

Ahmed Ramadan Elsayed

PostgreSQL

Lab2

1.

Query

Query History

```

1
2 create view total_payments as
3 select c.customer_id ,c.first_name || ' ' || c.last_name as
4 count(p.payment_id) as total_payment
5 from
6 customer c inner join payment p on c.customer_id = p.customer_id
7 group by c.customer_id,customer_name
8
9
10 select * from total_payments

```

Data Output

Messages

Notifications

≡+

📄

▼

📋

▼

🗑️

🗄️

⬇️

📈

SQL

Showing rows: 1 to 599

✎

Page No: 1 of 1

⏪

⏴

⏵

⏩

	customer_id integer 🔒	customer_name text 🔒	total_payment bigint 🔒
1	314	GEORGE LINTON	33
2	19	RUTH MARTINEZ	24
3	408	MANUEL MURRELL	30
4	443	FRANCISCO SKIDMORE	22
5	69	JUDY GRAY	25

2.

Query

Query History

1

2

3

create view children\_only as

select film\_id,title,rating from film where rating =

Data Output

Messages

Notifications

≡+

📄

▼

📋

▼


🗑️

🗄️




⬇️

📈

SQL

Showing rows: 1 to 223  Page No: 1 of 1 

⏪ ⏩ ⏴ ⏵

	film_id [PK] integer 	title text 	rating mpaa_rating 
1	7	AIRPLANE SIERRA	PG-13
2	9	ALABAMA DEVIL	PG-13
3	18	ALTER VICTORY	PG-13
4	28	ANTHEM LUKE	PG-13
5	33	APOLLO TEEN	PG-13

Activa  
Go to Se

Query Query History

```
1
2 create view films_category as
3 select film.title , category.name from
4 film inner join film_category
5 on film.film_id = film_category.film_id
6 inner join category
7 on film_category.category_id=category.category_id
```

Data Output Messages Notifications

Showing rows: 1 to 1000 Page No: 1 of 1

	title text	name text
1	ACADEMY DINOSAUR	Documentary
2	ACE GOLDFINGER	Horror
3	ADAPTATION HOLES	Documentary
4	AFFAIR PREJUDICE	Horror
5	AFRICAN EGG	Family

3.

4. Doesn't need index

9  
10  
11  
12  
13

EXPLAIN ANALYZE

SELECT \* FROM film WHERE rating = 'PG' AND rental\_duration= 7;

CREATE INDEX idx\_film\_rating\_duration ON film (rating, rental\_duration);

Data Output Messages Notifications

≡+

📄

▼

📋

▼

🗑️

🗄️

⬇️

📈

SQL

Showing rows: 1 to 7 

✎

 Page No: 1 of 1 

⏪

⏴

⏵

⏩

	QUERY PLAN
	text
3	Heap Blocks: exact=30
4	-> Bitmap Index Scan on idx_film_rating_duration (cost=0.00..4.52 rows=37 width=0) (actual time=0.076..0.076 rows=37)
5	Index Cond: ((rating = 'PG'::mpaa_rating) AND (rental_duration = 7))
6	Planning Time: 2.489 ms
7	Execution Time: 0.199 ms

Activate Windows

Go to Settings to activate Windows.

5.

Built-in functions :

```

13
14 v select rental_id ,rental_date,
15     age(CURRENT_DATE, rental_date::date) as days_left
16     from rental

```

Data Output Messages Notifications

Showing rows: 1 to 1000 Page No: 1 of 17

	rental_id [PK] integer	rental_date timestamp with time zone	days_left interval
1	2	2022-05-24 23:54:33+02	2 years 11 mons 16 days
2	3	2022-05-25 00:03:39+02	2 years 11 mons 15 days
3	4	2022-05-25 00:04:41+02	2 years 11 mons 15 days
4	5	2022-05-25 00:05:21+02	2 years 11 mons 15 days
5	6	2022-05-25 00:08:07+02	2 years 11 mons 15 days

1-

2-

```

18
19
20 select first_name || ' ' || last_name || ' ' || Extract(YEAR from create_date)
21 as name_year
22 from customer

```

Data Output Messages Notifications

Showing rows: 1 to 599 Page No: 1 of 1

	name_year text
1	MARY SMITH 2022
2	PATRICIA JOHNSON 2022
3	LINDA WILLIAMS 2022
4	BARBARA JONES 2022



Total rows: 599 Query complete 00:00:00.098 CRLF In 20 Cr

```

select payment_id , customer_id,amount,
CASE
  when amount > 8 THEN 'High'
  when amount > 5 Then 'Medium'
  Else 'low'
END AS payment_category
from
payment

```

Output Messages Notifications

payment_id	customer_id	amount	payment_category
integer	integer	numeric (5,2)	text
16051	269	0.99	low
16065	274	2.99	low
16109	297	0.99	low

3-

```

select payment_id , customer_id,
COALESCE(amount,0) AS amount
from
payment
ORDER BY
amount ASC;

```

Output Messages Notifications

payment_id	customer_id	amount
integer	integer	numeric
32015	15	0.00
32079	208	0.00
31996	560	0.00

4-

