SQL PROJECT

Pizza Sales analysis

Name: Sahil Khale

Course: MASTER IN DATA SCIENCE AND ANALYTICS WITH AI

ABOUT DATASET:

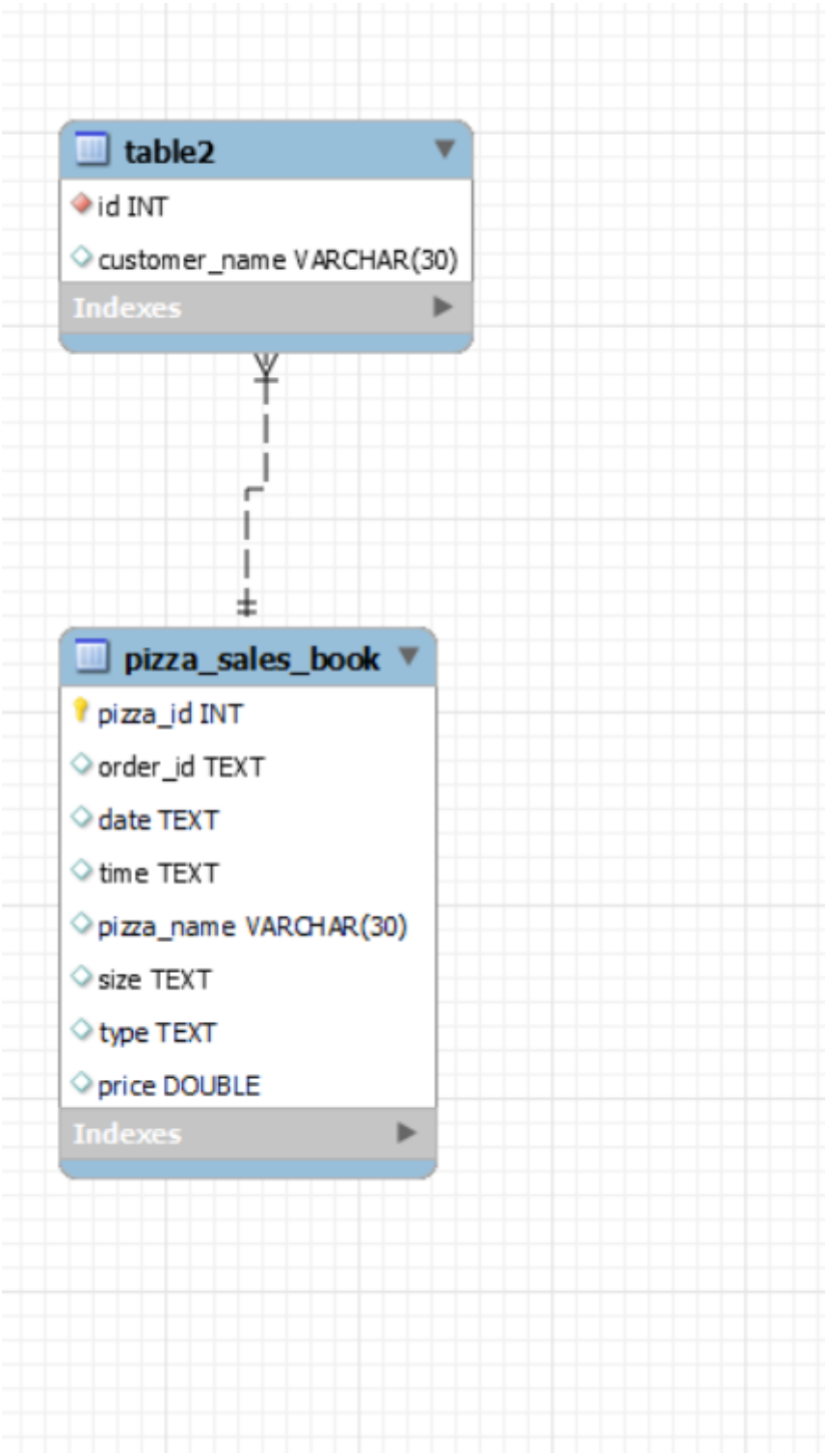
A synthetic dataset that describes pizza sales for a pizza place somewhere in the US. While the contents are artificial, the ingredients used to make the pizzas are far from it. There are 32 different pizzas that fall into 4 different categories: classic, chicken, supreme and veggie.

Column Description:

- **id:** The ID for the order, which consists of one or more pizzas at a give date and time
- **date:** A character representation of the order date, expressed in the ISO 8601 date format (YYYY-MM-DD)
- **time:** A character representation of the order time, expressed as a 24-hour time the ISO 8601 extended time format (hh:mm:ss)
- **name:** The short name for the pizza
- **size:** The size of the pizza, which can either be S, M, L, XL (rare!), or XXL (even rarer!); most pizzas are available in the S, M, and L sizes but exceptions apply
- **type:** The category or type of pizza, which can either be classic, chicken, supreme, or veggie
- **price:** The price of the pizza and the amount that it sold for (in USD)

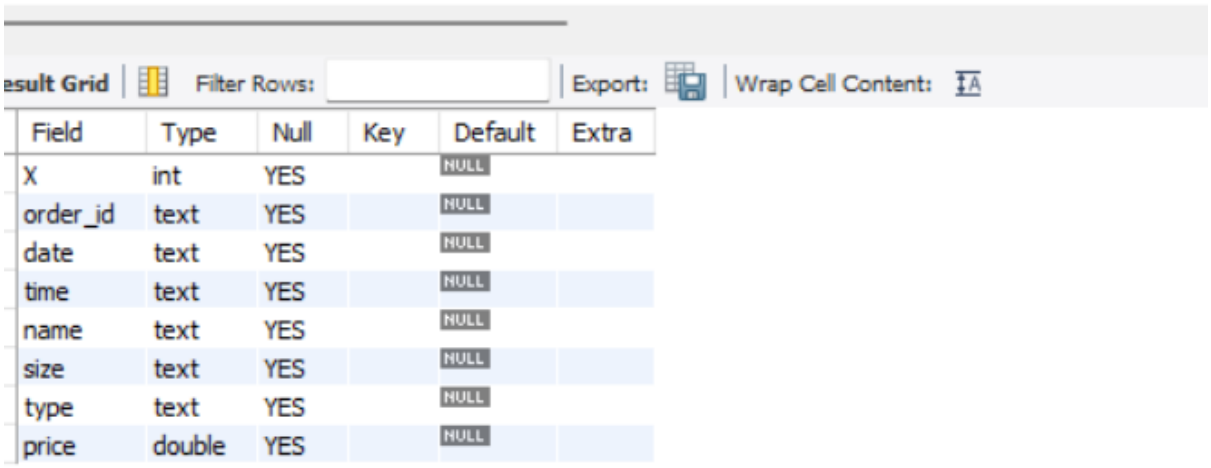
DATASET FROM: KAGGLE

Entity Relationship Diagram



1. **Show the schema of the table.**

```
4      -- 1.Show the schema of the tables
5 •    desc a_year_of_pizza_sales_from_a_pizza_place_872_68
```

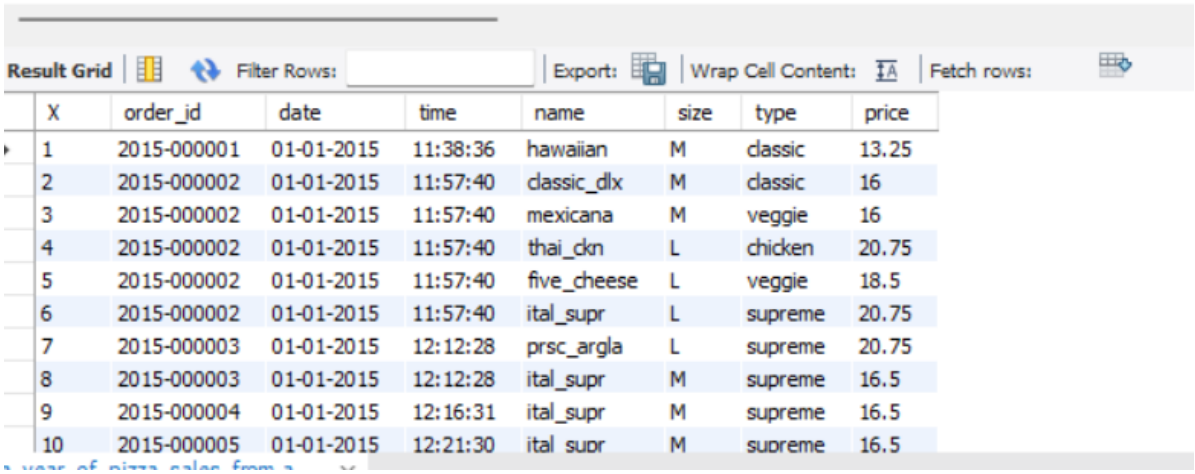


esult Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
X	int	YES		NULL	
order_id	text	YES		NULL	
date	text	YES		NULL	
time	text	YES		NULL	
name	text	YES		NULL	
size	text	YES		NULL	
type	text	YES		NULL	
price	double	YES		NULL	

2. **Show whole record of the table**

```
3      -- 2.show whole record of the table
4 •    SELECT* FROM a_year_of_pizza_sales_from_a_pizza_place_872_68
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

X	order_id	date	time	name	size	type	price
1	2015-000001	01-01-2015	11:38:36	hawaiian	M	classic	13.25
2	2015-000002	01-01-2015	11:57:40	classic_dlx	M	classic	16
3	2015-000002	01-01-2015	11:57:40	mexicana	M	veggie	16
4	2015-000002	01-01-2015	11:57:40	thai_ckn	L	chicken	20.75
5	2015-000002	01-01-2015	11:57:40	five_cheese	L	veggie	18.5
6	2015-000002	01-01-2015	11:57:40	ital_supr	L	supreme	20.75
7	2015-000003	01-01-2015	12:12:28	prsc_argla	L	supreme	20.75
8	2015-000003	01-01-2015	12:12:28	ital_supr	M	supreme	16.5
9	2015-000004	01-01-2015	12:16:31	ital_supr	M	supreme	16.5
10	2015-000005	01-01-2015	12:21:30	ital_supr	M	supreme	16.5

Add primary key in table 1

```
2     -- add primary key in the table name pizza_sales_book
3 •   alter table pizza_sales_book add constraint primary key (pizza_id);
4 •   desc pizza_sales_book;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
pizza_id	int	NO	PRI	NULL	
order_id	text	YES		NULL	
date	text	YES		NULL	
time	text	YES		NULL	
pizza_name	varchar(30)	YES		NULL	
size	text	YES		NULL	
type	text	YES		NULL	
price	double	YES		NULL	

3.Create second table named as table2 with foreign key in table

```
3     -- 3.create second table named as table2 with foreign key in table
4 •   create table table2 (id int auto_increment,customer_name varchar(30),foreign key(id) references pizza_sales_book(pizza_id));
5 •   desc table2;
6
7
8
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	MUL	NULL	auto_increment
customer_name	varchar(30)	YES		NULL	

4.Rename table a_year_of_pizza_sales_from_a_pizza_place_872_68

```
5      -- 4.rename table a_year_of_pizza_sales_from_a_pizza_place_872_68
6 •    alter table a_year_of_pizza_sales_from_a_pizza_place_872_68
7      rename pizza_sales_book;
8 •    show tables;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Tables_in_pizza_sales
pizza_sales_book

5.Change the column name of x to pizza_id.

```
3      -- 5.change the column name of x to pizza_id
4 •    alter table pizza_sales_book
5      change column x pizza_id  int;
6 •    desc pizza_sales_book
7
8
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
pizza_id	int	YES		NULL	
order_id	text	YES		NULL	
date	text	YES		NULL	
time	text	YES		NULL	
name	text	YES		NULL	
size	text	YES		NULL	
type	text	YES		NULL	
price	double	YES		NULL	

6.Command query to fetch pizza name using distinct

```
3      -- 6.command query to fetch pizza name using distinct
4 •    select distinct pizza_name from pizza_sales_book;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_name
hawaiian
classic_dlx
mexicana
thai_ckn
five_cheese
ital_supr
prsc_argla
bbq_ckn
the_greek
spinach_supr

7.Query to fetch columns order_id, pizza_name, type, price whose price is 16

```
3      -- 7.query to fetch columns order_id,pizza_name,type,price whose price is 16
4 •    select order_id,pizza_name,type,price from pizza_sales_book
5      where price =16;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	type	price
2015-000002	classic_dlx	classic	16
2015-000002	mexicana	veggie	16
2015-000017	mediterraneo	veggie	16
2015-000017	mediterraneo	veggie	16
2015-000022	ital_cpdlo	classic	16
2015-000024	ital_cpdlo	classic	16
2015-000027	classic_dlx	classic	16
2015-000031	mexicana	veggie	16
2015-000035	green_garden	veggie	16
2015-000036	classic_dlx	classic	16

8.Query to fetch data where pizza_name is ital_supr and type is supreme are same and price should be greater than 15

```
3    -- 8.query to fetch data where pizza_name is ital_supr and type is supreme are same and price should be greater than 15
4    select order_id,pizza_name,type,price from pizza_sales_book
5    where pizza_name="ital_supr" AND type="supreme" AND price>15;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	type	price
2015-000002	ital_supr	supreme	20.75
2015-000003	ital_supr	supreme	16.5
2015-000004	ital_supr	supreme	16.5
2015-000005	ital_supr	supreme	16.5
2015-000009	ital_supr	supreme	20.75
2015-000012	ital_supr	supreme	16.5
2015-000017	ital_supr	supreme	16.5
2015-000032	ital_supr	supreme	16.5
2015-000037	ital_supr	supreme	20.75
2015-000039	ital_supr	supreme	20.75

9.Query to fetch data where name and size are same or price is 12

```
3    -- 9.query to fetch data where name and size are same or price is 12
4    select order_id,pizza_name,size,price from pizza_sales_book
5    where pizza_name=size OR price=12;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	size	price
2015-000006	the_greek	S	12
2015-000009	mexicana	S	12
2015-000009	veggie_veg	S	12
2015-000009	green_garden	S	12
2015-000009	classic_dlx	S	12
2015-000014	the_greek	S	12
2015-000015	big_meat	S	12
2015-000015	the_greek	S	12
2015-000016	napolitana	S	12
2015-000020	big_meat	S	12

10.Query to fetch data where size should not be medium

```
3    -- 10.Query to fetch data where size should not be medium
4    select order_id,pizza_name,size,price,type from pizza_sales_book
5    where NOT size='M';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	size	price	type
2015-000002	thai_ckn	L	20.75	chicken
2015-000002	five_cheese	L	18.5	veggie
2015-000002	ital_supr	L	20.75	supreme
2015-000003	prsc_argla	L	20.75	supreme
2015-000006	bbq_ckn	S	12.75	chicken
2015-000006	the_greek	S	12	classic
2015-000007	spinach_supr	S	12.5	supreme
2015-000008	spinach_supr	S	12.5	supreme
2015-000009	ital_supr	L	20.75	supreme
2015-000009	mexicana	S	12	veggie

11.Write query to fetch data between date 01-01-2015 to 10-01-2015.

```
3    -- 11.write query to fetch data between date 01-01-2015 to 10-01-2015.
4    select * from pizza_sales_book
5    where date BETWEEN'01-01-2015' and '10-01-2015';
6
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Fetch rows:

pizza_id	order_id	date	time	pizza_name	size	type	price
1	2015-000001	01-01-2015	11:38:36	hawaiian	M	classic	13.25
2	2015-000002	01-01-2015	11:57:40	classic_dlx	M	classic	16
3	2015-000002	01-01-2015	11:57:40	mexicana	M	veggie	16
4	2015-000002	01-01-2015	11:57:40	thai_ckn	L	chicken	20.75
5	2015-000002	01-01-2015	11:57:40	five_cheese	L	veggie	18.5
6	2015-000002	01-01-2015	11:57:40	ital_supr	L	supreme	20.75
7	2015-000003	01-01-2015	12:12:28	prsc_argla	L	supreme	20.75
8	2015-000003	01-01-2015	12:12:28	ital_supr	M	supreme	16.5
9	2015-000004	01-01-2015	12:16:31	ital_supr	M	supreme	16.5
10	2015-000005	01-01-2015	12:21:30	ital_supr	M	supreme	16.5
11	2015-000006	01-01-2015	12:29:36	bbq_ckn	S	chicken	12.75

12.Write query to fetch data not between date 01-01-2015 to 10-01-2015.

```
3     -- 12.write query to fetch data not between date 01-01-2015 to 10-01-2015.
4 •   select* from pizza_sales_book
5     where date NOT BETWEEN '01-01-2015' and '10-01-2015';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_id	order_id	date	time	name	size	type	price
1448	2015-000630	11-01-2015	11:42:08	sicilian	S	supreme	12.25
1449	2015-000631	11-01-2015	11:44:36	pepperoni	L	classic	15.25
1450	2015-000632	11-01-2015	11:44:52	classic_dlx	S	classic	12
1451	2015-000633	11-01-2015	11:51:45	peppr_salami	L	supreme	20.75
1452	2015-000633	11-01-2015	11:51:45	pepperoni	L	classic	15.25
1453	2015-000633	11-01-2015	11:51:45	mediterraneo	L	veggie	20.25
1454	2015-000634	11-01-2015	12:14:15	pepperoni	L	classic	15.25
1455	2015-000635	11-01-2015	12:18:31	mexicana	L	veggie	20.25
1456	2015-000635	11-01-2015	12:18:31	cali_ckn	S	chicken	12.75
1457	2015-000635	11-01-2015	12:18:31	cali_ckn	S	chicken	12.75

13.Write query to fetch data where price is 12,16.5,20.75

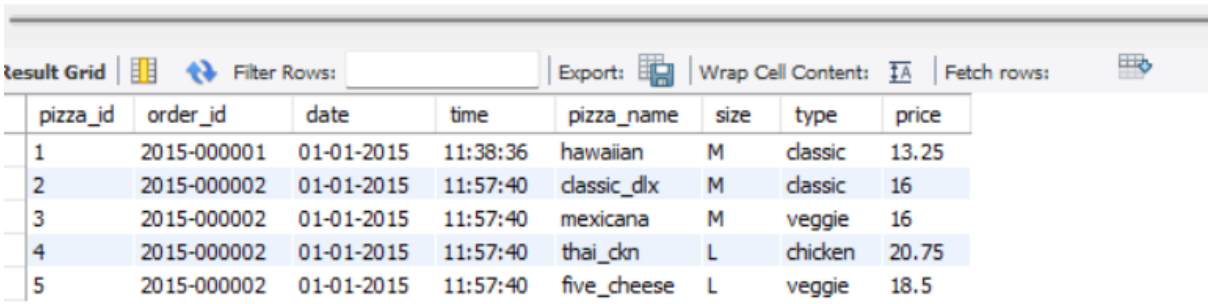
```
2     -- 13.write query to fetch data where price is 12,16.5,20.75 .
3 •   select order_id,pizza_name,type,size,price from pizza_sales_book
4     where price IN (12,16.5,20.75);
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	type	size	price
2015-000002	thai_ckn	chicken	L	20.75
2015-000002	ital_supr	supreme	L	20.75
2015-000003	prsc_argla	supreme	L	20.75
2015-000003	ital_supr	supreme	M	16.5
2015-000004	ital_supr	supreme	M	16.5
2015-000005	ital_supr	supreme	M	16.5
2015-000006	the_greek	classic	S	12
2015-000009	ital_supr	supreme	L	20.75
2015-000009	mexicana	veggie	S	12
2015-000009	spin_pesto	veggie	L	20.75

14.Write query to fetch top 5 record from table.

```
2     -- 14.write query to fetch top 5 record from table.
3 •   select* from pizza_sales_book
4     LIMIT 5;
```

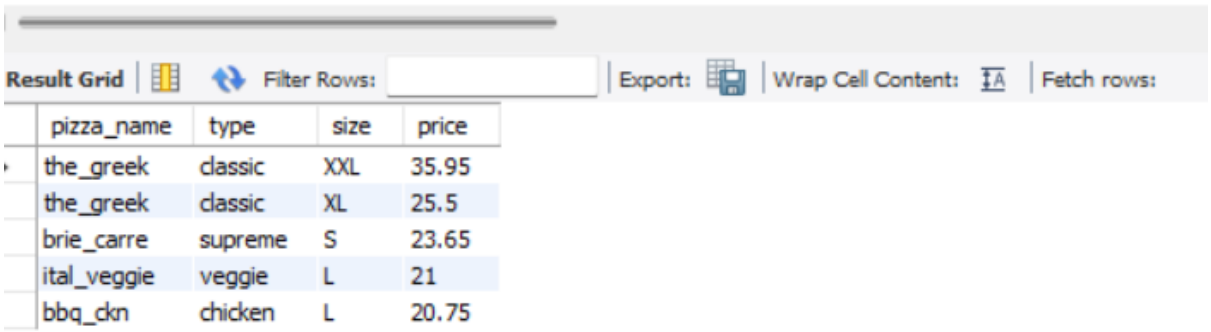


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_id	order_id	date	time	pizza_name	size	type	price
1	2015-000001	01-01-2015	11:38:36	hawaiian	M	classic	13.25
2	2015-000002	01-01-2015	11:57:40	classic_dlx	M	classic	16
3	2015-000002	01-01-2015	11:57:40	mexicana	M	veggie	16
4	2015-000002	01-01-2015	11:57:40	thai_ckn	L	chicken	20.75
5	2015-000002	01-01-2015	11:57:40	five_cheese	L	veggie	18.5

15.Write a query to show top 5 highest price of pizza

```
3     -- 15.write a query to show top 5 highest price of pizza
4 •   select distinct  pizza_name,type,size,price from pizza_sales_book
5     order by price desc limit 5;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_name	type	size	price
the_greek	classic	XXL	35.95
the_greek	classic	XL	25.5
brie_carre	supreme	S	23.65
ital_veggie	veggie	L	21
bbq_ckn	chicken	L	20.75

16.Write a query concat two column pizza_name and type.

```
3      -- 16.write a query concat two column pizza_name and type.
4 •    select concat(pizza_name,'     ',type)from pizza_sales_book;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

concat(pizza_name,' ',type)
hawaiian classic
classic_dlx classic
mexicana veggie
thai_ckn chicken
five_cheese veggie
ital_supr supreme
prsc_argla supreme
ital_supr supreme
ital supr supreme

17.Write a query to gives pizza_name name in upper case.

```
2      -- 17.write a query to gives pizza_name name in upper case.
3 •    select upper(pizza_name) as uppercase,pizza_name from pizza_sales_book;
```

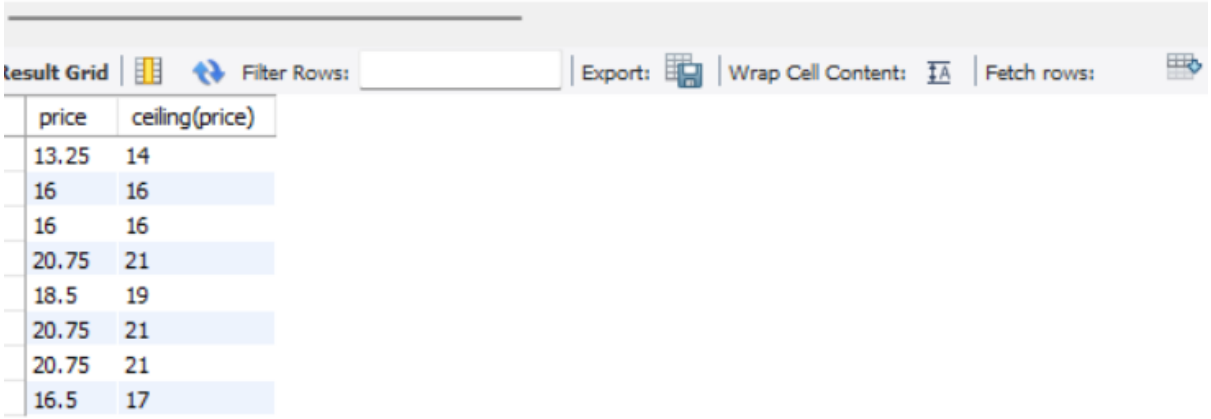
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

uppercase	pizza_name
HAWAIIAN	hawaiian
CLASSIC_DLX	classic_dlx
MEXICANA	mexicana
THAI_CKN	thai_ckn
FIVE_CHEESE	five_cheese
ITAL_SUPR	ital_supr
PRSC_ARGLA	prsc_argla
ITAL_SUPR	ital_supr
ITAL_SUPR	ital_supr

18. Use of maths functions.

1)Ceil ()

```
2    -- ceiling() function
3 •  select price,ceiling(price) from pizza_sales_book limit 8;
```

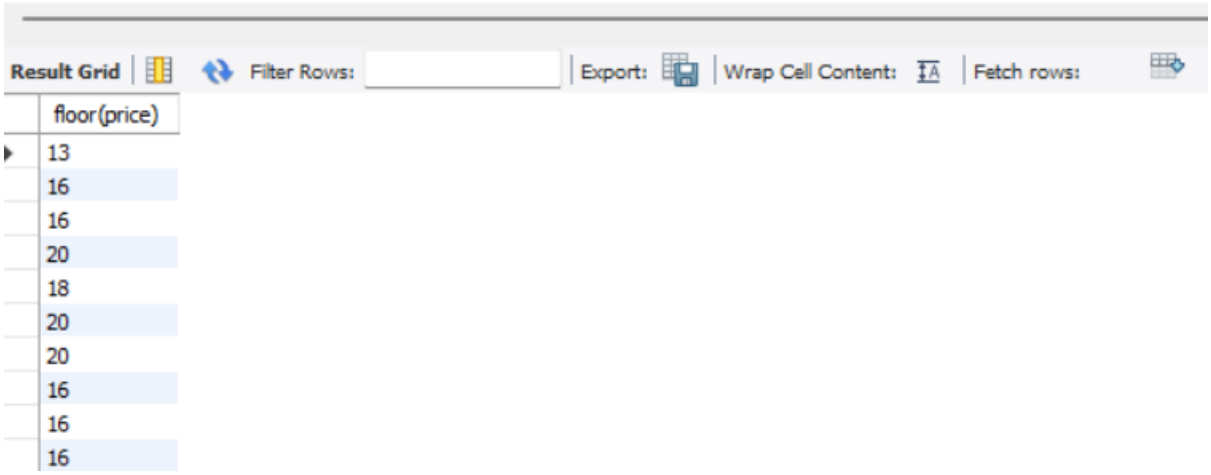


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

price	ceiling(price)
13.25	14
16	16
16	16
20.75	21
18.5	19
20.75	21
20.75	21
16.5	17

2) Floor ()

```
2    -- floor()
3 •  select floor(price) from pizza_sales_book limit 10;
```



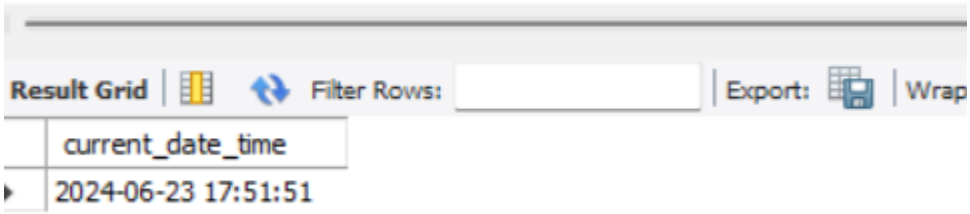
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

floor(price)
13
16
16
20
18
20
20
16
16
16

19.Date Functions.

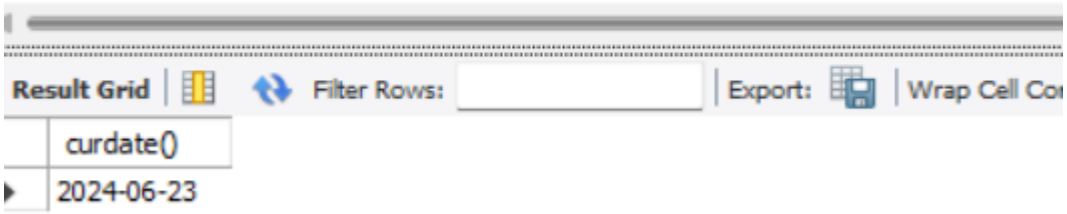
1)Now ()

```
3      -- Now() function
4 •    select Now() as current_date_time;
```



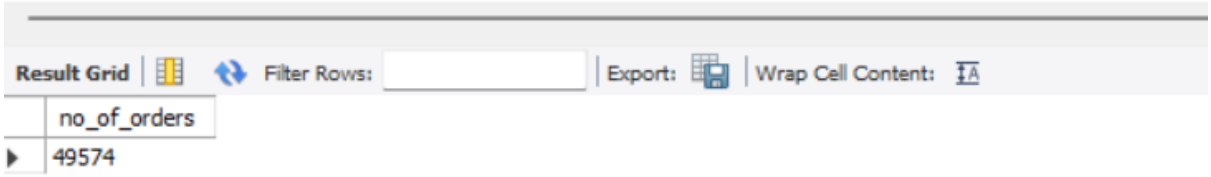
2) curdate ()

```
2      -- curdate()
3 •    select curdate();
4
```



20.Write a query to fetch number of orders in table

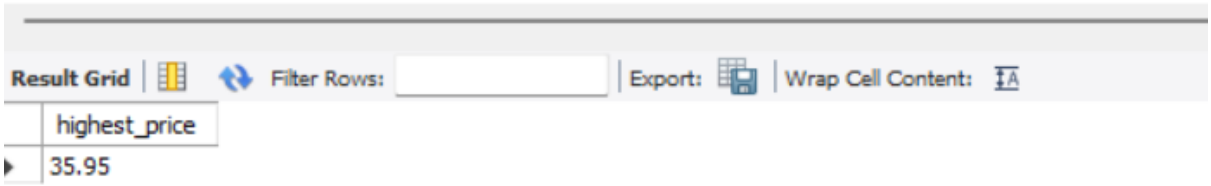
```
3    -- 20.write a query to fetch number of orders in table
4    select count(id) as no_of_orders from pizza_sales_book;
5
```



no_of_orders
49574

21. Write a query to show highest price of pizza.

```
2    -- 21. write a query to show highest price of pizza.
3    select max(price) as highest_price from pizza_sales_book;
```



highest_price
35.95

22.Write a query to fetch number of pizza name by pizza type.

```
2     -- 22.write a query to fetch number of pizza name by pizza type.
3 •   select pizza_name,count(type) as no_of_pizza from pizza_sales_book
4     group by pizza_name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_name	no_of_pizza
hawaiian	2422
classic_dlx	2453
mexicana	1484
thai_ckn	2371
five_cheese	1409
ital_supr	1884
prsc_argla	1457
bbq_ckn	2432
the_greek	1420
spinach_supr	950

23.Write a query to fetch pizza name whose number of types are more than 2000.

```
3     -- 23.write a query to fetch pizza name whose number of types are more than 2000.
4 •   select pizza_name,count(type) as no_of_pizza from pizza_sales_book
5     group by pizza_name
6     having count(type)>2000;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_name	no_of_pizza
hawaiian	2422
classic_dlx	2453
thai_ckn	2371
bbq_ckn	2432
pepperoni	2418
cali_ckn	2370

24.Write a query to find highest price of pizza using subquery.

```
2     -- 24.write a query to find highest price of pizza using subquery.
3     select distinct pizza_name,size,type,price from pizza_sales_book
4     where price=(select max(price) from pizza_sales_book);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_name	size	type	price
the_greek	XXL	classic	35.95

25 Write a query to find 2nd highest price of pizza using subquery

```
3     -- 25 Write a query to find 2nd highest price of pizza using subquery
4     select pizza_name,type,size,price from pizza_sales_book
5     where price=(select max(price) from pizza_sales_book
6     where price <(select max(price) from pizza_sales_book));
7
8     select pizza_name,type,size,price from pizza_sales_book
9     where price <(select max(price) from pizza_sales_book)
10    order by price desc limit 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

pizza_name	type	size	price
the_greek	classic	XL	25.5

26.Write a query to find the pizza names should match with the price of 12 using subquery.

```
3    -- 26.write a query to find the pizza names should match with the price of 12 using subquery.
4    select order_id,pizza_name,type,size,price from pizza_sales_book
5    where (pizza_name,type) IN
6    (select pizza_name,type from pizza_sales_book
7    where price IN (12));
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

order_id	pizza_name	type	size	price
2015-000002	classic_dlx	classic	M	16
2015-000002	mexicana	veggie	M	16
2015-000006	the_greek	classic	S	12
2015-000009	mexicana	veggie	S	12
2015-000009	ital_cpclo	classic	L	20.5
2015-000009	veggie_veg	veggie	S	12
2015-000009	green_garden	veggie	S	12
2015-000009	classic_dlx	classic	S	12
2015-000010	mexicana	veggie	L	20.25
2015-000013	mexicana	veggie	L	20.25

27.write a query to find pizza_sales_book id,table2

```
3    -- 27.write a query to find pizza_sales_book id,table2
4    select pizza_sales_book.pizza_id,table2.id,pizza_sales_book.pizza_name,pizza_sales_book.type,pizza_sales_book.price,table2.customer_name
5    from pizza_sales_book
6    inner join table2
7    On pizza_sales_book.pizza_id=table2.id;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_id	id	pizza_name	type	price	customer_name
1	1	hawaiian	classic	13.25	akhilesh
2	2	classic_dlx	classic	16	sanjay
3	3	mexicana	veggie	16	roshan
4	4	thai_ckn	chicken	20.75	niket
5	5	five_cheese	veggie	18.5	pravin
6	6	ital_supr	supreme	20.75	ashish
7	7	prsc_argla	supreme	20.75	ratnesh

28 Create View

```
3    -- create View
4 •  create view detailView as select pizza_id,pizza_name,type,size from pizza_sales_book
5    where pizza_id<20;
6 •  select* from detailView;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

pizza_id	pizza_name	type	size
1	hawaiian	classic	M
2	classic_dlx	classic	M
3	mexicana	veggie	M
4	thai_ckn	chicken	L
5	five_cheese	veggie	L
6	ital_supr	supreme	L
7	prsc_argla	supreme	L
8	ital_supr	supreme	M
9	ital_supr	supreme	M
10	ital_supr	supreme	M