PIZZA
STORE

THE PROJECT IS ABOUT THE SALES ANALYSIS OF A PIZZA STORE

PIZZA
STORE

DATA SETS

- **TABLE1 - ORDER DETAILS** : ORDER IDS, ORDER DETAIL IDS, PIZZA IDS,QUANTITY
- **TABLE2 - ORDERS** : ORDER ID, DATE, TIME
- **TABLE3 - PIZZA TYPE** : PIZZA TYPE ID, NAME, CATEGORY, INGREDIENTS
- **TABLE4 - PIZZAS** : PIZZA IS, PIZZA TYPE ID, SIZE, PRICE

PIZZA
STORE

TOOLS USED

- **SQL** - TO FIND THE ANSWERS TO THE QUESTIONS DIFFERENT STAKEHOLDERS ASKED

- **POWER BI** - TO HAVE A VISUAL REPRESENTATION OF THE DATA

PIZZA
STORE

SQL
BASIC QUESTIONS

PIZZA
STORE

Q1. RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```
SELECT DISTINCT count(order_id) AS  total_orders
  FROM Pizza_Store.orders;
```

total_orders
21350

PIZZA
STORE

Q2. CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT round(sum(o.quantity*p.price),2) AS total_rev
  FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id;
```

total_rev
817860.05

PIZZA
STORE

Q3. IDENTIFY THE HIGHEST-PRICED PIZZA.

```
SELECT t.name,p.price
  FROM pizzas AS p
LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
ORDER BY price DESC
  LIMIT 1;
```

name	price
The Greek Pizza	35.95

PIZZA
STORE

Q4. IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

```
SELECT p.size , SUM(o.quantity) as orderss
  FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
  GROUP BY 1
ORDER BY orderss DESC
  LIMIT 1;
```

size	orderss
L	18956

PIZZA
STORE

Q5. LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES

```
SELECT t.name,p.pizza_type_id , SUM(o.quantity) AS orderss
  FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
  LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
GROUP BY 1,2
ORDER BY orderss DESC
  LIMIT 5;
```

name	pizza_type_id	orderss
The Classic Deluxe Pizza	classic_dlx	2453
The Barbecue Chicken Pizza	bbq_ckn	2432
The Hawaiian Pizza	hawaiian	2422
The Pepperoni Pizza	pepperoni	2418
The Thai Chicken Pizza	thai_ckn	2371

PIZZA
STORE

SQL
INTERMEDIATE QUESTIONS

PIZZA
STORE

Q1. JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.

```
SELECT t.category , SUM(o.quantity) AS orderss
FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
  LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
GROUP BY 1;
```

category	orderss
Veggie	11649
Supreme	11987
Chicken	11050
Classic	14888

PIZZA
STORE

Q2. DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

```
SELECT DISTINCT HOUR(time) as hour,
  COUNT(order_id) AS orderss
FROM orders
GROUP BY 1
ORDER BY orderss DESC;
```

hour	orderss
12	2520
13	2455
18	2399
17	2336

SO ON

PIZZA
STORE

Q3. JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

```
SELECT category , COUNT(category) AS count
FROM pizza_type2
GROUP BY 1;
```

category	count
Veggie	9
Classic	8
Chicken	6
Supreme	9

PIZZA
STORE

Q4. GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.

```
  WITH
  cal AS (SELECT DISTINCT o.date, SUM(quantity) AS orderss
FROM orders AS o
  LEFT JOIN order_details AS d ON d.order_id = o.order_id
GROUP BY 1)

SELECT round(avg(orderss)) AS avg_order
FROM cal;
```

avg_order
138

PIZZA
STORE

Q5. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```
SELECT t.name,p.pizza_type_id,
       round(SUM(o.quantity*p.price),2) AS total_rev
  FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
  GROUP BY 1,2
  ORDER BY total_rev DESC
  LIMIT 3;
```

name	pizza_type_id	total_rev
The Thai Chicken Pizza	thai_ckn	43434.25
The Barbecue Chicken Pizza	bbq_ckn	42768
The California Chicken Pizza	cali_ckn	41409.5

PIZZA
STORE

SQL
ADVANCE QUESTIONS

PIZZA
STORE

Q1. CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.

```
SELECT t.name,
  round((SUM(o.quantity*p.price)/
        (SELECT  round(SUM(o.quantity*p.price),2) AS total_rev
           FROM order_details AS o
           LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id)
        )*100,2) AS perc
FROM order_details AS o
LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
GROUP BY 1;
```

name	perc
The Spinach Pesto Pizza	1.91
The Barbecue Chicken Pizza	5.23

SO ON

PIZZA
STORE

Q2. ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

```
WITH
  cal AS
  (SELECT o.date, SUM(d.quantity*p.price) AS rev
    FROM orders AS o
    LEFT JOIN order_details AS d ON d.order_id = o.order_id
    LEFT JOIN pizzas AS p on p.pizza_id = d.pizza_id
    GROUP BY 1)
SELECT date,
  SUM(rev) OVER(order by date) as cum_rev
FROM cal;
```

date	cum_rev
2015-01-01	2713.850...
2015-01-02	5445.75

SO ON

PIZZA
STORE

Q3. DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```
SELECT category,name, rev, ranks
FROM
(WITH
  cal AS (SELECT t.category, t.name, SUM(o.quantity*p.price) AS rev
         FROM order_details AS o
         LEFT JOIN pizzas AS p ON p.pizza_id = o.pizza_id
         LEFT JOIN pizza_type2 AS t ON t.pizza_type_id = p.pizza_type_id
         GROUP BY 1,2 )

  SELECT category,name,rev,
  rank() over(PARTITION BY category ORDER BY rev DESC) AS ranks
  FROM cal
) AS d
WHERE ranks <= 3
```

category	name	rev	ranks
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3

PIZZA STORE DASHBOARD

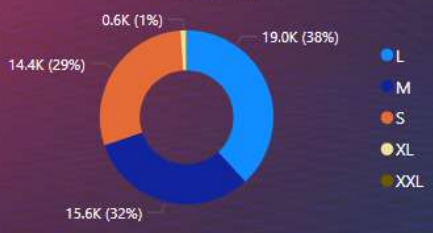
Count of Orders	Total Revenue
21.4K	817.9K

Qtr 3	Qtr 2	Qtr 1	Qtr 4
5.44K	5.43K	5.37K	5.12K

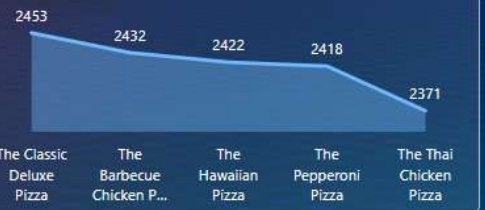
Orders & Revenue

Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Thursday, December 31, 2015	2.9K	118.0%	73	128.1%
Wednesday, December 30, 2015	1.3K	-1.1%	32	18.5%
Tuesday, December 29, 2015	1.4K	-17.3%	27	-30.8%
Monday, December 28, 2015	1.6K	15.4%	39	11.4%
Sunday, December 27, 2015	1.4K	-13.6%	35	-7.9%

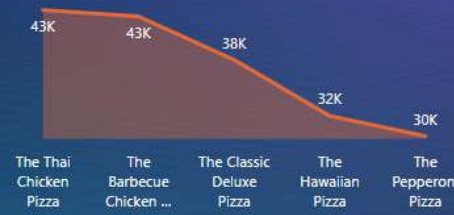
Orders by Size



Top Ordered Pizzas



Top Revenue giving Pizzas



PIZZA STORE DASHBOARD

Count of Orders	Total Revenue
5370	205.4K

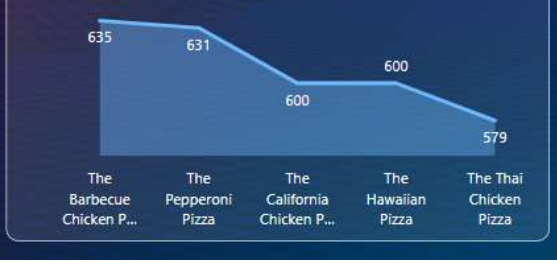
Qtr 3	Qtr 2	Qtr 1	Qtr 4
5.44K	5.43K	5.37K	5.12K

Orders & Revenue

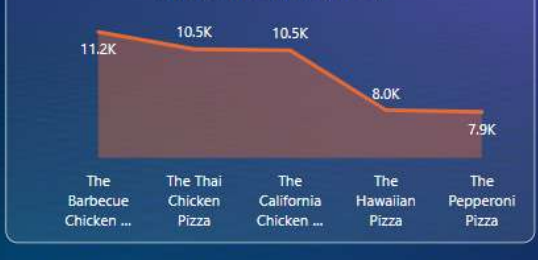
Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Tuesday, March 31, 2015	2.8K	22.2%	62	0.0%
Monday, March 30, 2015	2.3K	4.7%	62	14.8%
Sunday, March 29, 2015	2.2K	-4.3%	54	-10.0%
Saturday, March 28, 2015	2.3K	-18.0%	60	-15.5%
Friday, March 27, 2015	2.7K	23.9%	71	9.2%

Orders by Size

Top Ordered Pizzas



Top Revenue giving Pizzas

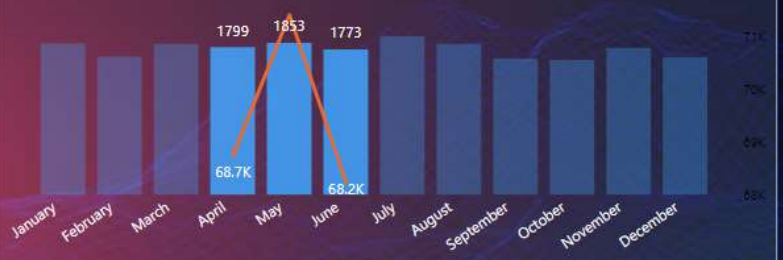


PIZZA STORE DASHBOARD

Count of Orders	Total Revenue
5425	208.4K

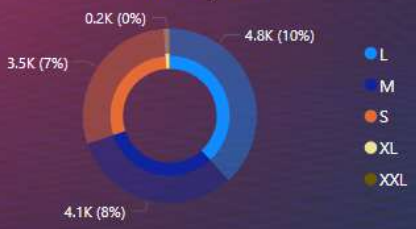
Qtr 3	Qtr 2	Qtr 1	Qtr 4
5.44K	5.43K	5.37K	5.12K

Orders & Revenue

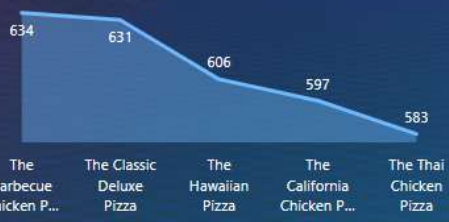


Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Tuesday, June 30, 2015	2.2K	18.0%	53	0.0%
Monday, June 29, 2015	1.9K	19.4%	53	17.8%
Sunday, June 28, 2015	1.6K	-44.2%	45	-36.6%
Saturday, June 27, 2015	2.8K	2.5%	71	10.9%
Friday, June 26, 2015	2.7K	14.4%	64	6.7%

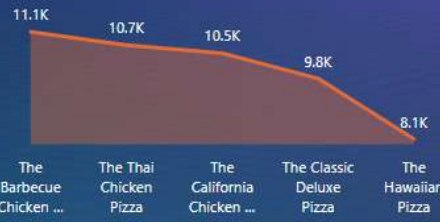
Orders by Size



Top Ordered Pizzas



Top Revenue giving Pizzas

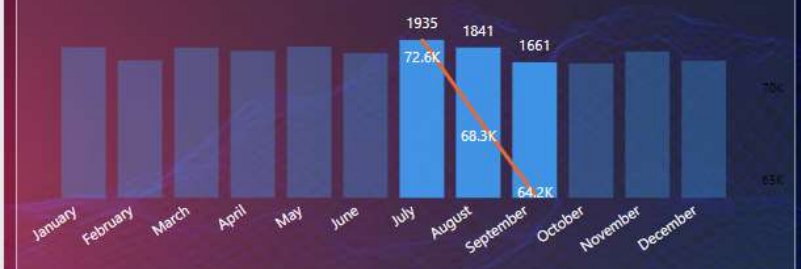


PIZZA STORE DASHBOARD

Count of Orders	Total Revenue
5437	205.0K

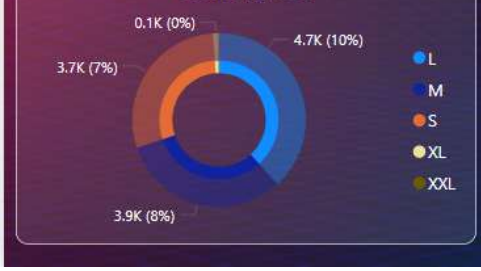
Qtr 3	Qtr 2	Qtr 1	Qtr 4
5.44K	5.43K	5.37K	5.12K

Orders & Revenue

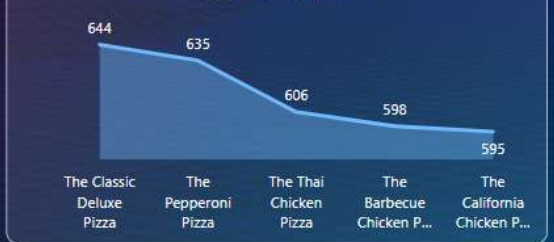


Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Wednesday, September 30, 2015	2.2K	-20.4%	62	3.3%
Tuesday, September 29, 2015	2.8K	35.7%	60	13.2%
Monday, September 28, 2015	2.0K	-12.1%	53	-13.1%
Sunday, September 27, 2015	2.3K	3.0%	61	8.9%
Saturday, September 26, 2015	2.2K		56	

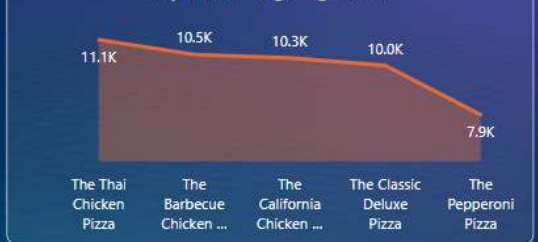
Orders by Size



Top Ordered Pizzas



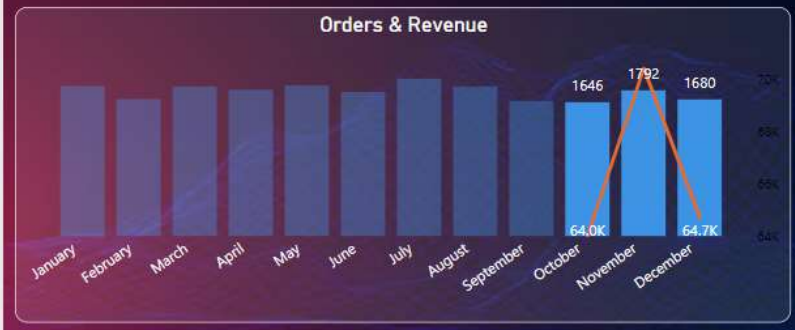
Top Revenue giving Pizzas



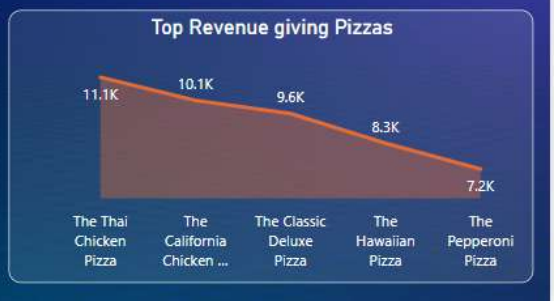
PIZZA STORE DASHBOARD

Count of Orders	Total Revenue
5118	199.1K

Qtr 3	Qtr 2	Qtr 1	Qtr 4
5.44K	5.43K	5.37K	5.12K



Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Thursday, December 31, 2015	2.9K	118.0%	73	128.1%
Wednesday, December 30, 2015	1.3K	-1.1%	32	18.5%
Tuesday, December 29, 2015	1.4K	-17.3%	27	-30.8%
Monday, December 28, 2015	1.6K	15.4%	39	11.4%
Sunday, December 27, 2015	1.4K	-13.6%	35	-7.9%



PIZZA STORE DASHBOARD

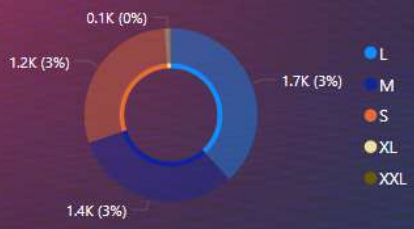
Count of Orders	Total Revenue
1935	72.6K

Qtr 3	Qtr 2	Qtr 1	Qtr 4
1.94K	0.00K	0.00K	0.00K

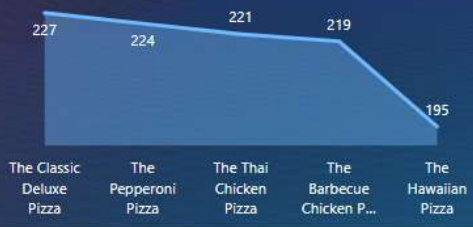
Orders & Revenue

Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Friday, July 31, 2015	2.1K	-10.8%	68	1.5%
Thursday, July 30, 2015	2.3K	22.1%	67	36.7%
Wednesday, July 29, 2015	1.9K	-8.2%	49	-18.3%
Tuesday, July 28, 2015	2.1K	-3.6%	60	13.2%
Monday, July 27, 2015	2.2K	16.1%	53	-7.0%

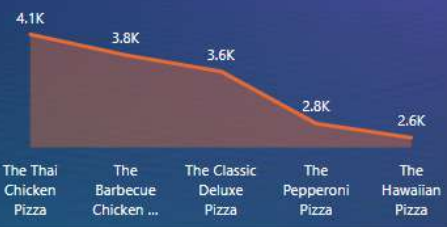
Orders by Size



Top Ordered Pizzas



Top Revenue giving Pizzas



PIZZA STORE DASHBOARD

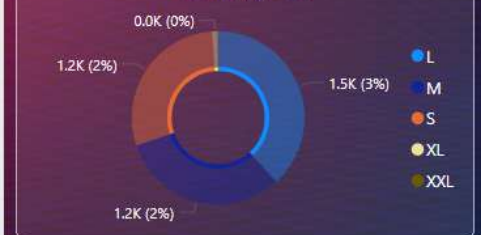
Count of Orders	Total Revenue
1661	64.2K

Qtr 3	Qtr 2	Qtr 1	Qtr 4
1.66K	0.00K	0.00K	0.00K

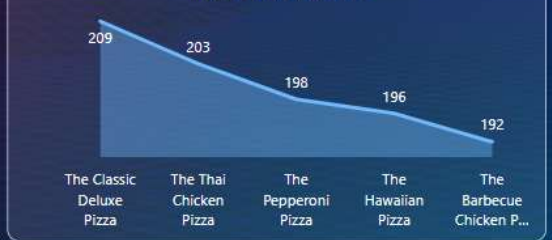
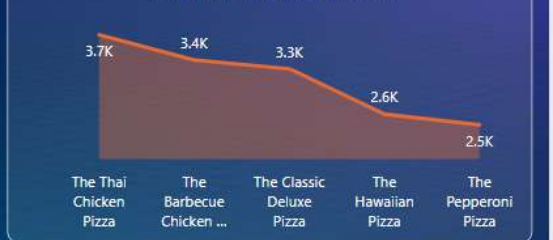
Orders & Revenue

Date	Sum of Revenue	DoD_Revenue	Count of order_id	DoD_Orders
Wednesday, September 30, 2015	2.2K	-20.4%	62	3.3%
Tuesday, September 29, 2015	2.8K	35.7%	60	13.2%
Monday, September 28, 2015	2.0K	-12.1%	53	-13.1%
Sunday, September 27, 2015	2.3K	3.0%	61	8.9%
Saturday, September 26, 2015	2.2K		56	

Orders by Size



Top Ordered Pizzas



Top Revenue giving Pizzas