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SQL SELECT, WHERE, DISTINCT practice

1. Write a select statement to return all columns and rows from the customer table.

Customer Data										
Data Output		Explain		Messages		Notifications		Actions		
	customer_id [PK] integer	store_id smallint	first_name character varying (45)	last_name character varying (45)	email character varying (50)	address_id smallint	activebool boolean	create_date date	last_update timestamp	
1	524	1	Jared	Ely	jared.elly@sakilacustomer....	530	true	2006-02-14	2013-05-10	
2	1	1	Mary	Smith	mary.smith@sakilacustom...	5	true	2006-02-14	2013-05-10	
3	2	1	Patricia	Johnson	patricia.johnson@sakilacu...	6	true	2006-02-14	2013-05-10	
4	3	1	Linda	Williams	linda.williams@sakilacusto...	7	true	2006-02-14	2013-05-10	
5	4	2	Barbara	Jones	barbara.jones@sakilacusto...	8	true	2006-02-14	2013-05-10	
6	5	1	Elizabeth	Brown	elizabeth.brown@sakilacu...	9	true	2006-02-14	2013-05-10	
7	6	2	Jennifer	Davis	jennifer.davis@sakilacusto...	10	true	2006-02-14	2013-05-10	
8	7	1	Maria	Miller	maria.miller@sakilacustom...	11	true	2006-02-14	2013-05-10	
9	8	2	Susan	Wilson	susan.wilson@sakilacusto...	12	true	2006-02-14	2013-05-10	
10	9	2	Margaret	Moore	margaret.moore@sakilacu...	13	true	2006-02-14	2013-05-10	
11	10	1	David	Garcia	da...	14	true	2006-02-14	2013-05-10	

2. Write a query to select first name, last name, and email from the customer table.

The screenshot shows the pgAdmin interface with the following details:

- Header:** Pools, Help, Dashboard, Properties, SQL, Statistics, Dependencies, Dependents, dvrental/post..., dvrental/post..., dvrental/...
- Toolbar:** Includes icons for file operations (New, Open, Save, Print, Find, Copy, Paste, Delete, Lock, Refresh), search, filter, and various execution and monitoring buttons.
- Connection Bar:** dvrental/postgres@PostgreSQL 13
- Navigation:** Query Editor (selected) and Query History.
- Query Editor Content:** A single-line query: `SELECT first_name, last_name, email FROM customer;`
- Data Output:** A table showing the results of the query:

	first_name	last_name	email
1	Jared	Ely	jared.elly@sakilacustomer.org
2	Mary	Smith	mary.smith@sakilacustomer.org
3	Patricia	Johnson	patricia.johnson@sakilacustomer.org
4	Linda	Williams	linda.williams@sakilacustomer.org
5	Barbara	Jones	barbara.jones@sakilacustomer.org
6	Elizabeth	Brown	elizabeth.brown@sakilacustomer.org

3. Write a query to return all rows and columns from the film table.

The screenshot shows the pgAdmin 4 interface. In the top bar, there are various icons for database management, followed by the connection information "dvdrental/postgres@PostgreSQL 13". Below the toolbar, the "Query Editor" tab is active, showing the query "SELECT * FROM film;". To the right of the editor is a "Scratch Pad" tab. The main area displays the "Data Output" tab, which contains the results of the query. The results are presented in a table with the following columns: film_id, title, description, release_year, language_id, rental_duration, rental_rate, length, replacement_cost, rating, mpaa_rating, and last_update. The data shows 9 rows of film entries, each with a unique ID and details about the movie's release year, duration, and rating.

film_id	title	description	release_year	language_id	rental_duration	rental_rate	length	replacement_cost	rating	mpaa_rating	last_update
1	133 Chamber Italian	A Fateful Reflection of a Moose And a Husband who must Overcome a Monkey in Nig...	2006	1	7	4.99	117	14.99	NC-17		2013-05-26 14:50:58
2	384 Grosse Wonderful	A Epic Drama of a Cat And a Explorer who must Redeem a Moose in Australia	2006	1	5	4.99	49	19.99	R		2013-05-26 14:50:58
3	8 Airport Pollock	A Epic Tale of a Moose And a Girl who must Confront a Monkey in Ancient India	2006	1	6	4.99	54	15.99	R		2013-05-26 14:50:58
4	98 Bright Encounters	A Fateful Yarn of a Lumberjack And a Feminist who must Conquer a Student in A Jet B...	2006	1	4	4.99	73	12.99	PG-13		2013-05-26 14:50:58
5	1 Academy Dinosaur	A Epic Drama of a Feminist And a Mad Scientist who must Battle a Teacher in The Can...	2006	1	6	0.99	86	20.99	PG		2013-05-26 14:50:58
6	2 Ace Goldfinger	A Astounding Epistle of a Database Administrator And a Explorer who must Find a Car...	2006	1	3	4.99	48	12.99	G		2013-05-26 14:50:58
7	3 Adaptation Holes	A Astounding Reflection of a Lumberjack And a Car who must Sink a Lumberjack in A ...	2006	1	7	2.99	50	18.99	NC-17		2013-05-26 14:50:58
8	4 Affair Prejudice	A Fanciful Documentary of a Frisbee And a Lumberjack who must Chase a Monkey in ...	2006	1	5	2.99	117	26.99	G		2013-05-26 14:50:58
9	5 African Egg	A Fast-Paced Documentary of a Pastry Chef And a Dentist who must Pursue a Forensi...	2006	1	6	2.99	130	22.99	G		2013-05-26 14:50:58

4. Write a query to return unique rows from the release_year column in the film table.

The screenshot shows the pgAdmin 4 interface. In the top bar, there are various icons for database management, followed by the connection information "dvdrental/postgres@PostgreSQL 13". Below the toolbar, the "Query Editor" tab is active, showing the query "SELECT DISTINCT release_year FROM film;". To the right of the editor is a "Scratch Pad" tab. The main area displays the "Data Output" tab, which contains the results of the query. The results are presented in a table with the following columns: release_year. The data shows 1 row with the value 2006.

release_year
2006

5. Write a query to return unique rows from the rental_rate column in the film table.

Query Editor Query History

```
1 SELECT DISTINCT rental_rate FROM film;
```

Data Output Explain Messages Notifications

	rental_rate
1	2.99
2	4.99
3	0.99

6. A customer left us some feedback about our store. Write a query to find her email address – for Nancy Thomas.

Query Editor Query History

```
1 SELECT email FROM customer
2 WHERE first_name='Nancy' AND last_name='Thomas';
```

Data Output Explain Messages Notifications

	email
1	nancy.thomas@sakilacustomer.org

7. We're trying to find a customer located at a certain address '259 Ipoh Drive' – can you find their phone number?

Query Editor Query History

```
1 SELECT phone FROM address
2 WHERE address= '259 Ipoh Drive';
```

Data Output Explain Messages Notifications

	phone
1	419009857119

8. Write a query from the customer table, where store id is 1 and address id is greater than 150.

dvrental/postgres@PostgreSQL 13 ✓

Query Editor Query History

```
1 SELECT * FROM customer
2 WHERE store_id='1' AND address_id>150;
```

Data Output Explain Messages Notifications

	customer_id [PK] integer	store_id smallint	first_name character varying (45)	last_name character varying (45)	email character varying (50)	address_id smallint	activebool boolean	create_date date	last_update timestamp without time zone
1	524	1	Jared	Ely	jared.ely@sakilacustomer...	530	true	2006-02-14	2013-05-26 14:49:45.738
2	148	1	Eleanor	Hunt	eleanor.hunt@sakilacusto...	152	true	2006-02-14	2013-05-26 14:49:45.738
3	149	1	Valerie	Black	valerie.black@sakilacusto...	153	true	2006-02-14	2013-05-26 14:49:45.738
4	152	1	Alicia	Mills	alicia.mills@sakilacustome...	156	true	2006-02-14	2013-05-26 14:49:45.738
5	155	1	Gail	Knight	gail.knight@sakilacustome...	159	true	2006-02-14	2013-05-26 14:49:45.738
6	156	1	Bertha	Ferguson	bertha.ferguson@sakilacu...	160	true	2006-02-14	2013-05-26 14:49:45.738
7	158	1	Veronica	Stone	veronica.stone@sakilacust...	162	true	2006-02-14	2013-05-26 14:49:45.738
8	159	1	Jill	Hawkins	jill.hawkins@sakilacustom...	163	true	2006-02-14	2013-05-26 14:49:45.738
9	161	1	Geraldine	Perkins	geraldine.perkins@sakilac...	165	true	2006-02-14	2013-05-26 14:49:45.738
10	163	1	Cathy	Spencer	cathy.spencer@sakilacust...	167	true	2006-02-14	2013-05-26 14:49:45.738
11	166	1	Lynn	Payne	lynn.payne@sakilacustome...	170	true	2006-02-14	2013-05-26 14:49:45.738

9. Write a query from the payment table where the amount is either 4.99 or 1.99.

Query Editor Query History

```
1 SELECT * FROM payment
2 WHERE amount='4.99' OR amount='1.99';
```

Data Output Explain Messages Notifications

	payment_id [PK] integer	customer_id smallint	staff_id smallint	rental_id integer	amount numeric (5,2)	payment_date timestamp without time zone
1	17504	341	1	1778	1.99	2007-02-16 17:23:14.996577
2	17512	343	2	1547	4.99	2007-02-16 00:10:50.996577
3	17520	344	2	1475	4.99	2007-02-15 19:36:27.996577
4	17523	345	1	1457	4.99	2007-02-15 18:44:15.996577
5	17525	345	2	2766	4.99	2007-02-19 16:13:41.996577
6	17531	347	1	3026	4.99	2007-02-20 10:16:26.996577
7	17549	352	1	1649	4.99	2007-02-16 07:48:59.996577
8	17550	352	1	1678	4.99	2007-02-16 09:36:54.996577
9	17551	352	1	1780	4.99	2007-02-16 17:40:11.996577
10	17552	352	2	3331	4.99	2007-02-21 08:06:19.996577
11	17557	354	1	2275	4.99	2007-02-18 04:59:55.996577
12	17564	356	1	2433	4.99	2007-02-18 16:38:43.996577
13	17566	357	1	1788	1.99	2007-02-16 18:15:44.996577
14	17567	357	2	1971	1.99	2007-02-17 07:52:25.996577
15	17575	359	2	1329	4.99	2007-02-15 09:53:32.996577
16	17576	359	2	1770	1.99	2007-02-16 16:36:21.996577
17	17578	359	1	2736	4.99	2007-02-19 14:11:46.996577
18	17583	361	2	2353	4.99	2007-02-18 11:21:51.996577
19	17584	361	2	2558	1.99	2007-02-19 01:37:42.996577

10. Write a query to return a list of transactions from the payment table where the amount is greater than 5.

Query Editor Query History

```
1 SELECT * FROM payment
2 WHERE amount>5;
```

Data Output Explain Messages Notifications

	payment_id [PK] integer	customer_id smallint	staff_id smallint	rental_id integer	amount numeric (5,2)	payment_date timestamp without time zone
1	17503	341	2	1520	7.99	2007-02-15 22:25:46.996577
2	17505	341	1	1849	7.99	2007-02-16 22:41:45.996577
3	17507	341	2	3130	7.99	2007-02-20 17:31:48.996577
4	17508	341	1	3382	5.99	2007-02-21 12:33:49.996577
5	17509	342	2	2190	5.99	2007-02-17 23:58:17.996577
6	17510	342	1	2914	5.99	2007-02-20 02:11:44.996577
7	17513	343	1	1564	6.99	2007-02-16 01:15:33.996577
8	17516	343	2	2461	6.99	2007-02-18 18:26:38.996577
9	17517	343	1	2980	8.99	2007-02-20 07:03:29.996577
10	17526	346	1	1994	5.99	2007-02-17 09:35:32.996577
11	17529	347	2	1711	8.99	2007-02-16 12:40:18.996577
12	17532	347	1	3092	8.99	2007-02-20 14:33:08.996577
13	17533	347	1	3326	7.99	2007-02-21 07:33:16.996577
14	17535	348	1	2041	8.99	2007-02-17 12:47:26.996577
15	17539	349	2	2987	6.99	2007-02-20 07:24:16.996577
16	17540	349	1	3067	8.99	2007-02-20 12:27:47.996577