SliceMasters_Sales...

```
%md
#Slicemasters Sales Analysis
This notebook is dedicated to analyzing the sales dats of SliceMaster pizza. We will calculate various K
guide promotional strategies.
```

Slicemasters Sales Analysis

This notebook is dedicated to analyzing the sales dats of SliceMaster pizza. We will calculate various KPIs, and
visualize sales trends to help guide promotional strategies.

```
%spark2
val pizzaSalesDF = spark.read.option("header","true").option("inferSchema","true").csv("/user/maria_dev/
pizzaSalesDF.createOrReplaceTempView("pizza_sales")
```

pizzaSalesDF: org.apache.spark.sql.DataFrame = [pizza_id: int, order_id: int ... 10 more fields]

```
%md
#Key Performance Indicators (KPIs)
We will begin by calculating the fundamental KPIs for the last quarter to get an initial understanding c
```

Key Performance Indicators (KPIs)

We will begin by calculating the fundamental KPIs for the last quarter to get an initial understanding of
SliceMasters' performance

```
%sql
select sum(total_price) as total_revenue from pizza_sales
```

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total_revenue

817860.0500000046

```
%md
#Average Order Value
Next, we calculate the average value of a pizza order.
```

Average Order Value

Next, we calculate the average value of a pizza order.

```
%sql
select (sum(total_price)/count(distinct order_id)) as avg_order_value from pizza_sales
```

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avg_order_value

38.30726229508198

```
%md
#Total Pizzaas Sold
Here we look at the number of pizzas sold in the last quarter.
```

Total Pizzaas Sold

Here we look at the number of pizzas sold in the last quarter.

```
%sql
select sum(quantity) as total_pizza_sold from pizza_sales
```

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total_pizza_sold

49574

```
%md
#Total Orders
Now we will find out the total number of pizza orders SliceMasters received in the last quarter.
```

Total Orders

Now we will find out the total number of pizza orders SliceMasters received in the last quarter.

```
%sql
select count(distinct order_id) as total_orders from pizza_sales
```

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total_orders

21350

```
%md
```

```
#Average Pizzas per Order
```

Average Pizzas per Order

This KPi help us under how many pizzas are sold per order on average.

```
%sql
select cast(sum(quantity) as decimal(10,2)) / cast(count(distinct order_id) as decimal(10,2)) as avg_pi
```

avg_pizzas_per_order

2.3219672131148

```
%md
#Sales Trends Analysis
With the KPIs assessed, we now turn our attention to the sales trends.
```

Sales Trends Analysis

With the KPIs assessed, we now turn our attention to the sales trends.

```
%md
#Daily Trend for Total Orders
Analyzing the daily order trends to identify patterns:
```
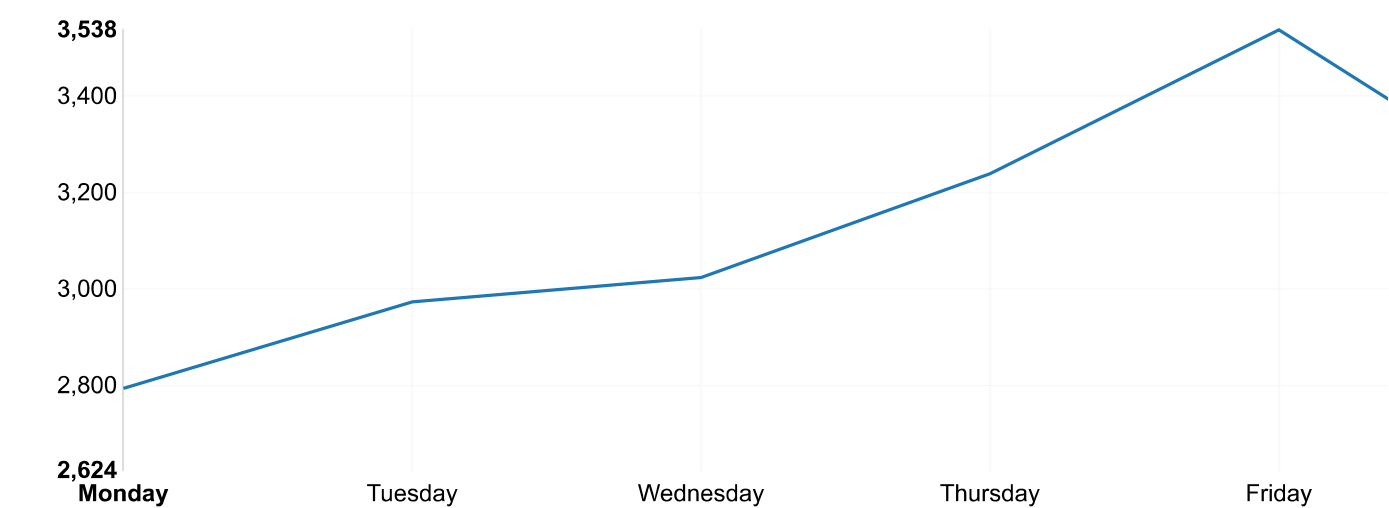
Daily Trend for Total Orders

Analyzing the daily order trends to identify patterns:

```
%sql
select date_format(to_date(order_date, 'dd-MM-yyyy'), 'EEEE') as order_day, count(distinct order_id) as
    date_format(to_date(order_date, 'dd-MM-yyyy'), 'EEEE')
order by case when order_day = 'Monday' then 1
when order_day = 'Tuesday' then 2
when order_day = 'Wednesday' then 3
when order_day = 'Thursday' then 4
when order_day = 'Friday' then 5
when order_day = 'Saturday' then 6
when order_day = 'Sunday' then 7
end
```

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```
%sql
select to_date(order_date, 'dd-MM-yyyy') as formatted_date, order_time From pizza_sales limit 10
```

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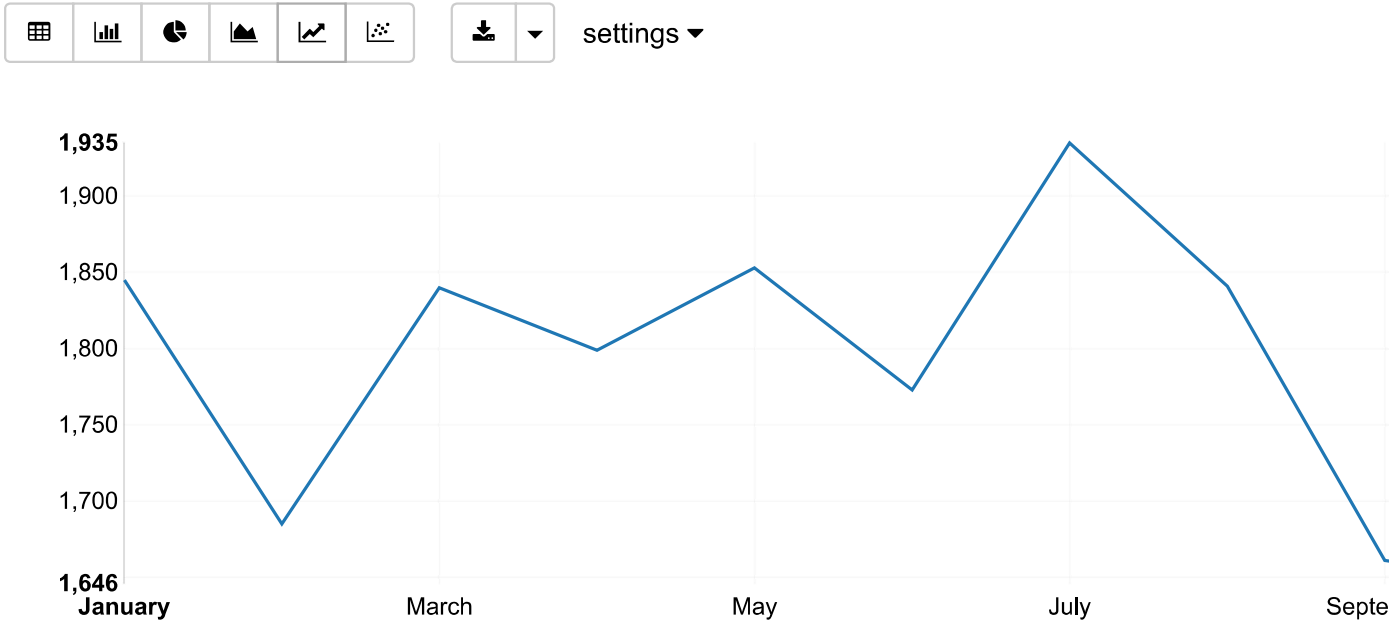| formatted_date	▼ order_time
2015-01-01	11:57:40
2015-01-01	11:57:40
2015-01-01	11:57:40
2015-01-01	11:57:40
2015-01-01	11:57:40
2015-01-01	12:12:28
2015-01-01	12:12:28
2015-01-01	12:16:31
2015-01-01	12:21:30

```
%md
```

```
#Monthly Trend for Total Orders
Analyzing the monthly order trends to identify patterns.
```

Monthly Trend for Total Orders

Analyzing the monthly order trends to identify patterns.

```
%sql
select date_format(to_date(order_date, 'dd-MM-yyyy'), 'MMMM') as order_month, count(distinct order_id) a
    by date_format(to_date(order_date, 'dd-MM-yyyy'), 'MMMM') order by min(to_date(order_date, 'dd-MM-yy
```



```
%md
#Percentage of Sales by Pizza Category
Determining the percentage of total sales each pizza category contributes to. This helps to identify the
```
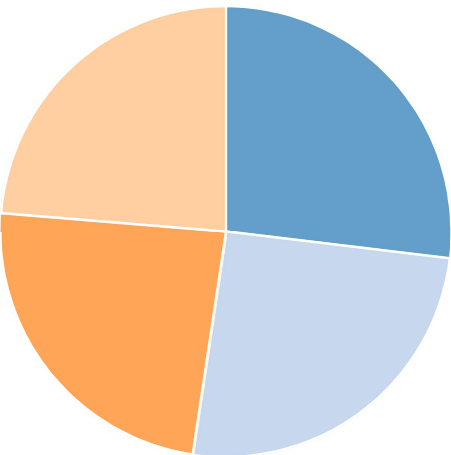
Percentage of Sales by Pizza Category

Determining the percentage of total sales each pizza category contributes to. This helps to identify the most popular categories.

```
%sql
select pizza_category, sum(total_price) as total_revenue, round((sum(total_price)*100/(select sum(total_
    pct_of_total_revenue from pizza_sales group by pizza_category order by pct_of_total_revenue desc
```

●26.91.Classic   ●25.46.Supreme


```
%md
#Percentage of Sales by Pizza Size
Calculating the sales percenatage attributed to each pizza size to understand the customer preferences.
```

Percentage of Sales by Pizza Size

Calculating the sales percenatage attributed to each pizza size to understand the customer preferences.

```
%sql
select pizza_size, sum(total_price) as total_revenue, round((sum(total_price)*100/(select sum(total_pric
    pct_of_total_revenue from pizza_sales group by pizza_size order by pct_of_total_revenue desc
```

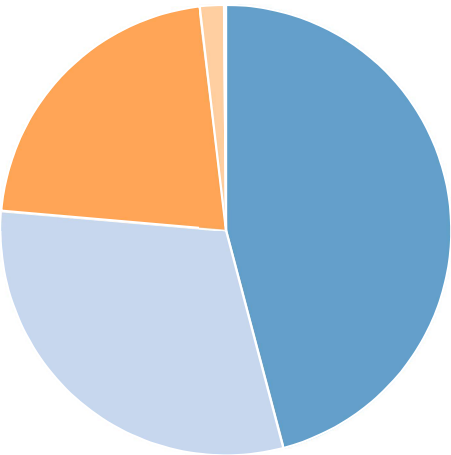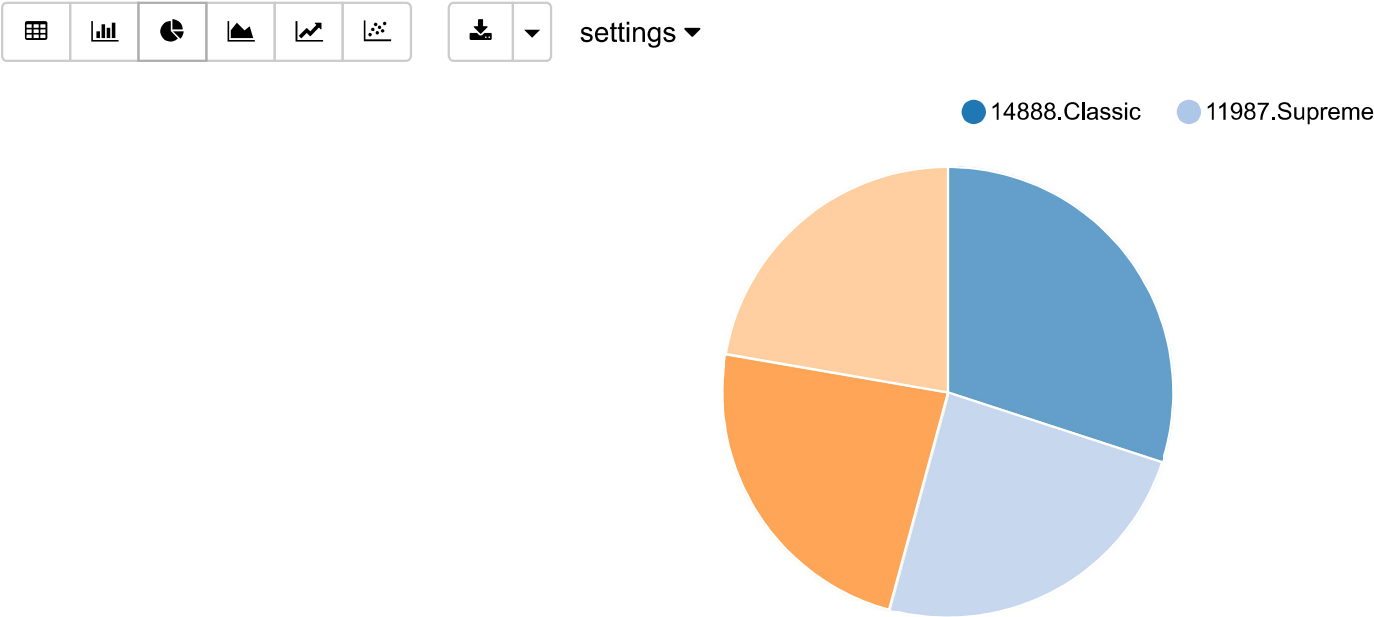⊞ 📊 🥧 📈 📉 ⠿   ⬇ ▾   settings ▾

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```
%md
#Total Pizzas sold by Pizza Category
Comparing the total number of pizzas sold accross different categories.
```

Total Pizzas sold by Pizza Category

Comparing the total number of pizzas sold accross different categories.

```
%sql
select pizza_category, sum(quantity) as total_quantity_sold
from pizza_sales
group by pizza_category
order by total_quantity_sold desc
```

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● 14888.Classic   ● 11987.Supreme


```
%md
#Top and Bottom 5 Pizzas
Identifying the top 5 and bottom 5 by revenue, quantity, and orders.
```

Top and Bottom 5 Pizzas

Identifying the top 5 and bottom 5 by revenue, quantity, and orders.

```
%sql
select pizza_name, sum(total_price) as total_revenue from pizza_sales group by pizza_name order by total
```

pizza_name	▼ total_revenue
The Thai Chicken Pizza	43434.25

pizza_name	total_revenue
The Barbecue Chicken Pizza	42768.0
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Spicy Italian Pizza	34831.25

```
%sql
```