

PHASE 4 PROJECT



# ONLINE RETAIL RECOMMENDATION SYSTEMS

Moringa School | 2022

PHASE 4 PROJECT

/01



Bradley Azegele

Daniel Kimutai

Grace Anyango

Julia Karanja

Phelma Kandie

Moringa School | 2022

---

# Agenda

Business Understanding  
Data Understanding  
Data Preparation  
Modeling  
Recommendations  
Next Steps



/02

# /03

# 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**.



/04

# 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

/05

/06

# I Data Preparation

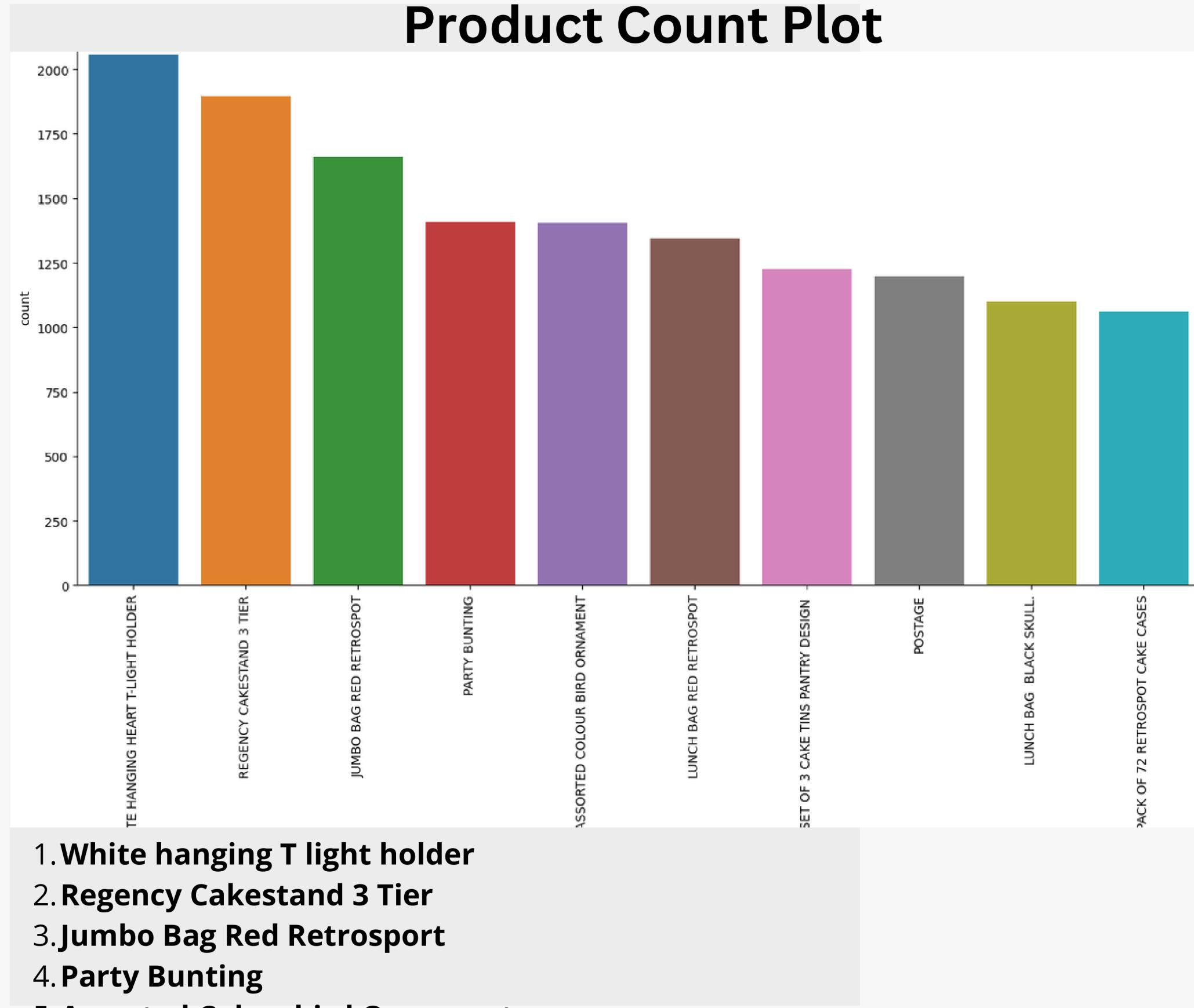


- Cleaning
- Exploratory Data Analysis (EDA)

## Univariate Analysis

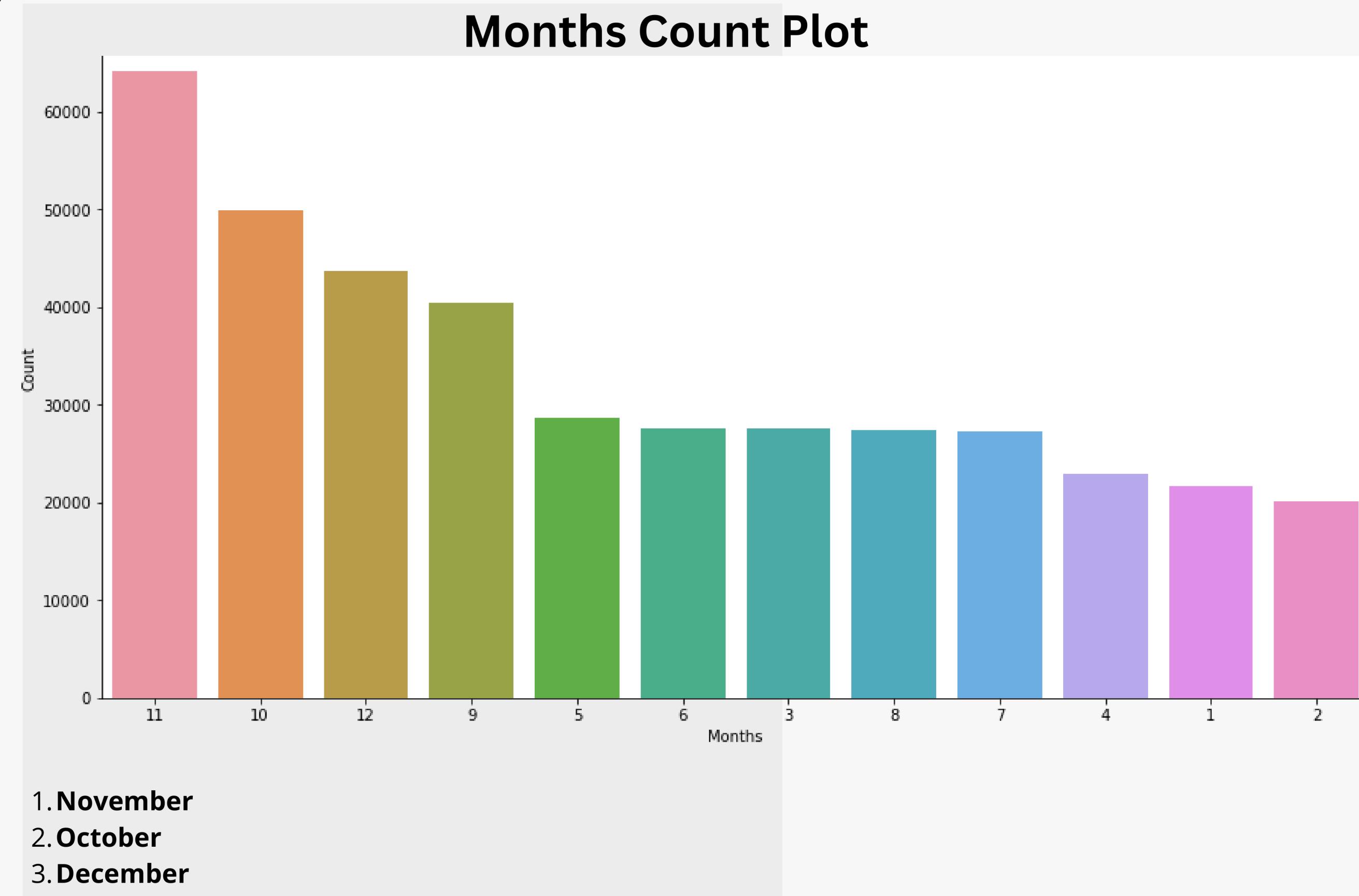
/07

Moringa School | 2022

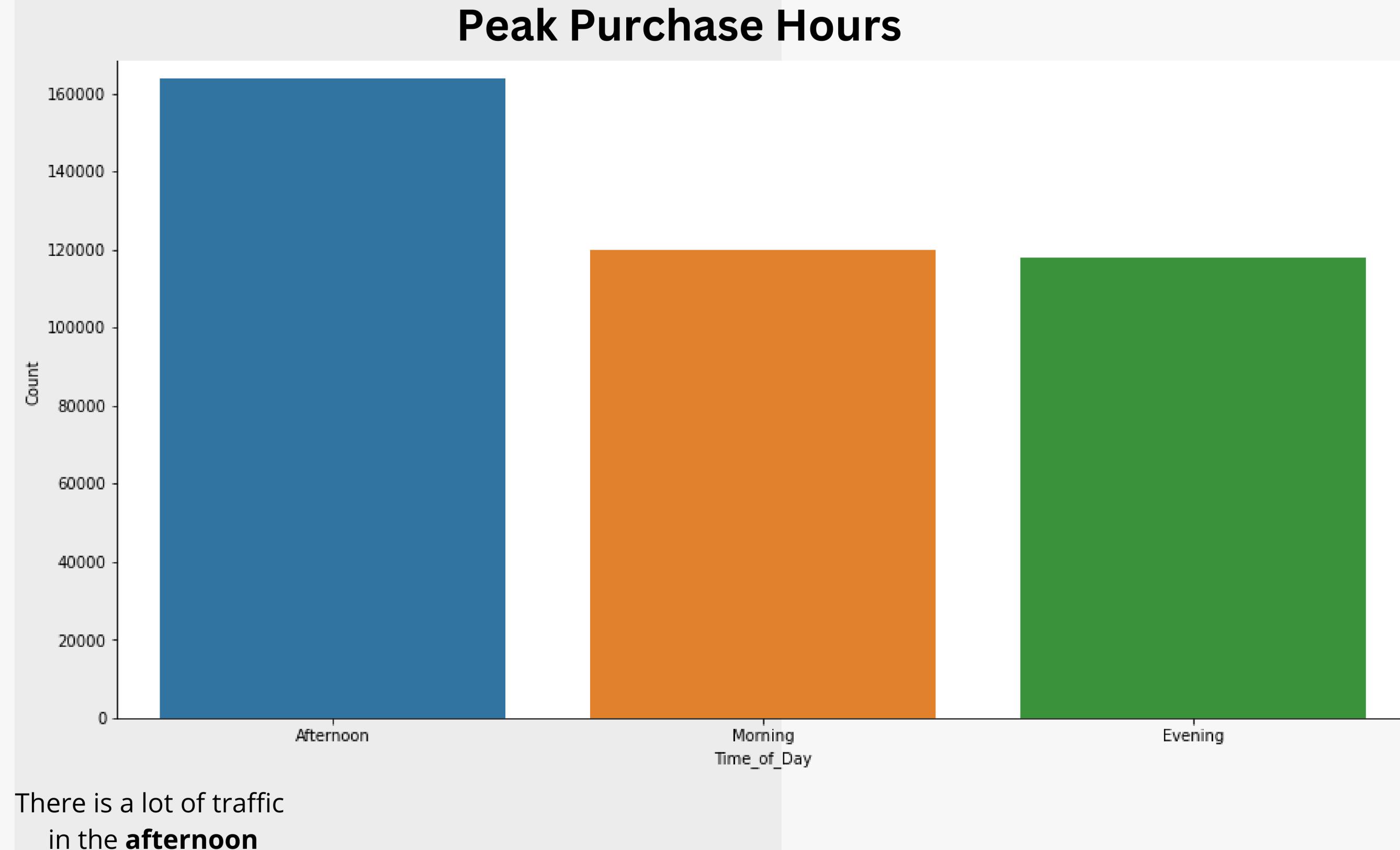


Top 10  
Products

Moringa School | 2022



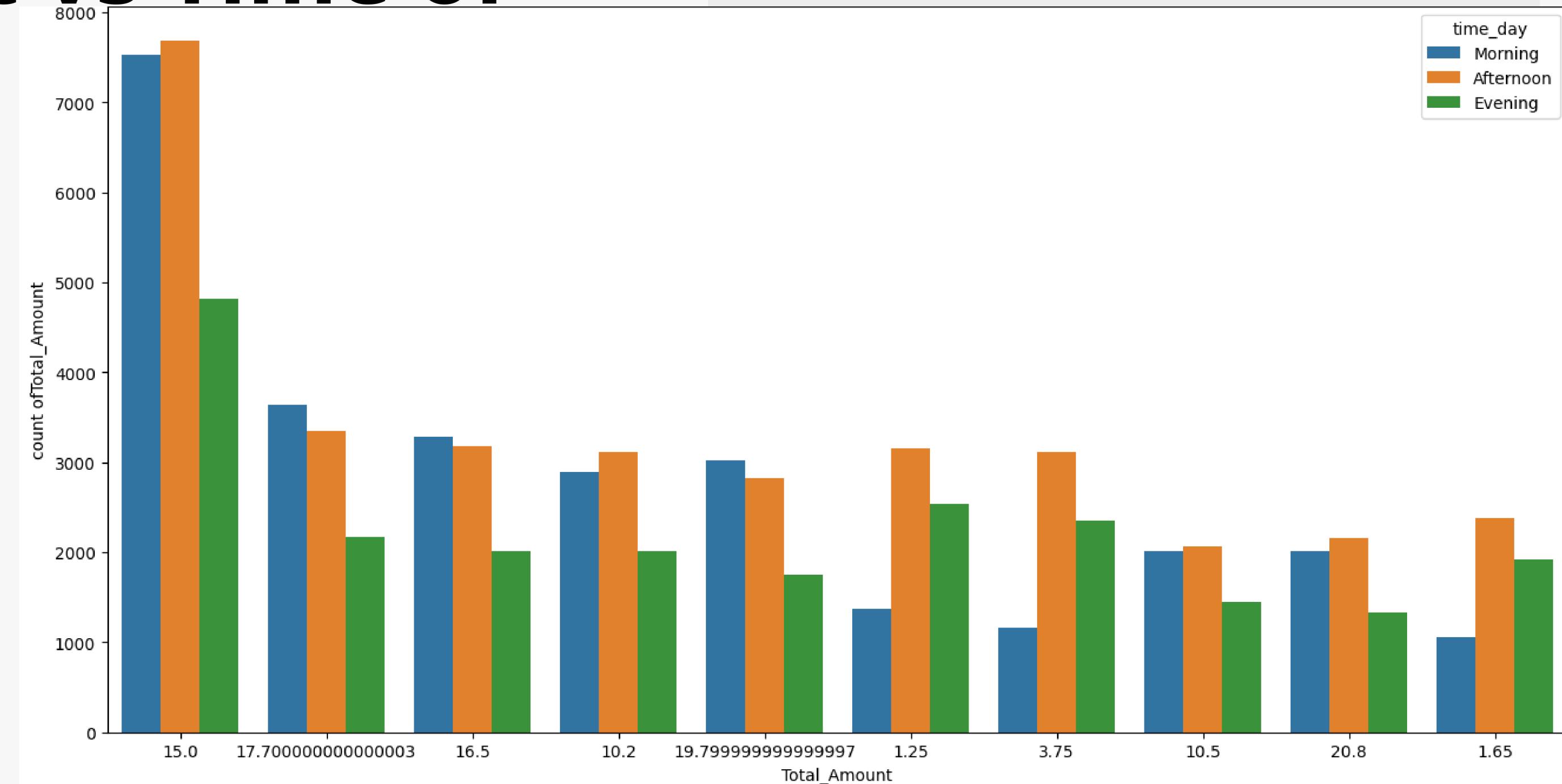
Months  
Ranked



# Daily Traffic

# Amount vs Time of Day

Bivariate Analysis



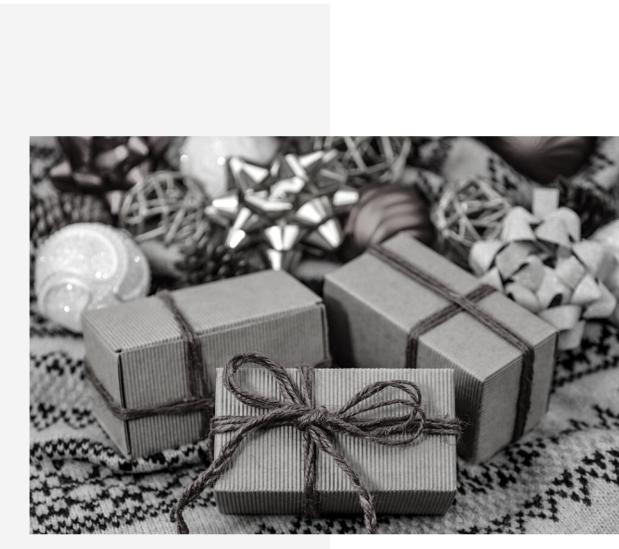
/10

# Modeling

	KNN	SVD
Test RMSE	0.244	0.364
CV RMSE	0.246	0.363

/12

## 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.

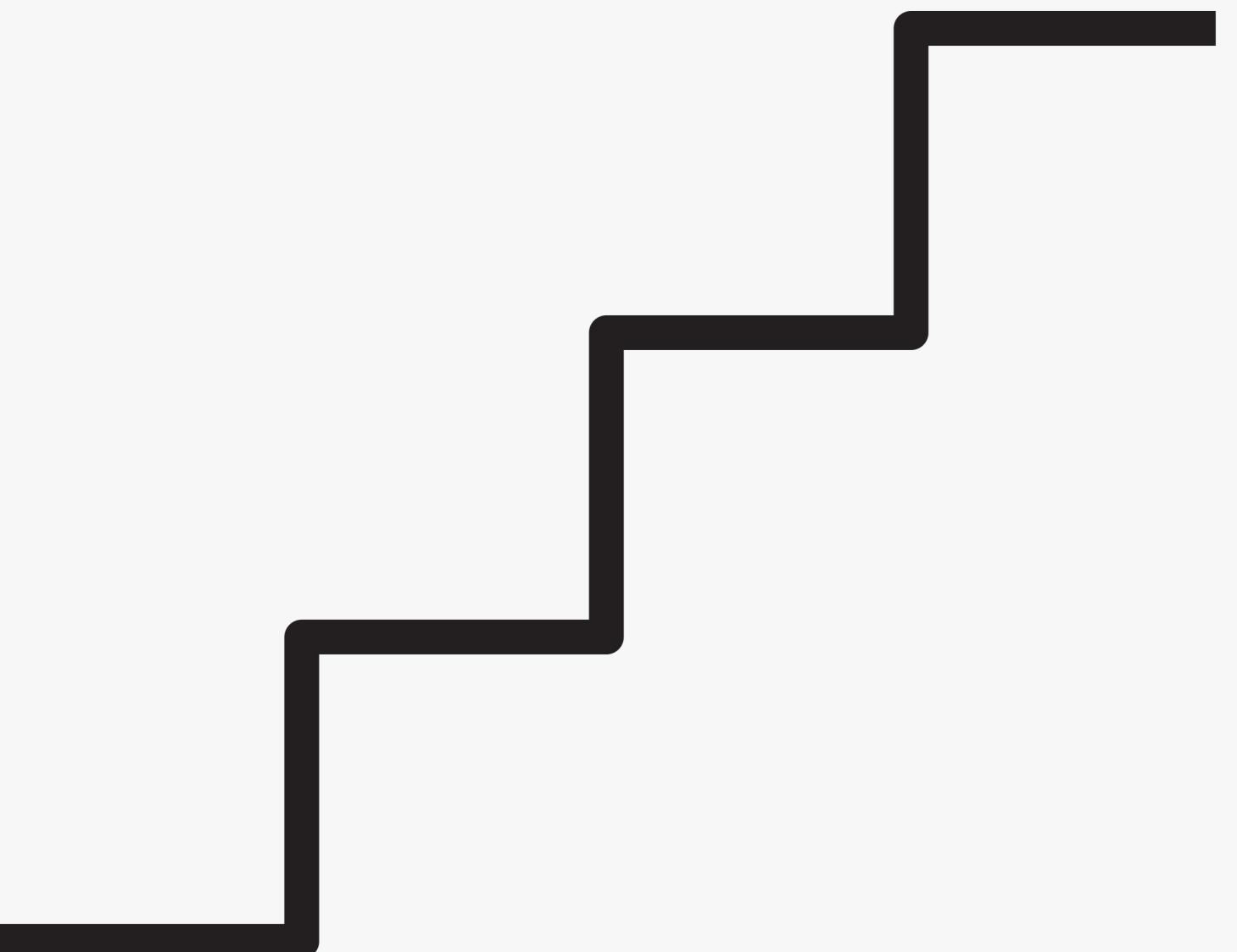
### Recommending Products to Customers

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





**Thank  
you!**

**/12**