
Market Basket Analysis

A Case Study of a Bread Store

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Topic

- Dataset
 - Exploratory Data Analysis
 - Apriori Algorithm
 - Recommendation
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Dataset

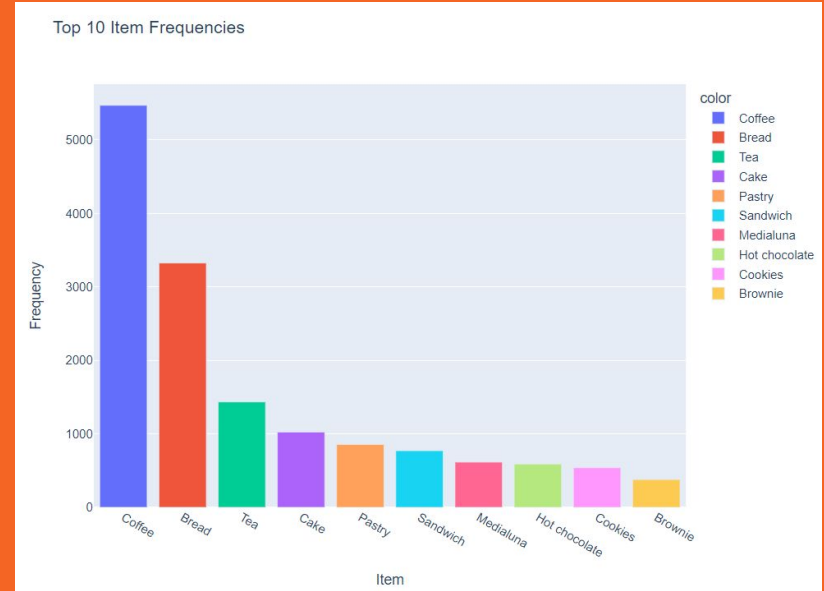


- This dataset is from **Kaggle**
- This is the **bakery data** with the list of items **bought by customers**

The Bread Basket: <https://www.kaggle.com/datasets/mittalvasu95/the-bread-basket>

Exploratory Data Analysis

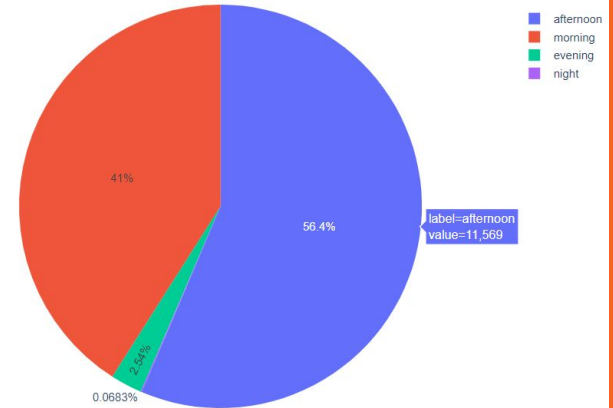
- The most frequently sold items are **Coffee**, **Bread**, **Tea**, **Cake**, and **Pastry**



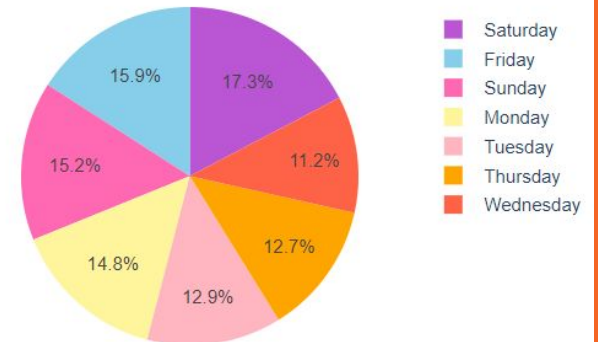
Exploratory Data Analysis

- Customers mostly buy in the afternoon
- Saturday, Friday, and Sunday are the top three selling days

Peak Hours of the Day



Transaction Count by Day



Apriori Algorithm



- **Support** is an indication of how frequently the itemset appears in the dataset
 - **Confident** is an indication of how often the rule has been found to be true
 - **Lift** is the ratio of the observed support to that expected if X and Y were independent
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Recommendation



	Antecedents	Consequents	Support	Confidence	Lift
0	Cake	Coffee	0.054728	0.526958	1.101515
1	Medialuna	Coffee	0.035182	0.569231	1.189878
2	Pastry	Coffee	0.047544	0.552147	1.154168
3	Sandwich	Coffee	0.038246	0.532353	1.112792



Cake



Coffee



Medialuna



Coffee



Sandwich



Coffee



Pastry



Coffee