Pizza Place Sales MSSQL

TAKEN FROM MAVEN ANALYTICS

Tables

Orders: shows id, date, time

Order Details: shows quantity, pizza id

Pizzas: shows pizza id, pizza type, size, price

Pizza Types: shows pizza type id, name, category, ingredients

Date for year of 2015 only

Joining Tables

```
-- All Tables Joined using Primary Keys
 select * from orders o
  join order_details od on od.order_id = o.order_id
  join pizzas p on p.pizza_id = od.pizza_id
  join pizza_types pt on p.pizza_type_id = pt.pizza_type_id
```

order_id	date	time	order_details_id	order_id	pizza_id	quantity	pizza_id	pizza_type_id	size
1	2015-01-01	11:38:36.0000000	1	1	hawaiian_m	1	hawaiian_m	hawaiian	M
2	2015-01-01	11:57:40.0000000	2	2	classic_dlx_m	1	classic_dlx_m	classic_dlx	M
2	2015-01-01	11:57:40.0000000	3	2	five_cheese_l	1	five_cheese_l	five_cheese	L
2	2015-01-01	11:57:40.0000000	4	2	ital_supr_l	1	ital_supr_l	ital_supr	L
2	2015-01-01	11:57:40.0000000	5	2	mexicana_m	1	mexicana_m	mexicana	M
2	2015-01-01	11:57:40.0000000	6	2	thai_ckn_l	1	thai_ckn_l	thai_ckn	L
3	2015-01-01	12:12:28.0000000	7	3	ital_supr_m	1	ital_supr_m	ital_supr	M
3	2015-01-01	12:12:28.0000000	8	3	prsc_argla_l	1	prsc_argla_l	prsc_argla	L
4	2015-01-01	12:16:31.0000000	9	4	ital_supr_m	1	ital_supr_m	ital_supr	M
5	2015-01-01	12:21:30.0000000	10	5	ital_supr_m	1	ital_supr_m	ital_supr	M

Total Sales and Units Sold by Product

```
select name,round(sum(price),2) as total_sales_2015, count(*) as pizzas_sold,
lower(ingredients) as ingredients  from orders o
 join order_details od on od.order_id = o.order_id
 join pizzas p on p.pizza_id = od.pizza_id
 join pizza_types pt on p.pizza_type_id = pt.pizza_type_id
group by name,ingredients
order by total_sales_2015 desc
```

Output

name	total_sales_2015	pizzas_sold	ingredients
The Thai Chicken Pizza	42332.25	2315	chicken, pineapple, tomatoes, red peppers, thai swe...
The Barbecue Chicken Pizza	41683	2372	barbecued chicken, red peppers, green peppers, to...
The Californa Chicken Pizza	40166.5	2302	chicken, artichoke, spinach, garlic, jalapeno pepper...
The Classic Deluxe Pizza	37631.5	2416	pepperoni, mushrooms, red onions, red peppers, ba...
The Spicy Italian Pizza	34163.5	1887	capocollo, tomatoes, goat cheese, artichokes, pepe...
The Southwest Chicken Pizza	34081.75	1885	chicken, tomatoes, red peppers, red onions, jalapen...
The Italian Supreme Pizza	32856.25	1849	calabrese salami, capocollo, tomatoes, red onions, g...
The Hawaiian Pizza	31561.75	2370	sliced ham, pineapple, mozzarella cheese
The Four Cheese Pizza	31361.1	1850	ricotta cheese, gorgonzola piccante cheese, mozzar...
The Sicilian Pizza	30123.75	1887	coarse sicilian salami, tomatoes, green olives, lugan...
The Pepperoni Pizza	30528.25	2369	mozzarella cheese, pepperoni

Notes

Notes:

Rounded Revenue to cents, count how many pizza solds, lowercase ingredients

Thai Chicken and BBQ Chicken most popular pizza

Number of Toppings by Product

```
with ingredient_list as (SELECT pizza_type_id,name, value as ingredient

FROM pizza_types

    CROSS APPLY STRING_SPLIT(trim(lower(ingredients)), ','))

select pizzas.pizza_type_id,name,count(distinct ingredient) as toppings, price,
round(price/count(distinct ingredient),2) as price_per_topping from
ingredient_list

join pizzas on ingredient_list.pizza_type_id = pizzas.pizza_type_id

group by name,pizzas.pizza_type_id, price
```

Output

	pizza_type_id	name	toppings	price	price_per_topping
1	pepperoni	The Pepperoni Pizza	2	9.75	4.88
2	hawaiian	The Hawaiian Pizza	3	10.5	3.5
3	pep_msh_pep	The Pepperoni, Mushroom, and Peppers Pizza	3	11	3.67
4	four_cheese	The Four Cheese Pizza	5	11.75	2.35
5	big_meat	The Big Meat Pizza	4	12	3
6	classic_dlx	The Classic Deluxe Pizza	5	12	2.4
7	green_garden	The Green Garden Pizza	5	12	2.4
8	ital_cpcllo	The Italian Capocollo Pizza	6	12	2
9	mediterraneo	The Mediterranean Pizza	7	12	1.71
10	mexicana	The Mexicana Pizza	8	12	1.5
11	napolitana	The Napolitana Pizza	5	12	2.4
12	spinach_fet	The Spinach and Feta Pizza	5	12	2.4
13	the_greek	The Greek Pizza	6	12	2
14	veggie_veg	The Vegetables + Vegetables Pizza	8	12	1.5
15	calabrese	The Calabrese Pizza	6	12.25	2.04
16	sicilian	The Sicilian Pizza	6	12.25	2.04

Notes

Cross apply to split ingredient list, then count distinct ingredients

Higher Price per toping means more profitable if under assumption that all ingredients cost the same amount

Revenue by Month

```
select datename(month,date) as month_name, DATEPART(month, date) as month_num,
round(sum(price),2) as total_sales_2015 from orders o

 join order_details od on od.order_id = o.order_id

 join pizzas p on p.pizza_id = od.pizza_id

 join pizza_types pt on p.pizza_type_id = pt.pizza_type_id

 group by DATEPART(month, date),datename(month,date)

 order by DATEPART(month, date) asc
```

Output

	month_name	month_num	total_sales_2015
1	January	1	68472.7
2	February	2	64067.4
3	March	3	69198
4	April	4	67286.2
5	May	5	69939.35
6	June	6	66796.3
7	July	7	71027.45
8	August	8	67068.8
9	September	9	63018
10	October	10	62566.5
11	November	11	69054
12	December	12	63450

Notes

Extact Month number and number using Datepart and datename

Revenue reaches highs in Jan,March, May, July, November, maybe due to some seasonality? (Holidays, Events, Weather). Location of Pizza Shop not given.

Revenue by Hour in Day

```
select left(time,2) as hour, count(*) as unit_sales, round(sum(price),2) as
revenue from orders o

 join order_details od on od.order_id = o.order_id

 join pizzas p on p.pizza_id = od.pizza_id

 join pizza_types pt on p.pizza_type_id = pt.pizza_type_id

 group by left(time,2)

 order by left(time,2) asc
```

Output

	hour	unit_sales	revenue
1	09	4	83
2	10	17	285.7
3	11	2672	43978.8
4	12	6543	108047.75
5	13	6203	102550.95
6	14	3521	57650.2
7	15	3170	52231.3
8	16	4185	69129.4
9	17	5143	85128.1
10	18	5359	88334.2
11	19	4350	71665.5
12	20	3487	57420.75
13	21	2528	41769.3
14	22	1370	22548.4
15	23	68	1121.35

Notes

Extract hour using left.

Open from 9am to 11pm

Most revenue generated from 12pm to 2pm and 5pm – 7pm, but lunch is most popular peak times to buy pizza.

Create Dashboard in Power BI

Create Views in MSSQL

Connect Database to PowerBi

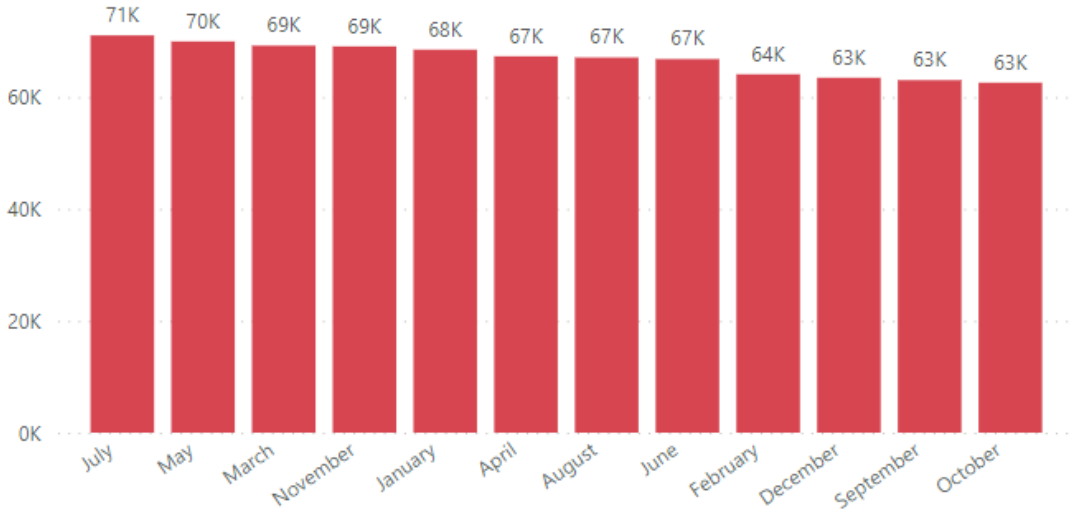
Select Views

Create Dashboards

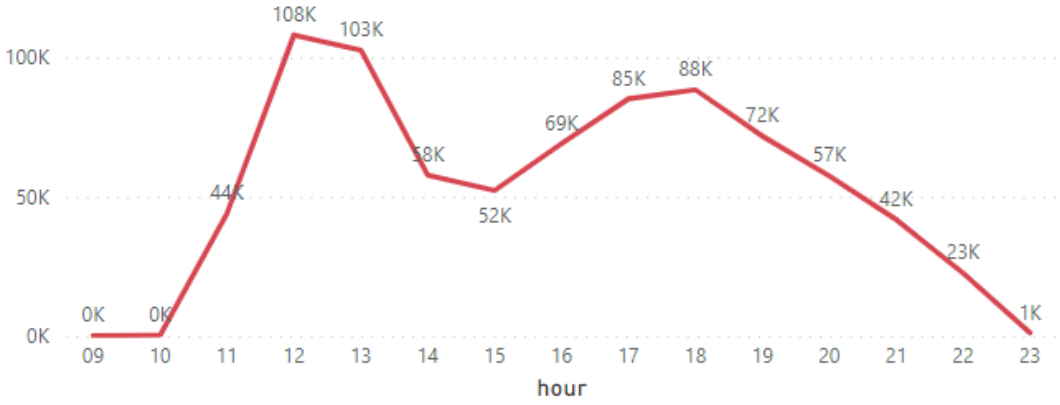
Pizza Sales 2015

Price per Topping (Higher = More Profit)

Sales By Month



Revenue by Hour



name	total_sales_2015	pizzas_sold	ingredients
The Barbecue Chicken Pizza	41,683.00	2372	barbecued chicken, red pe
The Big Meat Pizza	21,732.00	1811	bacon, pepperoni, italian s
The Brie Carre Pizza	11,352.00	480	brie carre cheese, prosciut
The Calabrese Pizza	15,763.75	927	nduja salami, pancetta, t
The California Chicken Pizza	40,166.50	2302	chicken, artichoke, spinach
The Chicken Alfredo Pizza	16,779.00	980	chicken, red onions, red p
The Chicken Pesto Pizza	16,484.75	961	chicken, tomatoes, red pe
The Classic Deluxe Pizza	37,631.50	2416	pepperoni, mushrooms, re
The Five Cheese Pizza	25,141.50	1359	mozzarella cheese, provol
The Four Cheese Pizza	31,361.10	1850	ricotta cheese, gorgonzola