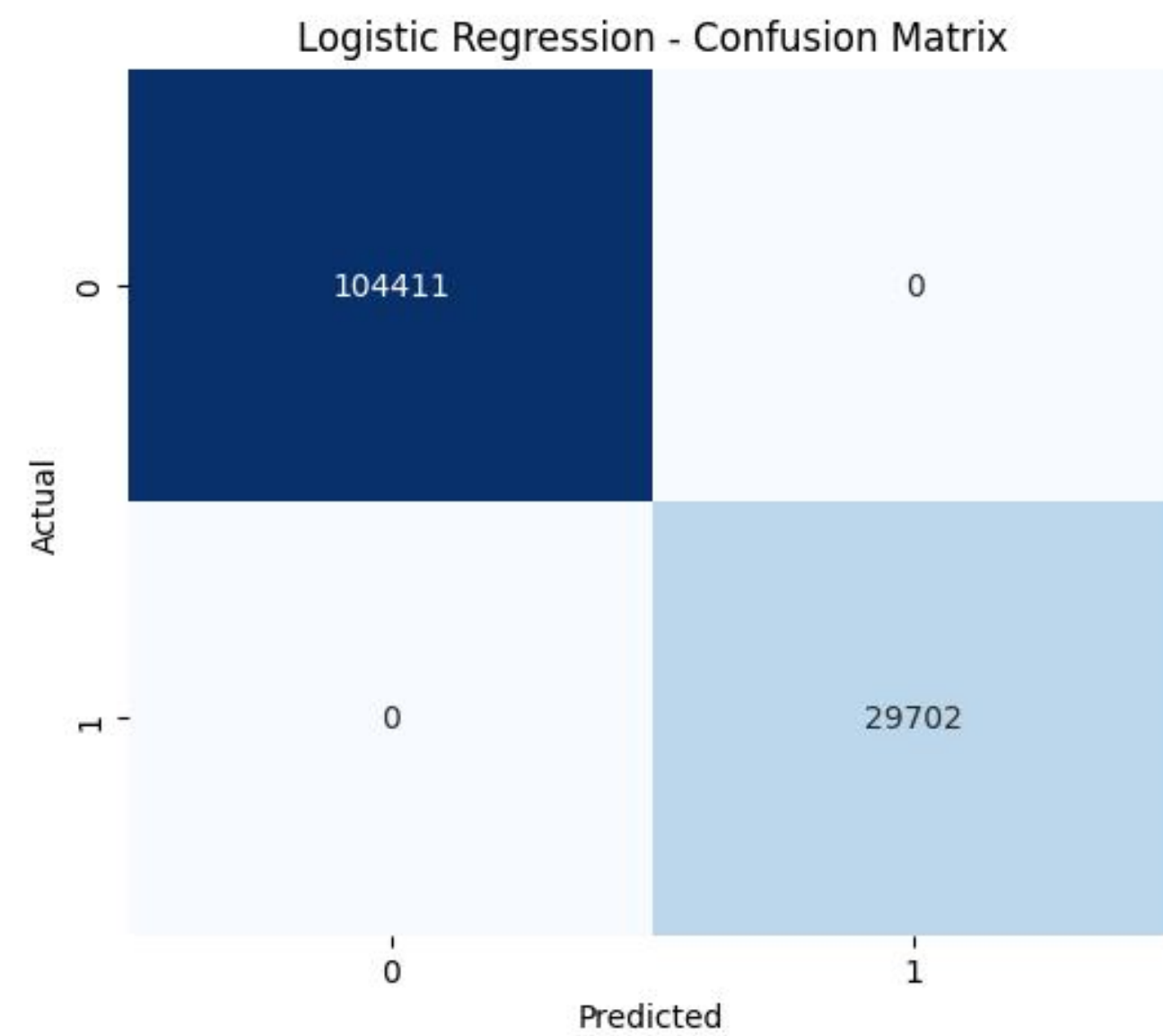
Final Selected Features:

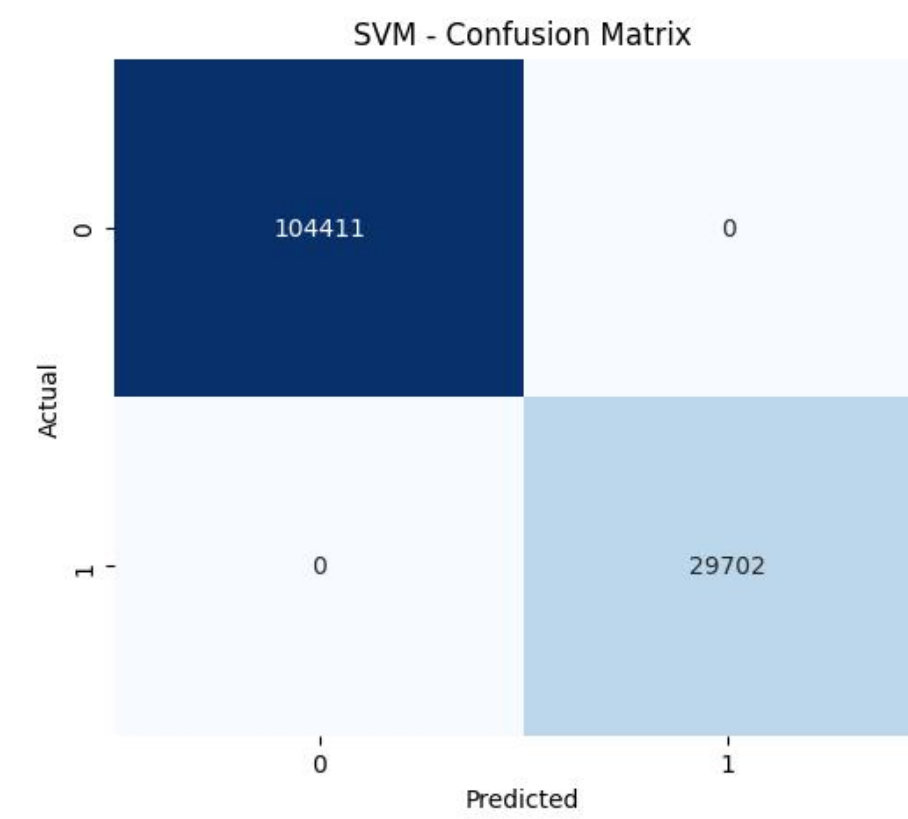
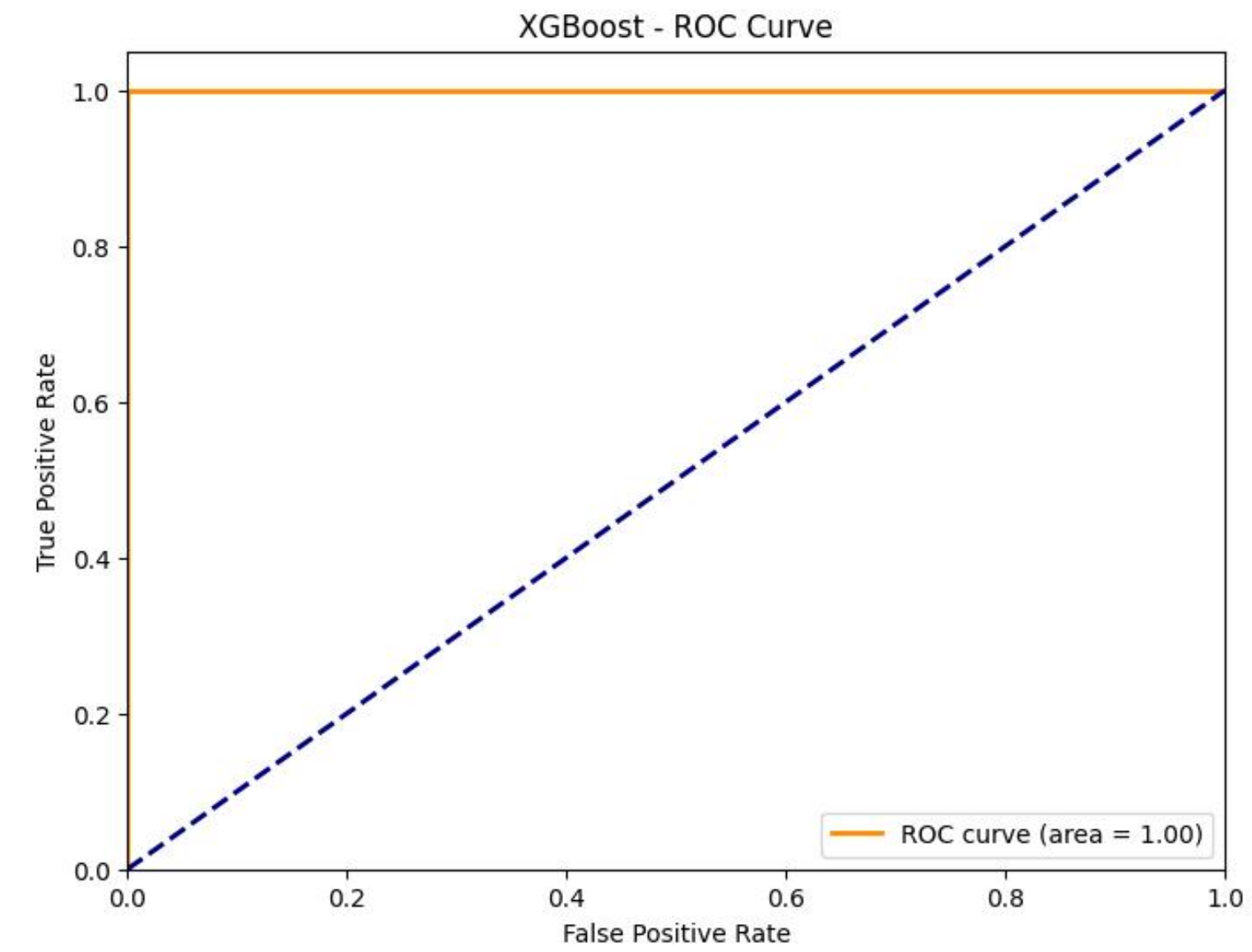
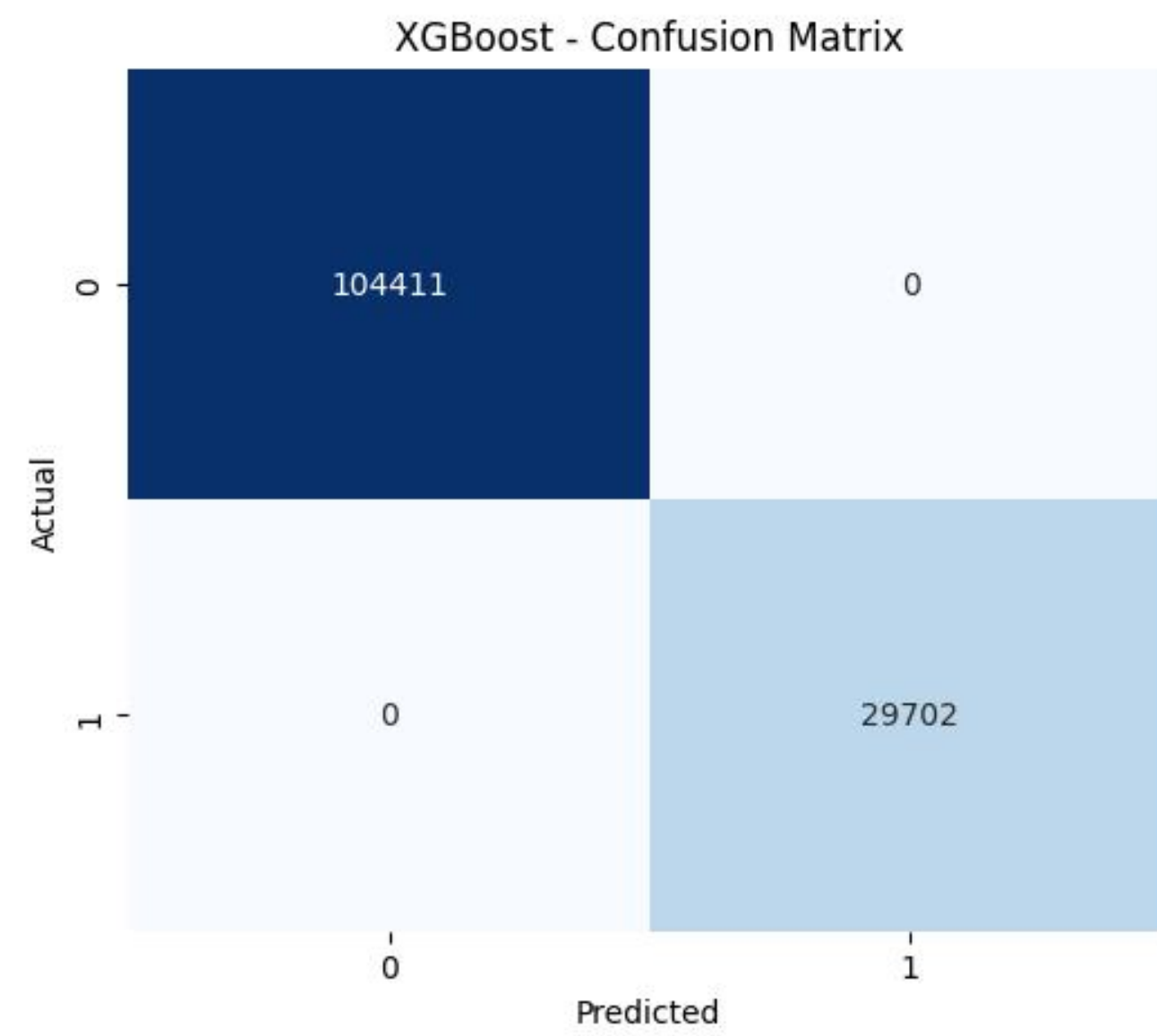
Final Selected Features
LowSatisfactionFlag
LowMonetaryFlag
LowEngagementFlag
PaymentAmount
ProfileAppRating
UserRating
SubscriptionPlan

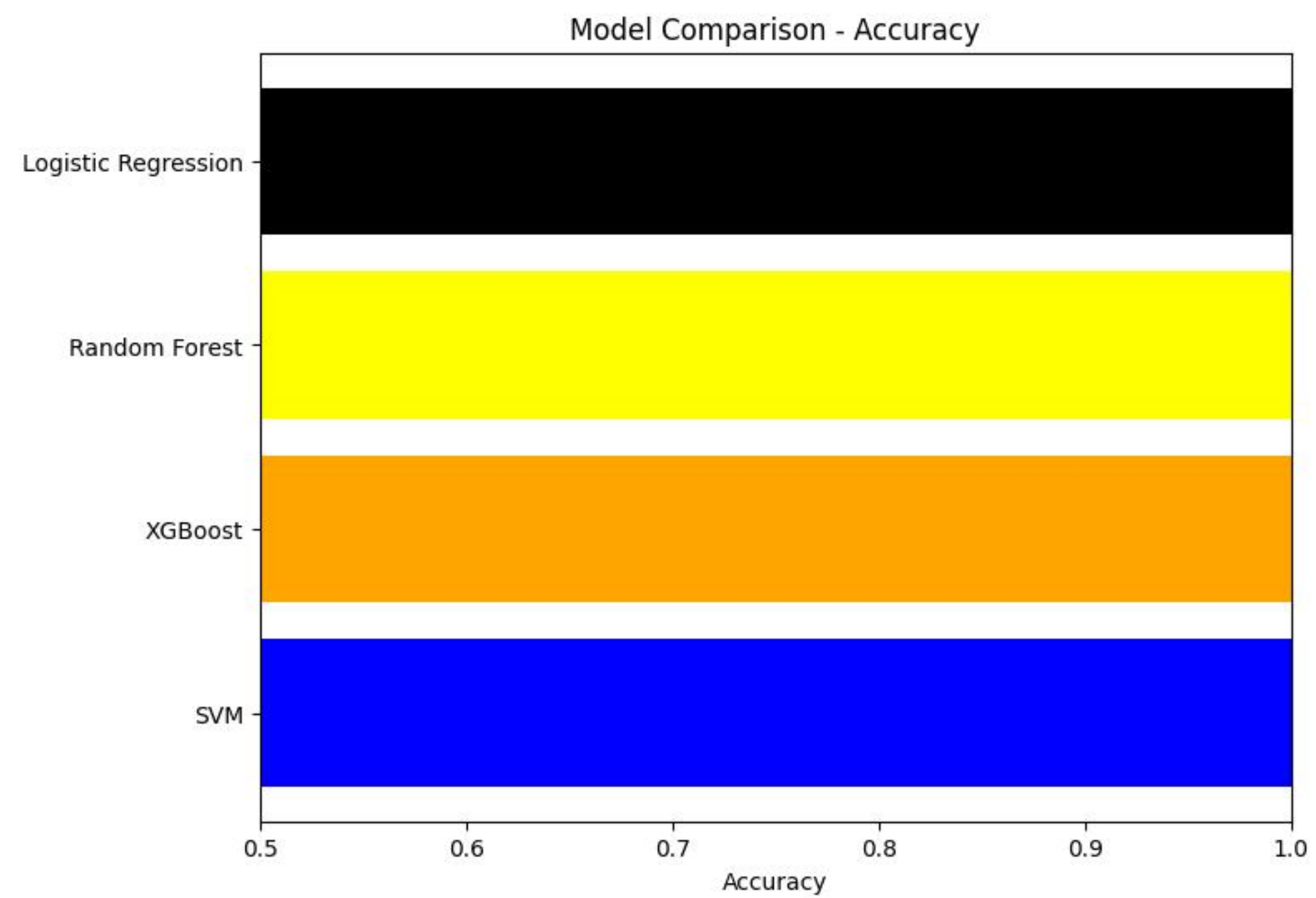












5

Streamlit App



Streamlit



Customer Churn Prediction App

Enter Customer ID




Get Churn Prediction



Made with Streamlit

<http://localhost:8501>

OUR TEAM



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“

Without data, all we have is an opinion.

Edward Deming

”

THANK
YOU

Reach out to us if you have questions.