PROYECTO

ANÁLISIS DE DATOS





Plato's Pizza



CONTENIDO

- A UNION DE LAS CUATRO TABLAS QUE CONFORMARON EL PROYECTO
- B. REVISAR LA DATA
- C. ANALISIS AREA NOMINAL (ingresos o ventas)
- D. ANALISIS AREA REAL (producto)
- E . ANALISIS POR ORDENES

A. UNION DE LAS CUATRO TABLAS QUE CONFORMARON EL PROYECTO

```
select * from [dbo].[1order_details] -- VER cadda una de las tablas
```

select * from [dbo].[2orders]

select * from [dbo].[3pizza_types]

select * from [dbo].[4pizzas]

III	Results 🗐 Messa	ages		
	order_details_id	order_id	pizza_id	quantity
1	1	1	hawaiian_m	1
2	2	2	classic_dlx_m	1
3	3	2	five_cheese_l	1
4	4	2	ital_supr_l	1
5	5	2	mexicana_m	1
6	6	2	thai_ckn_l	1
7	7	3	ital_supr_m	1
8	8	3	prsc_argla_l	1
9	9	4	ital_supr_m	1
10	10	5	ital_supr_m	1

III F	Results		Messages	
	order_	id	date	time
1	1		2015-01-01	11:38:36.0000000
2	2		2015-01-01	11:57:40.0000000
3	3		2015-01-01	12:12:28.0000000
4	4		2015-01-01	12:16:31.0000000
5	5		2015-01-01	12:21:30.0000000
6	6		2015-01-01	12:29:36.0000000
7	7		2015-01-01	12:50:37.0000000
8	8		2015-01-01	12:51:37.0000000
9	9		2015-01-01	12:52:01.0000000
10	10		2015-01-01	13:00:15.0000000

	pizza_type_id	name	category	ingredients
1	bbq_ckn	The Barbecue Chicken Pizza	Chicken	Barbecued Chicken, Red Peppers
2	big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausag
3	brie_carre	The Brie Carre Pizza	Supreme	Brie Carre Cheese, Prosciutto, Car
4	calabrese	The Calabrese Pizza	Supreme	♦Nduja Salami, Pancetta, Tomato
5	cali_ckn	The California Chicken Pizza	Chicken	Chicken, Artichoke, Spinach, Garli
6	ckn_alfredo	The Chicken Alfredo Pizza	Chicken	Chicken, Red Onions, Red Peppe
7	ckn_pesto	The Chicken Pesto Pizza	Chicken	Chicken, Tomatoes, Red Peppers,
8	classic_dlx	The Classic Deluxe Pizza	Classic	Pepperoni, Mushrooms, Red Onio
9	five_cheese	The Five Cheese Pizza	Veggie	Mozzarella Cheese, Provolone Ch
10	four cheese	The Four Cheese Pizza	Veggie	Ricotta Cheese, Gorgonzola Picca

Ⅲ F	Results						
	pizza_id	pizza_type_id	size	price			
1	bbq_ckn_l	bbq_ckn	L	20.75			
2	bbq_ckn_m	bbq_ckn	M	16.75			
3	bbq_ckn_s	bbq_ckn	S	12.75			
4	big_meat_l	big_meat	L	20.50			
5	big_meat_m	big_meat	M	16.00			
6	big_meat_s	big_meat	S	12.00			
7	brie_carre_s	brie_carre	S	23.65			
8	calabrese_l	calabrese	L	20.25			
9	calabrese_m	calabrese	M	16.25			
10	calabrese_s	calabrese	S	12.25			

```
--UNIR 4 TABLAS
                                             --2.1 seleccionar de la tabla TRES las siguientes columnas
select
    TRES.order details id,
    TRES.order id,
    TRES.pizza id,
    TRES.quantity,
    TRES.date,
    TRES.time,
    TRES.size,
    TRES.price,
    name, category, ingredients
from
                                                 --1.subquery para unir 3 tablas
            select
                order_details_id,
                OD.order_id,
                OD.pizza_id,
                OD.quantity,
                date,
                time,
                size,
                price,
                pizza_type_id
            from
                 [1order_details] as OD
                 join [2orders] as 0
                     on O.order_id = OD.order_id
                join [4pizzas] as P
                     on P.pizza_id = OD.pizza_id
                                             --con el subquery se unieron 3 tablas y se obtiene una tabla con nombre 'TRES'
        ) as TRES
                                             --2.2 forma parte del query principal y se une lo seleccionado en 2.1 con la ta
    join [3pizza_types] as PT
    on PT.pizza_type_id = TRES.pizza_type_id
```

Ⅲ F	Results 📳 Messa	ages									
	order_details_id	order_id	pizza_id	quantity	date	time	size	price	name	category	ingredients
1	1	1	hawaiian_m	1	2015-01-01	11:38:36.0000000	М	13.25	The Hawaiian Pizza	Classic	Sliced Ham, Pineapple, Mozzarella Cheese
2	2	2	classic_dl	1	2015-01-01	11:57:40.0000000	M	16.00	The Classic Delux	Classic	Pepperoni, Mushrooms, Red Onions, Re
3	3	2	five_chee	1	2015-01-01	11:57:40.0000000	L	18.50	The Five Cheese	Veggie	Mozzarella Cheese, Provolone Cheese,
4	4	2	ital_supr_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
5	5	2	mexicana	1	2015-01-01	11:57:40.0000000	M	16.00	The Mexicana Piz	Veggie	Tomatoes, Red Peppers, Jalapeno Pepp
6	6	2	thai_ckn_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Thai Chicken	Chicken	Chicken, Pineapple, Tomatoes, Red Pep
7	7	3	ital_supr_m	1	2015-01-01	12:12:28.0000000	М	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
8	8	3	prsc_argla_l	1	2015-01-01	12:12:28.0000000	L	20.75	The Prosciutto an	Supreme	Prosciutto di San Daniele, Arugula, Mozz
9	9	4	ital_supr_m	1	2015-01-01	12:16:31.0000000	М	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
10	10	5	ital_supr_m	1	2015-01-01	12:21:30.0000000	M	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,

B. REVISR LA DATA



--1. Entender-revisar la data, tiene 11 columnas |SELECT * |FROM[dbo].[Pizza]

	order_details_id	order_id	pizza_id	quantity	date	time	size	price	name	category	ingredients
1	1	1	hawaiian_m	1	2015-01-01	11:38:36.0000000	M	13.25	The Hawaiian Pizza	Classic	Sliced Ham, Pineapple, Mozzarella Cheese
2	2	2	classic_dl	1	2015-01-01	11:57:40.0000000	M	16.00	The Classic Delux	Classic	Pepperoni, Mushrooms, Red Onions, Re
3	3	2	five_chee	1	2015-01-01	11:57:40.0000000	L	18.50	The Five Cheese	Veggie	Mozzarella Cheese, Provolone Cheese,
4	4	2	ital_supr_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
5	5	2	mexicana	1	2015-01-01	11:57:40.0000000	M	16.00	The Mexicana Piz	Veggie	Tomatoes, Red Peppers, Jalapeno Pepp
6	6	2	thai_ckn_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Thai Chicken	Chicken	Chicken, Pineapple, Tomatoes, Red Pep
7	7	3	ital_supr_m	1	2015-01-01	12:12:28.0000000	M	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
8	8	3	prsc_argla_l	1	2015-01-01	12:12:28.0000000	L	20.75	The Prosciutto an	Supreme	Prosciutto di San Daniele, Arugula, Mozz
9	9	4	ital_supr_m	1	2015-01-01	12:16:31.0000000	M	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,
10	10	5	ital_supr_m	1	2015-01-01	12:21:30.0000000	M	16.50	The Italian Supre	Supreme	Calabrese Salami, Capocollo, Tomatoes,

```
--2. Ver si hay datos nulos
3SELECT *
FROM [dbo].[Pizza]
WHERE
    order_details_id IS NULL
         OR order id IS NULL
         OR pizza_id IS NULL
         OR quantity IS NULL
         OR date IS NULL
         OR time IS NULL
         OR size IS NULL
         OR price IS NULL
         OR name TS NULL
         OR category IS NULL
         OR ingredients IS NULL;
```

```
--3. Agregar la columna 'total_order' a la tabla

[ALTER TABLE [dbo].[Pizza]

ADD total_order FLOAT;

--4. Agregar resultados a la columna 'total_order', obtener el total de la orden

[UPDATE [dbo].[Pizza]

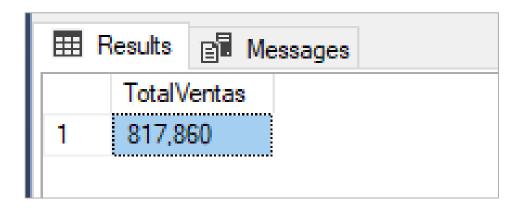
SET total_order = quantity * price

--Ver data

[SELECT *
FROM [dbo].[Pizza]
```

	order_details_id	order_id	pizza_id	quantity	date	time	size	price	name	category	ingredients	total_order
1	1	1	hawaiian_m	1	2015-01-01	11:38:36.0000000	M	13.25	The Hawaiian Pizza	Classic	Sliced Ham, Pineapple, Mozzarella Cheese	13.25
2	2	2	classic_dlx_m	1	2015-01-01	11:57:40.0000000	M	16.00	The Classic Deluxe Pizza	Classic	Pepperoni, Mushrooms, Red Onions, Red Peppers, B	16
3	3	2	five_cheese_l	1	2015-01-01	11:57:40.0000000	L	18.50	The Five Cheese Pizza	Veggie	Mozzarella Cheese, Provolone Cheese, Smoked Gou	18.5
4	4	2	ital_supr_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Italian Supreme Pizza	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions,	20.75
5	5	2	mexicana_m	1	2015-01-01	11:57:40.0000000	M	16.00	The Mexicana Pizza	Veggie	Tomatoes, Red Peppers, Jalapeno Peppers, Red Oni	16
6	6	2	thai_ckn_l	1	2015-01-01	11:57:40.0000000	L	20.75	The Thai Chicken Pizza	Chicken	Chicken, Pineapple, Tomatoes, Red Peppers, Thai S	20.75
7	7	3	ital_supr_m	1	2015-01-01	12:12:28.0000000	M	16.50	The Italian Supreme Pizza	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions,	16.5
8	8	3	prsc_argla_l	1	2015-01-01	12:12:28.0000000	L	20.75	The Prosciutto and Arugula Pizza	Supreme	Prosciutto di San Daniele, Arugula, Mozzarella Cheese	20.75
9	9	4	ital_supr_m	1	2015-01-01	12:16:31.0000000	M	16.50	The Italian Supreme Pizza	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions,	16.5
10	10	5	ital_supr_m	1	2015-01-01	12:21:30.0000000	М	16.50	The Italian Supreme Pizza	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions,	16.5

C. ANALISIS AREA NOMINAL (ingresos o ventas)

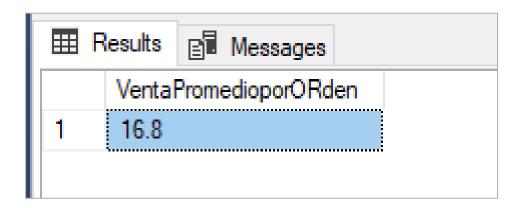


```
--6. Venta promedio por cada orden

]SELECT

FORMAT(SUM(total_order) / COUNT (*), '#,##0.0') AS VentaPromedioporORden

FROM [dbo].[Pizza]
```



```
--7. Ventas por category de pizza

SELECT

category AS Categoria,
FORMAT(SUM(total_order), '#,##0.0') AS TotalVentasCategoria

FROM [dbo].[Pizza]
GROUP BY category
ORDER BY TotalVentasCategoria DESC
```

III F	Results	Messages
	Categoria	TotalVentasCategoria
1	Classic	220,053.1
2	Supreme	208,197.0
3	Chicken	195,919.5
4	Veggie	193,690.5

⊞ F	Results 🗐	Messages			
	category	name	TotalOrden		
1	Chicken	The Thai Chicken Pizza	43,434.3		
2	Chicken	The Barbecue Chicken Pizza	42,768.0		
3	Chicken	The California Chicken Pizza	41,409.5		
4	Classic	The Classic Deluxe Pizza	38,180.5		
5	Supreme	The Spicy Italian Pizza	34,831.3		
6	Chicken	The Southwest Chicken Pizza	34,705.8		
7	Supreme	The Italian Supreme Pizza	33,476.8		
8	Classic	Classic The Hawaiian Pizza			
9	Veggie	The Four Cheese Pizza	32,265.7		
10	Supreme	Supreme The Sicilian Pizza			
11	Classic	The Pepperoni Pizza	30,161.8		
12	Classic	The Greek Pizza	28,454.1		
13	Veggie	The Mexicana Pizza	26,780.8		
14	Veggie	The Five Cheese Pizza	26,066.5		
15	Supreme	The Pepper Salami Pizza	25,529.0		
16	Classic	The Italian Capocollo Pizza	25,094.0		
17	Veggie	The Vegetables + Vegetabl	24,374.8		
18	Supreme	The Prosciutto and Arugula	24,193.3		
19	Classic	The Napolitana Pizza	24,087.0		
20	Veggie	The Spinach and Feta Pizza	23,271.3		

```
--9. Ventas por category y nombre de la pizza mayores a 10,000 (o teniendo en cuenta)
|SELECT
| category AS Categoria,
| name AS NombrePizza ,
| FORMAT(SUM(total_order), '#,##0.0') AS TotalOrden
|FROM [dbo].[Pizza]
| GROUP BY category, name
| HAVING SUM(total_order) > 10000
| ORDER BY TotalOrden DESC
```

III	Results 🗐	Messages	
	Categoria	NombrePizza	TotalOrden
1	Chicken	The Thai Chicken Pizza	43,434.3
2	Chicken	The Barbecue Chicken Pizza	42,768.0
3	Chicken	The California Chicken Pizza	41,409.5
4	Classic	The Classic Deluxe Pizza	38,180.5
5	Supreme	The Spicy Italian Pizza	34,831.3
6	Chicken	The Southwest Chicken Pizza	34,705.8
7	Supreme	The Italian Supreme Pizza	33,476.8
8	Classic	The Hawaiian Pizza	32,273.3
9	Veggie	The Four Cheese Pizza	32,265.7
10	Supreme	The Sicilian Pizza	30,940.5
11	Classic	The Pepperoni Pizza	30,161.8
12	Classic	The Greek Pizza	28,454.1
13	Veggie	The Mexicana Pizza	26,780.8
14	Veggie	The Five Cheese Pizza	26,066.5
15	Supreme	The Pepper Salami Pizza	25,529.0
16	Classic	The Italian Capocollo Pizza	25,094.0
17	Veggie	The Vegetables + Vegetabl	24,374.8
18	Supreme	The Prosciutto and Arugula	24,193.3
19	Classic	The Napolitana Pizza	24,087.0
20	Veggie	The Spinach and Feta Pizza	23,271.3

```
--10. Ventas por categoria entre 100,000 y 200,000, ordenados descendente por category |
SELECT
    category ,
    FORMAT(SUM(total_order), '#,##0.0') AS TotalOrden
FROM [dbo].[Pizza]
    GROUP BY category
    HAVING SUM(total_order) BETWEEN 100000 AND 2000000
    ORDER BY category DESC
```

■	Results		Messages	
	catego	ry	TotalOrden	
1	Veggie	3	193,690.5	
2	Chicke	en	195,919.5	

III	Results 🗐	Messages
	category	Precio Promedio_Categoria
1	Classic	15.1
2	Veggie	16.9
3	Supreme	17.7
4	Chicken	18.1
	-	

```
--12. Precio maximo por categoria

SELECT
category,
MAX (price) AS PrecioMaximo_Categoria

FROM [dbo].[Pizza]
GROUP BY category
ORDER BY PrecioMaximo_Categoria
```

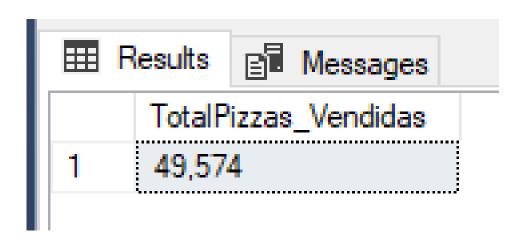
⊞ F	Results 🗐	Messages
	category	Precio Maximo_Categoria
1	Chicken	20.75
2	Veggie	21.00
3	Supreme	23.65
4	Classic	35.95

```
--13. Precio minimo por categoria
|SELECT category, MIN (price) AS PrecioMinimo_Categoria
|FROM [dbo].[Pizza] GROUP BY category
| ORDER BY PrecioMinimo_Categoria
```

⊞ F	Results	Messages
	category	Precio Minimo_Categoria
1	Classic	9.75
2	Veggie	12.00
3	Supreme	12.25
4	Chicken	12.75

D. ANALISIS AREA REAL (producto)





```
--13. Pizzas vendidas por categoria ordenadas ascendente

SELECT

category,
FORMAT(SUM(quantity), '#,##0.') AS PizzasVendidasCategoria

FROM[dbo].[Pizza]

GROUP BY category

ORDER BY PizzasVendidasCategoria DESC
```

■	Results	Messages
	category	PizzasVendidasCategoria
1	Classic	14,888
2	Supreme	11,987
3	Veggie	11,649
4	Chicken	11,050

```
--14.Pizzas vendidas por numero de mes

SELECT

DATEPART(month,date) AS Mes,
FORMAT(SUM(quantity), '#,##0.') AS PizzasVendidas_Mes

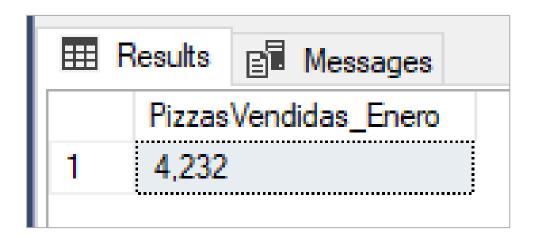
FROM [dbo].[Pizza]

GROUP BY DATEPART(month,date)

ORDER BY Mes ASC
```

⊞ R	esults	E Messages
	Mes	PizzasVendidas_Mes
1	1	4,232
2	2	3,961
3	3	4,261
4	4	4,151
5	5	4,328
6	6	4,107
7	7	4,392
8	8	4,168
9	9	3,890
10	10	3,883
11	11	4,266
12	12	3,935

⊞ R	esults 📳 N	Messages
	Mes	PizzasVendidas_Mes
1	September	3,890
2	October	3,883
3	November	4,266
4	May	4,328
5	March	4,261
6	June	4,107
7	July	4,392
8	January	4,232
9	February	3,961
10	December	3,935
11	August	4,168
12	April	4,151



```
--16. Pizzas vendidas por dia

SELECT

FORMAT(date, 'ddd') AS Dia,
FORMAT(SUM(quantity), '#,##0.') AS PizzasVendidas_Dia

FROM [dbo].[Pizza]

GROUP BY FORMAT(date, 'ddd')

ORDER BY Dia
```

III	Results	E Messages
	Dia	PizzasVendidas_Dia
1	Fri	8,242
2	Mon	6,485
3	Sat	7,493
4	Sun	6,035
5	Thu	7,478
6	Tue	6,895
7	Wed	6,946

```
--17. Pizzas vendidas por hora

SELECT

FORMAT(time, 'hh') AS Hora,

FORMAT(SUM(quantity), '#,##0.') AS PizzasVendidas_Hora

FROM [dbo].[Pizza]

GROUP BY FORMAT(time, 'hh')

ORDER BY Hora
```

■ F	Results	₽ [®] Messages
	Hora	PizzasVendidas_Hora
1	09	4
2	10	18
3	11	2,728
4	12	6,776
5	13	6,413
6	14	3,613
7	15	3,216
8	16	4,239
9	17	5,211
10	18	5,417
11	19	4,406
12	20	3,534
13	21	2,545
14	22	1,386
15	23	68

==	Results	E Messages
	size	PizzasVendidas_Tamano
1	L	18,956
2	M	15,635
3	S	14,403
4	XL	552
5	XXL	28

```
--19. Top 10 pizzas vendidas

SELECT TOP (10)

name,
FORMAT(SUM(quantity), '#,##0.') AS Top10

FROM

[dbo].[Pizza]
GROUP BY name

ORDER BY Top10 DESC
```

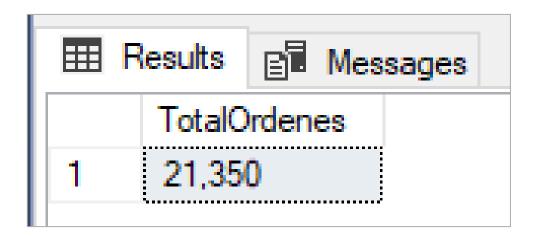
Ⅲ R	esults 🖺 Messages	
	name	Top 10
1	The Green Garden Pizza	997
2	The Chicken Alfredo Pizza	987
3	The Italian Vegetables Pizza	981
4	The Chicken Pesto Pizza	973
5	The Spinach Pesto Pizza	970
6	The Soppressata Pizza	961
7	The Spinach Supreme Pizza	950
8	The Calabrese Pizza	937
9	The Mediterranean Pizza	934
10	The Brie Carre Pizza	490

```
--20. Las 5 pizzas menos vendidas
|SELECT TOP (5)
| name,
| SUM(quantity) AS Top5
|FROM [dbo].[Pizza]
| GROUP BY name
| ORDER BY Top5 ASC
```

III F	Results 🛅 Messages	
	name	Top5
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppressata Pizza	961

E. ANALISIS POR ORDENES





⊞ F	Results 🗐	Messages
	Categoria	TotalOrdenes_Categoria
1	Classic	10,859
2	Chicken	8,536
3	Veggie	8,941
4	Supreme	9,085

```
--23. Total de ordenes por name de pizza

|SELECT name AS NombrePizza,
| FORMAT(COUNT (DISTINCT order_id), '#,##0.') AS TotalOrdenes_Pizza
|FROM[dbo].[Pizza]
| GROUP BY name
| ORDER BY TotalOrdenes_Pizza ASC
```

	NombrePizza	TotalOrdenes_Pizza
1	The Pepperoni, Mushroom, and Peppers Pizza	1,316
2	The Five Cheese Pizza	1,359
3	The Greek Pizza	1,361
4	The Italian Capocollo Pizza	1,380
5	The Pepper Salami Pizza	1,383
6	The Prosciutto and Arugula Pizza	1,398
7	The Spinach and Feta Pizza	1,402
8	The Napolitana Pizza	1,421
9	The Mexicana Pizza	1,426
10	The Vegetables + Vegetables Pizza	1,463
11	The Italian Supreme Pizza	1,791
12	The Four Cheese Pizza	1,809
13	The Big Meat Pizza	1,811
14	The Sicilian Pizza	1,820
15	The Spicy Italian Pizza	1,822
16	The Southwest Chicken Pizza	1,825
17	The California Chicken Pizza	2,197
18	The Thai Chicken Pizza	2,225
19	The Barbecue Chicken Pizza	2,273
20	The Pepperoni Pizza	2,278