EDA on
Dmart Store

Agenda

01 INTRODUCTION

02 SYSTEM DESIGN

03 IMPLEMENTATION

04 CONCLUSION

INTRODUCTION

- DMart, is an Indian retail corporation that operates a chain of hypermarkets in India.
- It was founded by Radhakrishna Damani in 2002
- Its first store was opened in Powai, Mumbai. As of June 2023, it has 330 stores across 14 states in India.

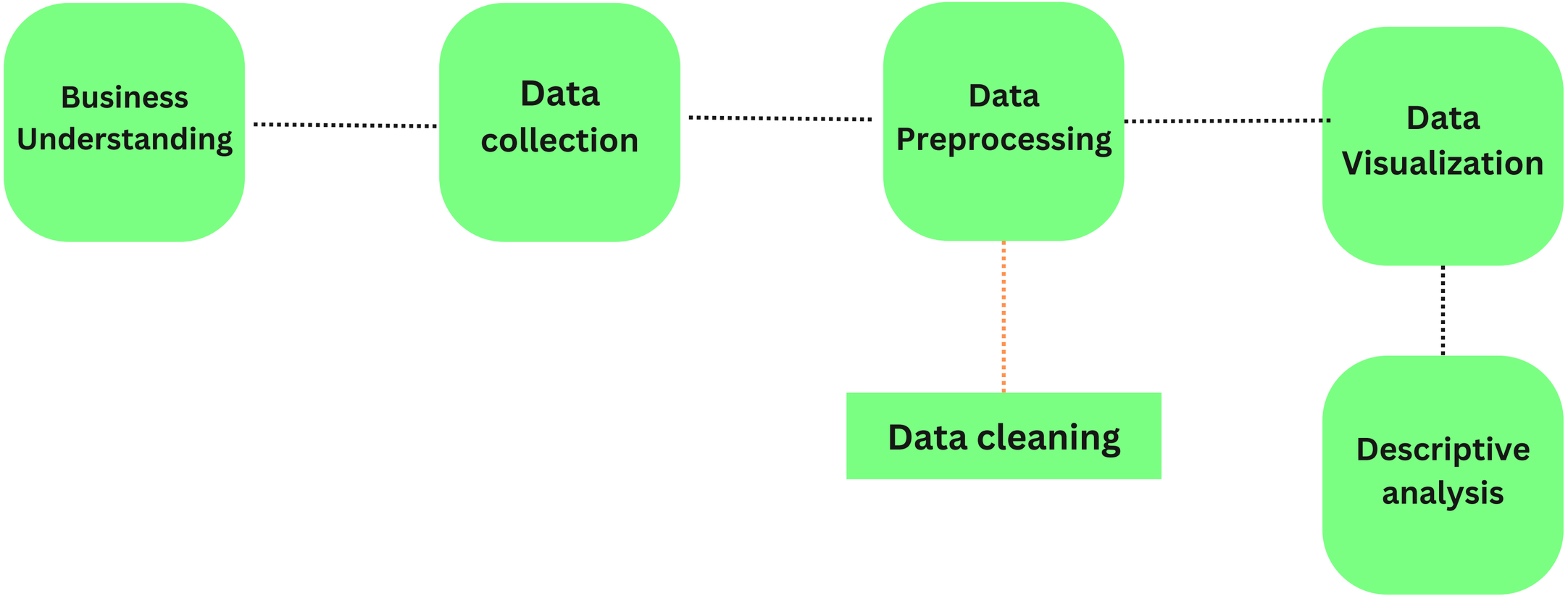
EDA on Dmart Store

The EDA consists of 09 columns. Here we have 09 features using this we start data analysis of Dmart Store

This data set consists of information: .

- **Name**
- **Brand**
- **Price**
- **Discounted**
- **Price**
- **Category**
- **Subcategory**
- **Quantity**
- **Description**

SYSTEM DESIGN



IMPLEMENTATION

Required Libraries to be imported :

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

DATA PREPROCESSING

Loading Data:

```
df=pd.read_csv("G:\datascience\layoffs_data.csv
")
```

Shape Of Dataframe

df.shape

o\p
(2738, 14)

DATA CLEANING

Checking for missing values

```
#code
df.isnull().sum()
```

Name	**1**
Brand	**400**
Price	**1**
DiscountedPrice	**1**
Category	**3**
SubCategory	**3**
Quantity	**1**
Description	**2**
BreadCrumbs	**3**

In [8]:
```
dm['Name']=dm['Name'].fillna("Kitchen Appliance")
dm['Brand']=dm['Brand'].fillna('Local/Unknown')
dm[dm['Price'].isnull()==True]
```

Out[8]:

	Name	Brand	Price	DiscountedPrice	Category	SubCategory	Quantity	Description	BreadCrumbs
4323	Elle 18 Nail Pops Nail Colour - Shade 125	Elle 18	NaN	NaN	Personal Care	Personal Care/Nail Care	5 ml	NaN	Personal Care > Personal Care/Nail Care

In [9]:
```
dm['Category'] = dm['Category'].fillna('Home & Kitchen')
dm['SubCategory'] = dm['SubCategory'].fillna('Home Appliances')
dm['BreadCrumbs']=dm['BreadCrumbs'].fillna('Home & Kitchen > Cookware & Serveware')
dm[dm.Quantity.isnull()==True]
```

Out[9]:

	Name	Brand	Price	DiscountedPrice	Category	SubCategory	Quantity	Description	BreadCrumbs
5047	Zeel MT212 Men's Raincoat - Navy Blue : Size XXL	Zeel	1199.0	1049.0	Raincoat	Raincoat	NaN	Specifications- Material : Fabric- Colour : Na...	Raincoat

In [10]:
```
dm['Quantity'] = dm['Quantity'].fillna('Size XXL')
dm['Description'] = dm['Description'].fillna('No Desciption')
```

In [11]:
```
dm['Price']=dm['Price'].fillna(dm['Price'].mean())
```

In [12]:
```
dm['DiscountedPrice']=dm['DiscountedPrice'].fillna(dm['DiscountedPrice'].mean())
```

In [13]:
```
dm.isna().sum()
```

Out[13]:
```
Name              0
Brand             0
Price             0
DiscountedPrice   0
Category          0
SubCategory       0
Quantity          0
Description       0
BreadCrumbs       0
dtype: int64
```

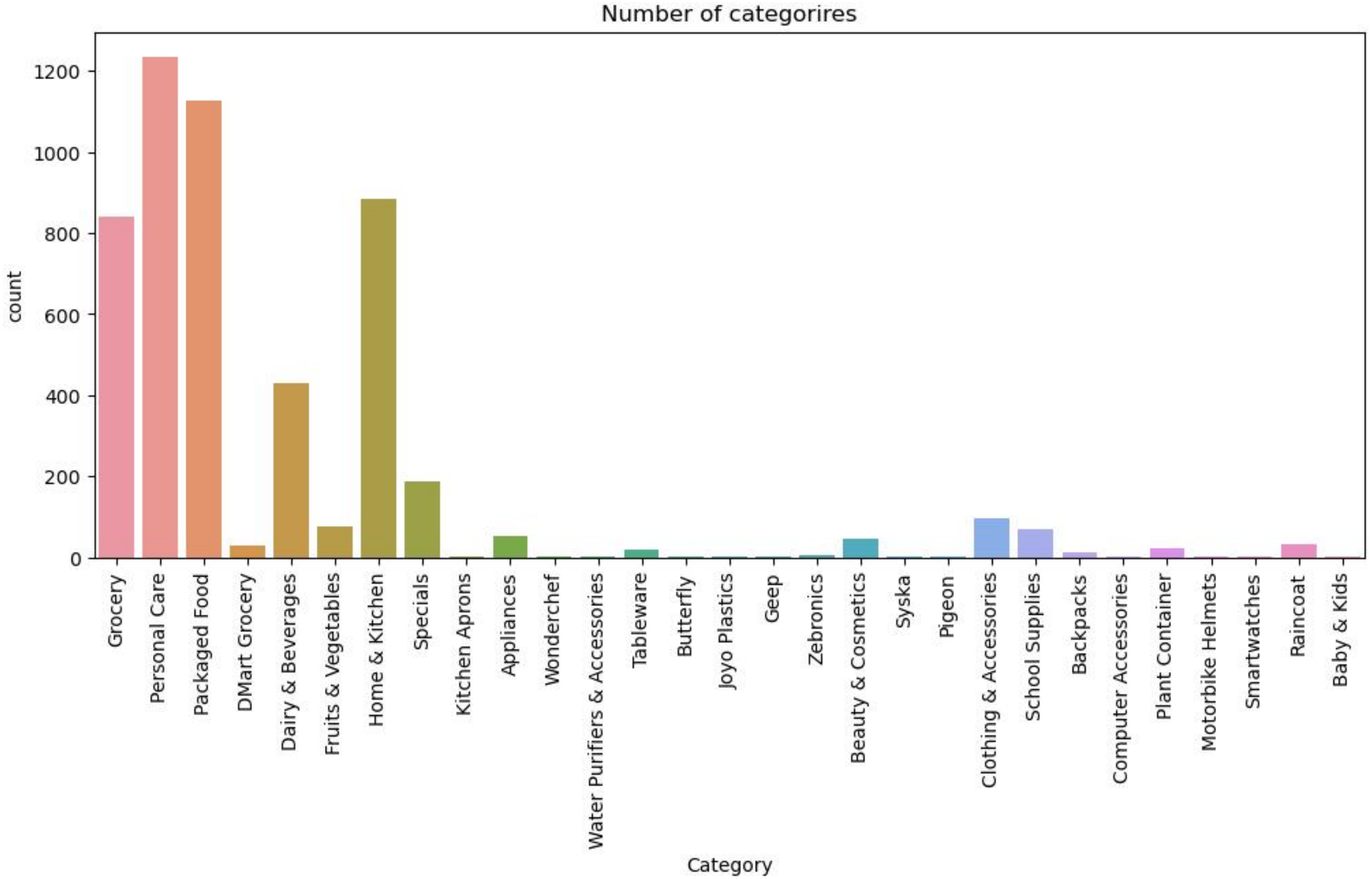
End of data cleaning

End of Data Preprocessing

EXPLORATORY DATA ANALYSIS

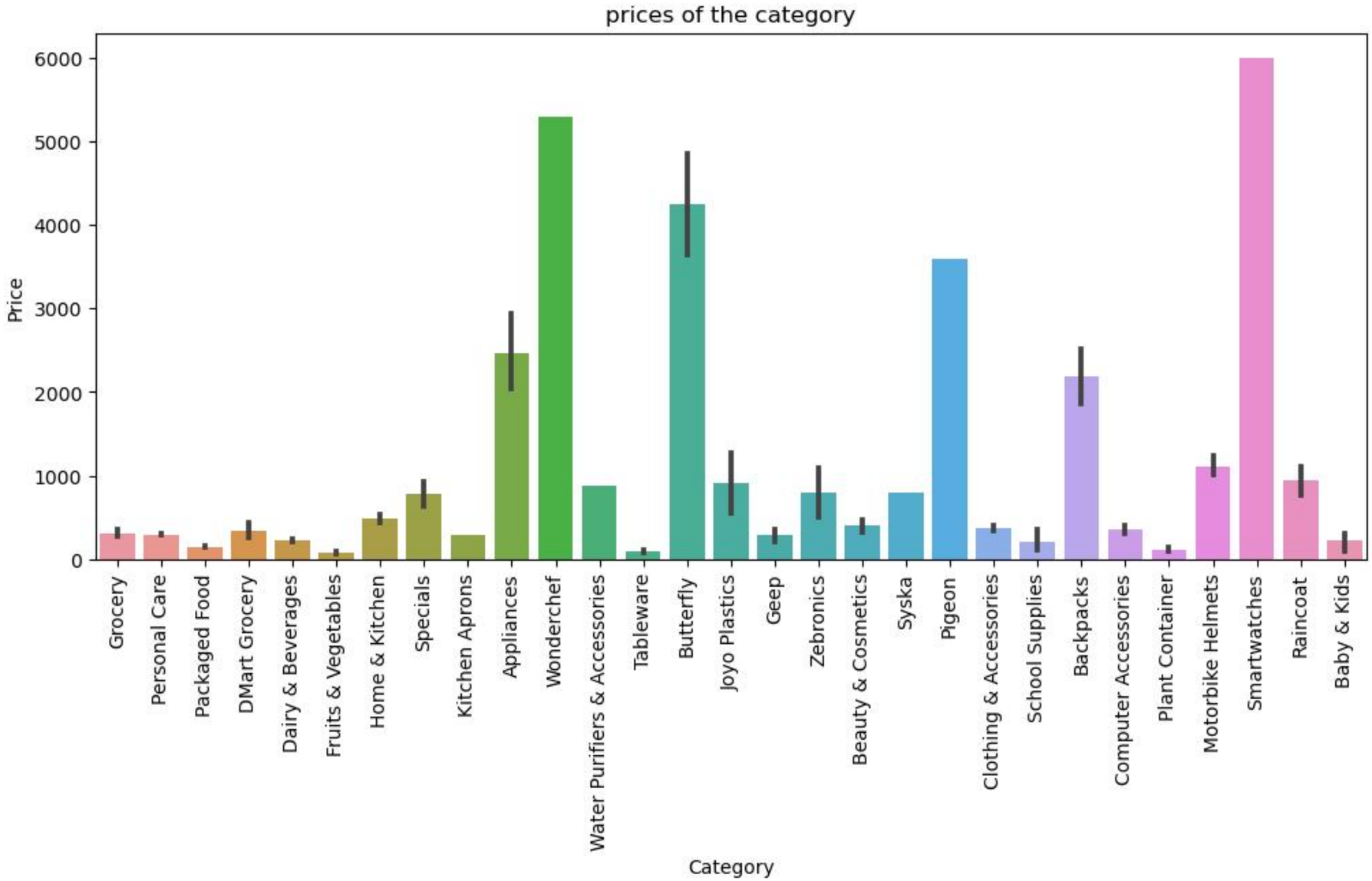
Q1.

what are the number of categories present in dmart?



Personal care is the highest Category Present in dmart

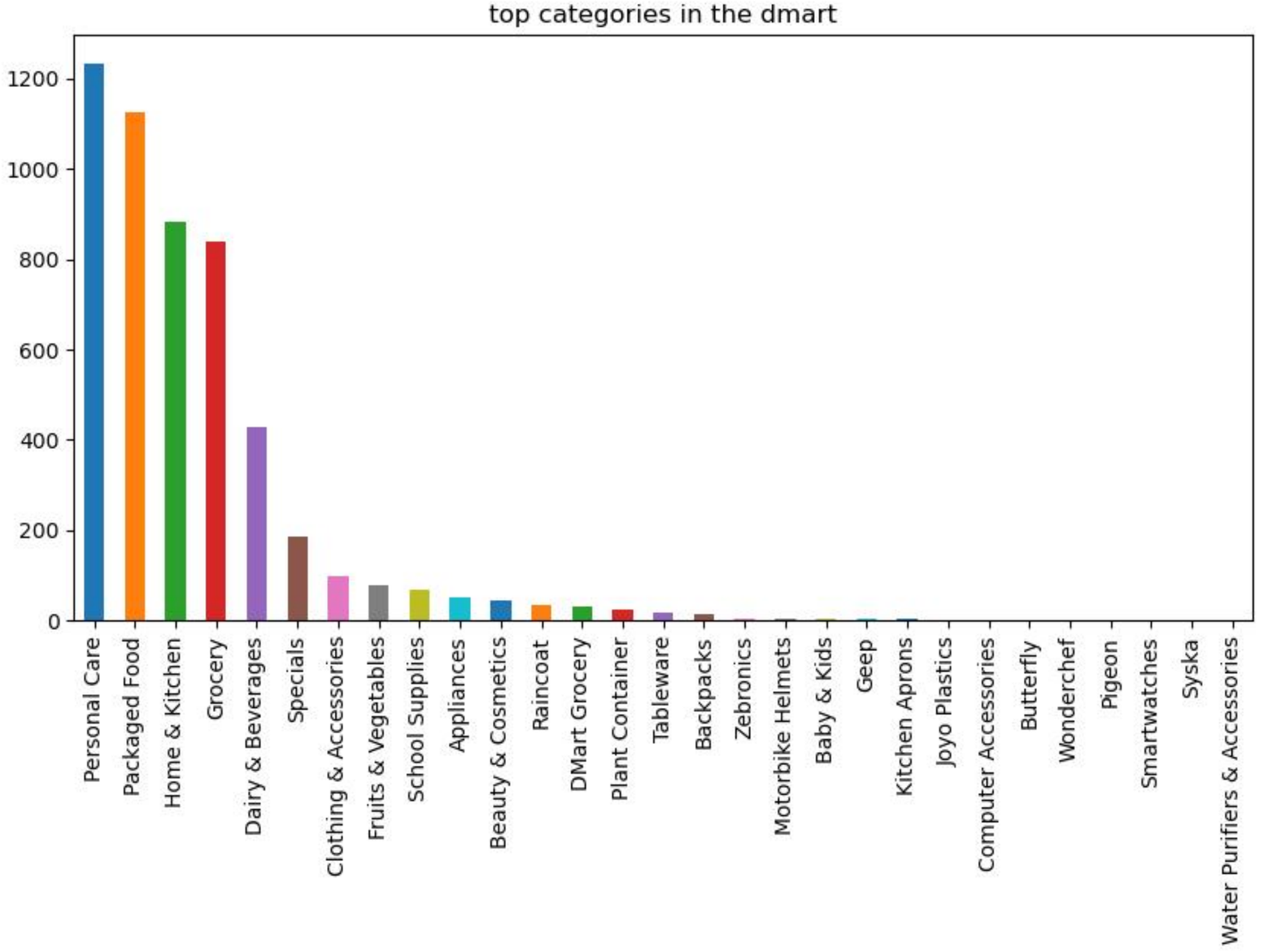
Q2.
what are the different prices of the categories in dmart?



In Dmart smartwatch category has the highest price

Q3.

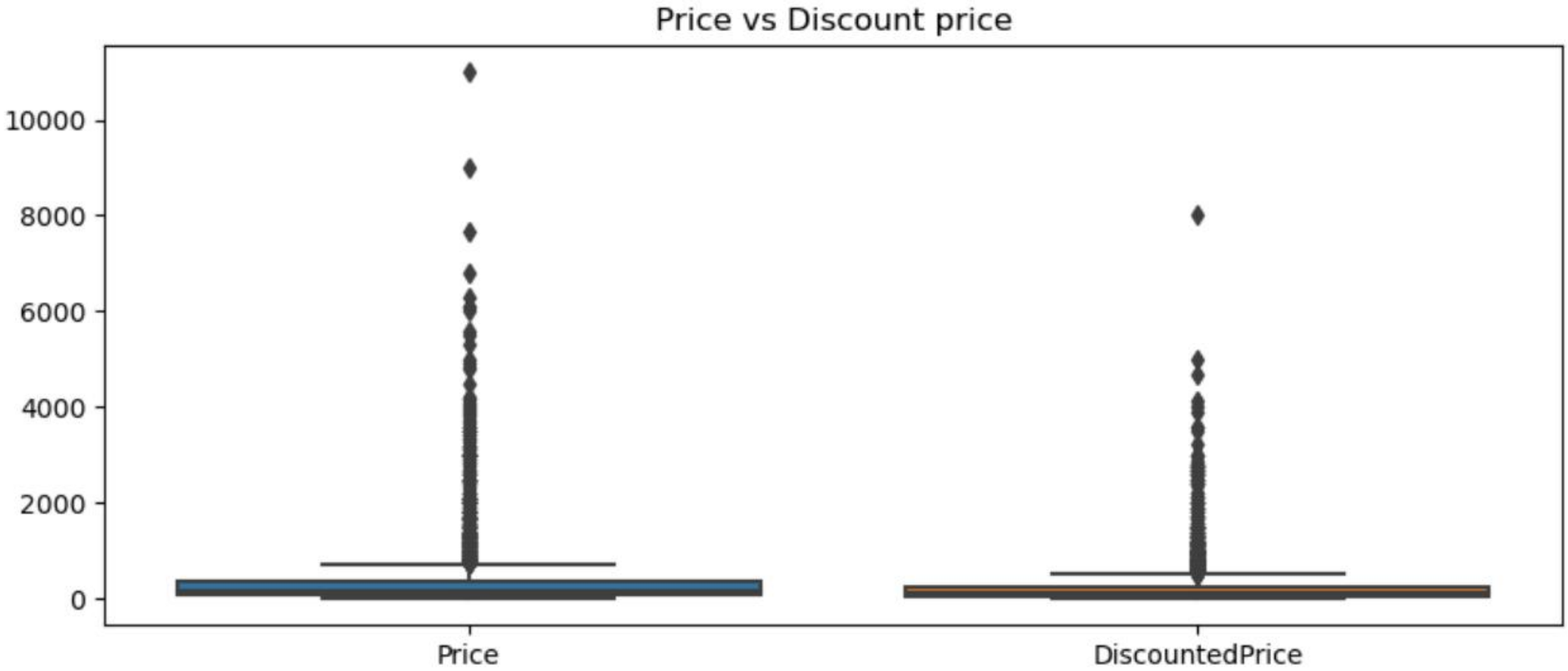
what are the top categories present in dmart?



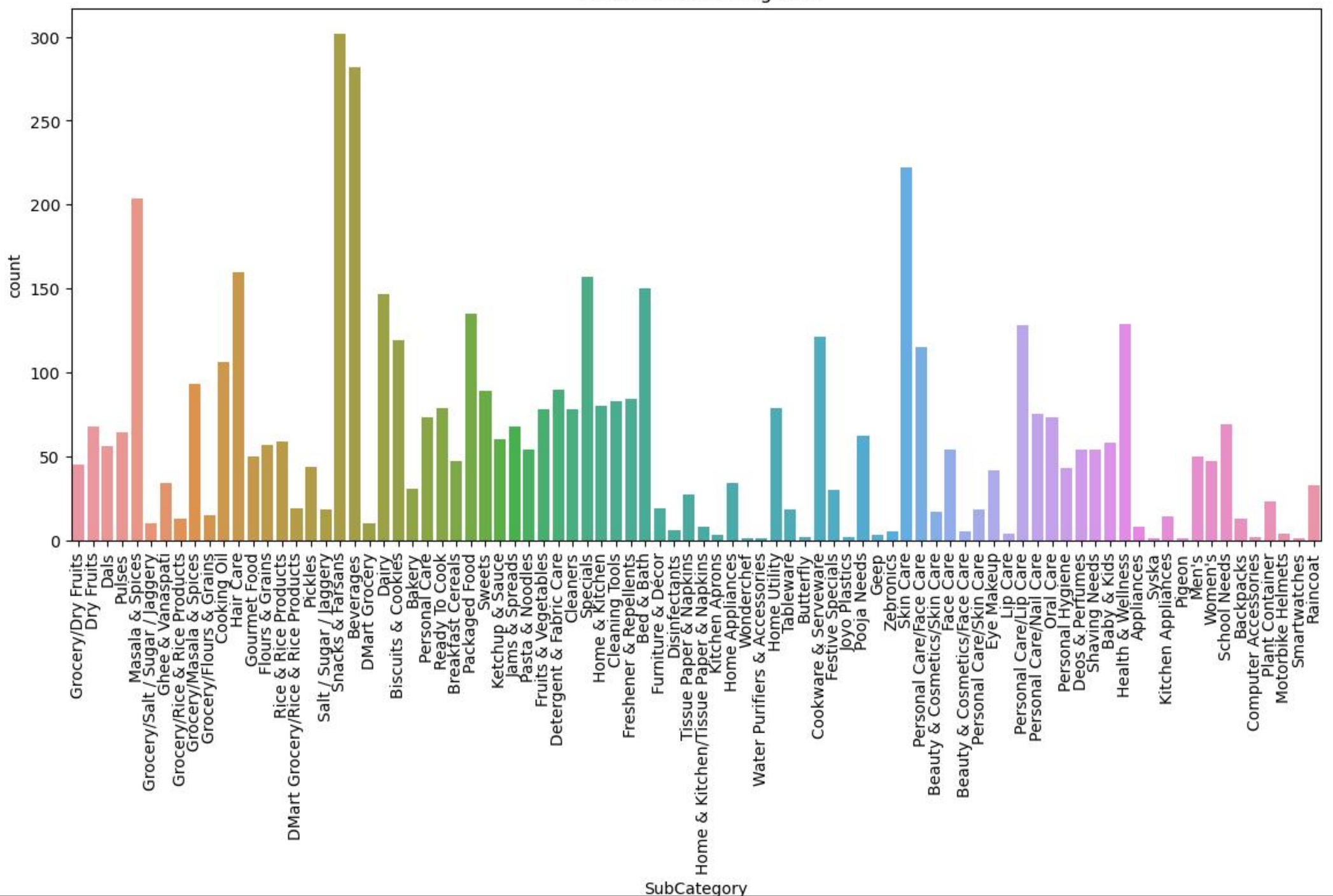
Personal care is the highest Category Present in dmart

Q4.

what is the price vs discounted price in dmart?



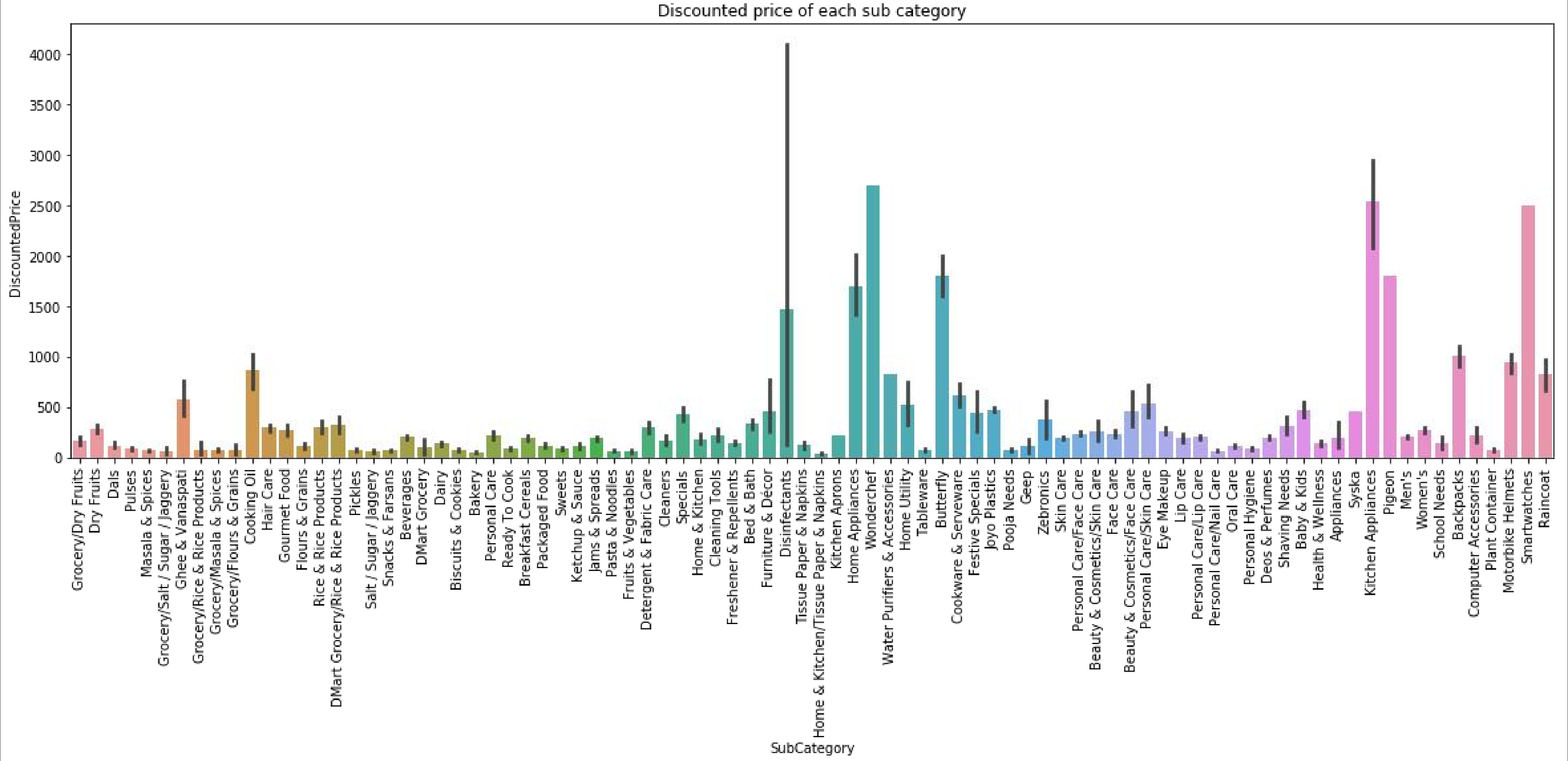
Q5.
what are the list of the subcategories present in the dmart?


Total list of subcategories
count
SubCategory
0
50
100
150
200
250
300
Grocery/Dry Fruits
Dry Fruits
Dals
Pulses
Masala & Spices
Grocery/Salt / Sugar / Jaggery
Ghee & Vanaspati
Grocery/Rice & Rice Products
Grocery/Masala & Spices
Grocery/Flours & Grains
Cooking Oil
Hair Care
Gourmet Food
Flours & Grains
Rice & Rice Products
DMart Grocery/Rice & Rice Products
Pickles
Salt / Sugar / Jaggery
Snacks & Farsans
Beverages
DMart Grocery
Dairy
Biscuits & Cookies
Bakery
Personal Care
Ready To Cook
Breakfast Cereals
Packaged Food
Sweets
Ketchup & Sauce
Jams & Spreads
Pasta & Noodles
Fruits & Vegetables
Detergent & Fabric Care
Cleaners
Specials
Home & Kitchen
Cleaning Tools
Freshener & Repellents
Bed & Bath
Furniture & Décor
Disinfectants
Tissue Paper & Napkins
Home & Kitchen/Tissue Paper & Napkins
Kitchen Aprons
Home Appliances
Wonderchef
Water Purifiers & Accessories
Home Utility
Tableware
Butterfly
Cookware & Serveware
Festive Specials
Joyo Plastics
Pooja Needs
Geep
Zebronics
Skin Care
Personal Care/Face Care
Beauty & Cosmetics/Skin Care
Face Care
Beauty & Cosmetics/Face Care
Personal Care/Skin Care
Eye Makeup
Lip Care
Personal Care/Lip Care
Personal Care/Nail Care
Oral Care
Personal Hygiene
Deos & Perfumes
Shaving Needs
Baby & Kids
Health & Wellness
Appliances
Syska
Kitchen Appliances
Pigeon
Men's
Women's
School Needs
Backpacks
Computer Accessories
Plant Container
Motorbike Helmets
Smartwatches
Raincoat

Subcategory in dmart

Snacks and Farsans is the highest subcategory followed by Beverages

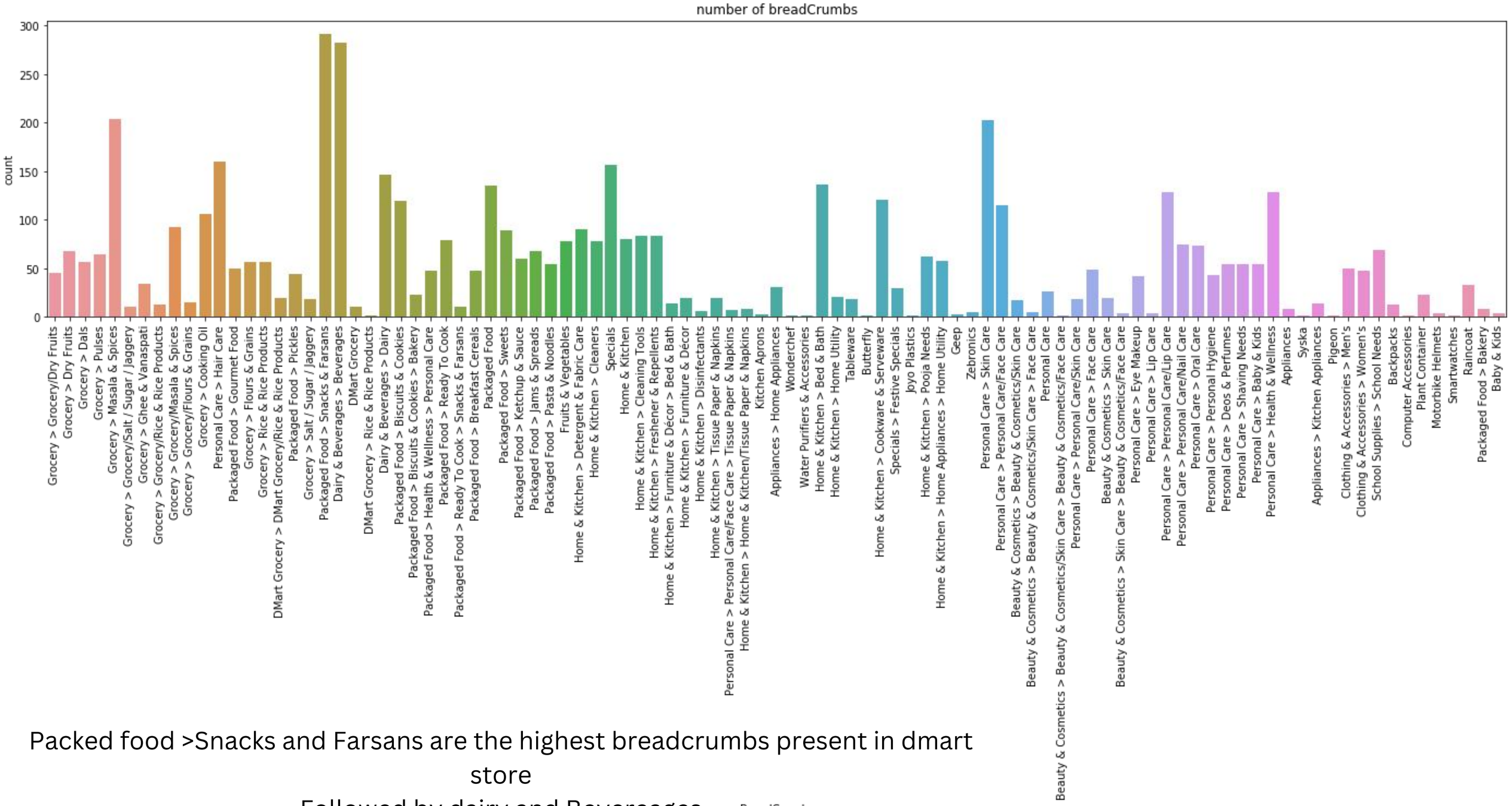
Q6.
What is the discounted price of the subcategories in the dmart?


Discounted price of each sub category
DiscountedPrice
0
500
1000
1500
2000
2500
3000
3500
4000
Grocery/Dry Fruits
Dry Fruits
Dals
Pulses
Masala & Spices
Grocery/Salt / Sugar / Jaggery
Ghee & Vanaspati
Grocery/Rice & Rice Products
Grocery/Masala & Spices
Grocery/Flours & Grains
Cooking Oil
Hair Care
Gourmet Food
Flours & Grains
Rice & Rice Products
DMart Grocery/Rice & Rice Products
Pickles
Salt / Sugar / Jaggery
Snacks & Farsans
Beverages
DMart Grocery
Dairy
Biscuits & Cookies
Bakery
Personal Care
Ready To Cook
Breakfast Cereals
Packaged Food
Sweets
Ketchup & Sauce
Jams & Spreads
Pasta & Noodles
Fruits & Vegetables
Detergent & Fabric Care
Cleaners
Specials
Home & Kitchen
Cleaning Tools
Freshener & Repellents
Bed & Bath
Furniture & Décor
Disinfectants
Tissue Paper & Napkins
Home & Kitchen/Tissue Paper & Napkins
Kitchen Aprons
Home Appliances
Wonderchef
Water Purifiers & Accessories
Home Utility
Tableware
Butterfly
Cookware & Serveware
Festive Specials
Joyo Plastics
Pooja Needs
Geep
Zebronics
Skin Care
Personal Care/Face Care
Beauty & Cosmetics/Skin Care
Face Care
Beauty & Cosmetics/Face Care
Personal Care/Skin Care
Eye Makeup
Lip Care
Personal Care/Lip Care
Personal Care/Nail Care
Oral Care
Personal Hygiene
Deos & Perfumes
Shaving Needs
Baby & Kids
Health & Wellness
Appliances
Syska
Kitchen Appliances
Pigeon
Men's
Women's
School Needs
Backpacks
Computer Accessories
Plant Container
Motorbike Helmets
Smartwatches
Raincoat
SubCategory

DISCOUNTED PRICE OF THE SUBCATEGORIES IN THE DMART

Highest Discounted Subcategory is Disinfectanats

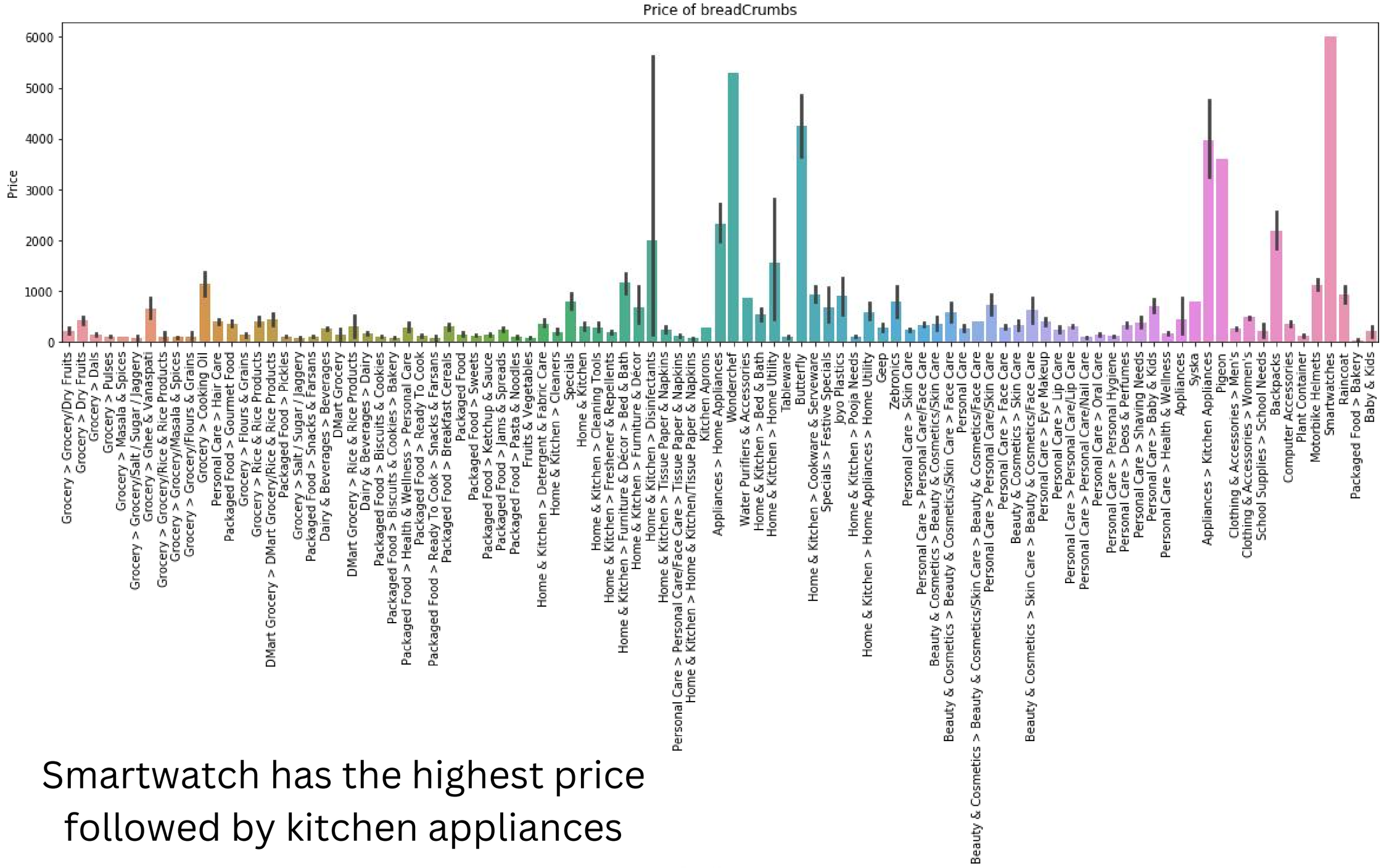
Q7. What is the breadcrumbs present in the dmart?



Packed food >Snacks and Farsans are the highest breadcrumbs present in dmart store

Followed by dairy and Bevereages

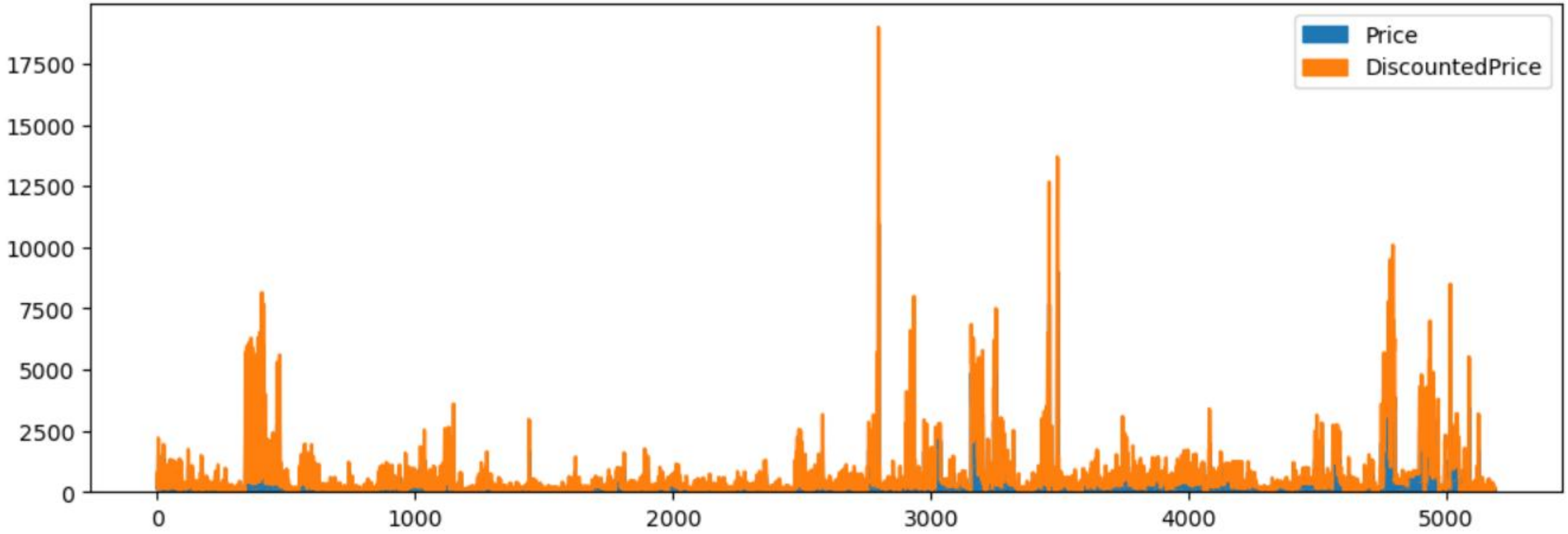
Q8. What are the prices of the breadcrumbs in dmart?



Smartwatch has the highest price followed by kitchen appliances

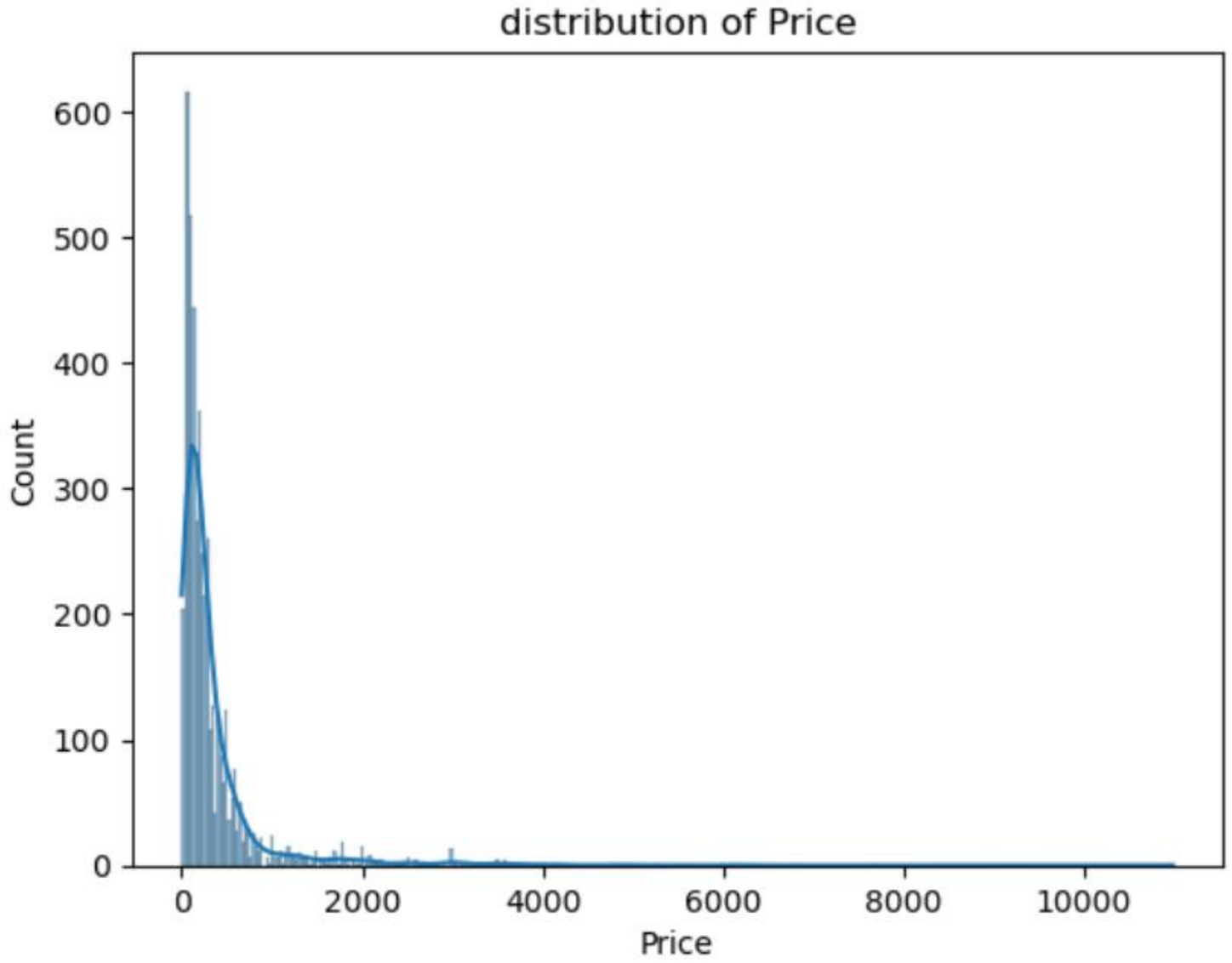
Q9.

What is the comparison of price vs discount price in dmart?



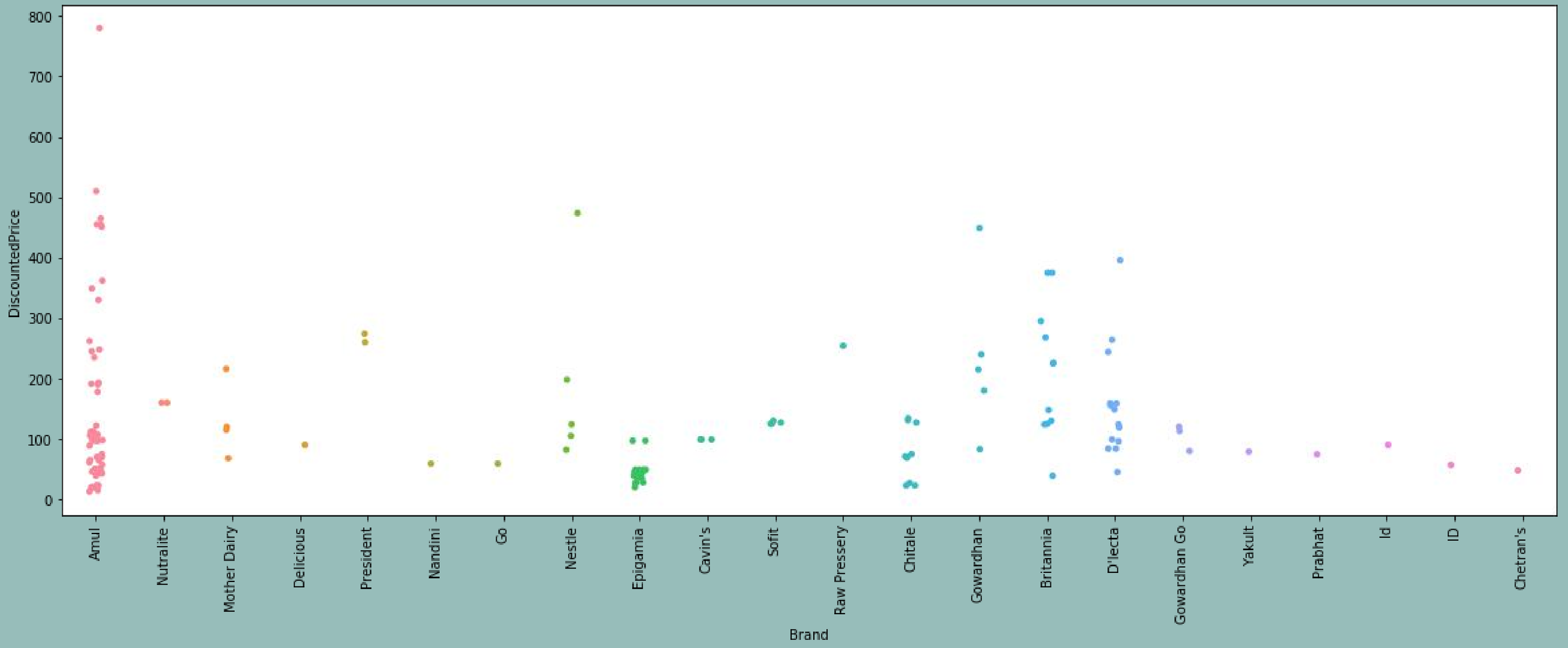
Q10.

What is the price distribution in dmart?



Q11.

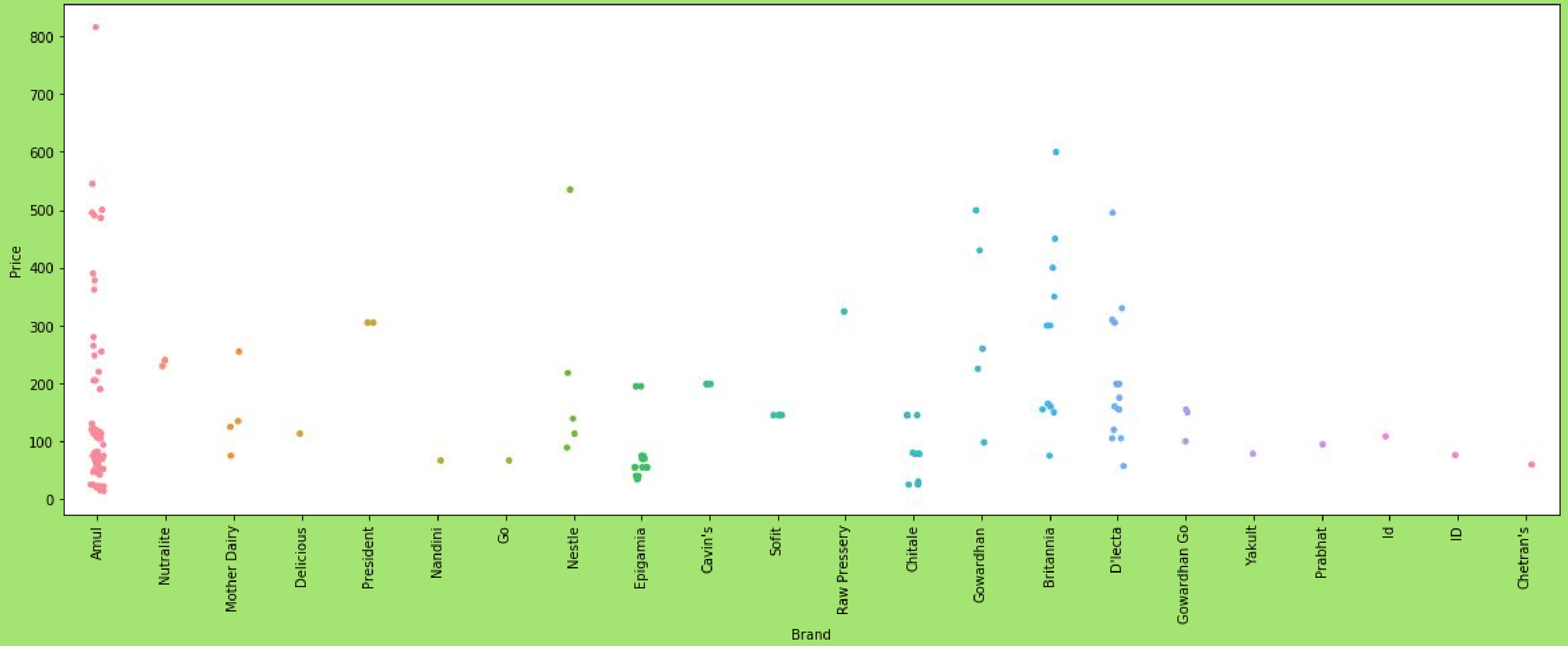
Now i wish to see for Category Dairy’s Discounted Price



Amul dairy product has the highest discounted price

Q12.

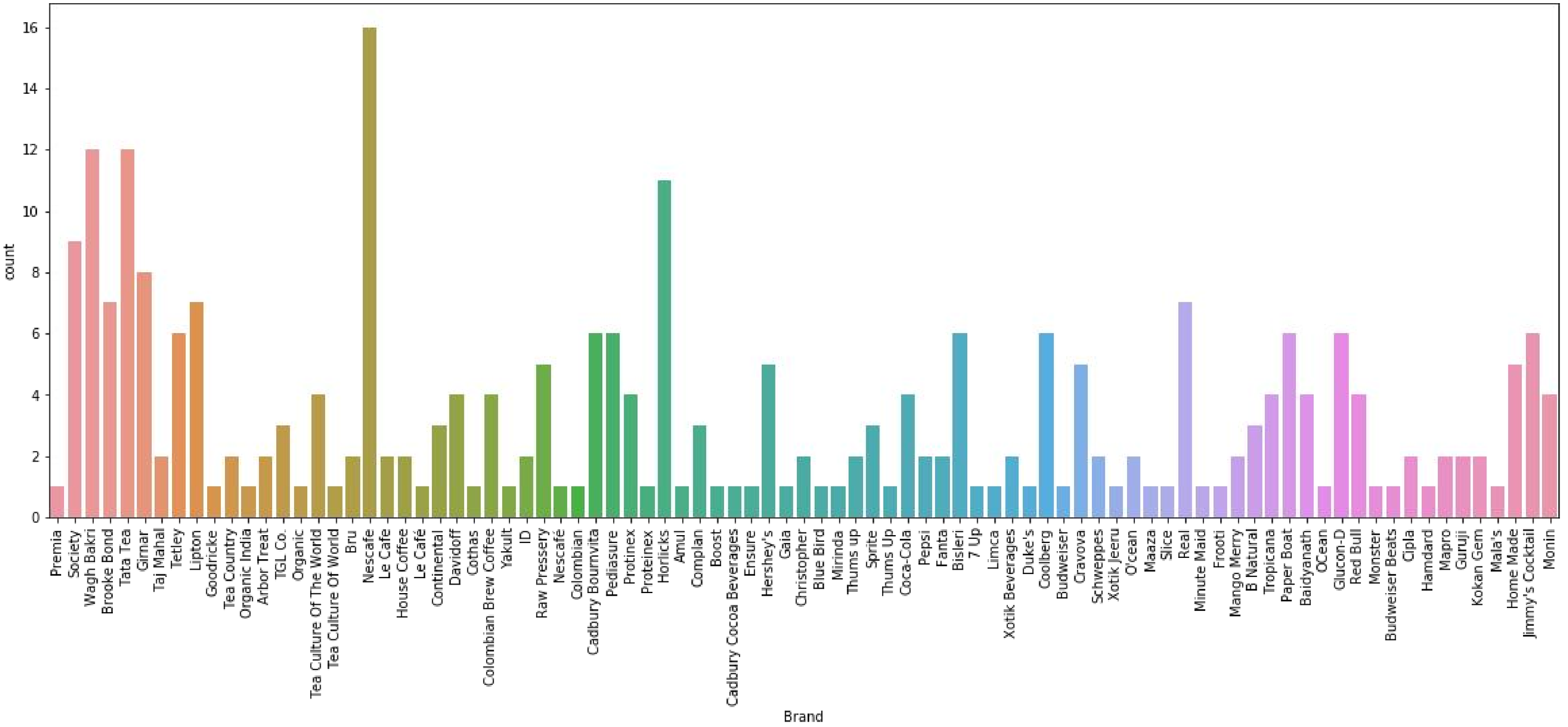
Now I wish to see for Category Dairy’s Price



Amul dairy product has the highest price followed by Britannia product

Q13.

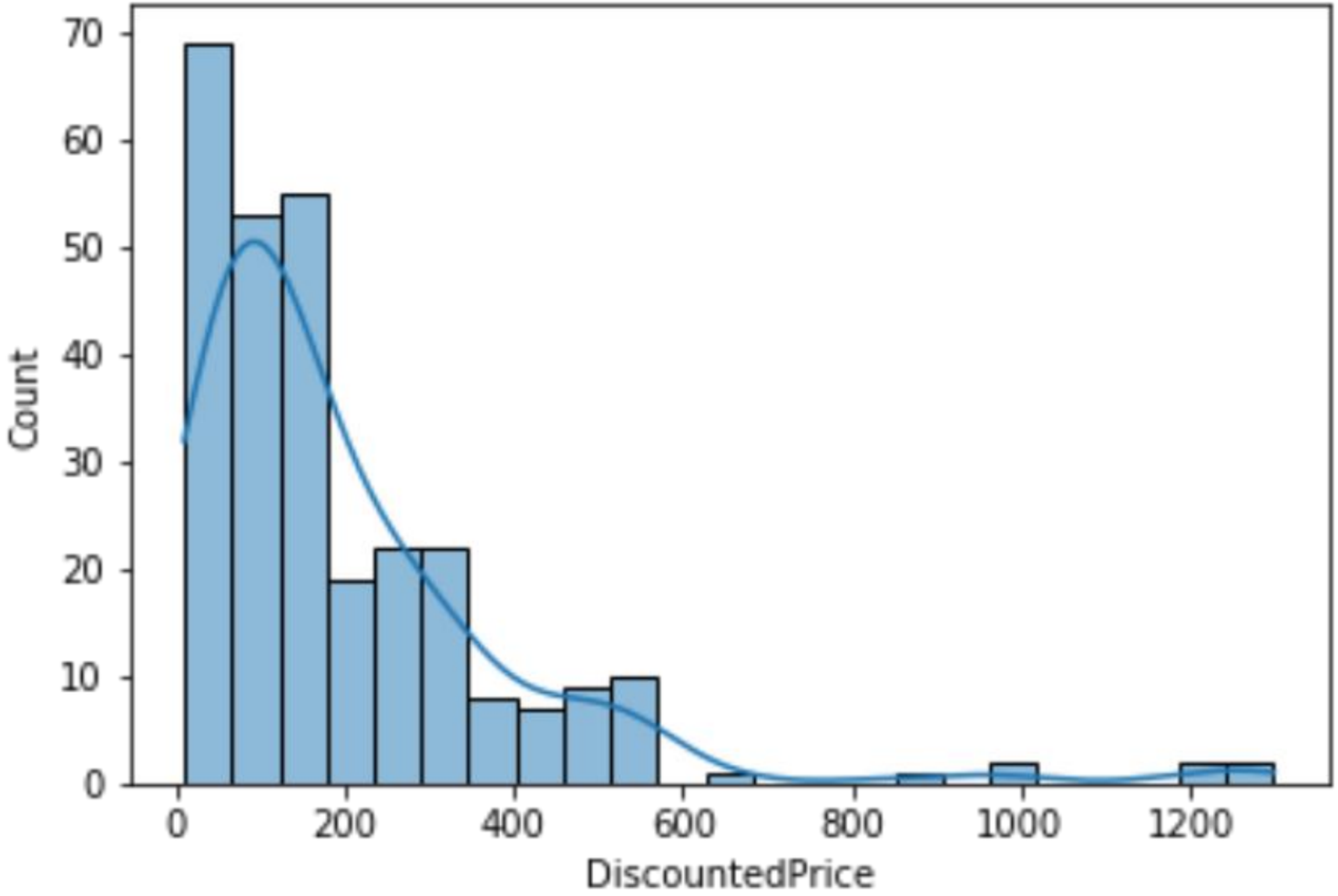
Count of each brand in Subcategory Beverages


count
0
2
4
6
8
10
12
14
16
Brand
Premia
Society
Wagh Bakri
Brooke Bond
Tata Tea
Girnar
Taj Mahal
Tetley
Lipton
Goodricke
Tea Country
Organic India
Arbor Treat
TGL Co.
Organic
Tea Culture Of The World
Tea Culture Of World
Bru
Nescafe
Le Cafe
House Coffee
Le Café
Continental
Davidoff
Cothas
Colombian Brew Coffee
Yakult
ID
Raw Pressery
Nescafé
Colombian
Cadbury Bournvita
Pediasure
Protinex
Proteinex
Horlicks
Amul
Complan
Boost
Cadbury Cocoa Beverages
Ensure
Hershey's
Gaia
Christopher
Blue Bird
Mirinda
Thums up
Sprite
Thums Up
Coca-Cola
Pepsi
Fanta
Bisleri
7 Up
Limca
Xotik Beverages
Duke's
Coolberg
Budweiser
Cravova
Schweppes
Xotik Jeeru
O'cean
Maaza
Slice
Real
Minute Maid
Frooti
Mango Merry
B Natural
Tropicana
Paper Boat
Baidyanath
OCean
Glucon-D
Red Bull
Monster
Budweiser Beats
Cipla
Hamdard
Mapro
Guruji
Kokan Gem
Mala's
Home Made
Jimmy's Cocktail
Monin

Nescafe product is highest Beverage subcategory

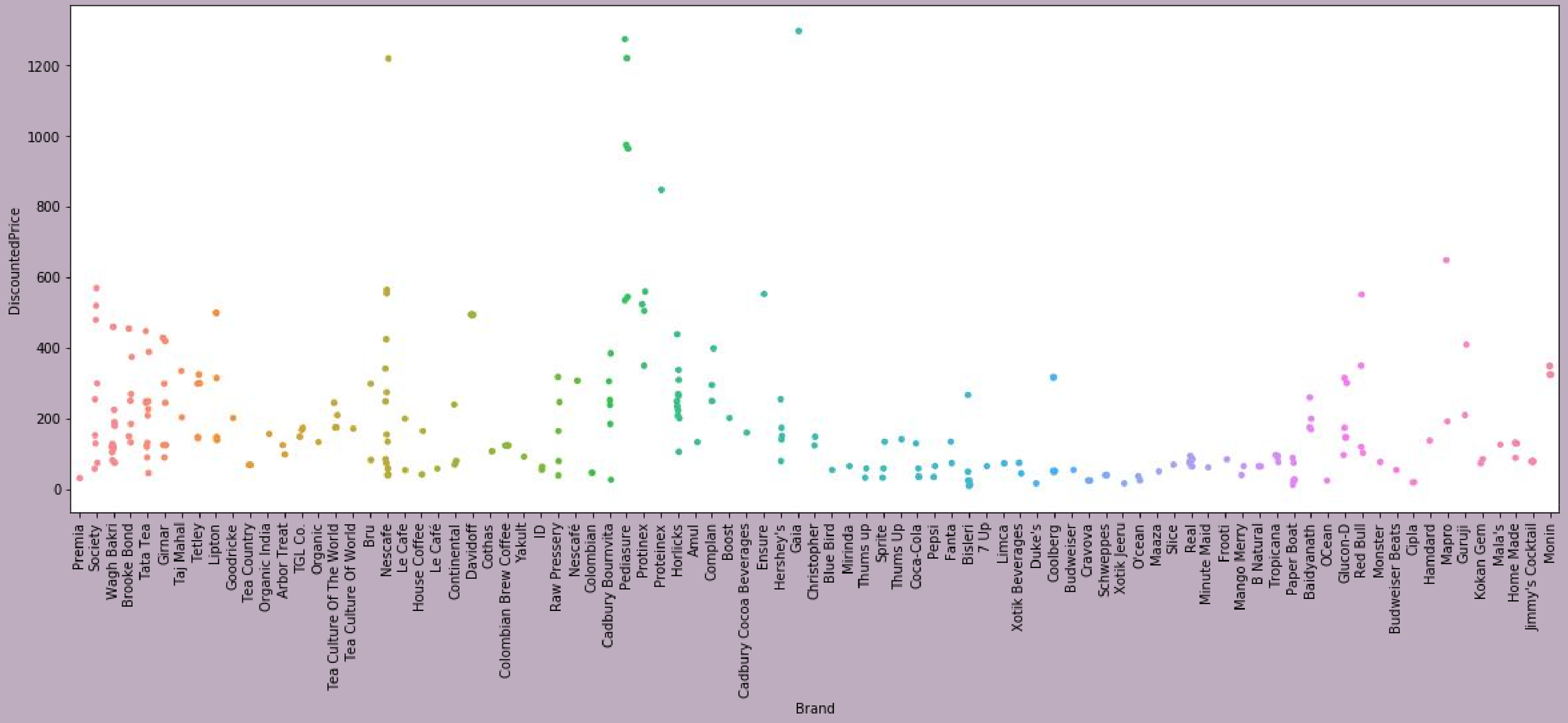
Q14.

Beverages and Discounted Price



Q15.

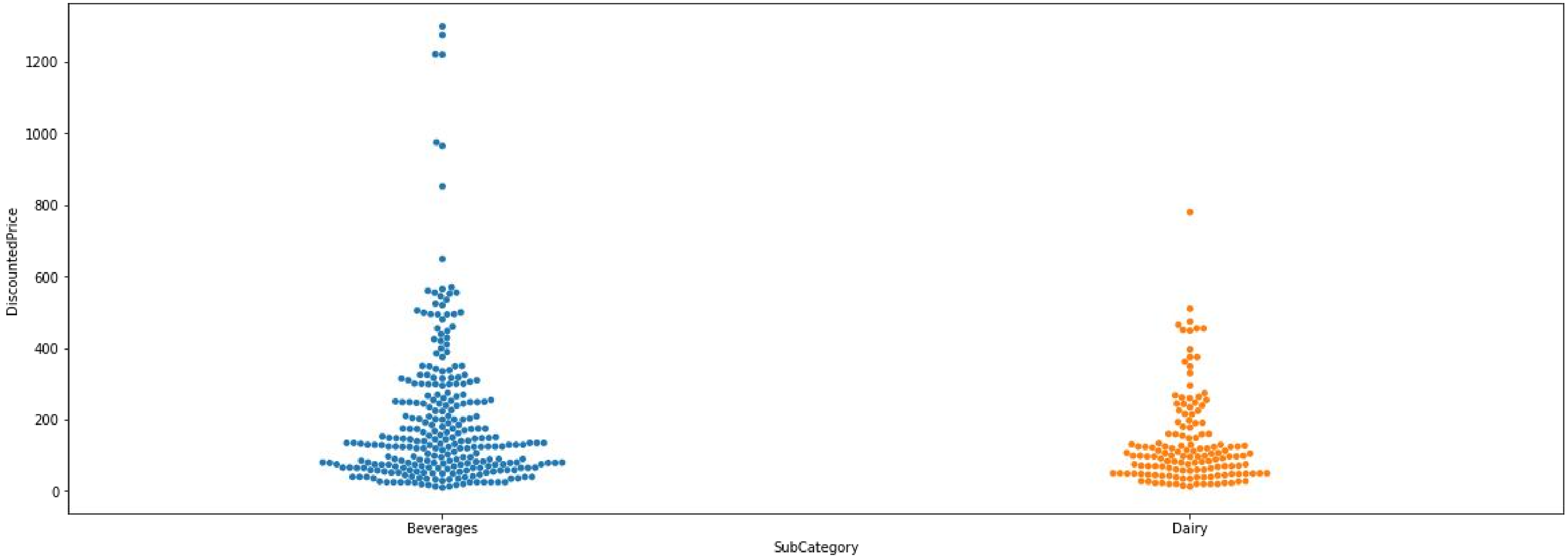
Beverages Brand and Discounted Price



Hershey’s has the highest discounted price followed by PediaSure

Q16.

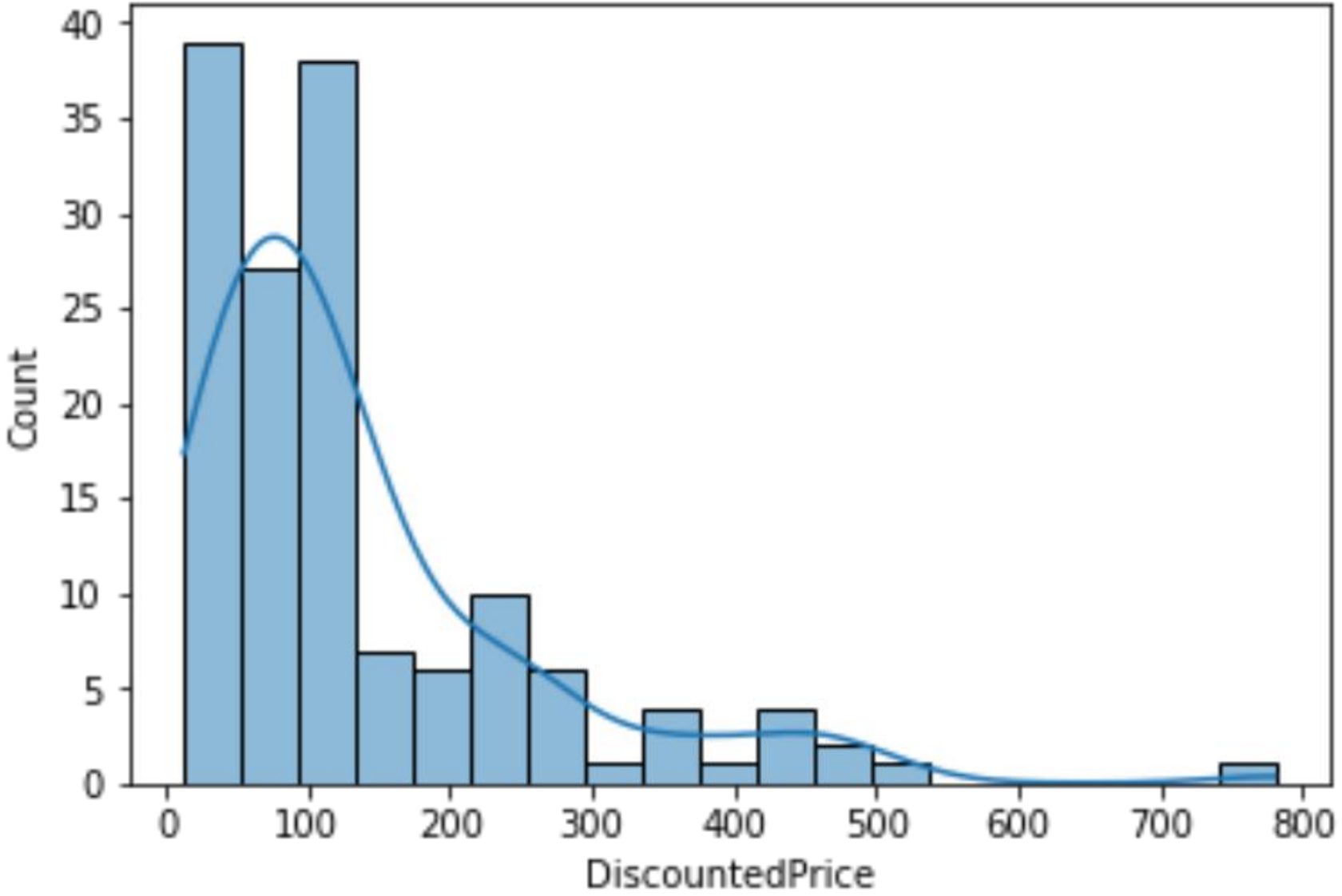
Variations of Discounted Price between two Subcategories



Among 2 subcategories which is Beverages and Dairy, Beverages has the highest discounted price

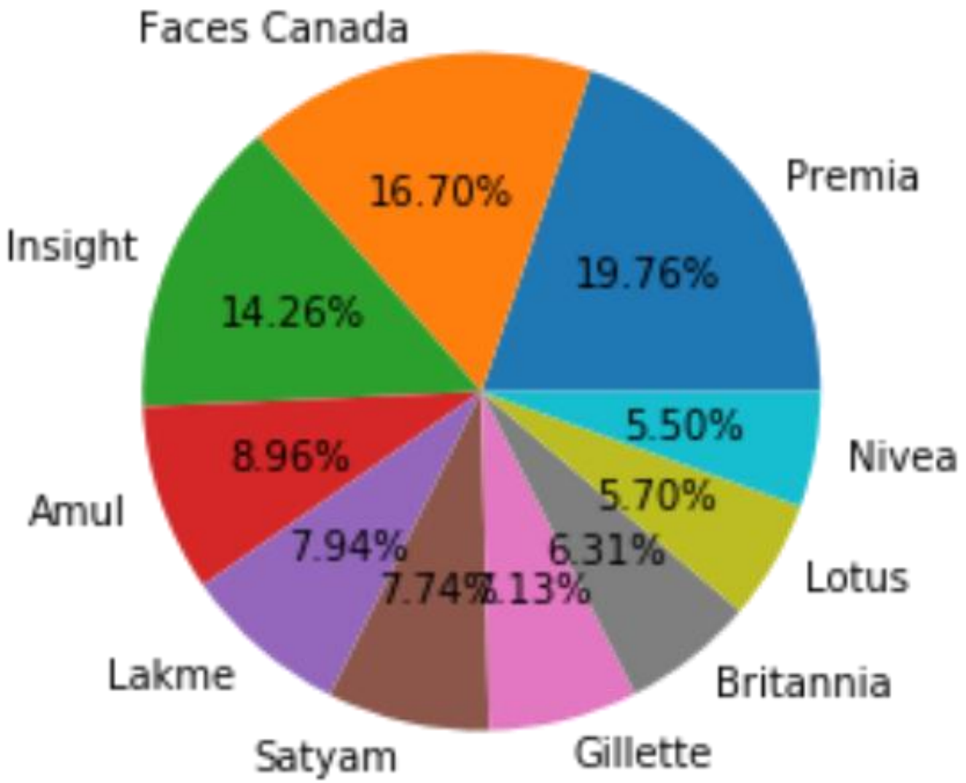
Q17.

Dairy and Discounted Price



Q18.

Personal Care Subcategory



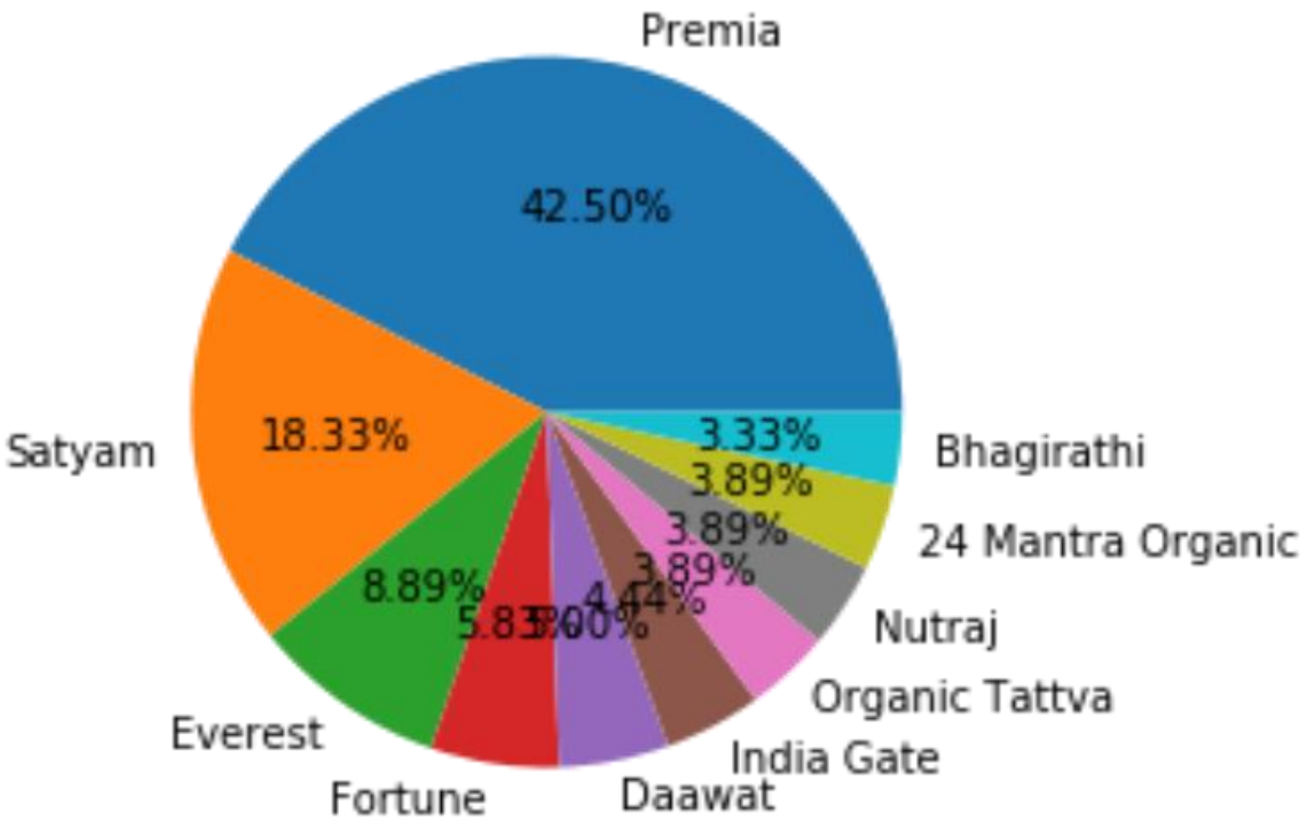
FACES
CANADA

Faces canada is the second highest product in personal care subcategory
The least product is Nivea product

Premia Product is more compared to other products in Subcategory Personal Care

Q19.

Grocery Subcategory



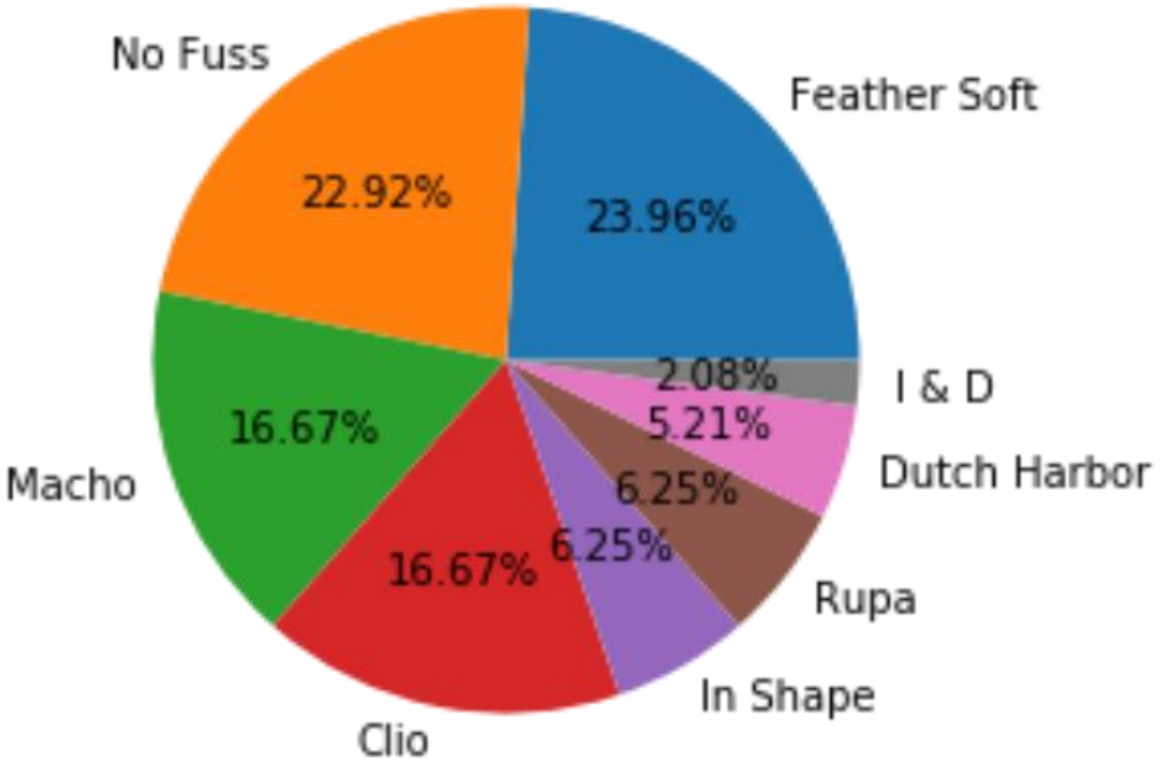
PREMIER FOODS

<u>Premia Grocery</u> has the highest product present in Grocery Subcategory

<u>Satyam Grocery</u> is the second highest product and the least product is <u>Bhagirathi product</u> in Grocery Subcategory

Q20.

Clothing and Accessories Subcategory

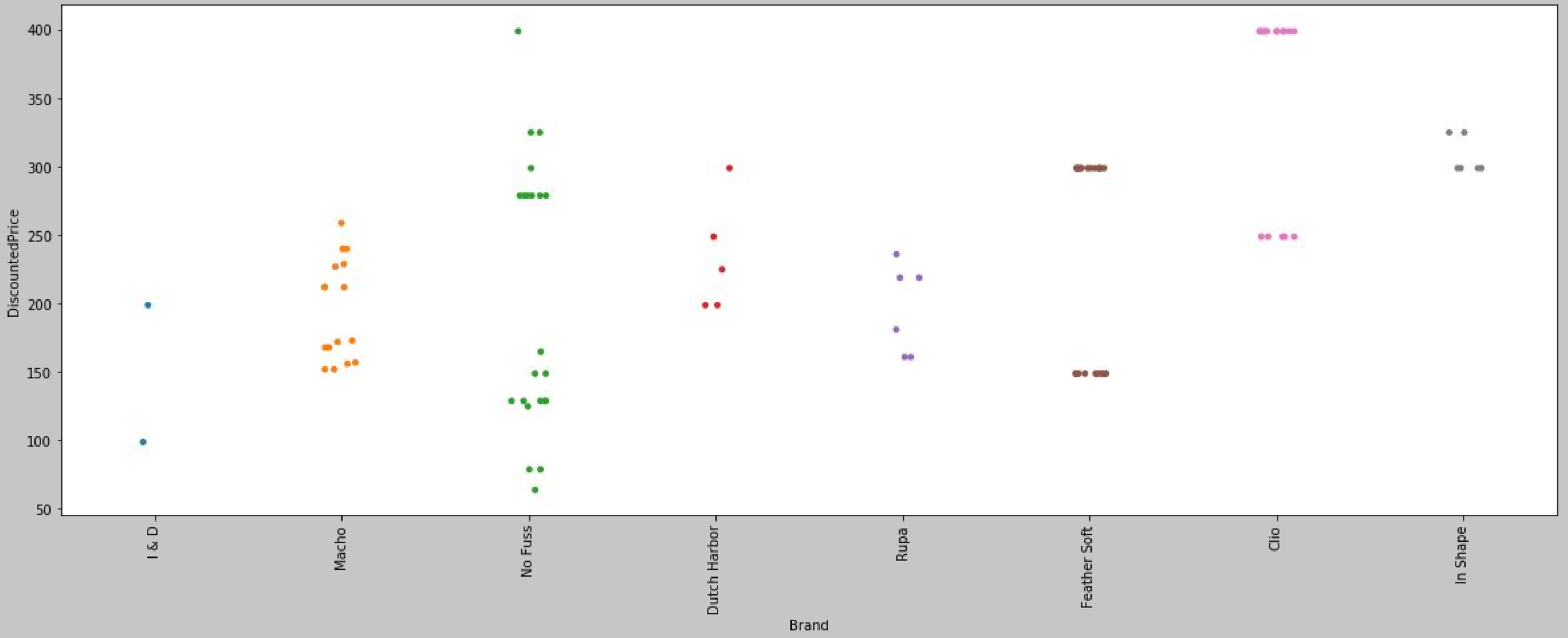


Feather soft and the No Fuss products are the highest products present in Dmart

I&D are the least products present in Dmart

Q21.

Clothing and Accessories Subcategory Discounted Price

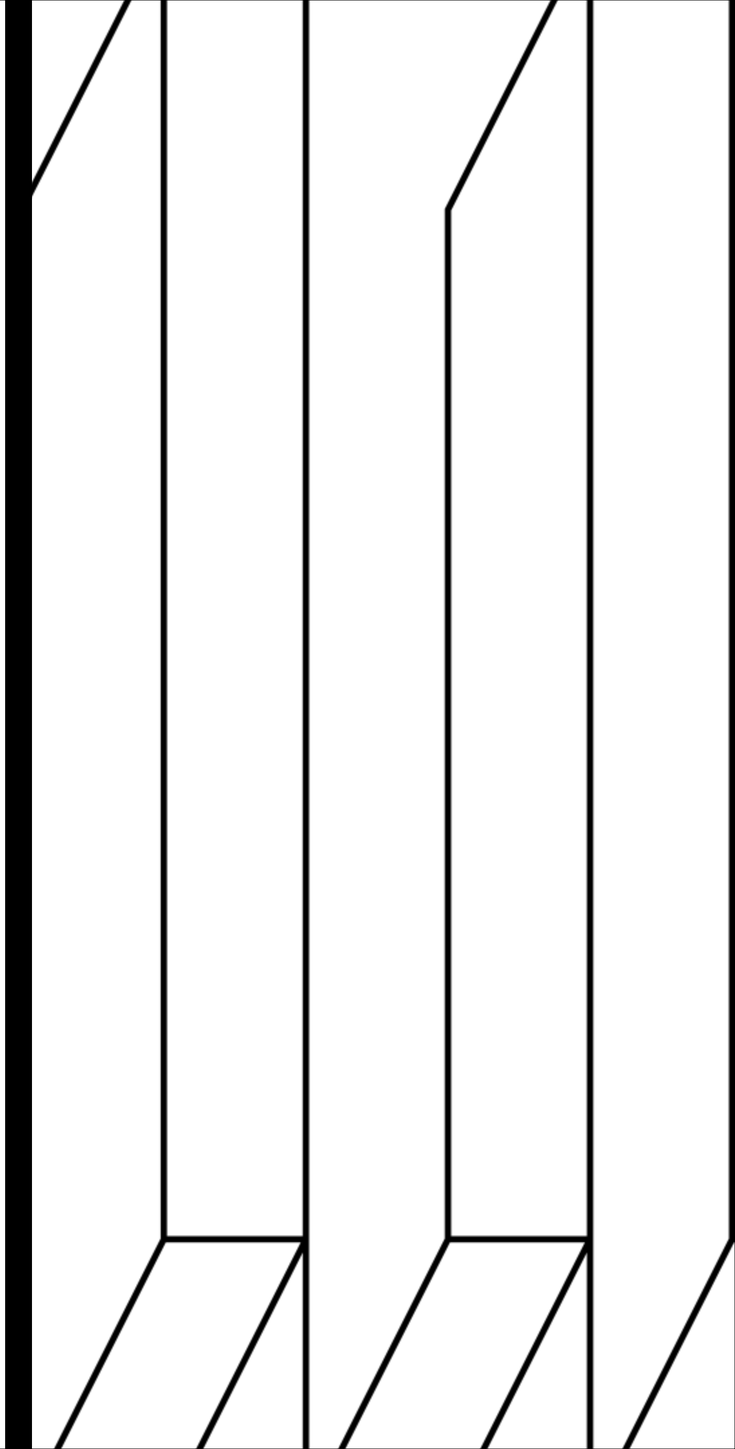
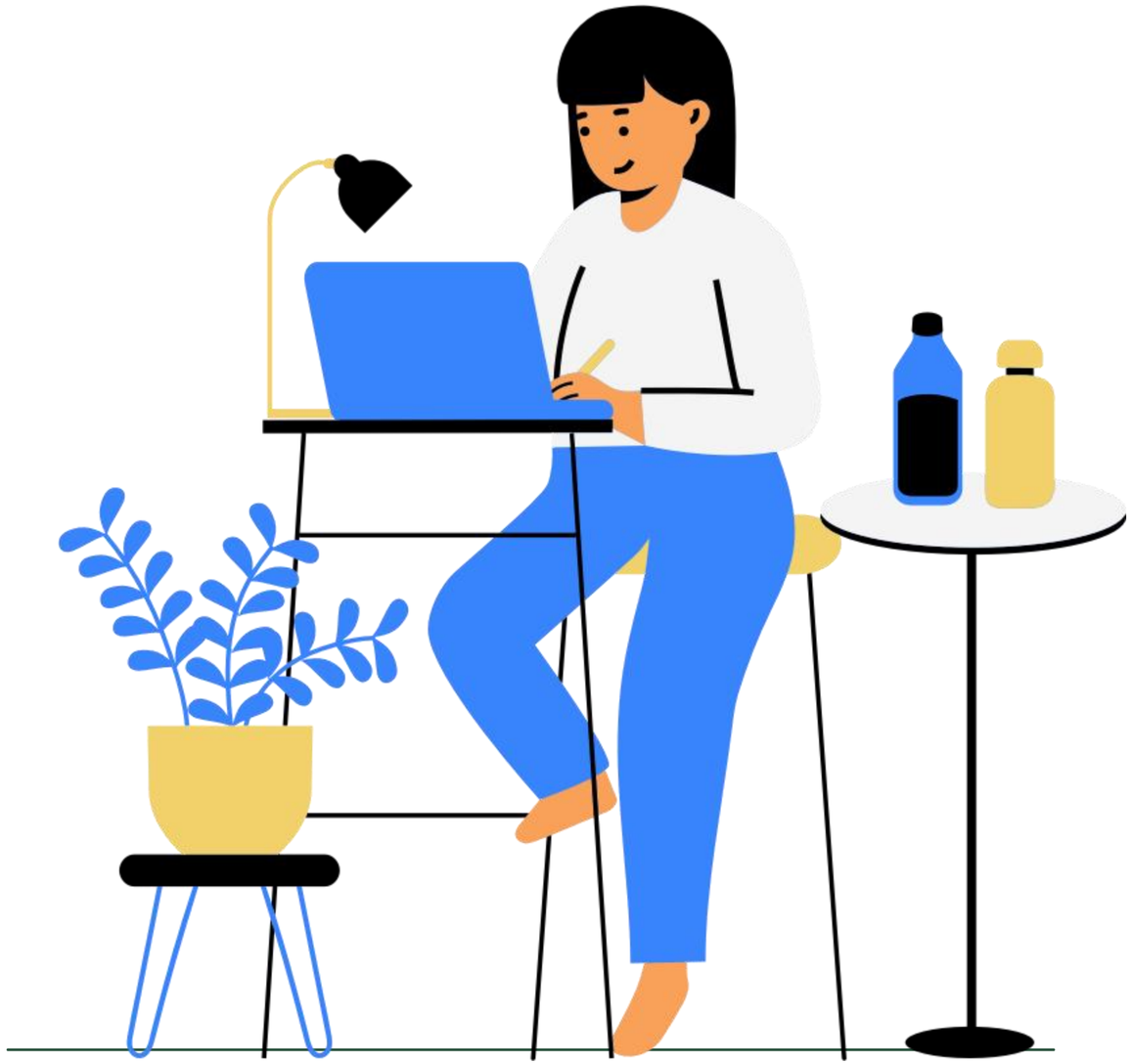


No Fuss and Clio are the two products which have the highest discounted price

Conclusion

Add more text

- Out of all Category Diary and Beverages contributes overall 6.20% profit
- Between Dairy and Beverages more of the profit comes from Beverages Section
- In Beverages Section the best selling brand is Nescafe with the spread of item discount price range of 10 to 1299
- In Dairy Section the best selling brand is Amul with the spread of item discount price range of 13 to 780
- Further analysis can be done on this dataset using the different methods and considering different Category



THANK YOU