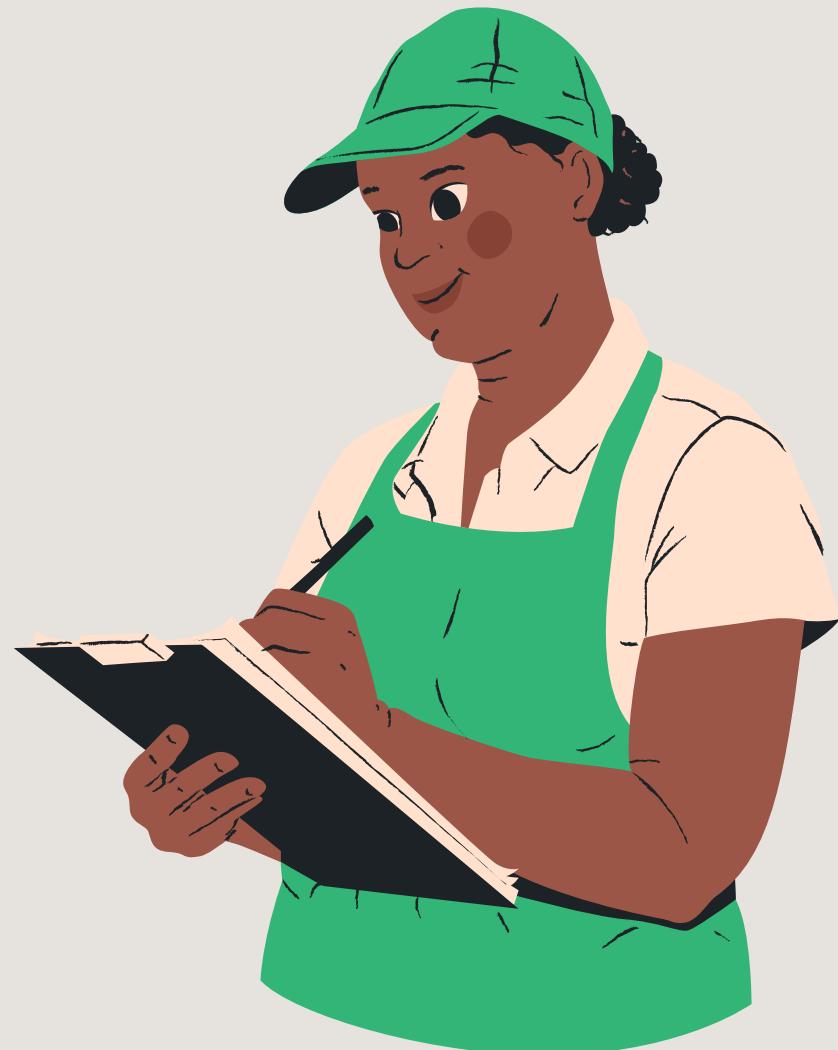


# ManyGiftsUK recommender system



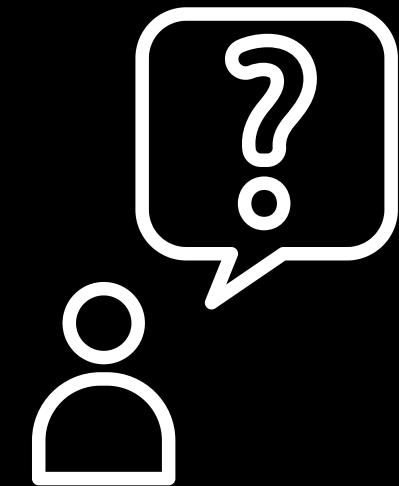
Prepared by:  
Beatriz Chumbinho r20170867  
Inês Costa r20170775  
Maria Leonor Morgado r20170871  
Rodrigo Matias r20170880



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- Goals
  - Findings
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  - Deployment
- 

# Goals



Recommend items for a specific user



Improve user experience

NEW  
NEW  
NEW  
NEW

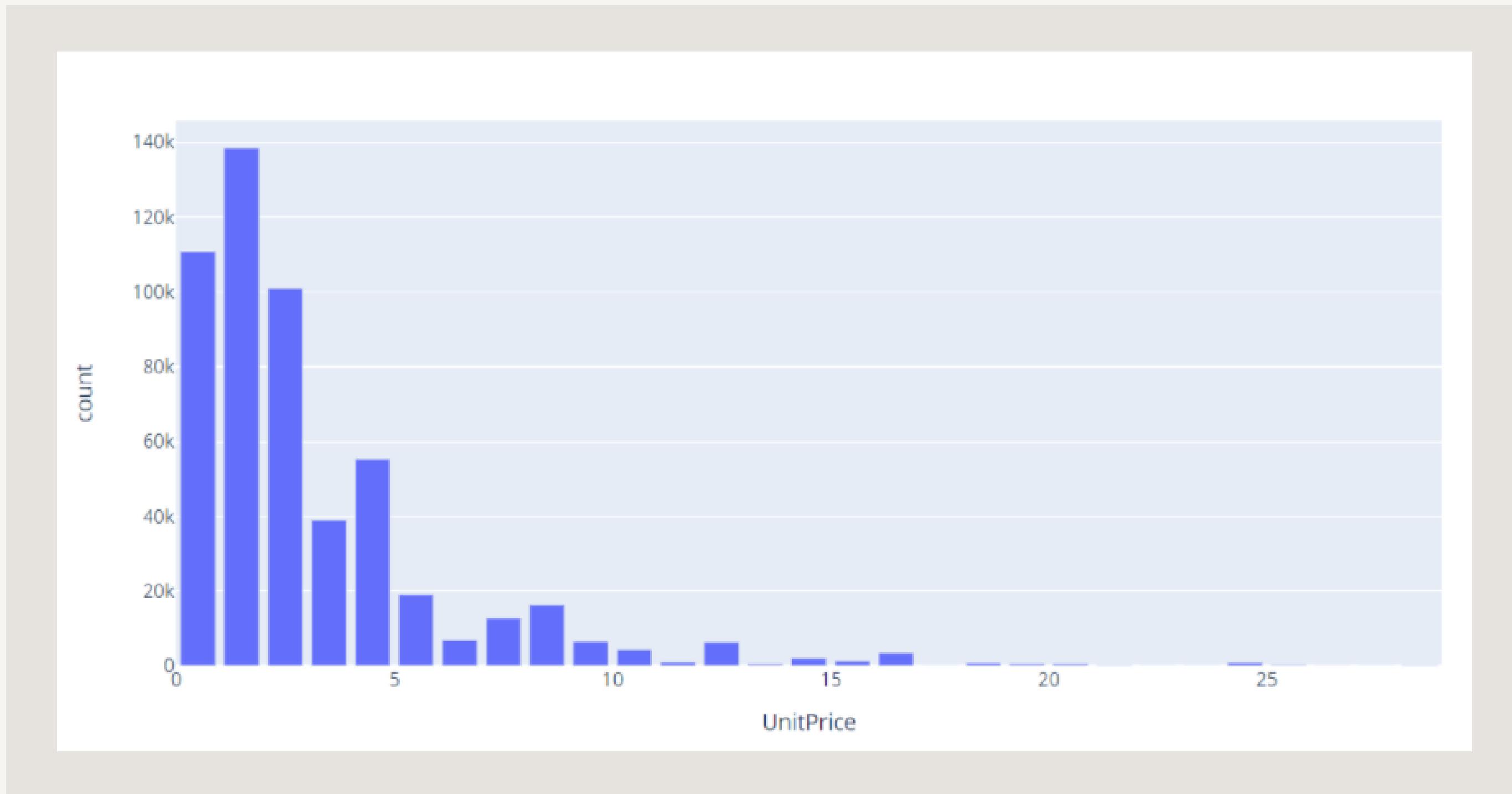
Suggest the right items to new customer



Increase sales

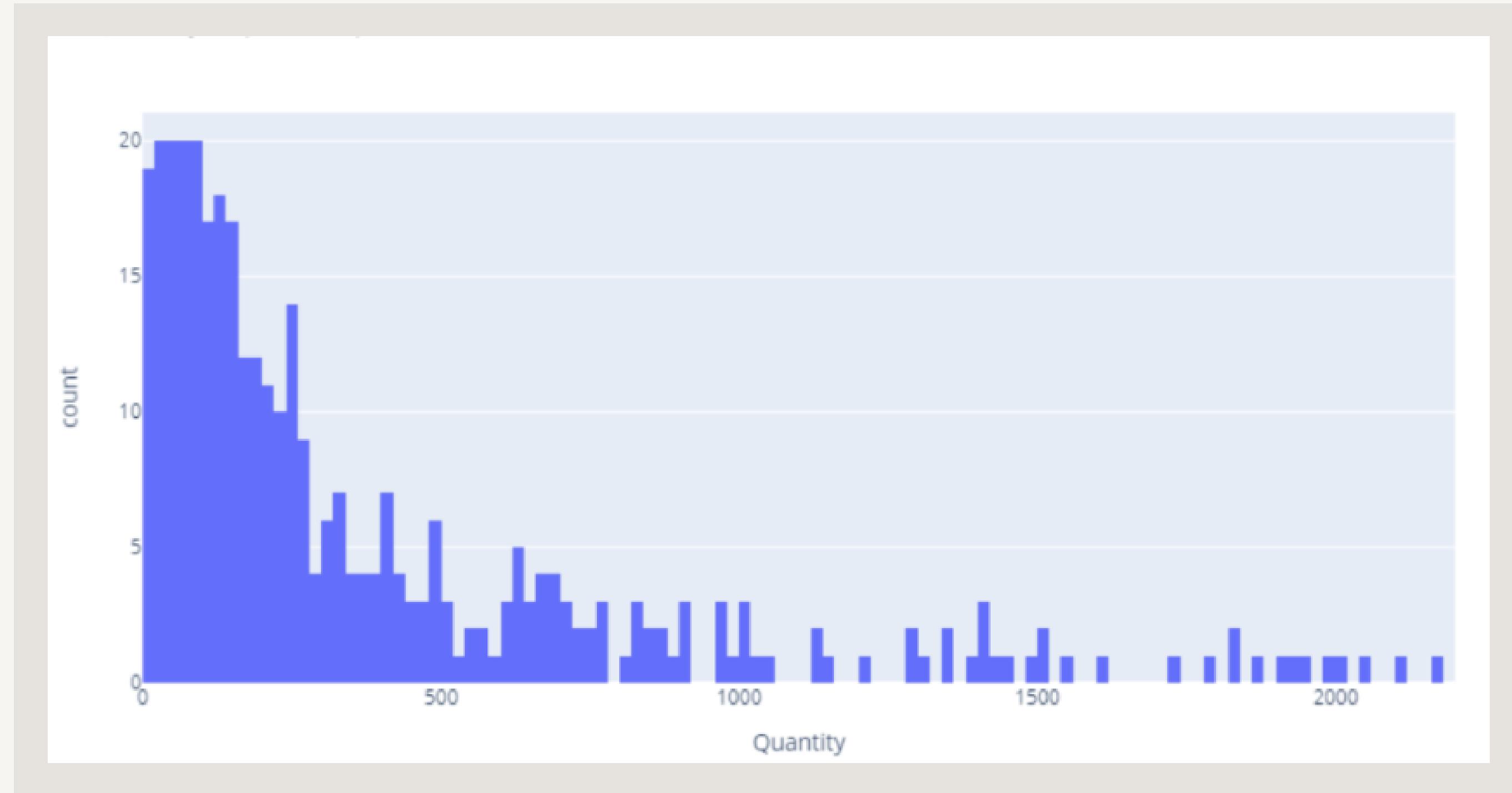
# Findings

How much do  
the products  
cost?



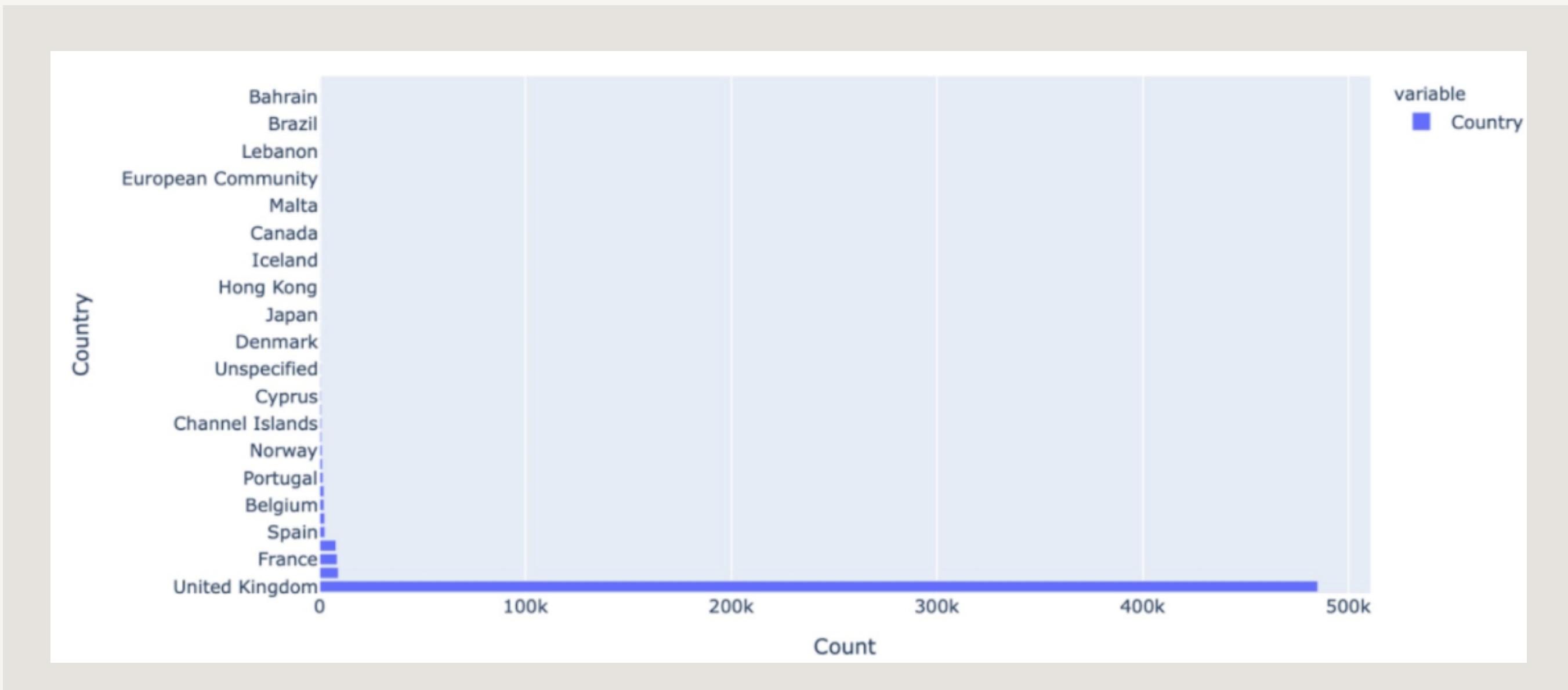
# Findings

How many products do the customers buy per order?

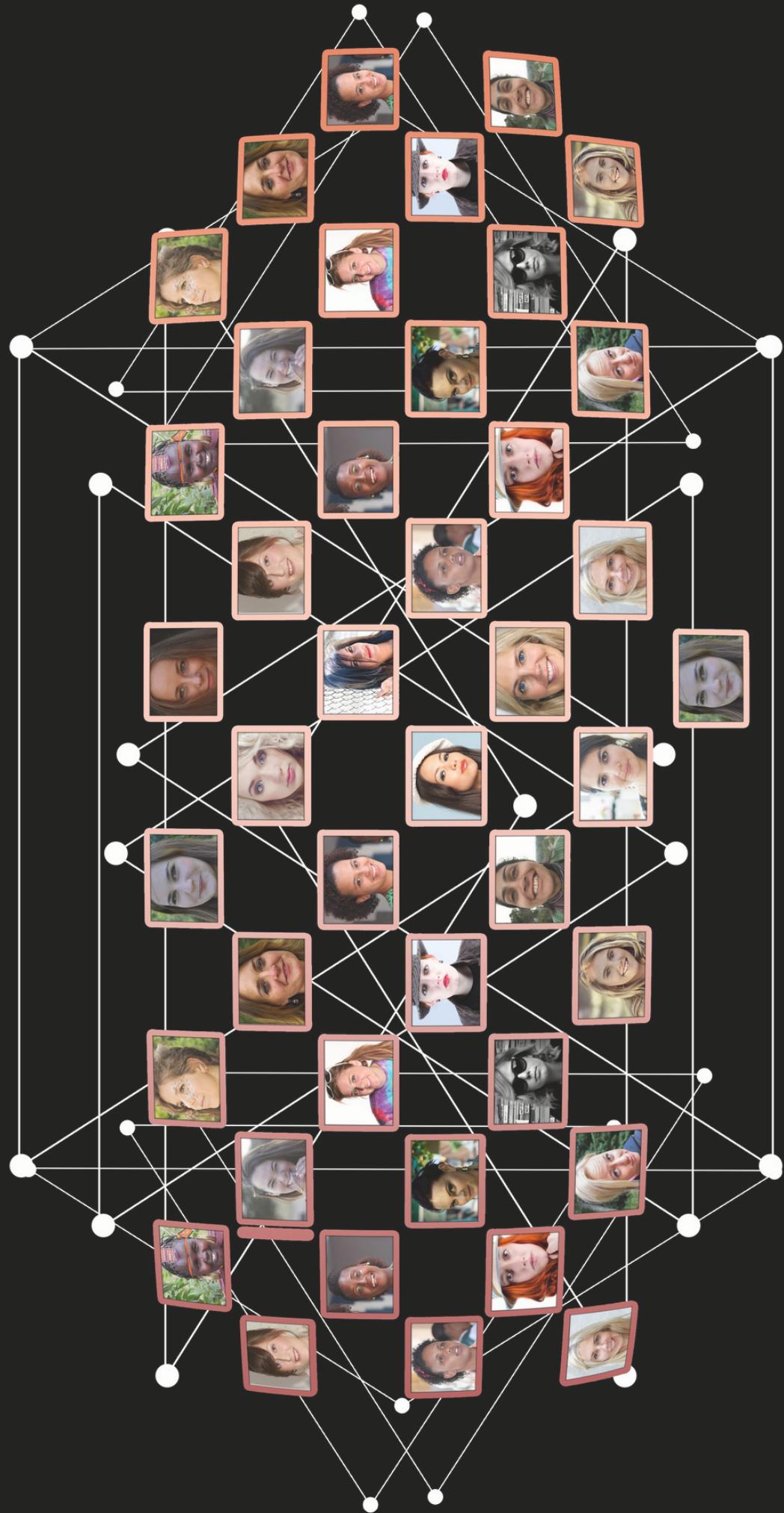


# Findings

Where are  
the  
customers  
from?



# Recommender System



- ALS Algorithm
- Collaborative Filtering

**Recall** at k is the proportion of relevant items found in the top-k recommendations

Metric	Popular model	Als model
Recall	0.098	0.060
Map	0.048	0.025
Ndgc	0.110	0.059
auc	0.521	0.510

# Sample Recommendation

Customer ID = 17850



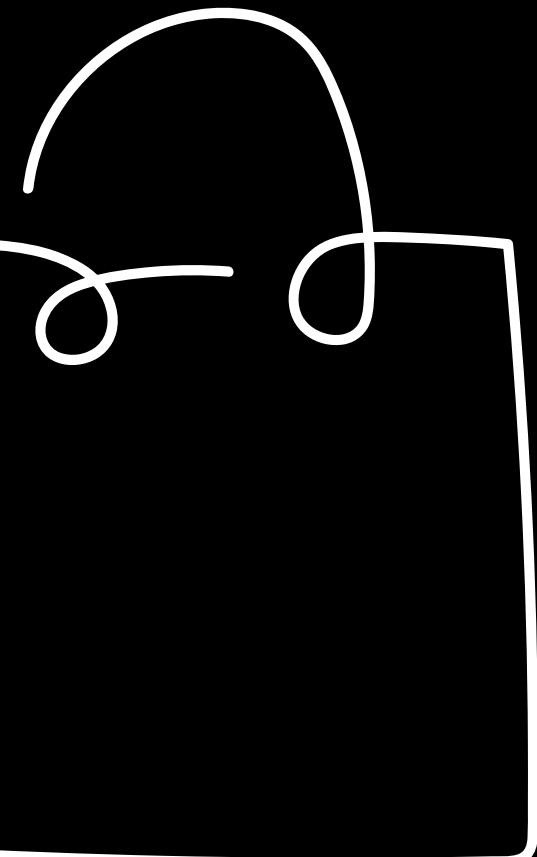
Last Purchases

Recommendations



# Cold Start

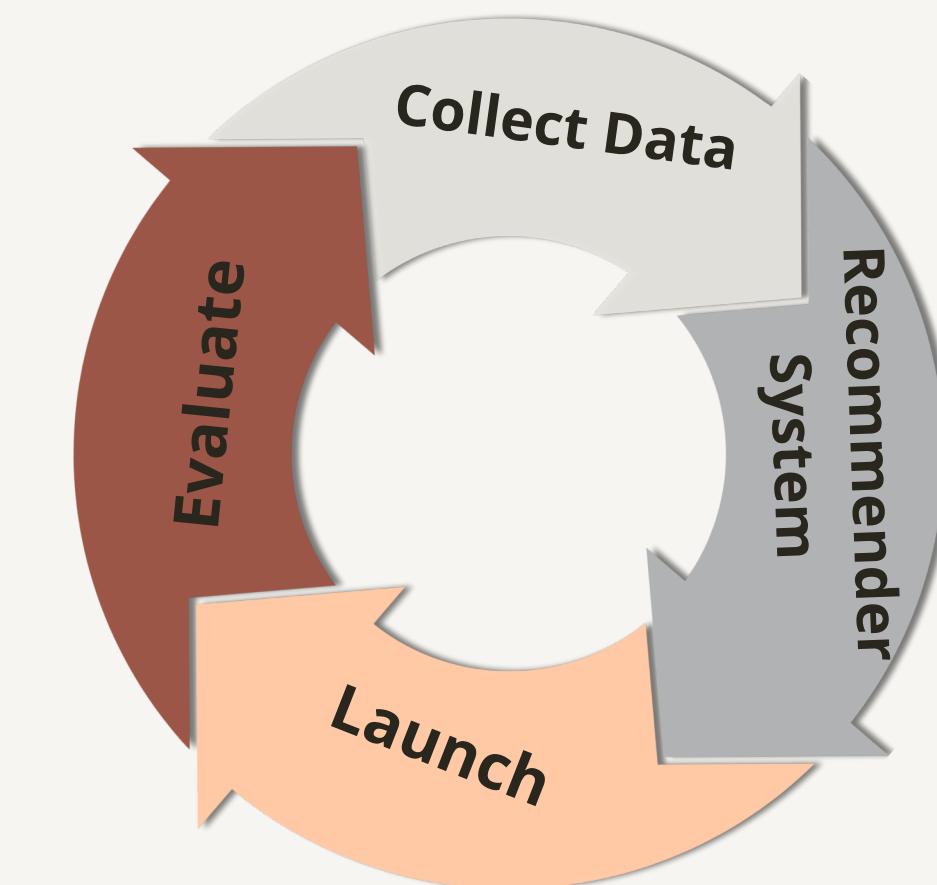
- Popular Recommender
- Most common items over all the transactions





# Deployment and Maintenance

- Continue monitoring, keep the RS updated
- Test solution on current customers first
- Create a 'welcome' form for new customers
- Collect more data



# THANK YOU!

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Business Cases for Data Science  
NOVA IMS

