

Amazon Sales Report

1. Introduction

- Purpose of the analysis
- Brief description of the dataset

2. Data Overview

- description of columns
- Size and shape of the dataset
- Initial observations

3. Summary Statistics

- Descriptive statistics
- Distribution of numerical variables
- Summary of categorical variables

4. Missing Data

- Amount and percentage of missing values per column
- Strategies for handling missing data

5. Data Types and Data Quality

- Data types of each column
- Data quality issues

6. Univariate Analysis

7. Bivariate Analysis

8. Key Findings

9. Conclusion

1. Introduction

Purpose: The purpose of this analysis is to explore the Amazon sales data in India, understand the distribution and patterns in sales, and identify any potential issues or interesting insights.

Dataset Description: The dataset contains sales transactions with the following attributes: Date, Status, Fulfilment, Sales Channel, Ship Service Level, Style, SKU, Category, Size, ASIN, Courier Status, ship-state, ship-city, Qty, Currency, Amount.

2. Data Overview

Number of rows:125535

Number of columns:21

Column descriptions:

- Date: Transaction date
- Status: Order status
- Fulfilment: Fulfilment responsibility (Amazon or Merchant)
- Sales Channel: Channel through which the sale was made(Amazon. In or non-amazon)
- Ship-service-level: the level of importance of shipment(expedited or Standard)
- Category: type of products shipped
- Size: sizes of shipped products
- Courier Status: the status of shipped products(Shipped, Canceled, etc...)
- Currency: currency of the products wish paid in it
- Amount: amount of money purchased
- Ship-country: country that have this shipment
- Promotion-ids: types of promotions have in the shipment
- B2B:business to business or not
- Fulfilled by: how the shipment fulfilled (easy ship or not)

3. Summary Statistics

- Numerical Columns
 - Amount: max =1306.25,min=0, mean=588.07
- Categorical Columns
 - Fulfilment (Amazon 70%) (Merchant 30%)
 - ship-service-level (Expedited 68.70%)(Standard 31.29%)
 - Courier Status (Shipped 84.89%)(Unshipped 5.18%)(Cancelled 4.60%)

4. Missing Data

- Courier Status 6872
- Currency 7795
- Amount 7795
- ship-city 33
- ship-state 33
- ship-postal-code 33
- ship-country 33
- promotion-ids 49153
- fulfilled-by 89698

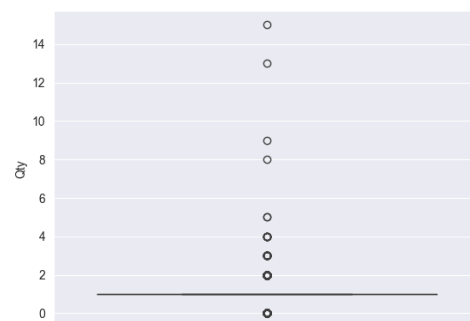
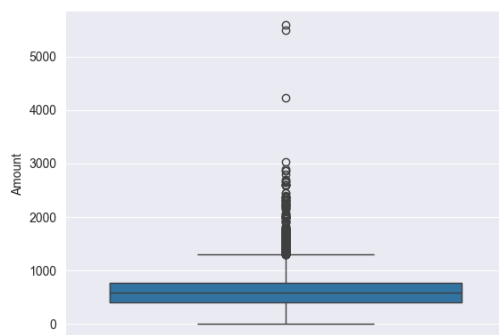
5. Data Types and Data Quality

Data Types:

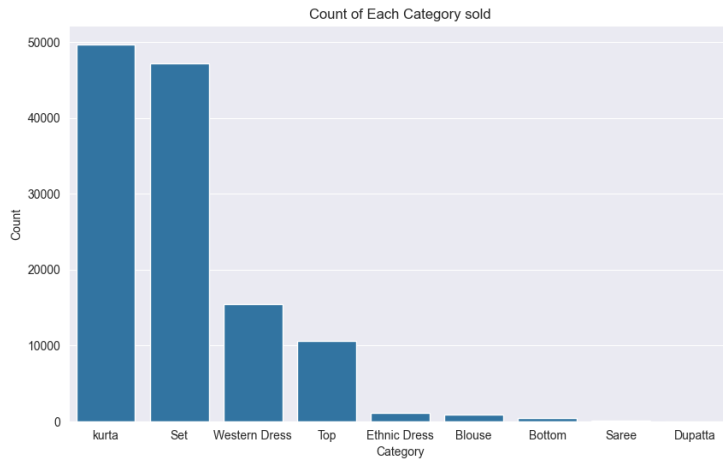
- Date datetime64[ns]
- Status object
- Fulfilment object
- Sales Channel object
- ship-service-level object
- Style object
- SKU object
- Category object
- Size object
- ASIN object
- Courier Status object
- Qty int64
- currency object
- Amount float64
- ship-city object
- ship-state object
- ship-postal-code float64
- ship-country object
- promotion-ids object
- B2B bool
- fulfilled-by object

Data Quality Issues:

- Inconsistent date formats :date
- Outliers in Amount (there are values more than 1400) and Qty (there are values more than 1)

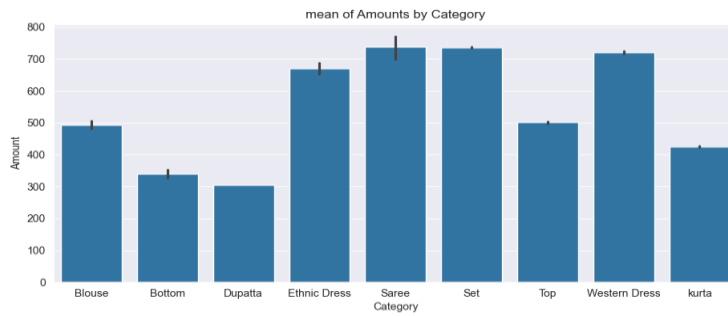


6. Univariate Analysis

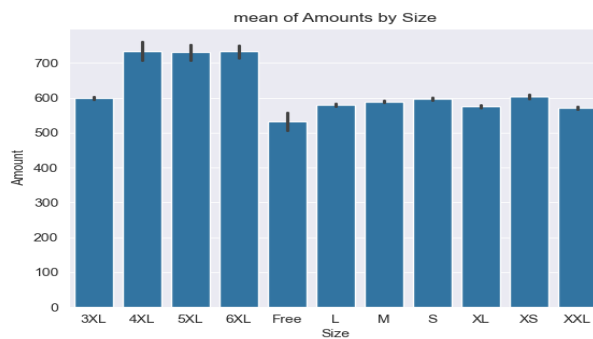


- Category: most category have transactions is 'kurta'

7. Bivariate Analysis



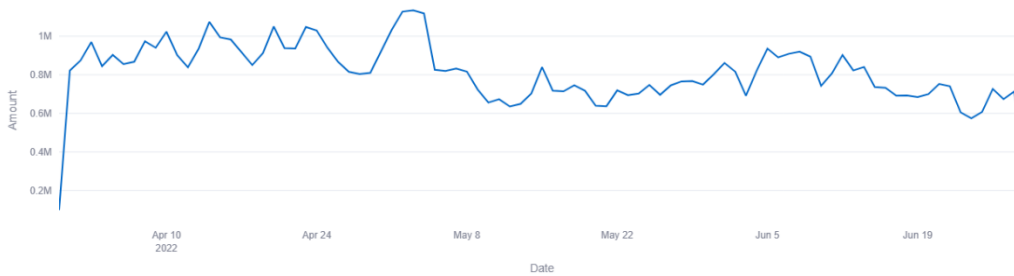
- Amount vs. Category: 'set' have the highest average amount among categories



- Amount vs. Size: Size '6XL' have the highest average amount among categories

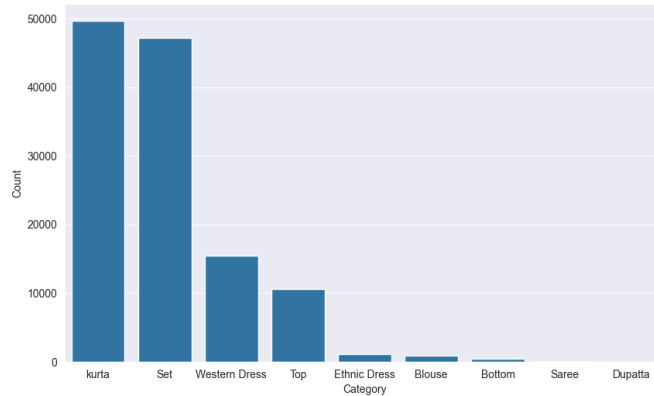
8. Key Findings

Sales Over Time



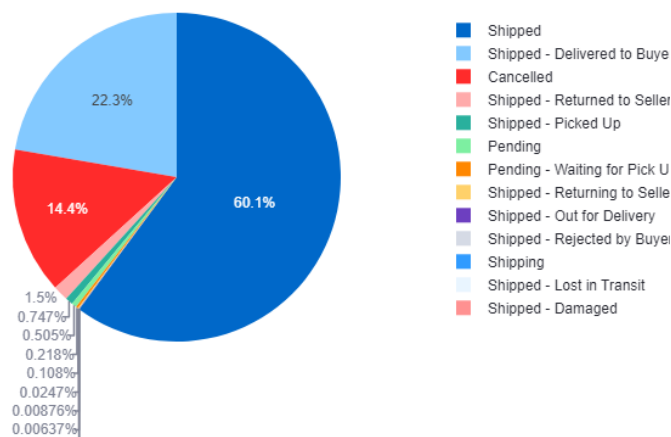
- The amount of sale started decreasing starting from 4 may

Count of Each Category sold



- The most category have amount is 'kurta'

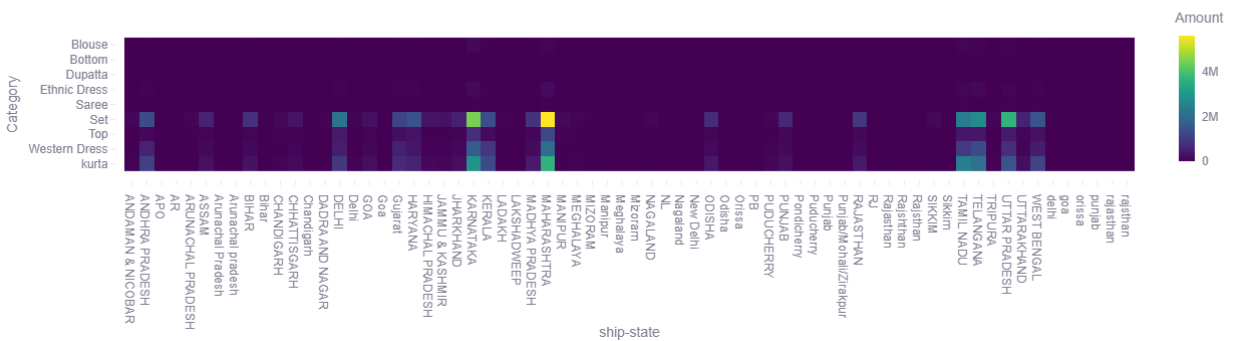
Status Distribution



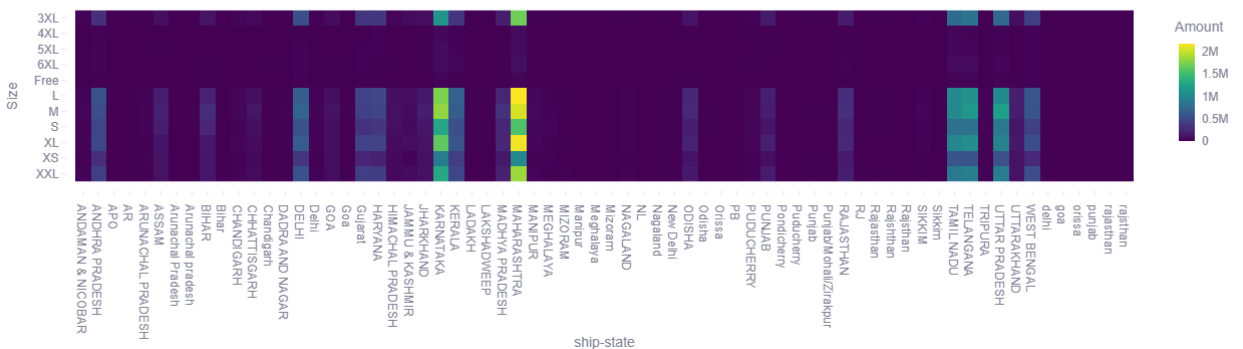
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- The most state that has largest amounts is 'MAHARASHTRA'

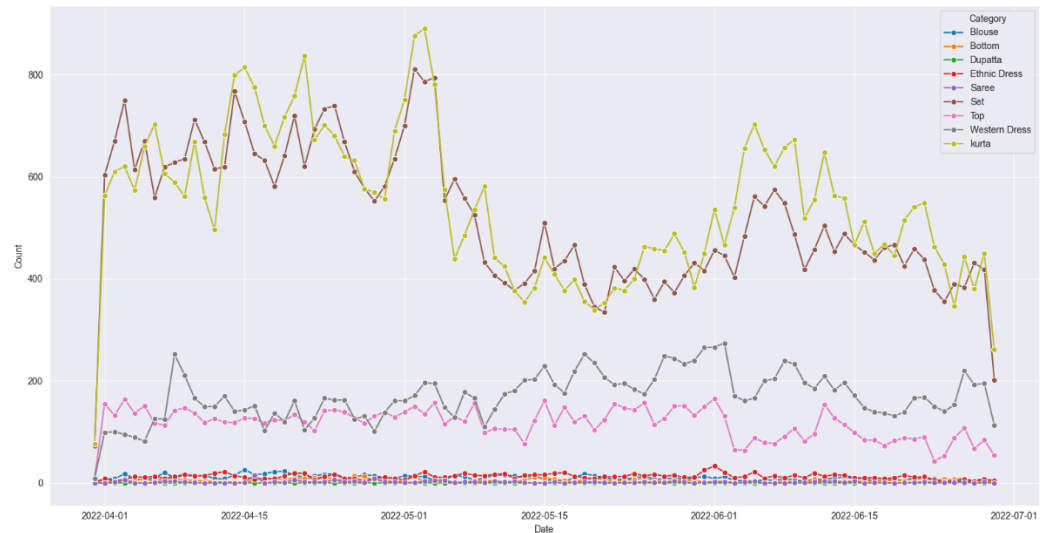
Heatmap: Category vs Size in Amount



Heatmap: Ship-State vs Size in Amount



- The most sizes purchased in 'MAHARASHTRA' is 'L' and the most category purchased in it is 'Set'



- 'Kurta' has the largest selling quantity in '01-05-22' and the 'set' has the largest selling quantity in '03-04-22'

9. Conclusion

- Put more effort in sales in Q3
- Make more marketing plans in 'Maharashtra' and 'Karnataka' as they have the largest amount of sales
- Put more focus in providing marketing for 'Sets' as it has a high amount of sales
- Investigate about Canceled shipment and find solutions to decrease its percentage
- Provide more products of 'Set' and 'kurta' in 'Maharashtra' and 'Karnataka'