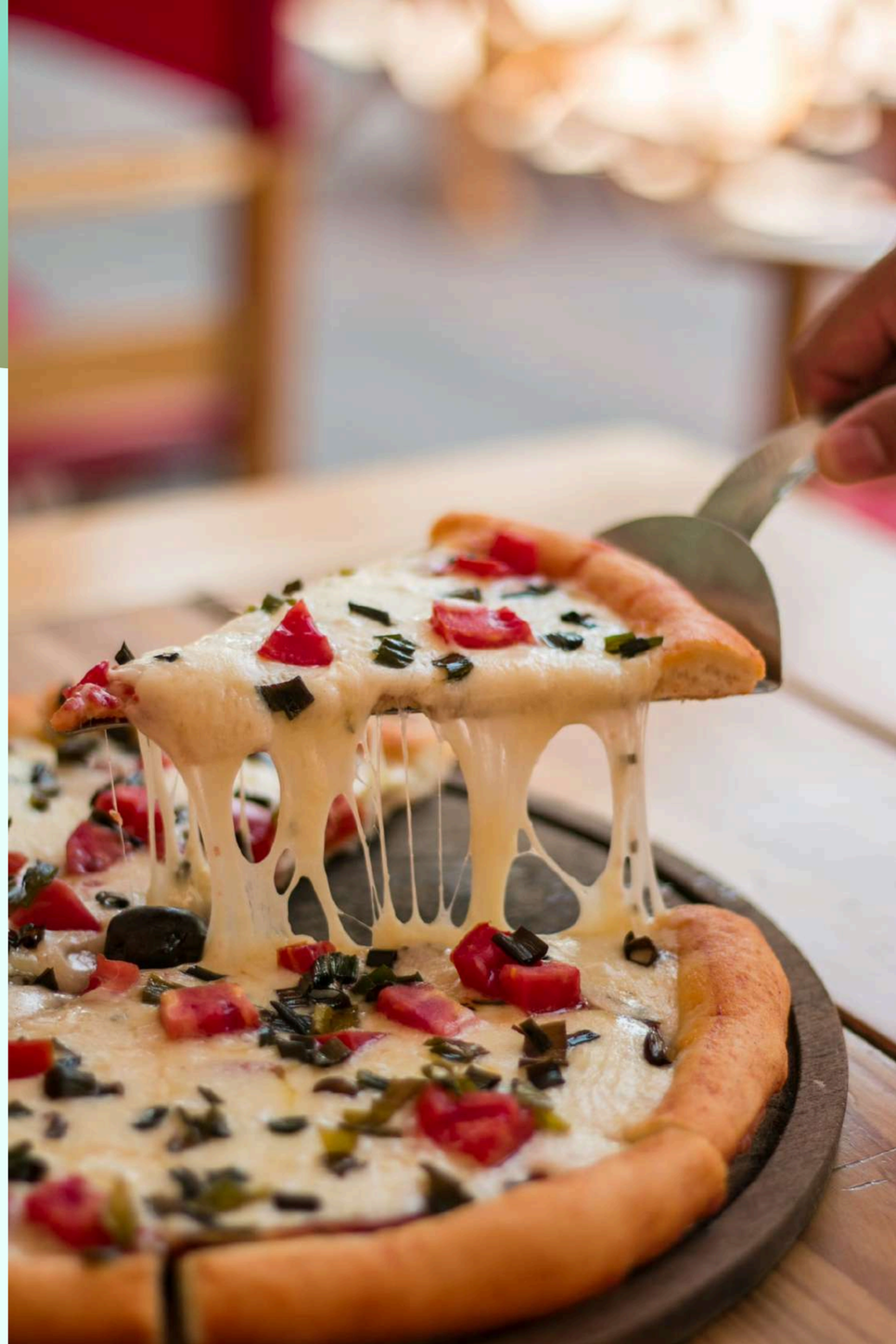
Microsoft
Power BI

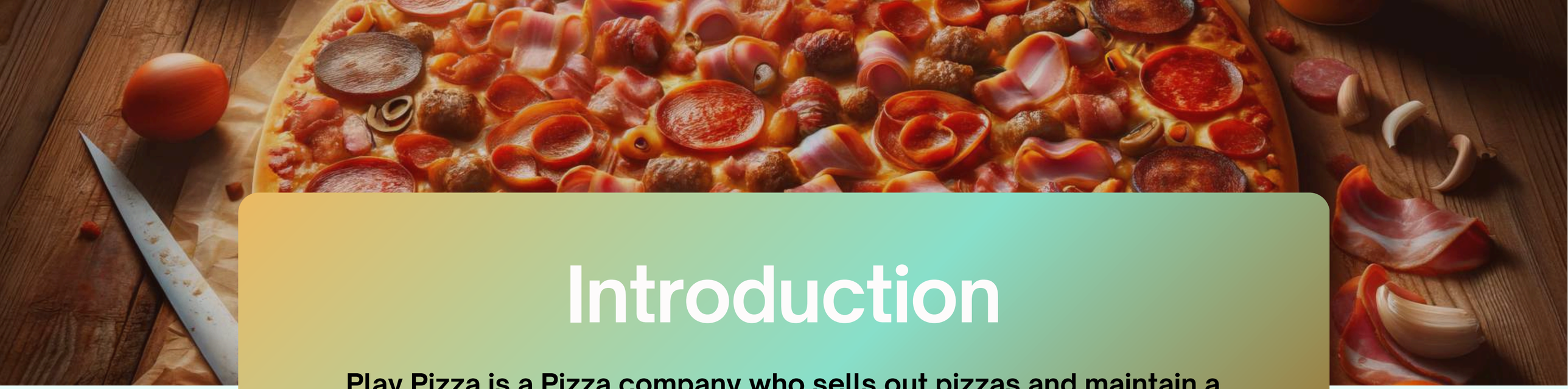
Sales Optimization

Pizza Sales Analysis

Contents

- Intro 01
- Client Requirements 02
- Data Gathering 03
- Data Cleaning 04
- Formatting and Transformation 05
- Creating Measures (Using DAX) 06
- Dashboarding 07
- Insights 08
- Optimization (Decision Making) 09





Introduction

Play Pizza is a Pizza company who sells out pizzas and maintain a proper relationship with their customers. Suddenly their business is not promising them the Best profits.As a Data Analyst I need to help them to find their sales insights and help them to grow thier business by making data driven decisions.

Client Requirements

- Total Revenue for given time
- Average Order Value
- Total Pizzas Sold
- Total Orders
- Average Pizzas per order
- Daily Trend of Total orders
- Monthly Trend of Total orders
- Percentage of revenue by pizza category, size
- Total pizzas sold by pizza category
- Top 5 sellers by Total revenue ,orders, quantity
- Bottom 5 sellers by revenue ,orders ,quantity

Communication between us and the Client is the most important part when it comes to the problem discussion.

Data Collection

Data Collection is the main and very necessary part of an Analysis work. without data we can’t do anything. Hence it is the top part.

Finding Correct Dataset

Finding the correct dataset to perform the analysis.We got that from thier web for instance.

Load it into SQL server

Load it into SQL Server and perform the all queries inorder to meet the client rqueirments.

Loading in Power Bi

Load it into power bi and our dataset is ready to undergo the next processes. such as transformation

Data Overview

The data contains the following columns

pizza_id	order_id	pizza_name_id	quantity	order_date	order_time	unit_price	total_price	pizza_size	pizza_category	pizza_ingredie	pizza_name
1	1	hawaiian_m	1	01-01-2015	11:38:36	13.25	13.25	M	Classic	Sliced Ham, Pi	The Hawaiian Pizza
2	2	classic_dlx_m	1	01-01-2015	11:57:40	16	16	M	Classic	Pepperoni, Mu	The Classic Deluxe Pizza
3	2	five_cheese_l	1	01-01-2015	11:57:40	18.5	18.5	L	Veggie	Mozzarella Ch	The Five Cheese Pizza
4	2	ital_supr_l	1	01-01-2015	11:57:40	20.75	20.75	L	Supreme	Calabrese Sala	The Italian Supreme Pizza
5	2	mexicana_m	1	01-01-2015	11:57:40	16	16	M	Veggie	Tomatoes, Rec	The Mexicana Pizza
6	2	thai_ckn_l	1	01-01-2015	11:57:40	20.75	20.75	L	Chicken	Chicken, Pinea	The Thai Chicken Pizza
7	3	ital_supr_m	1	01-01-2015	12:12:28	16.5	16.5	M	Supreme	Calabrese Sala	The Italian Supreme Pizza
8	3	prsc_argla_l	1	01-01-2015	12:12:28	20.75	20.75	L	Supreme	Prosciutto di S	The Prosciutto and Arugula Pizza
9	4	ital_supr_m	1	01-01-2015	12:16:31	16.5	16.5	M	Supreme	Calabrese Sala	The Italian Supreme Pizza
10	5	ital_supr_m	1	01-01-2015	12:21:30	16.5	16.5	M	Supreme	Calabrese Sala	The Italian Supreme Pizza
11	6	bbq_ckn_s	1	01-01-2015	12:29:36	12.75	12.75	S	Chicken	Barbecued Chi	The Barbecue Chicken Pizza
12	6	the_greek_s	1	01-01-2015	12:29:36	12	12	S	Classic	Kalamata Olive	The Greek Pizza
13	7	spinach_supr_s	1	01-01-2015	12:50:37	12.5	12.5	S	Supreme	Spinach, Red C	The Spinach Supreme Pizza
14	8	spinach_supr_s	1	01-01-2015	12:51:37	12.5	12.5	S	Supreme	Spinach, Red C	The Spinach Supreme Pizza
15	9	classic_dlx_s	1	01-01-2015	12:52:01	12	12	S	Classic	Pepperoni, Mu	The Classic Deluxe Pizza
16	9	green_garden_s	1	01-01-2015	12:52:01	12	12	S	Veggie	Spinach, Mush	The Green Garden Pizza
17	9	ital_cpclio_l	1	01-01-2015	12:52:01	20.5	20.5	L	Classic	Capocollo, Rec	The Italian Capocollo Pizza
18	9	ital_supr_l	1	01-01-2015	12:52:01	20.75	20.75	L	Supreme	Calabrese Sala	The Italian Supreme Pizza
19	9	ital_supr_s	1	01-01-2015	12:52:01	12.5	12.5	S	Supreme	Calabrese Sala	The Italian Supreme Pizza
20	9	mexicana_s	1	01-01-2015	12:52:01	12	12	S	Veggie	Tomatoes, Rec	The Mexicana Pizza
21	9	spicy_ital_l	1	01-01-2015	12:52:01	20.75	20.75	L	Supreme	Capocollo, Ton	The Spicy Italian Pizza
22	9	spin_pesto_l	1	01-01-2015	12:52:01	20.75	20.75	L	Veggie	Spinach, Artich	The Spinach Pesto Pizza
23	9	veggie_veg_s	1	01-01-2015	12:52:01	12	12	S	Veggie	Mushrooms, T	The Vegetables + Vegetables Pizza
24	10	mexicana_l	1	01-01-2015	13:00:15	20.25	20.25	L	Veggie	Tomatoes, Rec	The Mexicana Pizza
25	10	southw_ckn_l	1	01-01-2015	13:00:15	20.75	20.75	L	Chicken	Chicken, Toma	The Southwest Chicken Pizza
26	11	bbq_ckn_l	1	01-01-2015	13:02:59	20.75	20.75	L	Chicken	Barbecued Chi	The Barbecue Chicken Pizza

Data Cleaning and Transformation

Data Cleaning is the major Part of Data Analysis. It will make our data more consistent and it will increase the Accuracy of the insights.

01

Headers

Promoting the first row as headers is the first part of data transformation

02

Type Conversion

Changing the data type of the column values is needed to perform aggregate operations

03

Replacing

Replacing the some values with the needed values is necessary to get better understanding

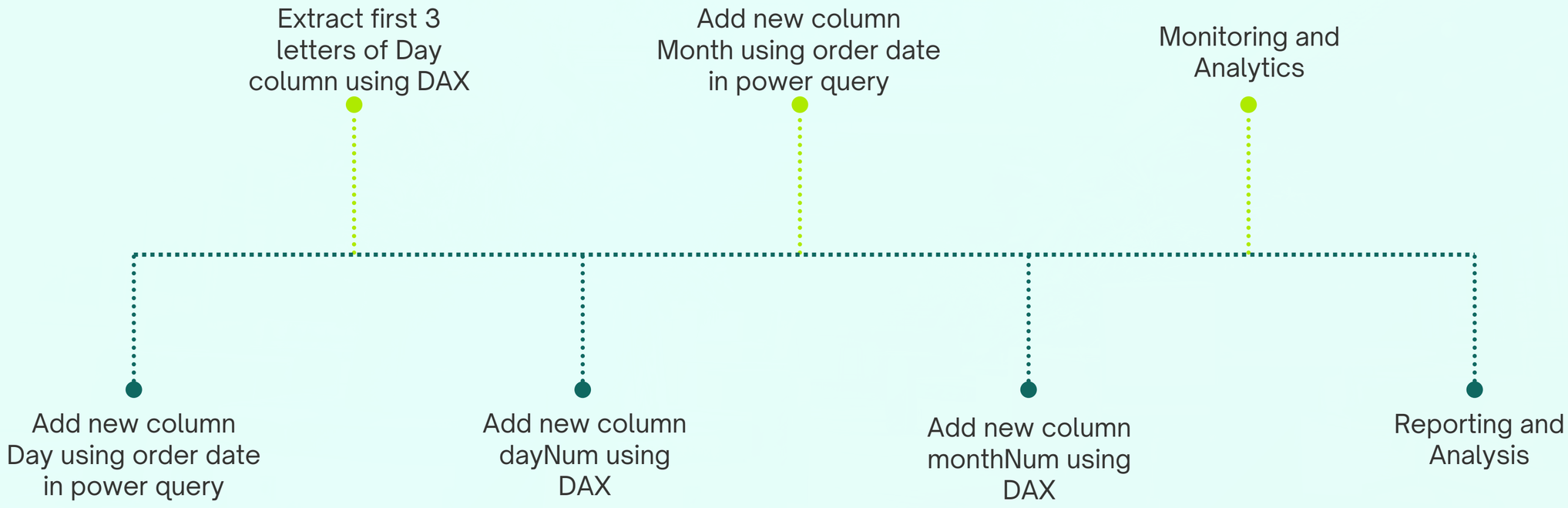
04

Duplicates

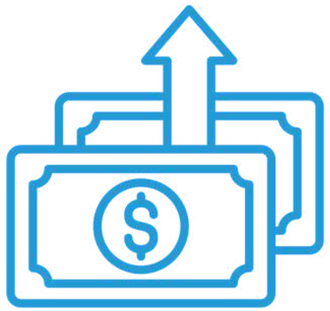
Removing the duplicates is the best practice when we are working with timely data. duplicates can cause data inconsistency

Formatting and transformation

Formatting means adding new columns in order to find the new features and trends.
We add new columns using calculations called DAX expressions, Date columns.
we add day, month columns to satisfy the customer needs like monthly and day by day sales.



Creating Measures (Using DAX)



Nett Revenue

Nett Revenue means the SUM of all purchase amounts of the respective pizza orders

Avg order value

Average order value means the how much a revenue is generated per order.
done by dividing the total reveune with no.of distinct orders

Total pizzas sold

Total pizzas sold means the SUM of the all pizzas sold.
done by using SUM function on Quantity column

Total orders

Total orders means ,how many orders are being placed with unique order ID.
done by using DISTINCT function

Dashboarding

Creating Visuals

Creating Visuals is first part of Making a dashboard. Here we create different types of Visuals

Bar Chart

Bar Chart is used to show the daily trends of orders of different days of week.

Line Chart

In our Analysis we use line chart to illustrate the monthly Revenue generated by the pizzas sold

Donut Chart

We use donut chart to visualize the percentage of revenue by pizza category and pizza size

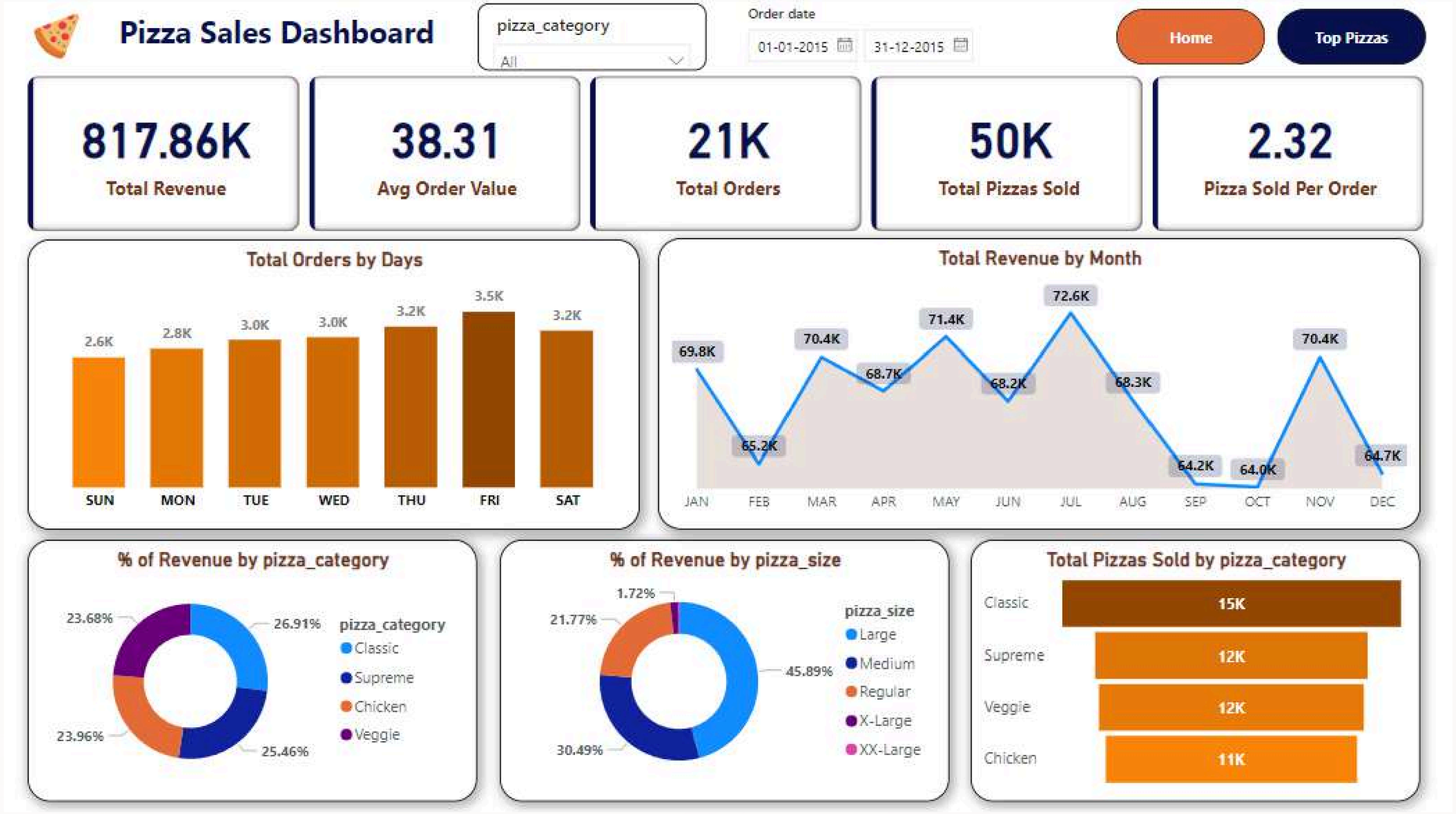
Funnel Chart

We use Funnel chart to show the total no.of pizzas sold by different pizza category

Horizontal Bar chart

Horizontal bar chart, we use it to visualize the best and worst sellers by revenue ,orders and quantity.

Final Dashboard



Final Dashboard

Notable Insights

From the above Dashboard we find some of the main insights including...

- Friday the most orders amongst all the days
- The month of July has generated more revenue to the company. may be due to rainy season ,customers prefer to chill out with their loved ones in such climate
- The average order value ,means the revenue generated per order is nearly 38.5 dollars.
- Classic pizzas contributed the most percent of revenue to the company
- Customers preferred large sized pizzas more and very extra large less.
- The thai chicken pizza has contributed the more revenue to company. brie carr pizzas contributes very less revenue.
- The classic deluxe pizzas are highest sold out pizzas amongst all and brie carr pizzas are least sold amongst all
- And many such can be found by observing the dashboard very carefully.

Optimization

Optimization means we need to find the solution in order to increase the profit and decrease the loss.

- The revenue generated by XX-Large pizzas is very very low and we know that its making cost is more, hence it will lead company to loss .so stop the production of XX-Large pizzas.
- Saturday is weekend , Trying to enhance the taste of pizzas will help selling more pizzas on that day.
- October has a less contribution to the revenue , giving offers on pizzas on that particular month will help us getting more orders and revenue
- Chicken pizzas sales are less amongst all we know sunday is the best day to enjoy chicken.so improving the quality of chicken pizza and target customers on sunday.
- The brie carre pizza contributing less profits by revenue and orders in all seasons and for all kinds of pizzas so stop producing it will help us to reduce loss
- The classic deluxe pizzas are highest sold out pizzas amongst all and we need maintain or even try to improve the quality of it for customers retention.gradually increasing the price that cant be noticeable by customers will get us profits.
- These are the major data driven decisions we consider to improve this business

Power BI

THANK TOU

For watching this presentation

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