



# Fashion Trend Predictor

# Summary

H&M purchase data from September 20, 2018 to September 22, 2020 aims to predict popularity of different products.

## Recommendation #1

Adjust budget for month or season-based campaigns.

## Recommendation #2

Increase inventory for black clothes and accessories.

## Recommendation #3

Design personalized marketing campaigns for each demographic.

# Outline

- 01 Business Problem
- 02 Data & Methods
- 03 Results
- 04 Conclusions

# Business Problem



Problem #1

Personalized  
Recommendations



Problem #2

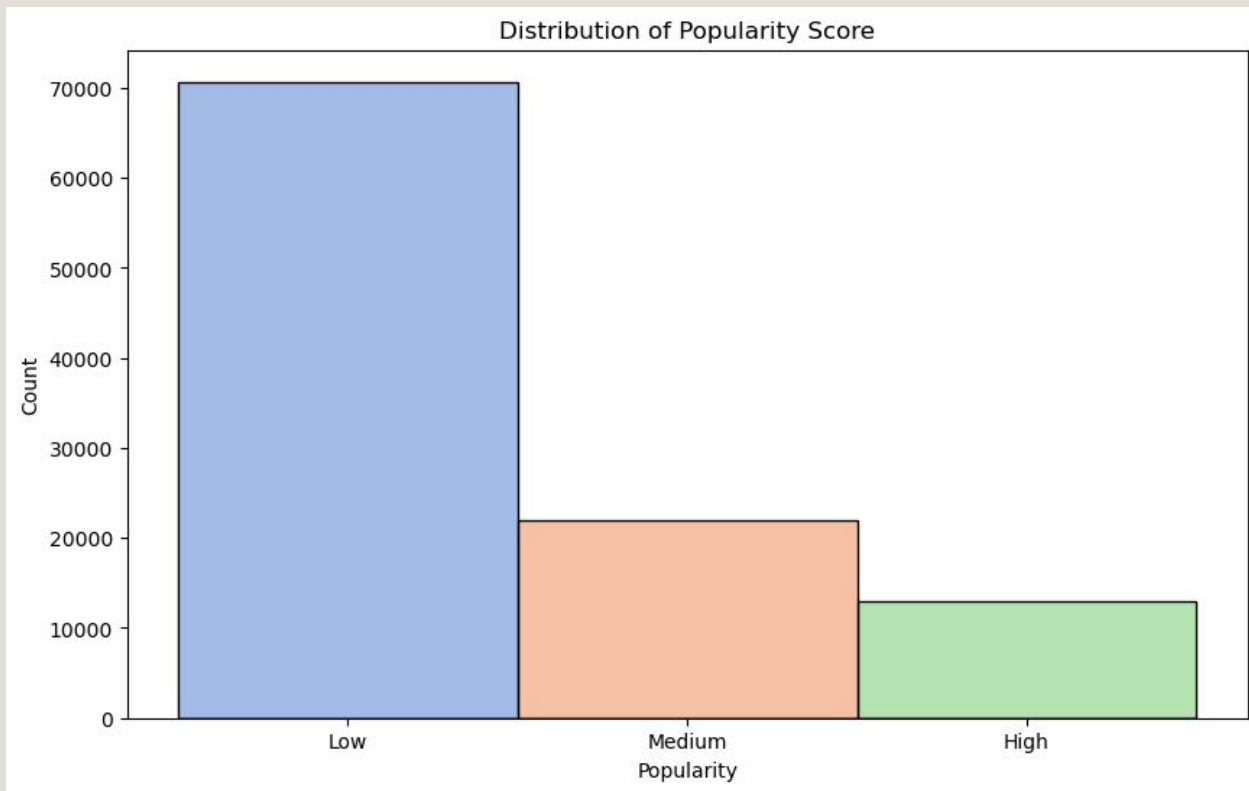
Inventory Management



Problem #3

Customer Retention

# Data & Methods

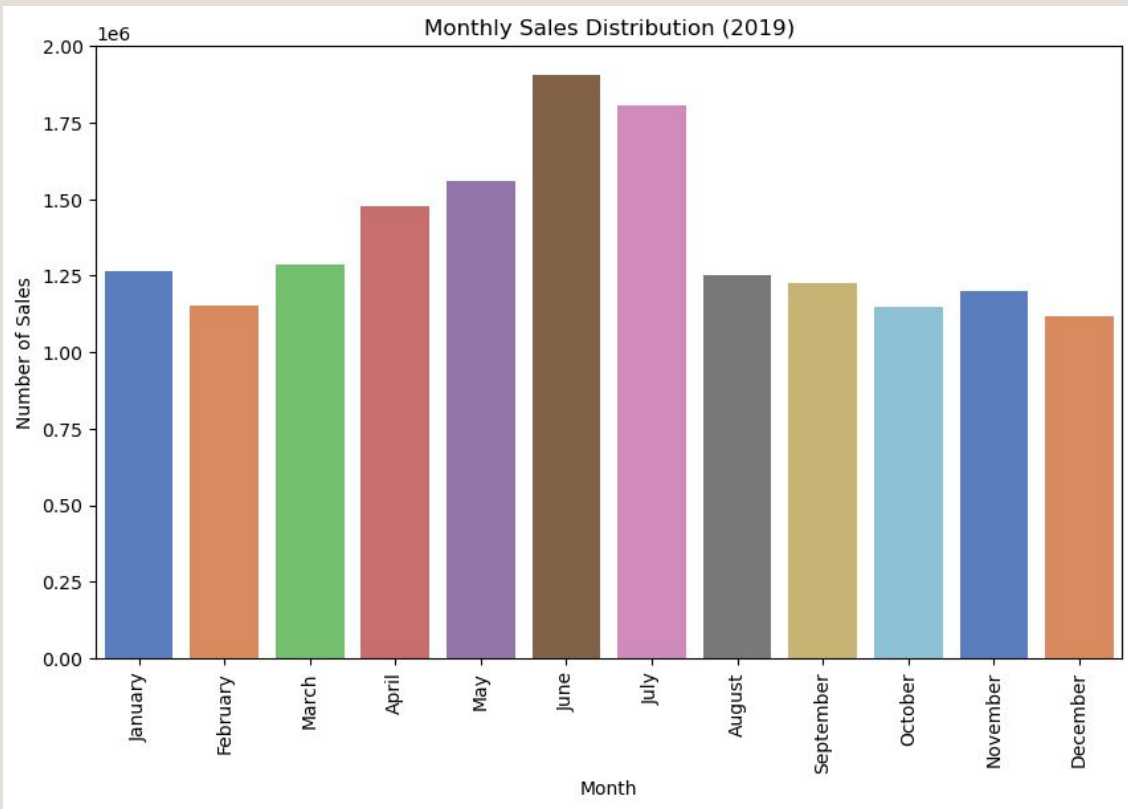


## Note

Majority class: Low

Minority class: Medium & High

# Results

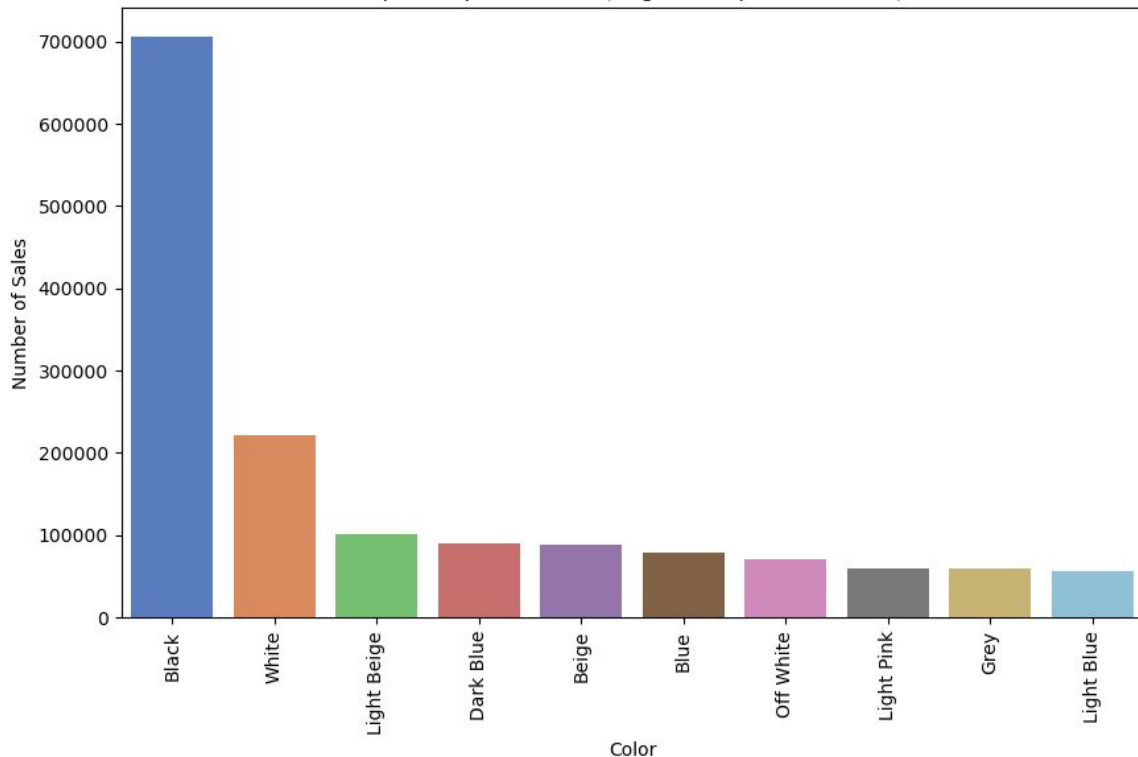


## Insight:

June and July are the months with highest number of purchases, and October and December have the lowest number of purchases.

# Results

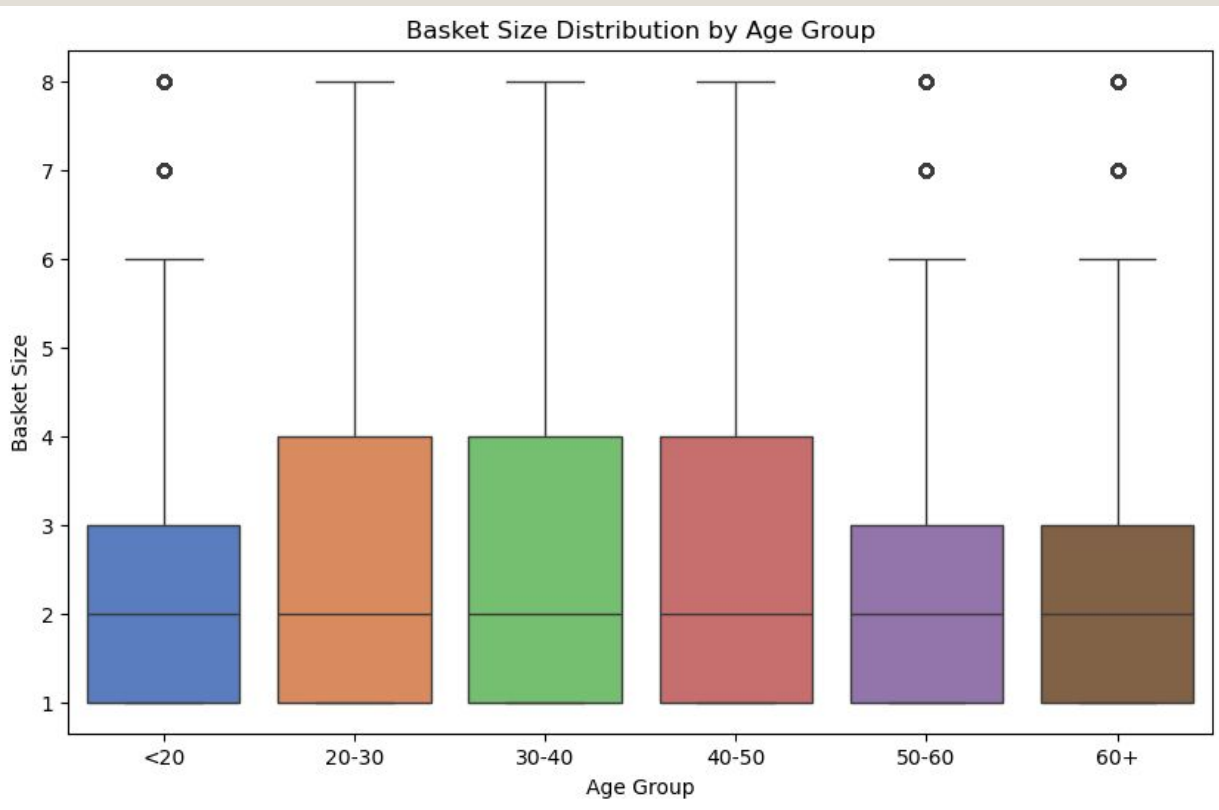
Top 10 Popular Colors (August - September 2020)



## Insight:

Black is (by far!) the most popular color of clothing in the last two months.

# Results



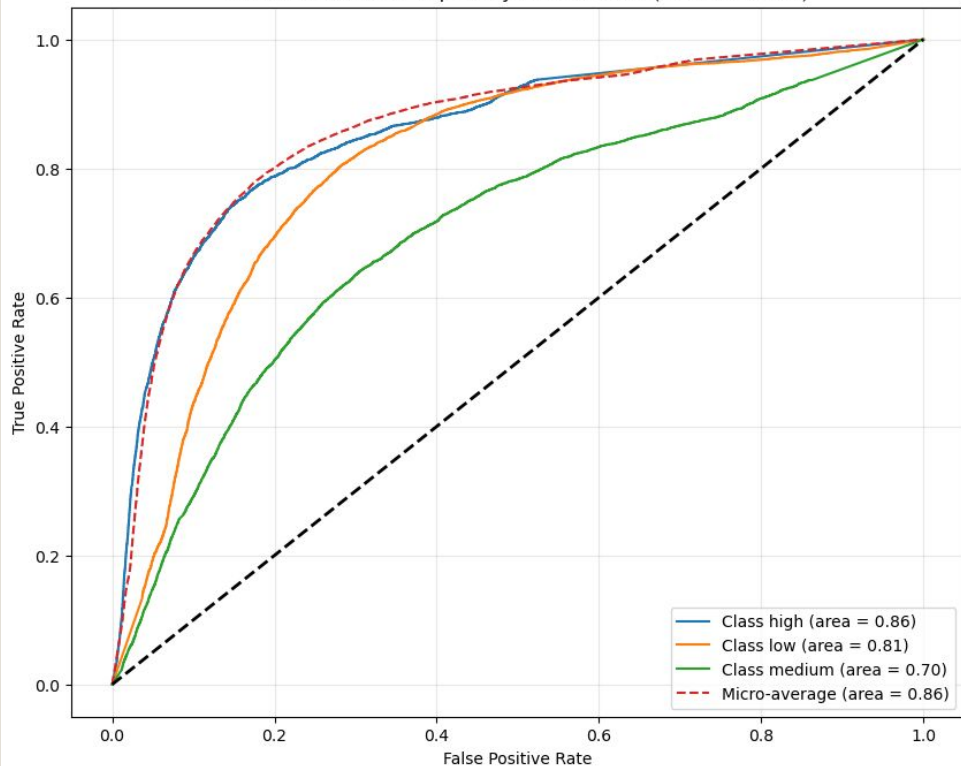
## Insight:

Average basket size differs significantly by age group, with customers below 20 averaging smaller basket sizes.



# Winning Model

ROC-AUC Curve for Popularity Classification (Multiclass kNN)



**kNN Model**

**Accuracy Rate:**

**76%**

# Conclusions

Winning Model:

**kNN Model**

Accuracy Rate:

**76%**

## Recommendation #1

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# NEXT STEPS

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01

Improve Model  
Accuracy

02

Further ML exploration

03

Build Recommender  
System

# Thank You

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