





Queries:

Query: Write a query to find out which shop was frequented most by the customers.

```
select shop_no,shop_name,count(shop_no)
as number_of_orders from food_shops
join food_order on shop_number=shop_no
group by shop_no,shop_name
order by number_of_orders
desc limit 1;
```

1	set search_path to amusment_park;
2	select shop_no,shop_name ,count(shop_no)
3	as number_of_orders from food_shops
4	join food_order on shop_number=shop_no
5	group by shop_no,shop_name
6	order by number_of_orders
7	desc limit 1;

Data Output	Explain	Messages	Notifications
	shop_no [PK] character varying 	shop_name character varying 	number_of_orders bigint 
1	S03	The Veg Tickle	5

Query: Write a query to find out the dish that was ordered most by the customers.

```
select item_no,item_name,count(item_no)
as no_of_orders from food_order
join food_items on item_no=food_item_no
group by item_no,item_name
order by no_of_orders desc limit 1;
```

```

1 set search_path to amusment_park;
2 select item_no,item_name, count(item_no)
3 as no_of_orders from food_order
4 join food_items on item_no=food_item_no
5 group by item_no,item_name
6 order by no_of_orders
7 desc limit 1 ;

```

Data Output Explain Messages Notifications

	item_no [PK] integer	item_name character varying	no_of_orders bigint
1	101	Chicken Makhani	3

Query: Write a query to find out which customer ordered the most food items.

select cust_id,cust_name,count(cust_id)

as no_of_orders from food_order

natural join customer

group by cust_id,cust_name

order by no_of_orders desc limit 1;

```

1 set search_path to amusment_park;
2 select cust_id,cust_name, count(cust_id)
3 as no_of_orders from food_order
4 natural join customer
5 group by cust_id,cust_name
6 order by no_of_orders
7 desc limit 1;

```

Data Output Explain Messages Notifications

	cust_id character varying	cust_name character varying (50)	no_of_orders bigint
1	110214	Prachi	3




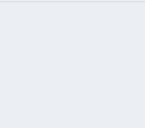
Query: Write a query to display the food items ordered by the customer having customer id= '110214'.

```
select cust_name, item_name from food_order  
join food_items on food_item_no=item_no  
natural join customer where cust_id='110214';
```

```

1  set search_path to amusement_park;
2  select cust_name,item_name from food_order
3  join food_items on food_item_no=item_no
4  natural join customer where cust_id='110214';

```

Data Output	Explain	Messages	Notifications
 cust_name character varying (50)		item_name character varying	
1 Prachi		Chicken Makhani	
2 Prachi		chicken with chestnuts	
3 Prachi		Szechwan Chilli Chicken	

Query: Write a query to display the name of the shop having the most items.

```
select shop_no,shop_name,count(item_no) as no_of_items  
from food_shop_item_relation natural join food_shops  
group by shop_no,shop_name  
order by no_of_items desc limit 1;
```

```

1 set search_path to amusment_park;
2 select shop_no,shop_name, count(item_no) as no_of_items
3 from food_shop_item_relation natural join food_shops
4 group by shop_no,shop_name
5 order by no_of_items
6 desc limit 1;
7

```

Data Output Explain Messages Notifications

	shop_no character varying	shop_name character varying	no_of_items bigint	
1	S03	The Veg Tickle	5	

Query: Write a query to display the names of items that the customers have not ordered.

select item_no,item_name from food_items

where item_no not in

(select distinct food_item_no as item_no from food_order);

```

1 set search_path to amusment_park;
2 select item_no,item_name from food_items
3 where item_no not in
4 (select distinct food_item_no
5  as item_no from food_order);

```

Data Output Explain Messages Notifications

	item_no [PK] integer	item_name character varying	
1	102	Samosas	
2	105	Jalebi	
3	107	Hot and Sour Soup	
4	108	Quick Noodles	
5	110	Spring Rolls	
6	114	Pimientos de Padron	
7	115	Tortilla	
8	116	Key lime pie	
9	117	Tater tots	
10	118	Cobb salad	
11	119	Twinkies	
12	120	Thin crust pizza	
13	122	Pineapple salad	

Query: Write a query to display the most popular dish among women.

select item_no,item_name from food_order

natural join customer join food_items on food_item_no=item_no

where gender='F' group by item_no

order by count(item_no) desc limit 1;

```

1 set search_path to amusment_park;
2 select item_no,item_name from food_order
3 natural join customer join food_items
4 on food_item_no=item_no
5 where gender='F'
6 group by item_no
7 order by count(item_no)
8 desc limit 1;

```

Data Output	Explain	Messages	Notifications
<div> <div>▲</div> <div> <div>item_no</div> <div>[PK] integer</div> <div>✎</div> </div> </div>	<div> <div>item_name</div> <div>character varying</div> <div>✎</div> </div>		
1	101	Chicken Makhani	

Query: Write a query to list the invoice numbers and their total amount.

```

set search_path to amusment_park;

select invoice_number,sum(rate*qty) as total_price
from invoice natural join invoice_details
natural join items group by(invoice_number);

```

```

1 set search_path to amusment_park;
2 select invoice_number,sum(rate*qty) as total_price
3 from invoice natural join invoice_details
4 natural join items group by(invoice_number);
5

```

Data Output Explain Messages Notifications

	invoice_number [PK] integer	total_price numeric	
1	12114	27000	
2	12118	32000	
3	12119	3600	
4	12116	10000	
5	12117	4500	
6	12112	13200	
7	12120	25200	
8	12115	70000	
9	12111	24000	
10	12113	3000	
11	12110	1600	

Query: Write a query to display the details of the customer who spent the highest amount at once.

```
set search_path to amusment_park;
```

```
select cust_name, phone, email, grand_total, purchase_date
```

```
from (select distinct invoice_number, sum(price) as grand_total
```

```
from (select invoice_number, (rate*qty) as price
```

```
from invoice natural join invoice_details natural join items)
```

```
as prices group by invoice_number order by grand_total desc limit 1)
```

```
as highest_total join invoice
```

```
on invoice.invoice_number=highest_total.invoice_number natural join customer;
```

```

1 select cust_name,phone,email,grand_total,purchase_date
2 from (select distinct invoice_number,sum(price) as grand_total
3       from (select invoice_number,(rate*qty) as price
4             from invoice natural join invoice_details natural join items)
5       as prices group by invoice_number order by grand_total desc limit 1)
6       as highest_total join invoice
7       on invoice.invoice_number=highest_total.invoice_number natural join customer ;

```

Data Output Explain Messages Notifications

	cust_name character varying (50)	phone character varying	email character varying (50)	grand_total numeric	purchase_date date	
1	Avi	9894634586	avi29@gmail.com	70000	2020-10-11	

Query: Write a query to display the customer id and invoice number of those who purchased items between 12:00 pm and 4:00 pm.

select * from invoice

where purchase_time between '12:00:00' and '16:00:00';


```

1 select * from invoice
2 where purchase_time between '12:00:00' and '16:00:00';

```

Data Output Explain Messages Notifications

	invoice_number [PK] integer	cust_id character varying	purchase_date date	purchase_time time without time zone
1	12110	110215	2020-04-28	14:08:45
2	12111	110215	2020-04-28	14:16:43
3	12112	110220	2020-07-20	15:00:07
4	12114	110222	2020-12-13	12:32:58
5	12115	110226	2020-10-11	15:10:12
6	12118	110229	2020-11-29	15:00:24
7	12119	110229	2020-11-29	15:03:25
8	12120	110230	2021-02-04	12:35:52

Query: Write a query to display the ride that generates the most revenue.

set search_path to amusment_park;

select ride_name, sum(no_of_tickets*price) as total_revenue

from ride_ticket natural join ride

group by ride_id, ride_name

order by total_revenue

desc limit 1;

```

1  set search_path to amusment_park;
2  select ride_name,sum(no_of_tickets*price) as total_revenue
3  from ride_ticket natural join ride
4  group by ride_id,ride_name
5  order by total_revenue
6  desc limit 1;

```

Data Output				Explain	Messages	Notifications
	ride_name character varying		total_revenue numeric			
1	Balloon Race		4400			

Query: Write a query to display the customer who has been to all rides.

set search_path to amusment_park;

select cust_name, phone, email from customer

where cust_id in (select cust_id

from (select distinct cust_id, ride_id

from ride_ticket)

as c_r group by c_r.cust_id

having count(c_r.cust_id)

in (select count(ride_id) from ride));

```

1 set search_path to amusment_park;
2 select cust_name,phone,email from customer
3 where cust_id in (select cust_id
4                   from (select distinct cust_id,ride_id
5                         from ride_ticket)
6                   as c_r group by c_r.cust_id
7                   having count(c_r.cust_id)
8                   in (select count(ride_id) from ride));

```

	Data Output	Explain	Messages	Notifications
	<div> <div>cust_name</div> <div>character varying (50)</div> </div>	<div> <div>phone</div> <div>character varying</div> </div>	<div> <div>email</div> <div>character varying (50)</div> </div>	
1	Malavika	8469717232	mal@gmail.com	

Query: Write a query to display the contractual employee with the longest duration of the contract.

```

set search_path to amusment_park;

select emp_name,profession,age(end_date,start_date)
as length_of_contract from contractual_employee
natural join employee order by length_of_contract
desc limit 1;

```

```

1 set search_path to amusment_park;
2 select emp_name,profession,AGE(end_date,start_date)
3 as length_of_contract from contractual_employee
4 natural join employee order by length_of_contract
5 desc limit 1;

```

	Data Output	Explain	Messages	Notifications
	<div> <div>emp_name</div> <div>character varying (50)</div> </div>	<div> <div>profession</div> <div>character varying</div> </div>	<div> <div>length_of_contract</div> <div>interval</div> </div>	
1	Eden Mitchell	technician	5 years	

Query: Write a query to display the top three employees having the most expensive contracts.

```

set search_path to amusment_park;

```

```

with wages_per_year_employee_rel as
(select years.emp_id, years.profession,
round(years.total_contract_wages/(years.end_year-years.start_year))
as wages_per_year from
(select*,extract(year from start_date)
as start_year,extract(year from end_date)
as end_year from contractual_employee) as
years) select emp_name, profession, email,wages_per_year
from wages_per_year_employee_rel
join employee on wages_per_year_employee_rel.emp_id=employee.emp_id
order by wages_per_year_employee_rel.wages_per_year
desc limit 3;

```

```

1  set search_path to amusment_park;
2  with wages_per_year_employee_rel as
3  (select years.emp_id , years.profession ,
4   round(years.total_contract_wages/(years.end_year-years.start_year))
5   as wages_per_year from
6  (select *,  EXTRACT(YEAR FROM start_date)
7   as start_year, EXTRACT(YEAR FROM end_date)
8   as end_year from contractual_employee) as
9  years) select  emp_name, profession, email,  wages_per_year
10 from wages_per_year_employee_rel
11 join employee on wages_per_year_employee_rel.emp_id = employee.emp_id
12 order by wages_per_year_employee_rel.wages_per_year
13 desc limit 3;

```

Data Output Explain Messages Notifications

	emp_name character varying (50)	profession character varying	email character varying (50)	wages_per_year double precision
1	Anya Cummings	comedian	an12@gmailcom	60000
2	Lilah Sandoval	musician	lis_san@gmail.com	40000
3	Deon Stephens	musician	Deon_stephens@gmail.com	40000

Query: Write a query to display the most expensive event.

```
set search_path to amusment_park;
```

```
select event_name,rate from events
```

```
natural join event_tickets
```

```
order by rate desc limit 1;
```

```
1 set search_path to amusment_park;  
2 select event_name,rate from events  
3 natural join event_tickets  
4 order by rate desc limit 1;
```

Data Output Explain Messages Notifications

	event_name character varying (20)	rate integer	
1	puppet show	1000	

Query: Write a query to display the event that generated the most revenue.

```
set search_path to amusment_park;
```

```
with tp as (select event_id, (no_of_seats*rate)
```

```
as ticket_price from event_tickets)
```

```
select event_id, event_name,sum(ticket_price)
```

```
as revenue from tp natural join events
```

```
group by tp.event_id,events.event_id
```

```
order by revenue desc limit 1;
```

```

1 set search_path to amusment_park;
2 with tp as (select event_id,(no_of_seats*rate)
3             as ticket_price from event_tickets)
4 select event_id,event_name,sum(ticket_price)
5 as revenue from tp natural join events
6 group by tp.event_id,events.event_id
7 order by revenue desc limit 1;

```

Data Output Explain Messages Notifications

	event_id character varying	event_name character varying (20)	revenue bigint	
1	e109	magic show	24500	

Query: Write a query to display the count of each Photo ID type.

set search_path to amusment_park;

select id_type,count(*) from photoidproof group by id_type;

```

1 set search_path to amusment_park;
2 select id_type,count(*) from photoidproof
3 group by id_type;

```

Data Output Explain Messages Notifications

	id_type character varying (50)	count bigint	
1	Aadhar	11	
2	Voter_id	7	
3	PAN Card	4	
4	Passport	7	
5	Driving license	11	

Query: Write a query to display the ratio of male is to female in employees.

set search_path to amusment_park;

select

(cast((select count(*) from employee where gender='M') as float)/

(cast((select count(*) from employee where gender='F') as float))

as Ratio_Male_is_to_female;

```
1 set search_path to amusment_park;
2 SELECT
3     (CAST((SELECT COUNT(*) FROM employee WHERE Gender='M') AS FLOAT) /
4     CAST((SELECT COUNT(*) FROM employee WHERE Gender='F') AS FLOAT))
5     AS Ratio_Male_is_to_female;
6
```

Data Output Explain Messages Notifications

	ratio_male_is_to_female double precision	
1	1.75	

Query: Write a query to display the list of those items whose revenue decreased from december 2020 to january 2021.

set search_path to amusment_park;

with dec_revenue as (

```
    select item_name, sum(rate*qty) as dec_revenue
    from food_order join food_items on item_no=food_item_no
    where date_part('month',order_date)=12
    and date_part('year',order_date)=2020
    group by item_name)
```

, jan_revenue as (

```
    select item_name, sum(rate*qty) as jan_revenue
    from food_order join food_items on item_no=food_item_no
    where date_part('month',order_date)=1
    and date_part('year',order_date)=2021
    group by item_name)
```

select * from dec_revenue join jan_revenue

on jan_revenue.item_name=dec_revenue.item_name

where dec_revenue > jan_revenue;

```
1  set search_path to amusment_park;
2  with dec_revenue as (
3      select item_name, sum(rate*qty) as dec_revenue
4      from food_order join food_items on item_no=food_item_no
5      where date_part('month',order_date)=12
6      and date_part('year',order_date)=2020
7      group by item_name)
8
9  , jan_revenue as (
10     select item_name, sum(rate*qty) as jan_revenue
11     from food_order join food_items on item_no=food_item_no
12     where date_part('month',order_date)=1
13     and date_part('year',order_date)=2021
14     group by item_name)
15
16  select * from dec_revenue join jan_revenue
17  on jan_revenue.item_name=dec_revenue.item_name
18  where dec_revenue > jan_revenue;
```

Data Output Explain Messages Notifications

	<div>item_name</div> <div>character varying</div>	<div>dec_revenue</div> <div>numeric</div>	<div>item_name</div> <div>character varying</div>	<div>jan_revenue</div> <div>numeric</div>	
1	Chicken Makhani	7750	Chicken Makhani	6500	
2	Mix fruit smoothie	750	Mix fruit smoothie	600	

PRACTICE QUERIES:

Query: Write a query to display the customers who have used Aadhar to register.

```
1 set search_path to amusment_park;
2 select cust_name,pid,image_link
3 from customer join photoidproof
4 on photoid_number=pid
5 where id_type='Aadhar';
6
```

	Data Output	Explain	Messages	Notifications
	cust_name character varying (30)	pid character varying (20)	image_link text	
1	Malavika	123456789011	https://quikchex.in/wp-content/uploads/2019/03/aadhar-card-sample-picture.jpg	
2	Dhruv	562390881111	https://i.pinimg.com/originals/bf/db/37/bfdb3796f2848739ade77e73e905068e.jpg	
3	Saumya	852165493337	https://sl.sbs.com.au/public/image/file/4da5571b-ab98-4e3c-80ef-44ede2a089bc/crop/16x9_large	
4	Lekha	985685221243	https://5.imimg.com/data5/NK/QQ/YH/SELLER-63858991/aadhaar-card-sample-500x500.jpg	
5	Jeffrey	895623234785	https://eaaadharcards.in/wp-content/uploads/2019/05/Aadhar-Card-PVC.jpeg	

Query: Write a query to display the shop that can accommodate the maximum number of people.

```
1 set search_path to amusment_park;
2 select * from food_shops
3 order by capacity
4 desc limit 1;
```




	Data Output	Explain	Messages	Notifications
	shop_no [PK] character varying	shop_name character varying	capacity integer	shop_location character varying
1	S03	The Veg Tickle	60	loc_01

Query: Write a query to display the food items in the range 100-400.

```

1 set search_path to amusment_park;
2 select * from food_items
3 where rate between 100 and 400;

```

Data Output	Explain	Messages	Notifications
	item_no [PK] integer 	item_name character varying 	rate numeric 
1	101	Chicken Makhani	250
2	103	Matar paneer	200
3	104	Dhokla	150
4	106	chicken with chestnuts	300
5	107	Hot and Sour Soup	400
6	109	Szechwan Chilli Chicken	380
7	110	Spring Rolls	399
8	111	Patatas bravas	350
9	112	Paella Valenciana	300
10	113	Gazpacho	299
11	116	Key lime pie	250
12	117	Tater tots	280
13	118	Cobb salad	150
14	119	Twinkies	200
15	120	Thin crust pizza	380
16	121	Mix fruit smoothie	150
17	122	Pineapple salad	120

Query: Write a query to find out the customer who filed maximum complaints of lost items.

```

1 select cust_id,cust_name,count(cust_id)
2 as no_of_complaints from lost_and_found
3 natural join customer group by cust_id,cust_name
4 order by no_of_complaints desc limit 1;

```

Data Output Explain Messages Notifications

	cust_id character varying	cust_name character varying (50)	no_of_complaints bigint	
1	110214	Prachi	5	

Query: Write a query to list the customers who have purchased souvenir items.

```

1 select * from customer
2 where cust_id in (select distinct cust_id from invoice);

```

Data Output Explain Messages Notifications

	cust_id [PK] character varying (20)	cust_name character varying (50)	gender character (1)	email character varying (50)	phone character varying	pid character varying (20)
1	110215	Nafeeza	F	naf12ba@gmail.com	9941241221	MZH2380426
2	110220	Lekha	F	cat2021@gmail.com	9429199532	985685221243
3	110222	Ruben	M	joseph67@gmail.com	8427183133	TN3420120005134
4	110226	Avi	F	avi29@gmail.com	9894634586	BNZPM2501F
5	110227	Seema	F	bist2323@gmail.com	9898764356	AN0120130003278
6	110228	Poojak	M	vag234rock@gmail.com	8756345466	ANRPM2537J
7	110229	Pruthvi	M	nagpal456@gmail.com	7845321211	GKC1134212
8	110230	Jeffrey	M	james567@gmail.com	7878912677	895623234785

Query: Write a query to list the top five souvenir items sold.

```
1 select item_code,item_name,sum(qty) as total_items_sold
2 from items natural join invoice_details group by item_code,item_name
3 order by total_items_sold desc limit 5;
```

Data Output Explain Messages Notifications

	item_code [PK] character varying	item_name character varying	total_items_sold bigint	
1	1110	Toy automobiles	40	
2	1106	Local liquor	28	
3	1102	Tshirts	24	
4	1108	Soft toys	20	
5	1104	Shot glasses	18	

Query: Write a query to select a customer who has generated the most number of invoices.



```
1 select cust_id,count(cust_id) as no_of_invoice ,cust_name
2 from invoice natural join customer group by cust_id,cust_name
3 order by no_of_invoice desc limit 1 ;
```

Data Output Explain Messages Notifications

	cust_id character varying	no_of_invoice bigint	cust_name character varying (50)	
1	110215	2	Nafeeza	

Query: Write a query to display the most expensive ride.

```
1 set search_path to amusment_park;
2 select ride_name,price
3 from ride order by price
4 desc limit 1;
```

Data Output	Explain	Messages	Notifications
 ride_name character varying 	price numeric 		
1	Condor	280	

Query: Write a query to display the rides and the revenue generated from least revenue to most revenue.

```

1  set search_path to amusment_park;
2  select ride_name,sum(no_of_tickets*price)
3  as total_revenue
4  from ride_ticket
5  natural join ride
6  group by ride_id,ride_name
7  order by total_revenue ;

```

Data Output Explain Messages Notifications

	ride_name character varying	total_revenue numeric	
1	Disko	400	
2	Breakdance	600	
3	Bumper boats	1200	
4	Drop tower	1250	
5	Caterpillar	1250	
6	Bumper cars	1500	
7	Alpine slide	1800	
8	Pendulum ride	2600	
9	Condor	3080	
10	Balloon Race	4600	

Query: Write a query to display the rides with no age and height constraints.

```

1 set search_path to amusment_park;
2 select ride_id, ride_name from ride
3 where min_height
4 is NULL and min_age is NULL;

```

Data Output	Explain	Messages	Notifications
ride_id [PK] character varying		ride_name character varying	
1 111		Merry Go Round	

Query: Write a query to display the ride having the most capacity.

```

1 set search_path to amusment_park;
2 select ride_id, ride_name, capacity
3 from ride order by capacity
4 desc limit 1;

```

Data Output	Explain	Messages	Notifications
ride_id [PK] character varying		ride_name character varying	capacity integer
1 111		Merry Go Round	30

Query: Write a query to display the salaried employee with the highest salary.

```

1 select emp_name,salary,post from salaried_employee
2 natural join employee order by salary desc limit 1;

```

Data Output	Explain	Messages	Notifications
<div>emp_name</div> <div>character varying (50)</div>	<div>salary</div> <div>integer</div>	<div>post</div> <div>character varying</div>	
1 Abbey Norman	110000	manager	

Query: Write a query to display the count of female managers.

```

1 select count(*) as no_of_female_managers
2 from salaried_employee |natural join employee
3 where post='manager' and gender='F' ;

```

Query Editor	Query History	Messages
Data Output	Explain	Notifications
<div>no_of_female_managers</div> <div>bigint</div>		
1	2	

Query: Write a query to display the name and phone number of the employees who have performed more than once.

1	select	emp_name,phone	
2	from	employee where emp_id in	
3	(select	emp_id from perfoms_at group by emp_id having count(emp_id)>1) ;	

Query Editor
Query History
Messages

Data Output
Explain
Notifications

	emp_name character varying (50)	phone character varying	
1	Anya Cummings	9558144454	
2	Lilah Sandoval	9558456454	
3	Barbara Acevedo	9125144454	
4	Rodolfo Harrison	9558144455	

Query: Write a query to display those contractual employees whose contracts are ending this month.

1	set	search_path to amusment_park;	
2	SELECT	* from contractual_employee	
3	where	date_part('month',end_date)=date_part('month',CURRENT_DATE)	
4	and	date_part('year',end_date)=date_part('year',CURRENT_DATE);	

Data Output
Explain
Messages
Notifications

	emp_id character varying	start_date date	end_date date	total_contract_wages integer	profession character varying	
1	empy9409Wc517	2020-06-01	2021-11-30	50000	dancer	
2	emp4yo4pf0c56	2020-06-01	2021-11-30	50000	dancer	

Query: Write a query to display the total number of event tickets sold.

```

1 set search_path to amusment_park;
2 select sum(no_of_seats) as total_tickets_sold from event_tickets;

```

Data Output Explain Messages Notifications

	total_tickets_sold bigint	
1	153	

Query: Write a query to display the event whose duration is the longest.

```

1 set search_path to amusment_park;
2 select event_name,duration
3 from events order by duration
4 desc limit 1 ;

```

Data Output Explain Messages Notifications

	event_name character varying (20)	duration numeric	
1	karaoke	60	

Query: Write a query to display the total revenue generated by all events.

```

1 set search_path to amusment_park;
2 select sum(no_of_seats*rate) as ticket_price
3 from event_tickets;

```

Data Output Explain Messages Notifications

	ticket_price bigint	
1	73915	

Query: Write a query to display the event with most performers.

```

1  set search_path to amusment_park;
2  select event_name,count(event_id) as no_of_performers
3  from events natural join performs_at natural join contractual_employee
4  group by event_id order by no_of_performers
5  desc limit 1 ;

```

Data Output Explain Messages Notifications

	event_name character varying (20)	no_of_performers bigint	
1	musical show	4	