PHASE 4 PROJECT

ONLINE RETAIL RECOMMENDATION SYSTEMS

Moringa School | 2022

/01

ELITE

Bradley Azegele
Daniel Kimutai
Grace Anyango
Julia Karanja
Phelma Kandie

Agenda

Business Understanding
Data Understanding
Data Preparation
Modeling
Recommendations
Next Steps

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Business Understanding

Overview

Online shopping refers to a **delivery and pick-up service**. This particular service is offered by companies through a **website and mobile app**.

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Business Understanding

Problem Statement

One of the biggest challenges that **new retailers** trying to start a business face is that they have a variety of **products to choose** from in order to come up with their catalog.

In most cases these retailers are not able to get this information and therefore this can have a negative **impact on their businesses**.

Source

Our data set is from UCI Machine Learning Repository.

About

It is from an non-store online shop selling unique gifts .

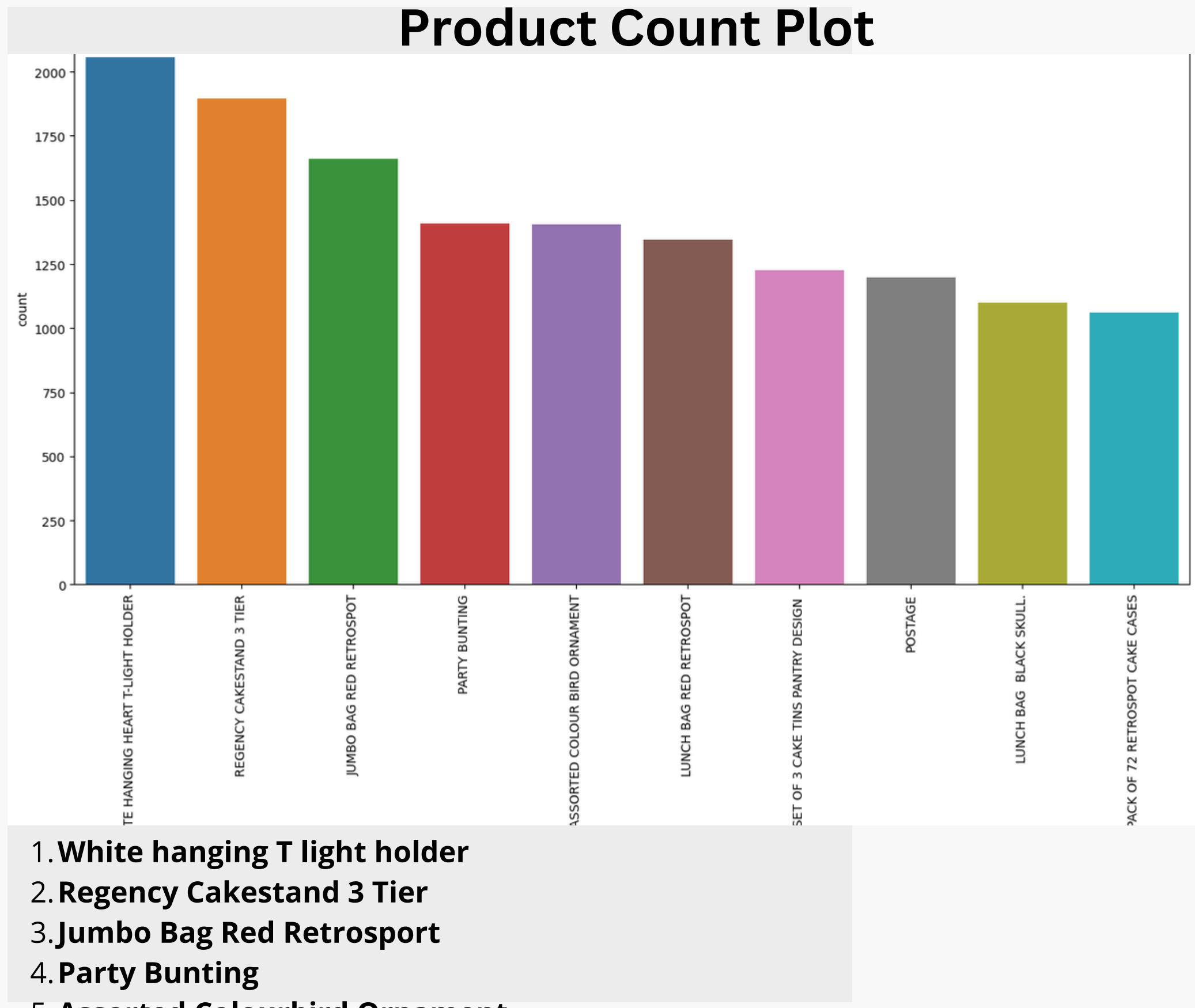**Period**

From 2010 December to 2011 December.

Data Understanding

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Data Preparation
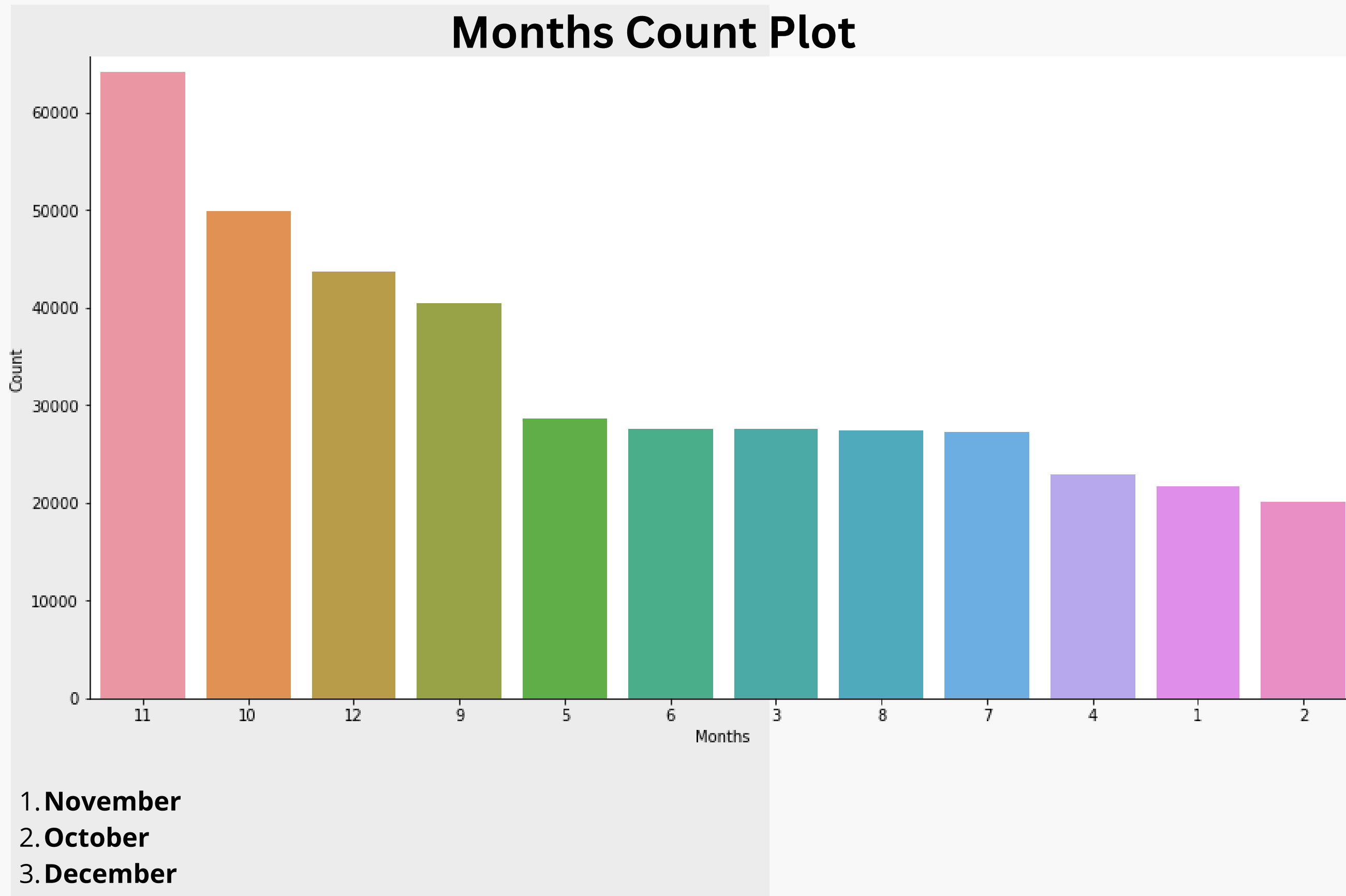
- Cleaning
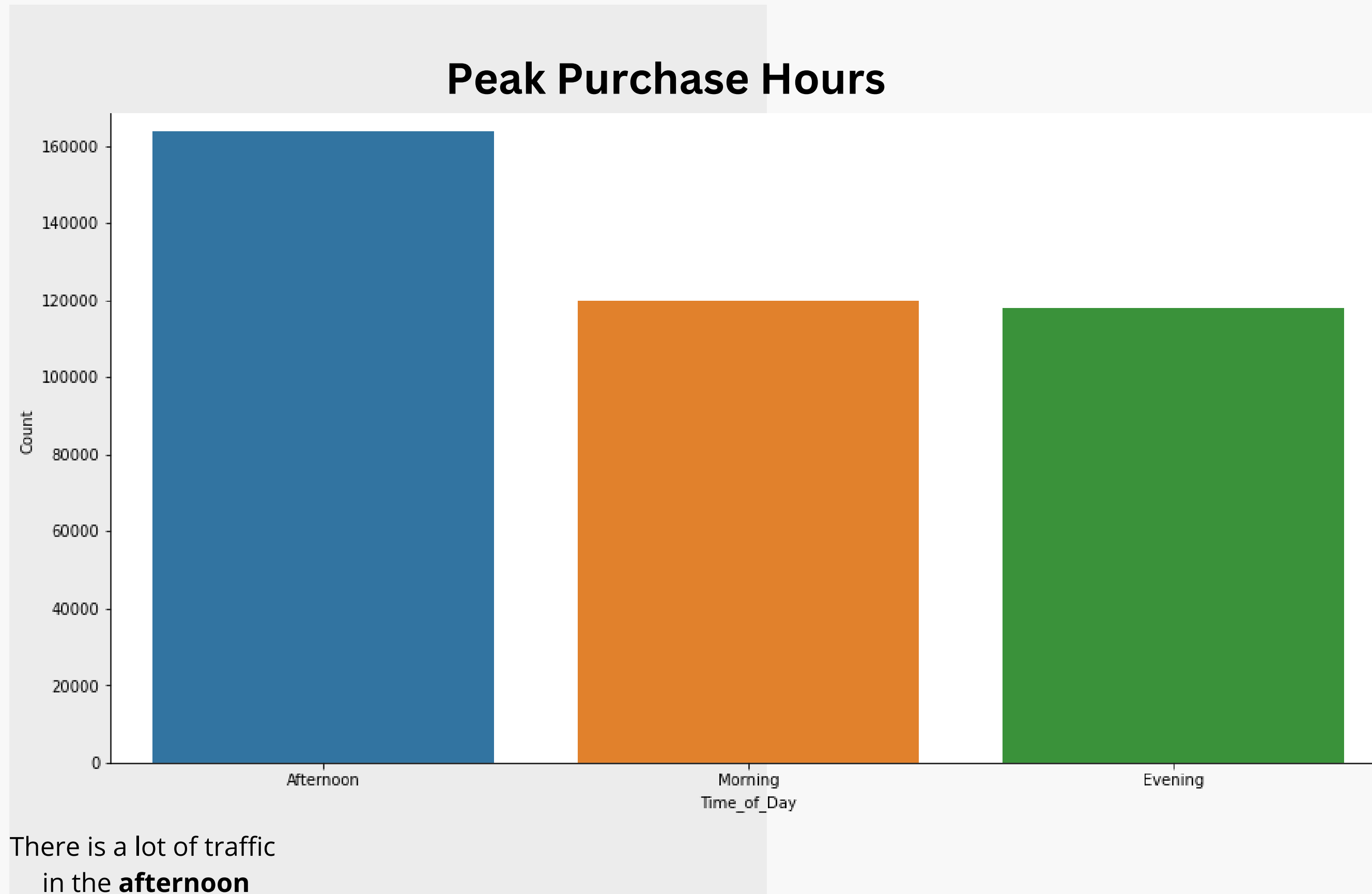- Exploratory Data Analysis (EDA)

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Top 10 Products

Product Count Plot

1. **White hanging T light holder**
2. **Regency Cakestand 3 Tier**
3. **Jumbo Bag Red Retrosport**
4. **Party Bunting**
5. **Assorted Colourbird Ornament**

Months Count Plot

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Months Ranked

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1. **November**
2. **October**
3. **December**

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Daily Traffic

Peak Purchase Hours

There is a lot of traffic
in the **afternoon**

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Amount vs Time of Day

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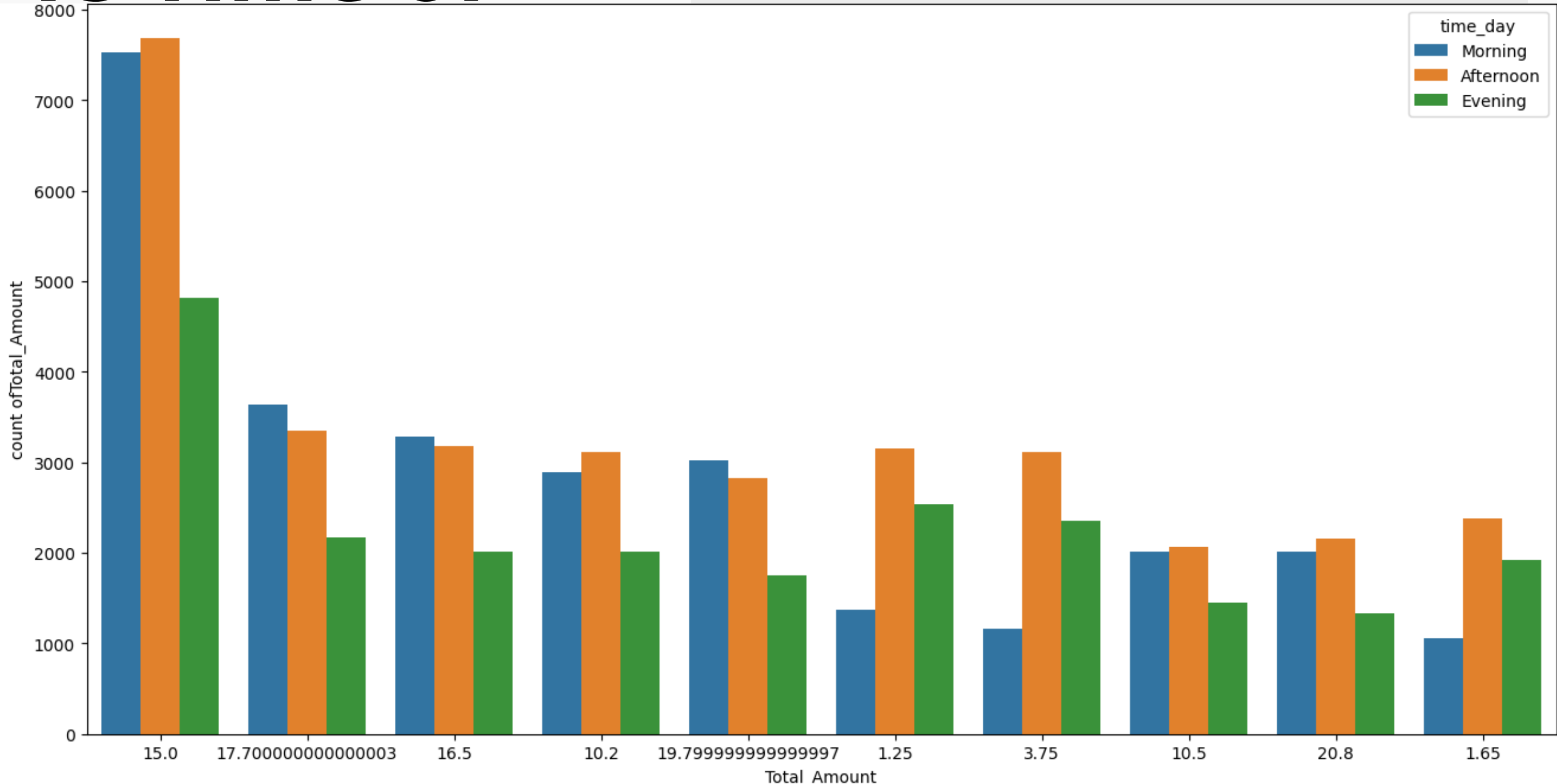
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	KNN	SVD
Test RMSE	0.244	0.364
CV RMSE	0.246	0.363

Modeling

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RECOMMENDATION

Products, Months, Daily Traffic

White hanging light holder is the most popular, November has the highest orders and Afternoon is the peak time of the day.
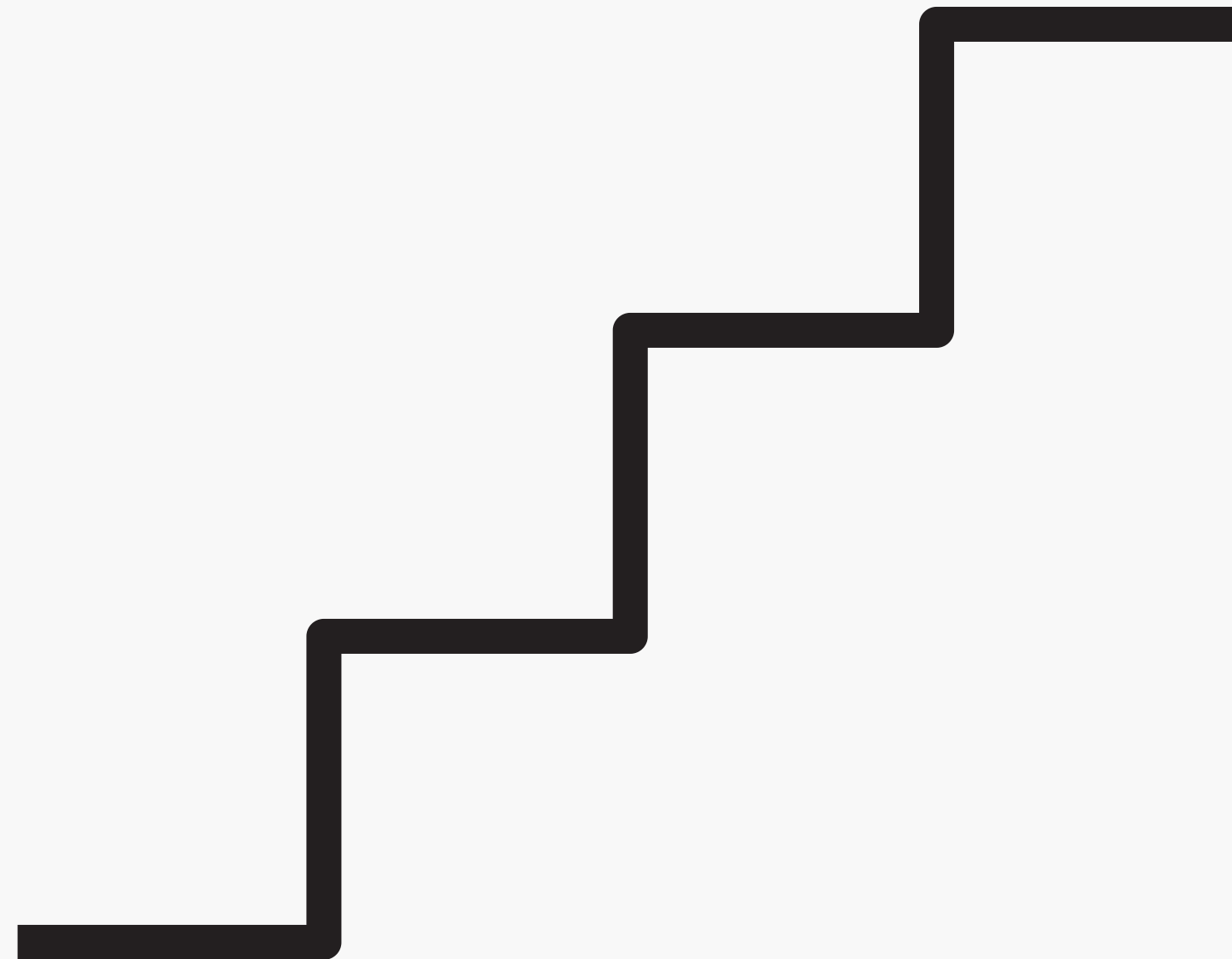
Recommending Products to Customers

Our Memory_based model and Model_based model are able to recommend products to customers .

This can therefore be used by both new customers and existing customers.

Deployment of the model

Next Steps

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Thank you!