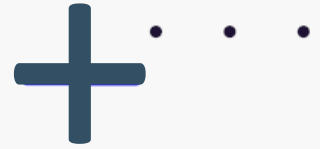# Restaurant Analysis

By Jay Ganesh Charole

Objective

In India, the restaurant industry is booming. Currently, the Indian Restaurant Market is one of the most rapidly expanding in the globe. According to a survey by the National Restaurant Association of India (NRAI), the Indian restaurant industry is predicted to reach INR 5.99 lakh crore by 2022-23, rising at a compounded annual growth rate of 9 percent. Despite the difficulties and problems that restaurant owners have experienced in recent years, operating a restaurant in the near future would open the door to a slew of new chances for aspiring restaurant entrepreneurs.

About Dataset

This dataset contains the data of a reknowned restaurant in Mumbai which is famous for Dosa. It has variety of Dosa's in it. In the dataset we have different columns where we have selling price, discount price, categories, quantities, etc.

Also we have one more sheet where sales are been consolidated so that sales and performance analysis can be done.
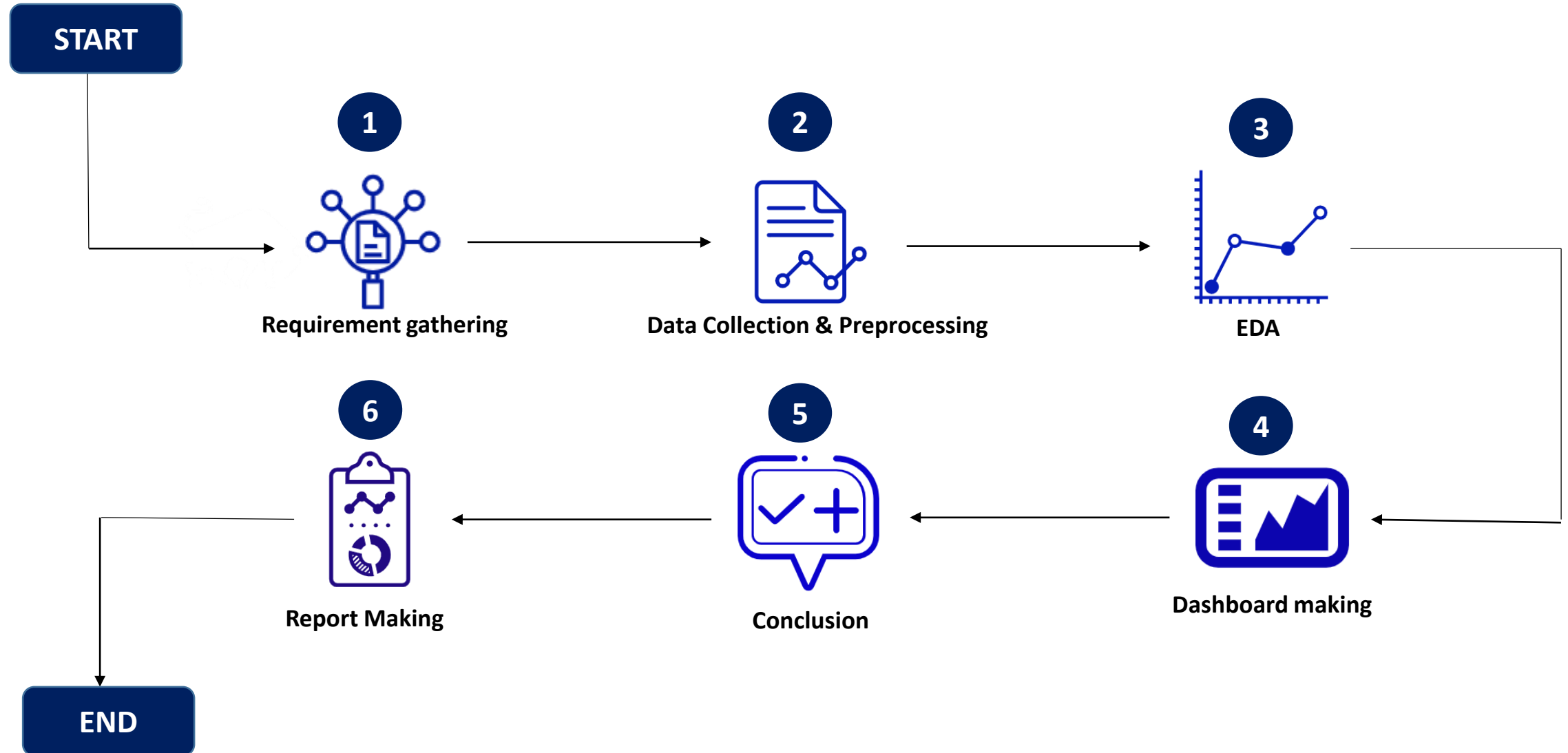
Tool Stack

Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Python is dynamically-typed and garbage-collected.

Power BI is an interactive data visualization software product developed by Microsoft with a primary focus on business intelligence.

Project Process

START

1
Requirement gathering

2
Data Collection & Preprocessing

3
EDA

6
Report Making

5
Conclusion

4
Dashboard making

END

Dashboard

RESTAURANT ANALYTICS

Item name

All ▾

13K
Sales discount amount

49K
Selling price
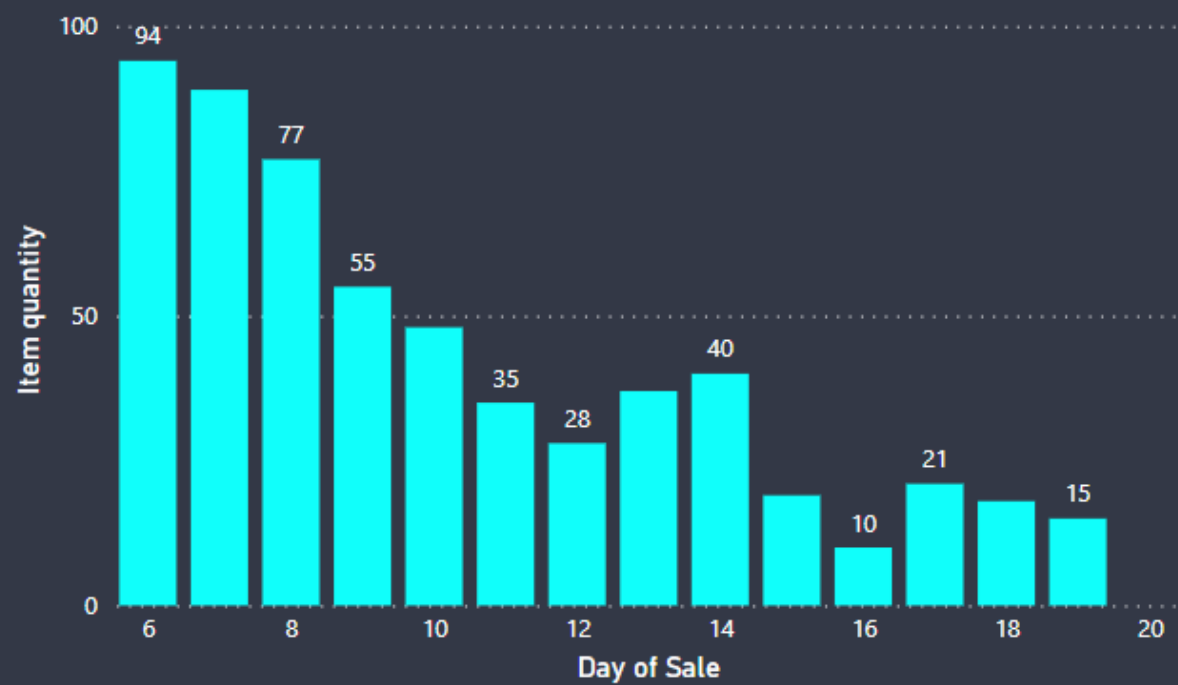
Item quantity by Item amount

Item quantity

200

177

150

100

50

22

3

4

28

6

2

6

0

0   100   200   300

Item amount

Day Wise Sales of Items

Item quantity

100

94

77

50

55

35

40

28

21

10

15

0

6   8   10   12   14   16   18   20

Day of Sale

Item amount by Item name

Item name	Item amount
Pizza dosa	6.2K
Mushroom chilli cheese	2.1K
Paneer cheese	2.1K
Stump dosa or Hatric...	2.0K
Paneer chinese mushr...	2.0K
Plain dosa	1.7K
Paneer chilli	1.5K
Dubai dosa	1.3K
Paneer masala	1.2K
Mushroom dosa	1.1K

0K   2K   4K   6K

Item amount

RESTAURANT ANALYTICS

105K
Sum of Item amount
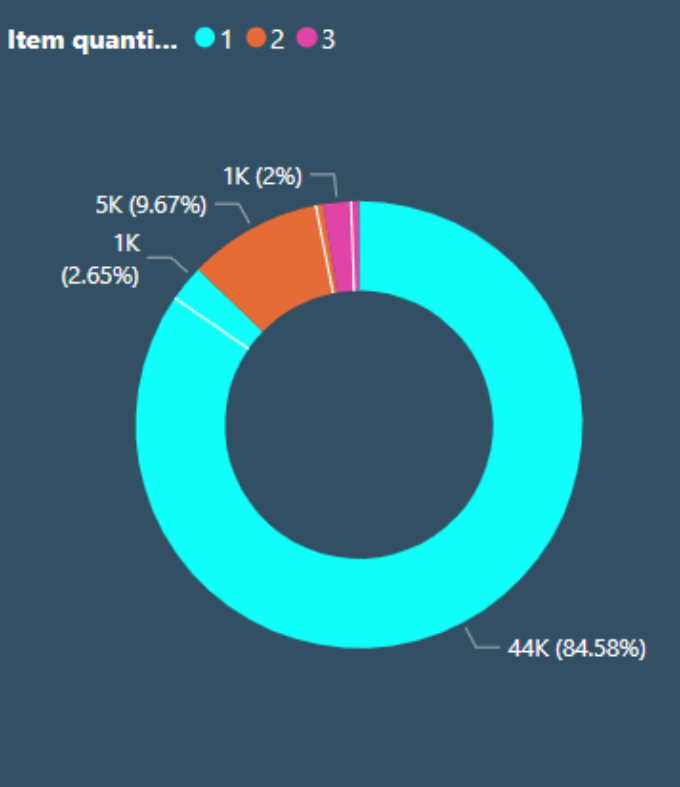
1172
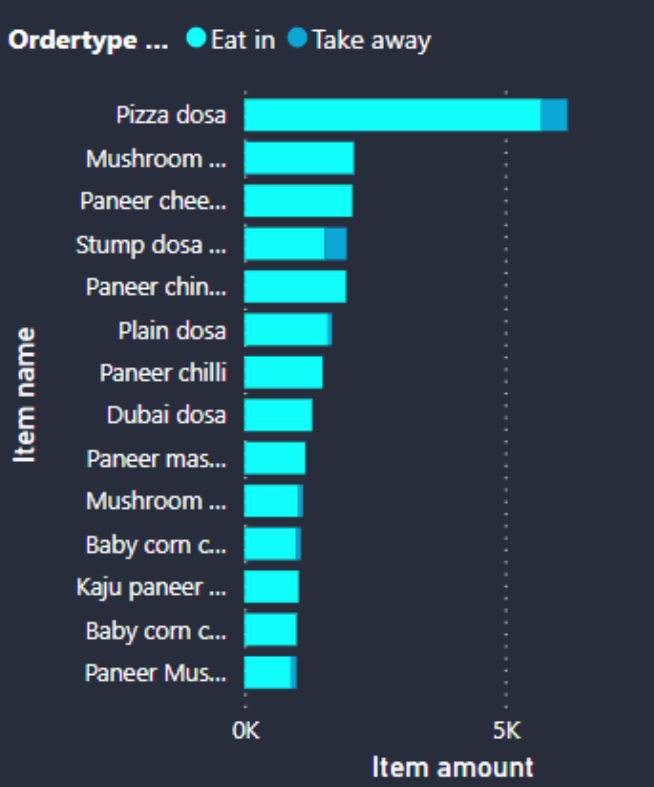Sum of Item quantity

26K
Sum of Sales discount amount

Count of Item quantity, Selling price and Sales discount amount by Item name

Item amount by Item quantity and Ordertype name

Item quanti... ● 1 ● 2 ● 3

- 1K (2%)
- 5K (9.67%)
- 1K (2.65%)
- 44K (84.58%)

Item amount by Item name and Ordertype name

Ordertype ... ● Eat in ● Take away

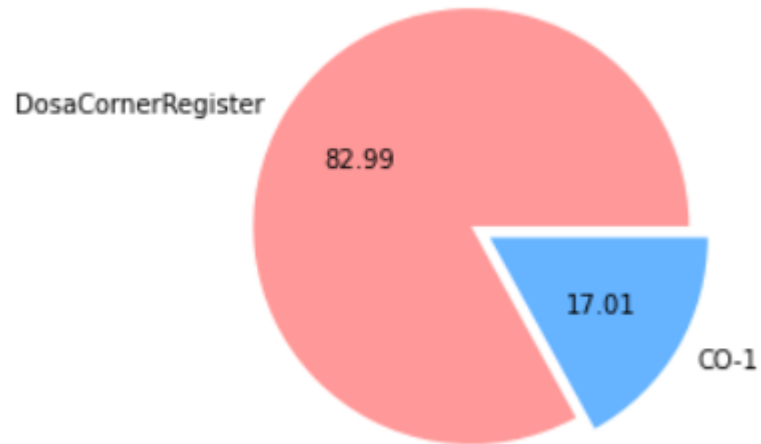| Item name	
Pizza dosa	
Mushroom ...	
Paneer chee...	
Stump dosa ...	
Paneer chin...	
Plain dosa	
Paneer chilli	
Dubai dosa	
Paneer mas...	
Mushroom ...	
Baby corn c...	
Kaju paneer ...	
Baby corn c...	
Paneer Mus...	

0K   5K
Item amount

Insights

Important KPI's
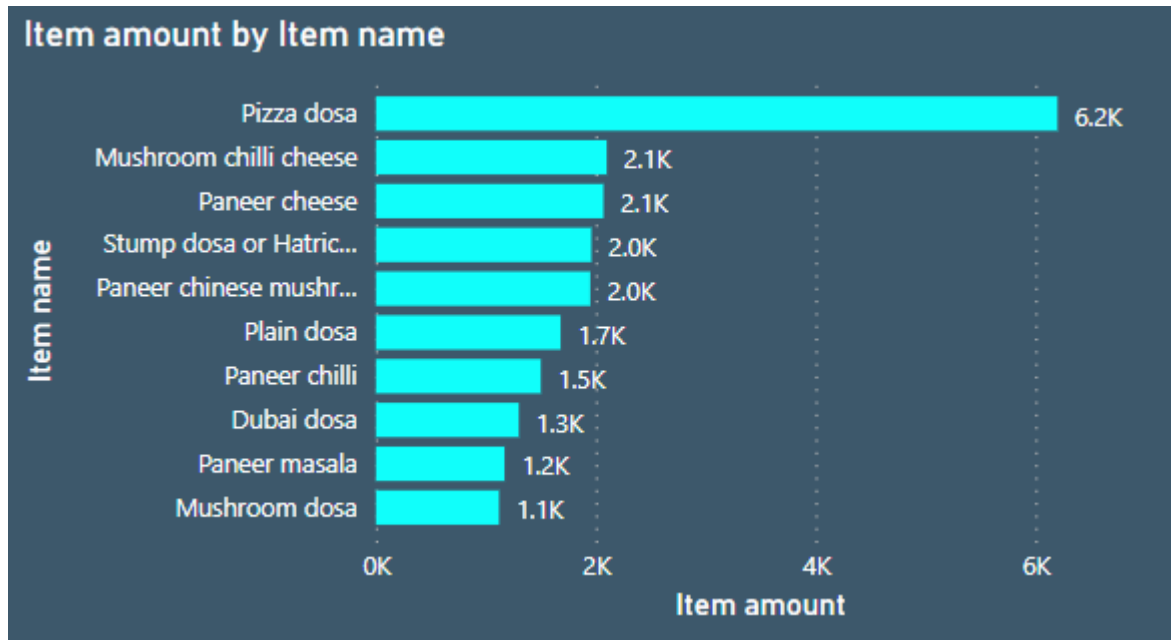
1) Minimum Selling Price is worth Rupees 40

2) Maximum Selling Price is worth Rupees 140

3) Average of selling price of customers is around 90 rupees

4) Average discount amount is 24.34 rupees.

5) Total Sales discount is around 13K.

6) Total Selling Price is around 49K.

7) Total Quantity sold in particular date is 1172.

Distribution of Dosa Center

Almost 83% of the data is register to DosaCornerRegister which is almost half of the customers AND 17% of the data is Registered with CO-1

Analysis of Item being sold

Item amount by Item name

Item name	Item amount
Pizza dosa	6.2K
Mushroom chilli cheese	2.1K
Paneer cheese	2.1K
Stump dosa or Hatric...	2.0K
Paneer chinese mushr...	2.0K
Plain dosa	1.7K
Paneer chilli	1.5K
Dubai dosa	1.3K
Paneer masala	1.2K
Mushroom dosa	1.1K

The above bar chart shows Most ordered Item names. Among all Pizza Dosa is the most ordered item. Followed by Mushroom Chilli Cheese.
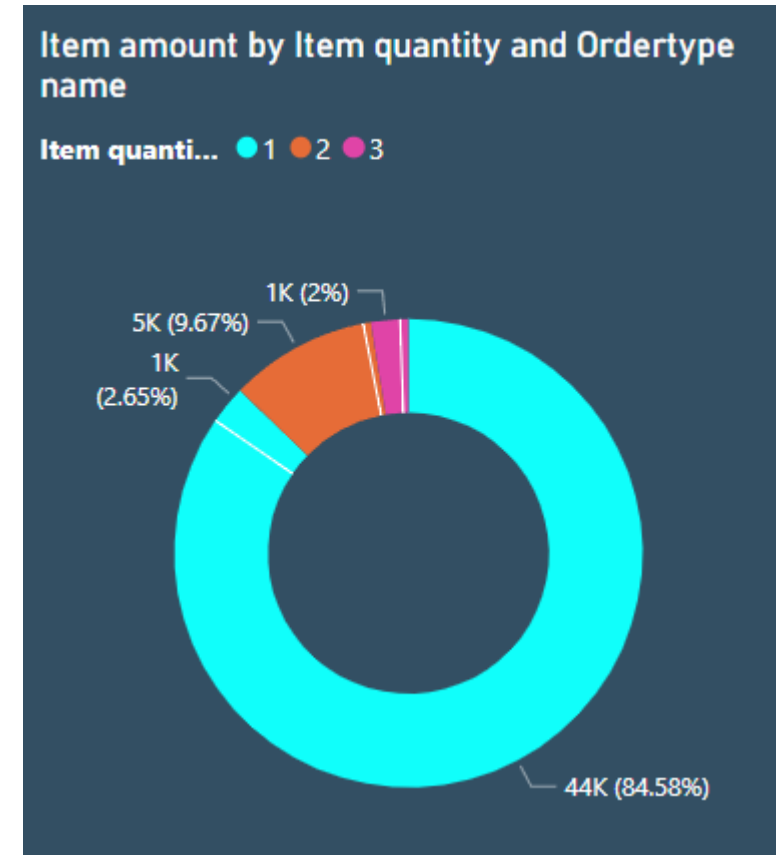
Analysis of Item sold according to Quantity and Sales

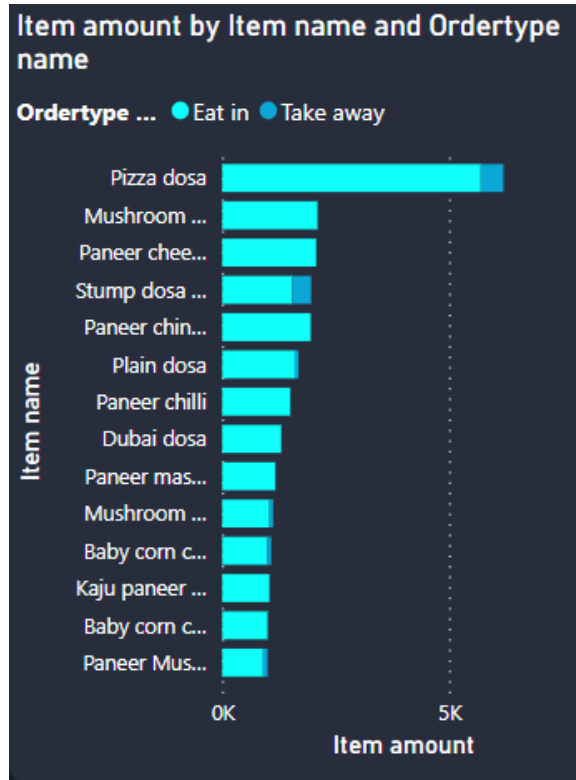Count of Item quantity, Selling price and Sales discount amount by Item name

According to selling price, Pizza Dosa and Plain Dosa followed by Paneer Cheese is bought at max level.
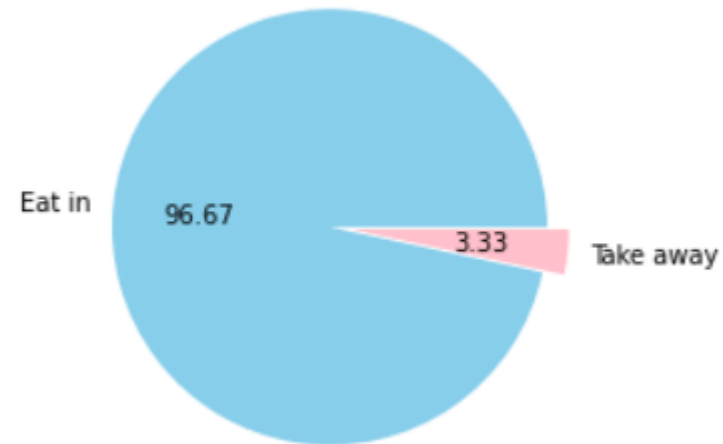
Quantity Wise Analysis

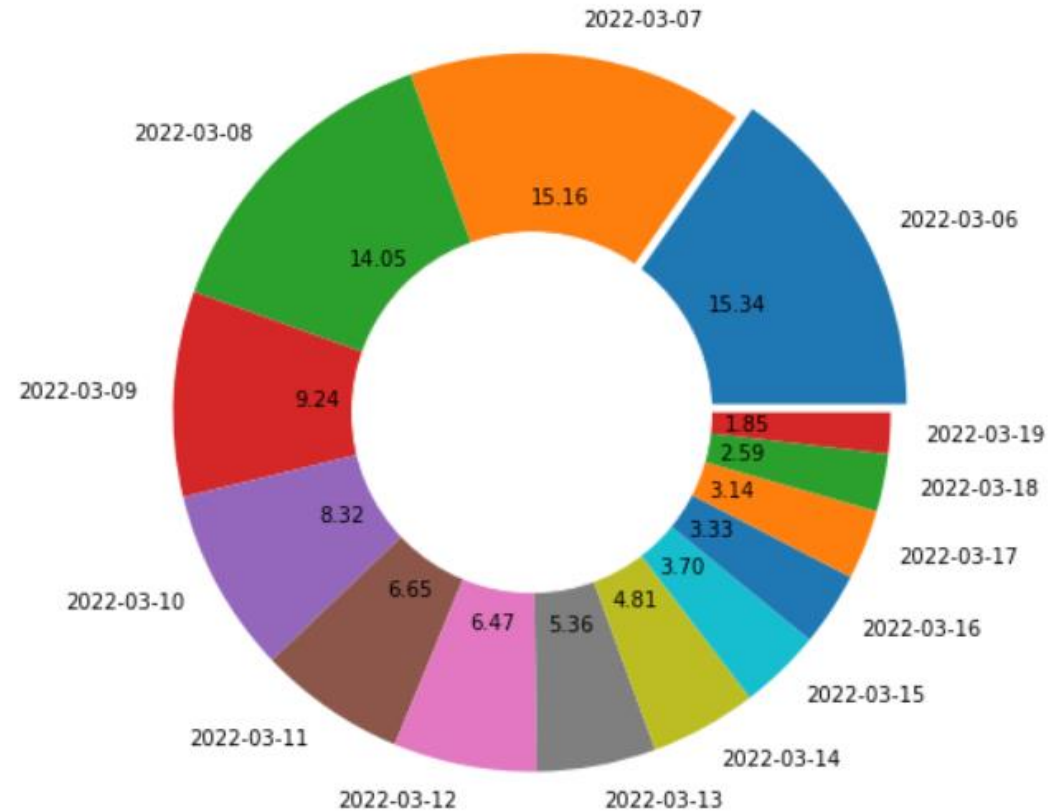From the visual we understand that mostly people order only one quantity.

Order Type Analysis

Item amount by Item name and Ordertype name

From the visual we clearly understand that many of the customers do "Eat in" and very less do "Take away".
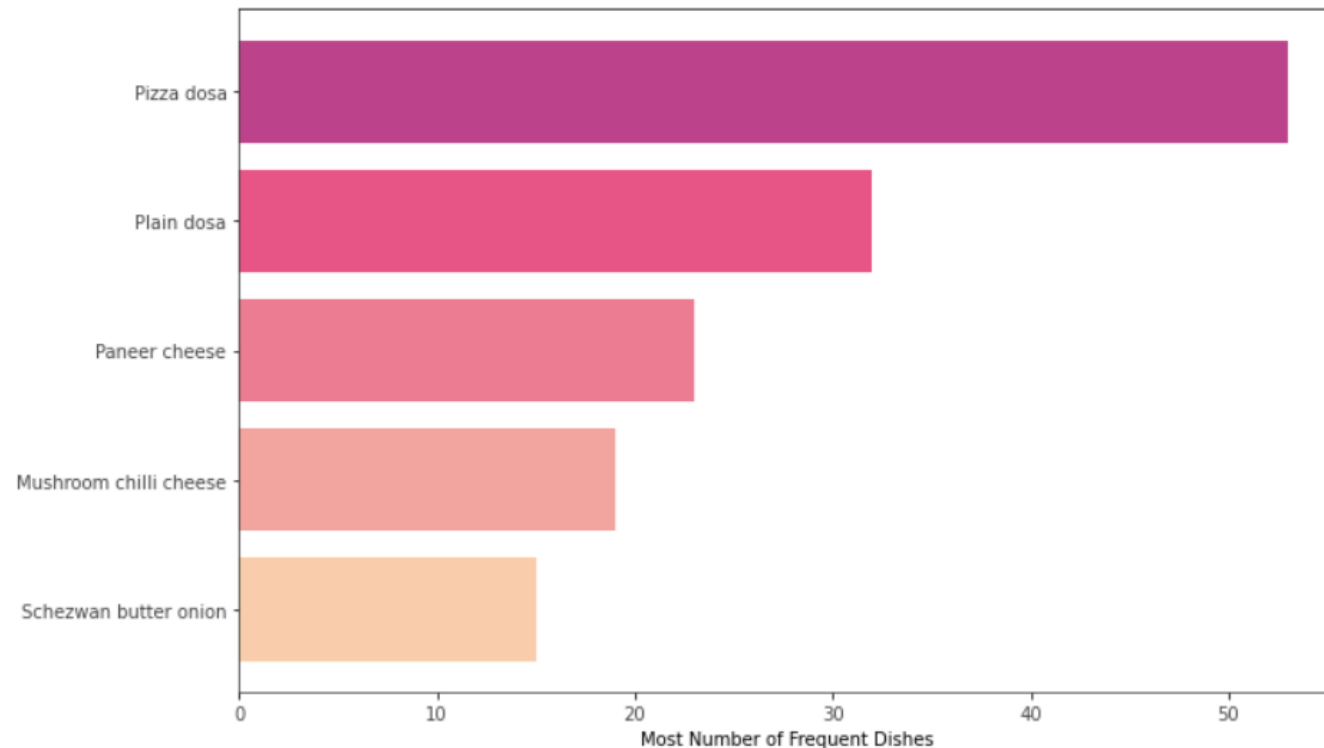

Almost 97% of the Customer has Dine, where as 3% of the Customer has taken away as parcel

Date Wise Analysis

Here will can see that on 06-03-2022 we had 15.34% of customer arrived at the restaurant and just 1.85% of customer arrived at 19-03-2022

Item Wise Analysis

Top 5 No frequent dishes liked and bought by the customer where we can have a look like pizza dosa is haved by more than 50 customers and Schezwaan butter Onion by Less than 20 customers

Item Wise Analysis

```
Dosa Corner Doubles          78
Dosa Corner Economy          76
Dosa Corner Vintage          68
Dosa Corner Special          56
Dosa Corner Spicy            54
Dosa Corner Single           45
Dosa Corner Masala           42
Dosa Corner Chilli Cheese    36
Dosa Corner Schezwan         30
Dosa Corner Triples          27
Dosa Corner Combo            22
Dosa Corner Kaju              7
Name: Category name, dtype: int64
```
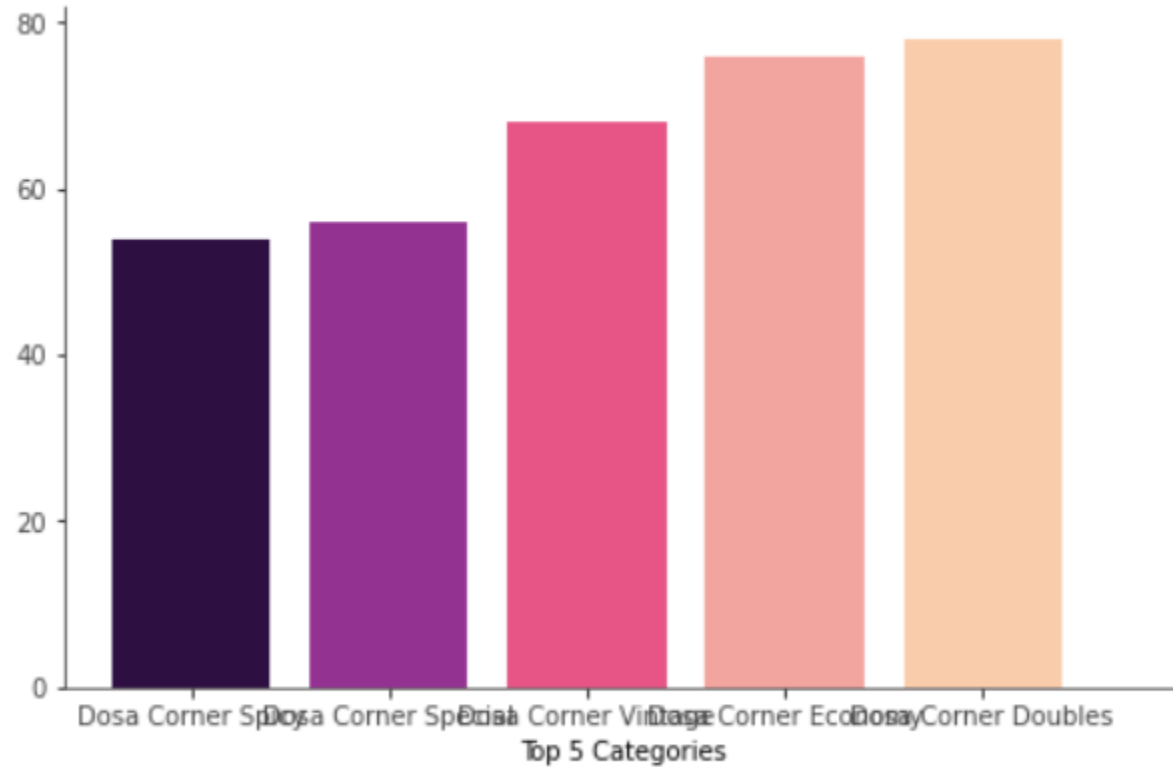
Dosa Corner Doubles is the most popular Category which customer has often bought Items from it

Category Wise Analysis

```
Dosa Corner Spicy       54
Dosa Corner Special     56
Dosa Corner Vintage     68
Dosa Corner Economy     76
Dosa Corner Doubles     78
Name: Category name, dtype: int64
```

Top 5 Categories of the Restaurant which customer has bought Items from it in ascending order

Category Wise Analysis

Top 5 Categories which customers often liked and bought, where Dosa Corner Doubles is the category which has almost 80 customers which bought items from it

Cost Wise Analysis

```
100     186
90      153
80       67
40       32
60       31
130      29
140      13
50       13
120      10
110       4
70        3
Name: Selling price, dtype: int64
```

From this we get to know that most people has bought 100Rs dish and 70Rs dish is been bought by least.

THANK YOU !!