

# **MGMTMSA 405**

## **Final Project**

### **E-Commerce User Behavior Analysis**

**Team 15**

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# Problem Statement



We will be analyzing the customer, sales and product trends, for an Indonesian online fashion platform '*Fashion Campus*' for targeted marketing, product and sales recommendations.



## Sales Trends

Look at the platform sales trends and quantity sold across 6 years by various categories



## Churn Prediction

Predict which users are likely to stop purchasing from the platform in three months



## Product Popularity

Identify product popularity at various levels such as brands and categories

# Datasets used in analysis



01

## Customer

Customer level -

- Demographics
- Account info
- Device info



02

## Transaction

Transaction level -

- Bookings
- Payments
- Product metadata
- Timestamps



03

## Product

Product level -

- Descriptions
- Categories
- Pricing



04

## Clickstream

On-site behavior

- Session logs
- Page views
- Category clicks
- Dwell-time



05

## Geocoding API

Cities in Indonesia

- Latitude
- Longitude

*Join Keys -*

**Clickstream**

*Session ID*

**Transaction**

*Product ID*

**Product**

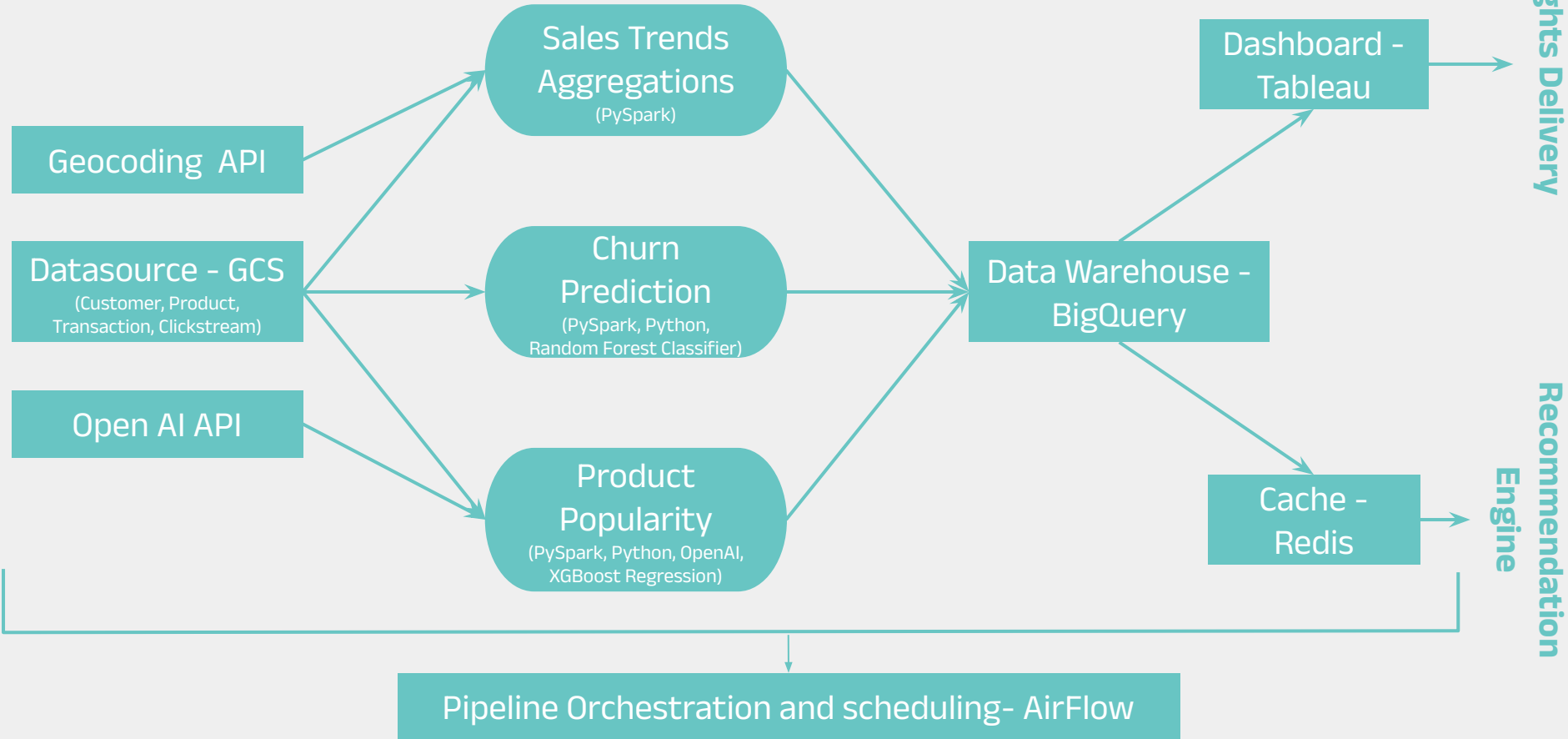
*Customer ID*

**Customer**

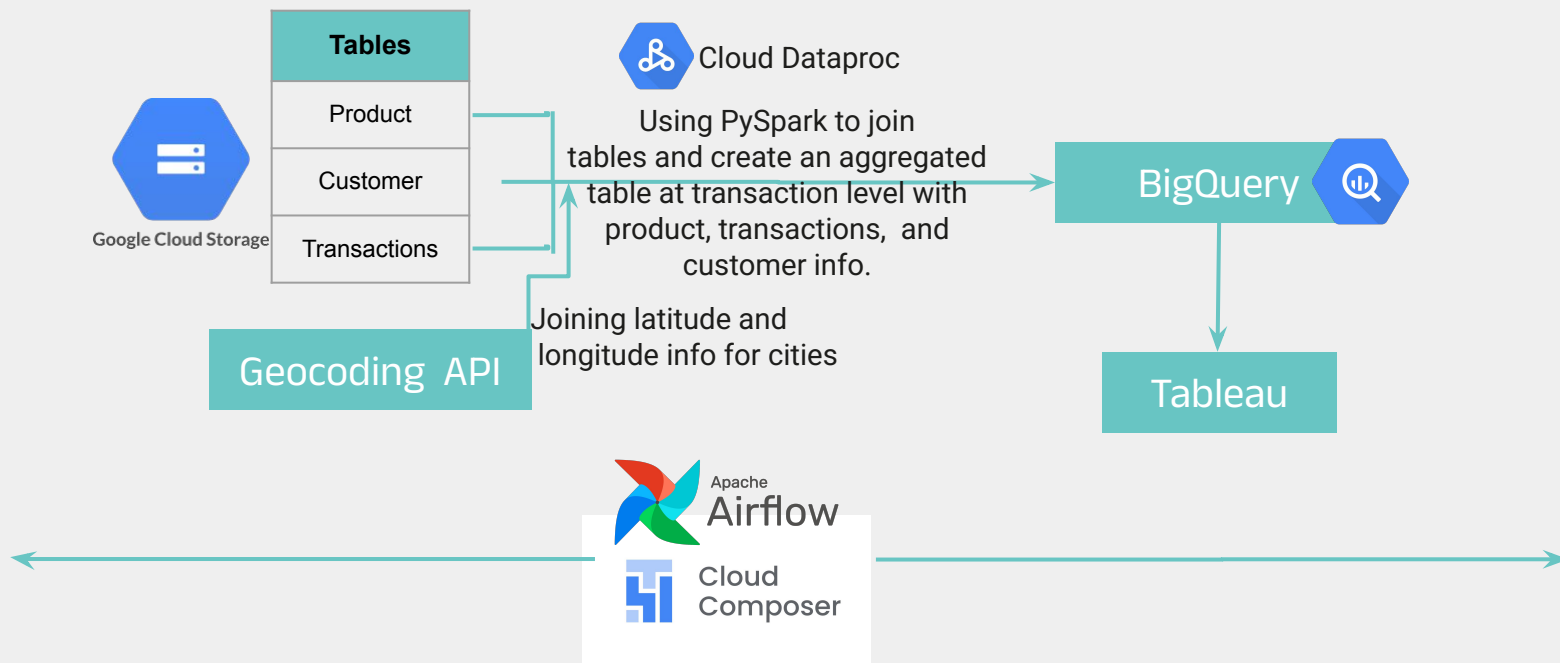
**Geocoding API**

*City Name*

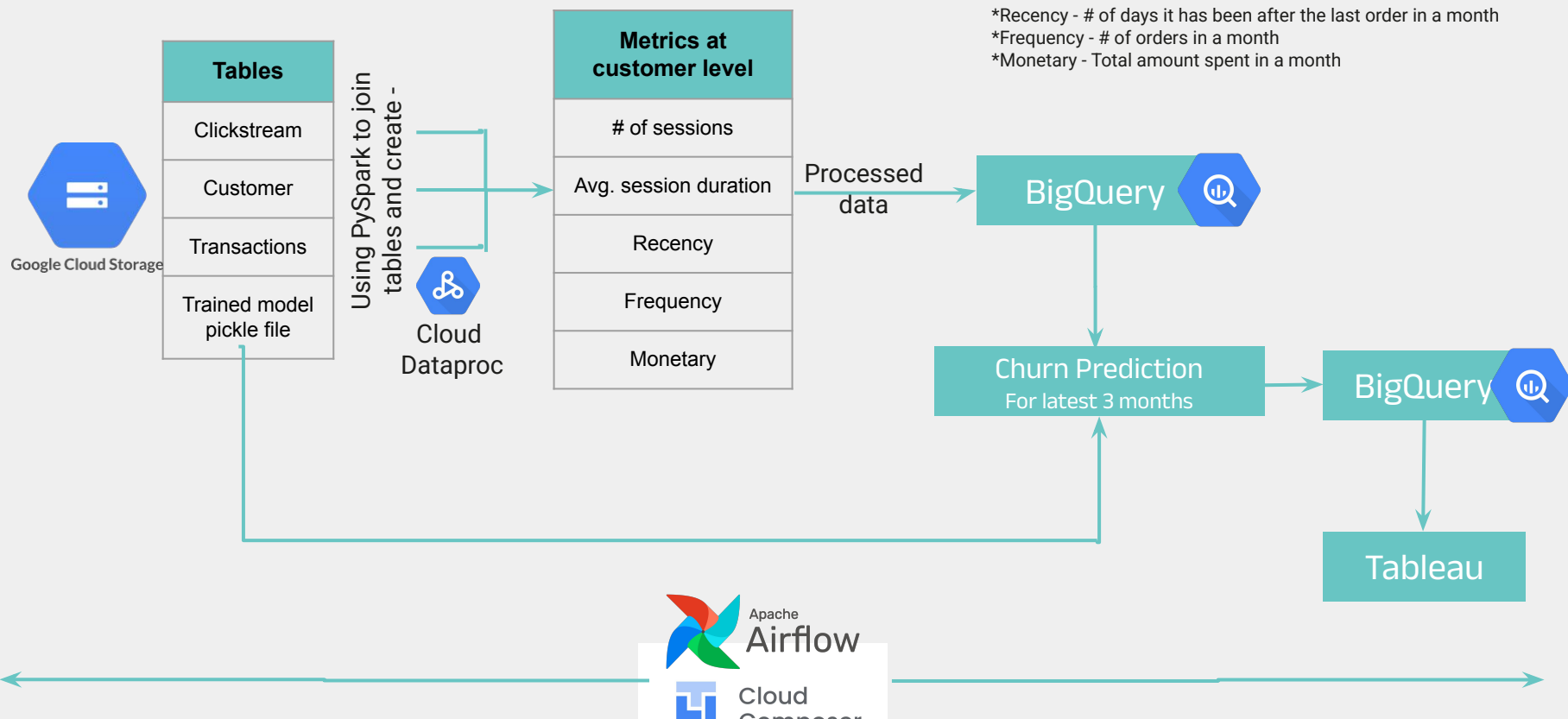
# Pipeline and Components



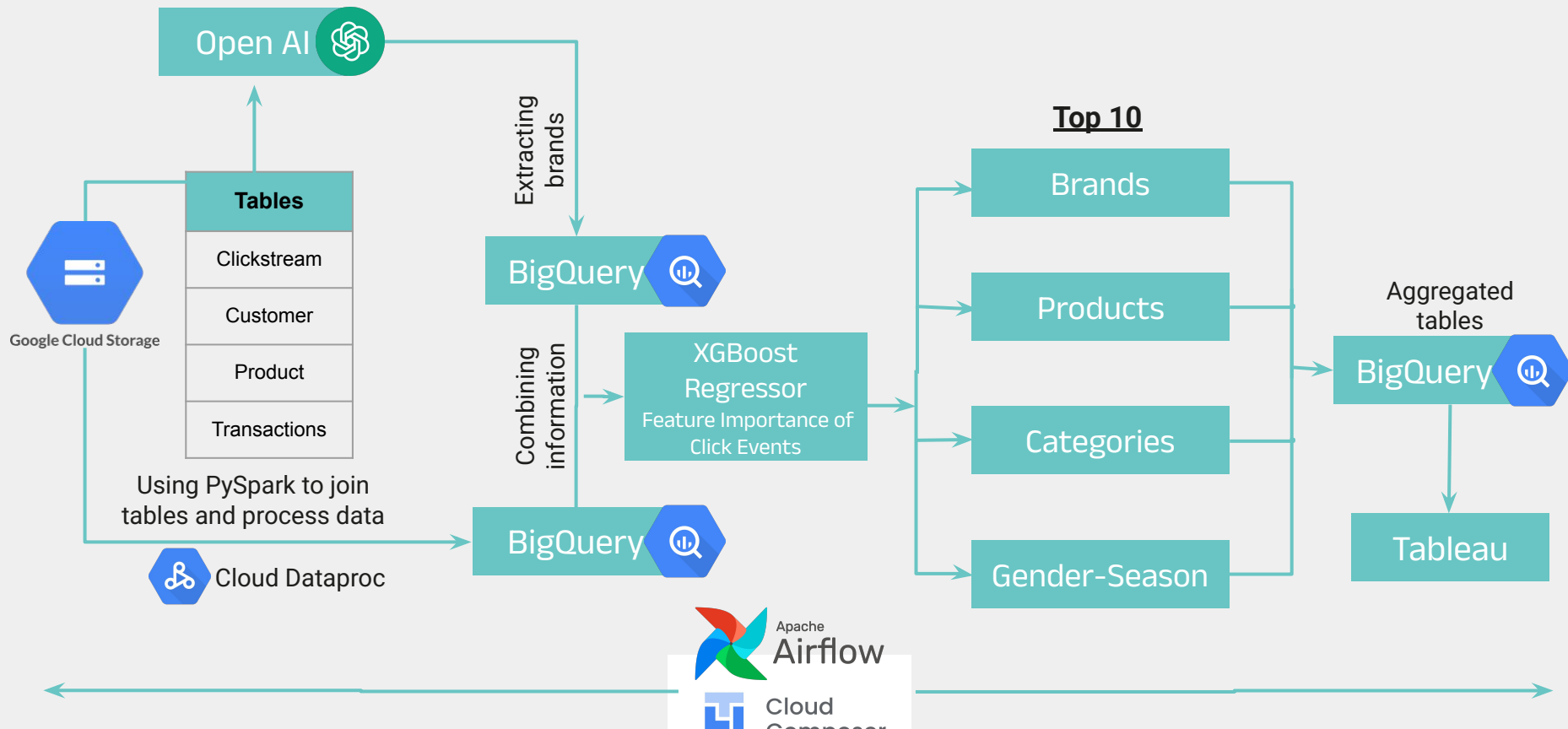
# Sales Trends Analysis



# Churn Prediction Analysis



# Product Popularity Analysis



# Dashboard - Sales Trends

## Overview Dashboard

Welcome, **Varsha Bonam!**

### Sales

Sales

Rp1,481.27B



# Orders

1,253,659



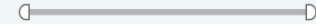
# Customers  
50,643



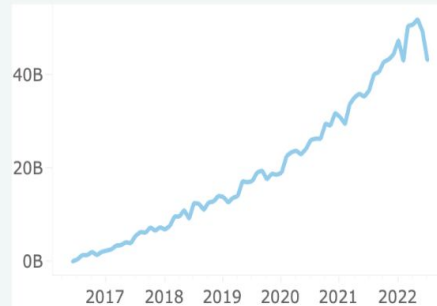
Order Date

6/30/2016

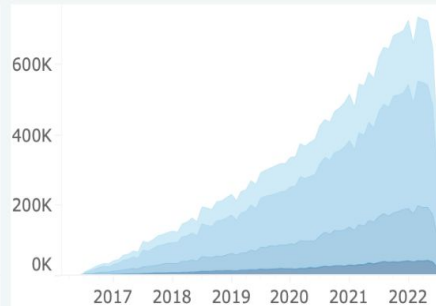
7/31/2022



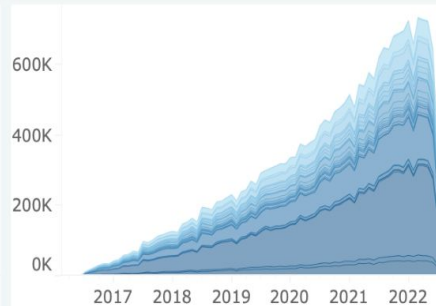
Sales Trend



Quantity Sold - Product Categories



Quantity Sold - Product Sub Categories



Age

- ☒ (All)
- ☒ 18-25
- ☒ 26-35
- ☒ 36-50
- ☒ 51+
- ☒ Under 18

Gender

- ☒ (All)
- ☒ F
- ☒ M

Master Category

- ☒ Apparel
- ☒ Footwear
- ☒ Free Items
- ☒ Home
- ☒ Personal Care
- ☒ Sporting Goods

Sub Category

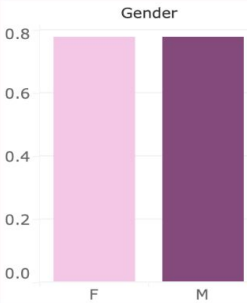
- ☒ Umbrellas
- ☒ Vouchers
- ☒ Wallets
- ☒ Watches
- ☒ Water Bottle
- ☒ Wristbands



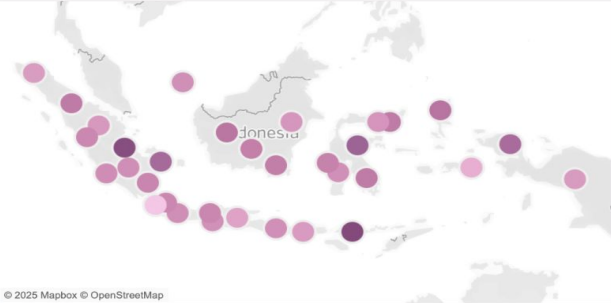
# Dashboard - Churn Prediction

## Churn Prediction

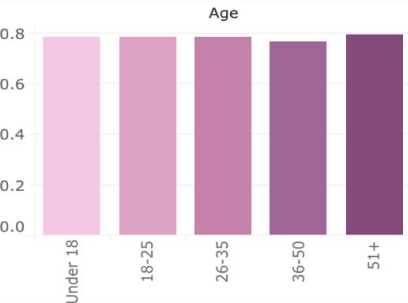
Churn - Gender



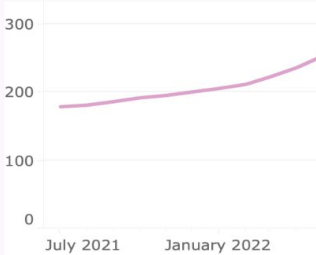
Churn Rate - City



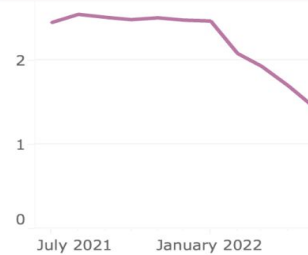
Churn Rate - Age Groups



User Journey - Avg. Recency (days)



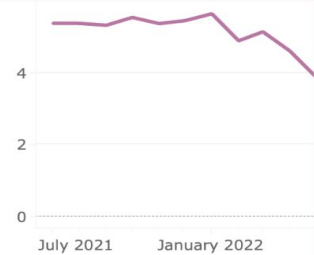
User Journey - Avg. Frequency



User Journey - Avg. Monetary (IDR)



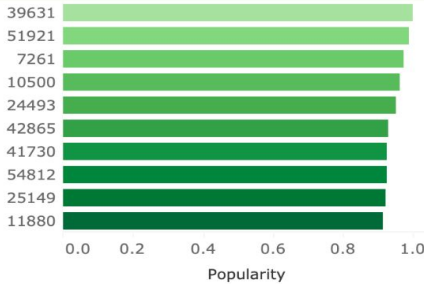
User Journey - Avg. Session Length (Hrs)



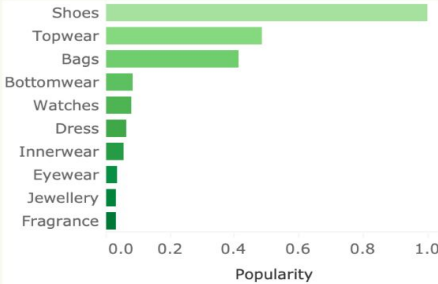
# Dashboard - Product Popularity

## Product Popularity

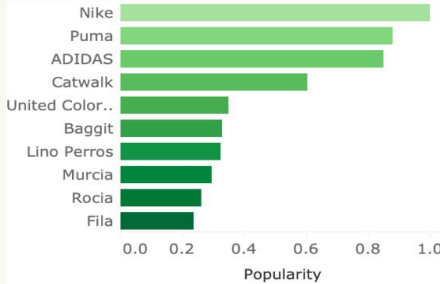
Top 10 Popular Products



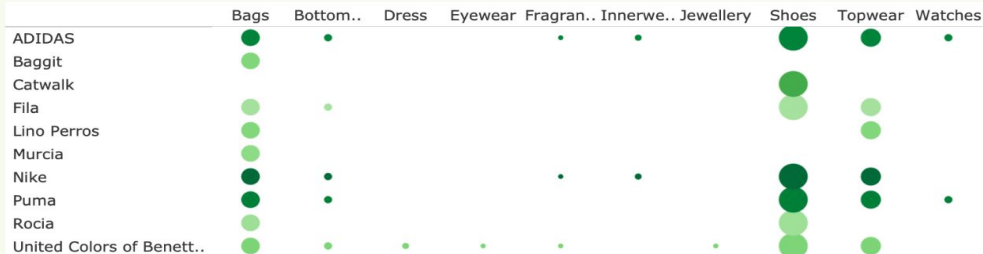
Top 10 Popular Sub Categories



Top 10 Popular Brands



Brand vs Sub Category Popularity



### Home Location

- ☒ Sulawesi Tenggara
- ☒ Sulawesi Utara
- ☒ Sumatera Barat
- ☒ Sumatera Selatan
- ☒ Sumatera Utara
- ☒ Yogyakarta

### Promo

- ☒ (All)
- ☒ No Promo
- ☒ Promo

### Device Type

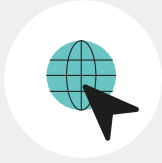
- ☒ (All)
- ☒ Android
- ☒ iOS

### Avg. Popularity Score



### Churn Rate





**Thank you!**