

LAB 9

SQL Queries

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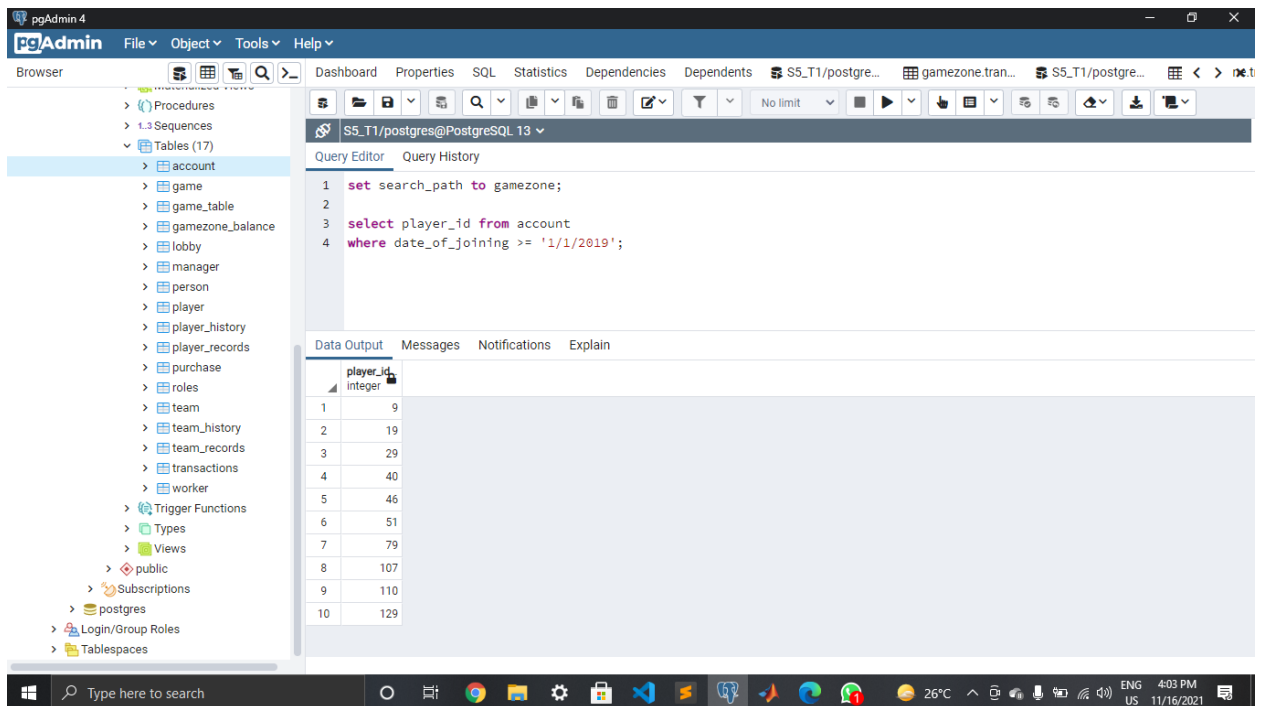
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1. List all the players who have joined the gamezone on or after 1/1/2019.

```
select player_id from account  
where date_of_joining >= '1/1/2019';
```



The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays a tree view of the database structure, with 'Tables (17)' expanded and 'account' selected. The 'Query Editor' pane on the right contains the following SQL query:

```
1 set search_path to gamezone;  
2  
3 select player_id from account  
4 where date_of_joining >= '1/1/2019';
```

Below the query editor, the 'Data Output' pane shows the results of the query in a table format:

	player_id integer
1	9
2	19
3	29
4	40
5	46
6	51
7	79
8	107
9	110
10	129

No of tuple = 10

2. Count the number of players, managers and employees present in the person table.

```

select user_type, count(*)
from person
group by user_type;

```

The screenshot shows a PostgreSQL query editor interface. The query editor contains the following SQL query:

```

1  set search_path to gamezone;
2
3  select user_type, count(*)
4  from person
5  group by user_type;
6

```

The results are displayed in a table with the following columns: **user_type** (character varying (20)) and **count** (bigint). The table contains 3 rows of data:

user_type	count
worker	31
manager	5
player	114

No of tuple = 3

3. Count the number of games that player can play.

```

select player_id, count(*)
from game, (select * from player join person on player_id=id) as T1
where T1.age > game.age and T1.height > game.height and
T1.weight > game.weight
group by player_id
order by player_id asc;

```

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays a tree view of the database structure, including tables like 'game', 'gamezone_balance', 'lobby', 'manager', and 'person'. The 'person' table is expanded, showing its columns: id, first_name, middle_name, last_name, age, contact_no, email_address, user_type, username, and password.

The central 'Query Editor' pane contains the following SQL query:

```

1 set search_path to gamezone;
2
3 select player_id, count(*)
4 from game, (select * from player join person on player_id=id) as T1
5 where T1.age > game.age and T1.height > game.height and T1.weight > game.weight
6 group by player_id
7 order by player_id asc;

```

The 'Data Output' pane on the right displays the results of the query as a table with two columns: 'player_id' (PK Integer) and 'count bigint'. The table contains 28 rows of data, with the last row truncated with an ellipsis.

At the bottom, the 'Messages' pane shows a status message: 'Successfully run: Total query runtime: 49 msec. 92 rows affected.'

No of tuple = 92

4. List all players whose age is greater than 18.

Select * from person

Where age >= 18 and user_type = 'player';

The screenshot shows the pgAdmin 4 interface. On the left, the 'person' table is selected under the '201901471_db' database. The 'Columns' tab for 'person' is open, showing fields like id, first_name, middle_name, last_name, age, contact_no, email_address, user_type, username, and password. The 'player' table is also visible below it. The main pane shows the 'Query Editor' with the following SQL query:

```
1 set search_path to "S5_T1";
2
3 select * from person
4 where age >= 18 and user_type = 'player';
5
```

The 'Data Output' tab shows the results of the query. A green message at the bottom right states: "Successfully run. Total query runtime: 68 msec. 93 rows affected." The table below shows the first 10 rows of the result set.

id	first_name	middle_name	last_name	age	contact_no	email_address	user_type	username	
87	135	Lew	omnis	Kuhn	51	1310560325	powlowski.winsona@exa	player	rosina17
88	136	Nysia	corrupti	Ratke	28	2609096083	crooks.brayan@exampl	player	maryjane76
89	137	Brent	ea	Koepp	64	9140532490	wbreitenberg@example	player	katheryn87
90	142	Mohammed	et	Hickle	24	5445732383	abigale22@example.or	player	dietrich.belle
91	145	Tony	dolores	Hamill	38	4288727961	zulauf.syble@example	player	jakubowski.orie
92	147	Annabel	qui	Dickens	18	7331599618	maureen98@example.or	player	nitzsche.vicente
93	149	Tate	et	Murray	34	9659913187	funk.lowell@example.	player	hahn.elta

No. of Tuples : 93

5. Count the number of transactions done by each player.

```
select player_id, transactions.account_no, count(*)
from account join transactions on
account.account_no=transactions.account_no
group by player_id, transactions.account_no
order by player_id asc;
```

The screenshot shows the pgAdmin 4 interface. On the left is a tree view of the database schema. The central pane shows a SQL query in the Query Editor, and the right pane shows the Data Output of the query.

Query Editor:

```

1 set search_path to gamezone;
2
3 select player_id, transactions.account_no, count(*)
4 from account join transactions on account.account_no=transactions.account_no
5 group by player_id, transactions.account_no
6 order by player_id asc;

```

Data Output:

player_id integer	account_no character (11)	count bigint
1	2	10611516539
2	3	11057083928
3	7	11118901469
4	9	11718226489
5	10	13688395931
6	11	13759862678
7	12	13854730734
8	13	14261807207
9	14	15490530594
10	15	16152875749
11	16	17888615471
12	17	17902533872
13	18	18360967566
14	19	19680768842
15	20	20011960128
16	21	21673438157
17	22	22664952762
18	23	23400546405
19	24	23409653133
20	25	24198565278
21	26	24925127755
22	27	25051839039

No. of Tuples : 114

6. List all the transactions in which the player gets rewarded the amount in Cash.

select * from transactions

where type = 'win' and method = 'Cash';

The screenshot shows the pgAdmin 4 interface. On the left, the 'Tables (17)' folder is expanded, showing a list of tables including 'account', 'game', 'game_table', 'gamezone_balance', 'lobby', 'manager', 'person', 'player', 'player_history', 'player_records', 'purchase', 'roles', 'team', 'team_history', 'team_records', 'transactions', 'worker', 'Trigger Functions', 'Types', 'Views', 'public', 'Subscriptions', 'postgres', 'Login/Group Roles', and 'Tablespaces'. The 'transactions' table is selected. The main pane shows the 'Query Editor' with the following SQL query:

```
1 set search_path to gamezone;
2
3 select * from transactions
4 where type = 'win' and method = 'Cash';
```

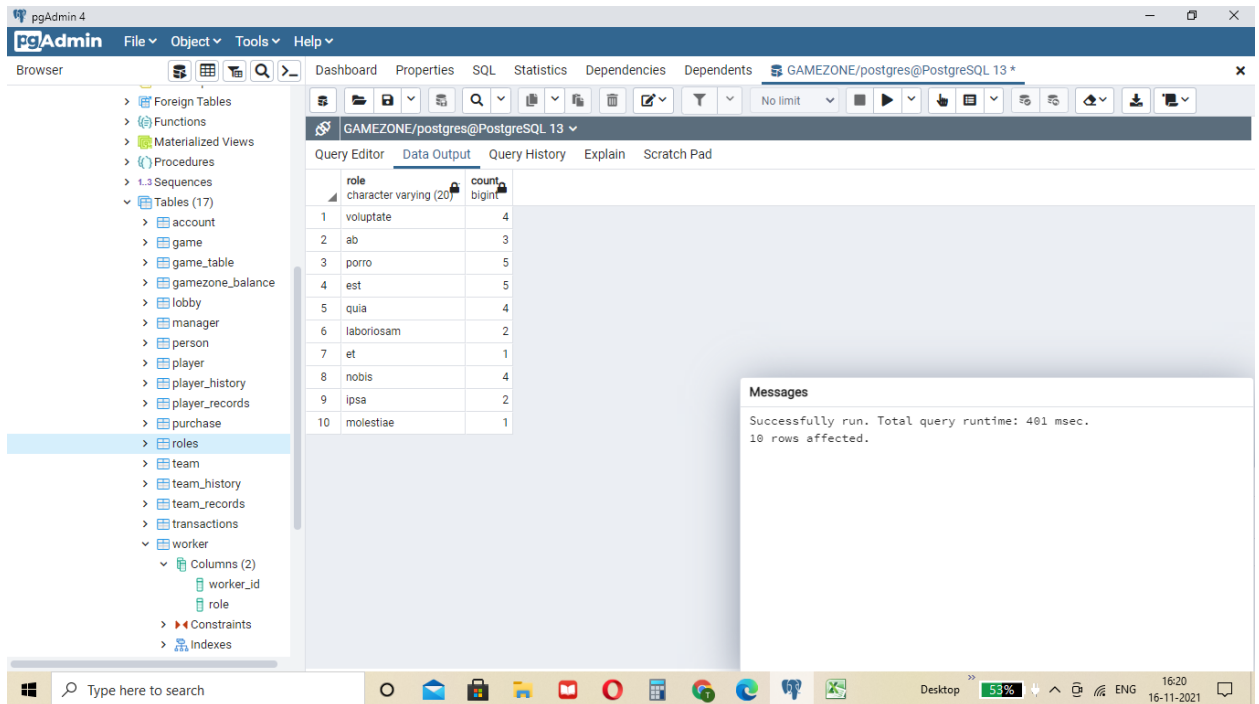
Below the query editor, the 'Data Output' tab is active, displaying the results of the query in a table format. The table has 7 columns: 'transaction_id', 'account_no', 'date_and_time', 'amount', 'type', and 'method'. The results show 10 rows of data, all with 'type' 'win' and 'method' 'Cash'.

transaction_id	account_no	date_and_time	amount	type	method
24	60614ugpy40bb50	1988-06-19 18:27:00	643	win	Cash
25	64965acnc44sb76	2019-11-01 15:50:00	1292	win	Cash
26	66059hdkw91le13	1982-06-10 22:35:00	1772	win	Cash
27	66961kmcq65mh53	1985-08-30 13:17:00	4325	win	Cash
28	68964vrfp61vw72	2005-09-28 02:08:00	1565	win	Cash
29	71858gofm63rx82	2013-12-08 04:27:00	1297	win	Cash
30	72987tpca81da88	1998-12-05 13:59:00	3630	win	Cash
31	77651glva74lp03	1996-10-14 13:29:00	988	win	Cash
32	81999dotc26kb79	1983-09-29 02:42:00	1109	win	Cash
33	87154owpe64pr72	1977-09-17 13:58:00	3383	win	Cash
34	89210xrhf19pk45	1970-02-07 20:09:00	2660	win	Cash
35	96784qnob47en76	1971-10-09 08:45:00	2848	win	Cash

No of tuple = 35

7. Count the number of worker for each role.

```
SELECT role, COUNT(*)
FROM worker
GROUP BY role;
```

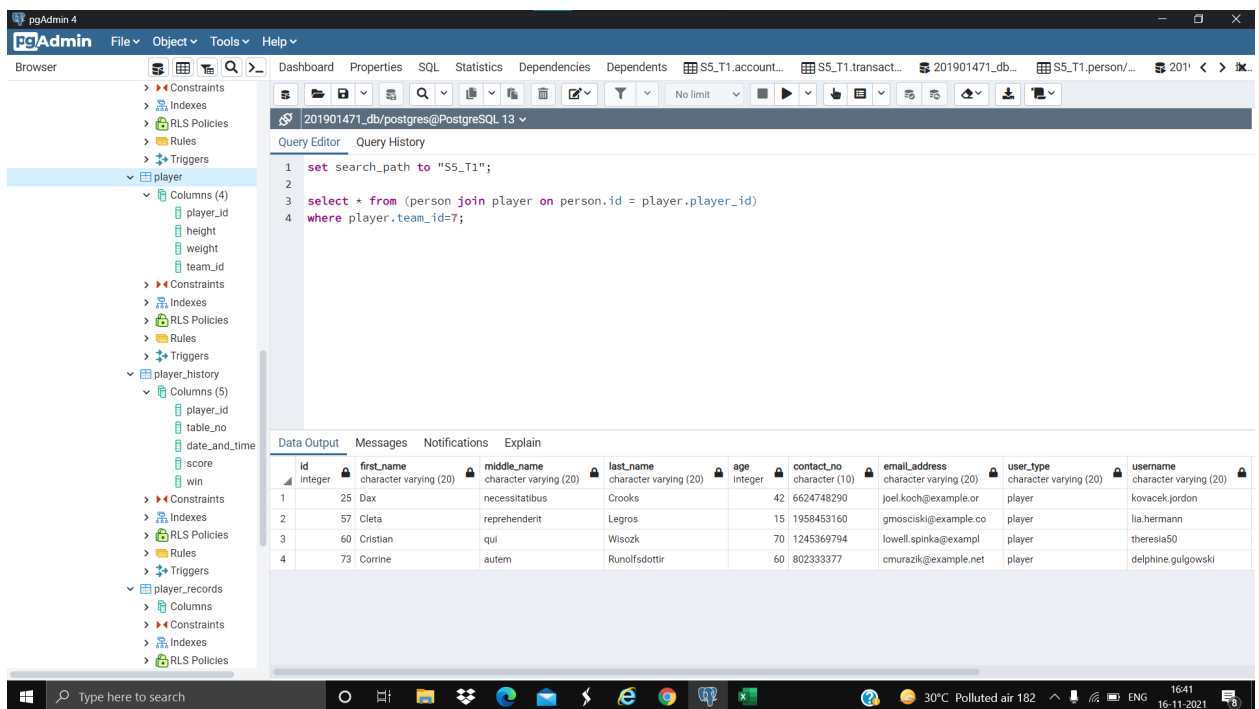


role	count
1 voluptate	4
2 ab	3
3 porro	5
4 est	5
5 quia	4
6 laboriosam	2
7 et	1
8 nobis	4
9 ipsa	2
10 molestiae	1

Messages
Successfully run. Total query runtime: 461 msec.
10 rows affected.

No of tuple = 10

8. Find details of players who have team_id 7.



```

1 set search_path to "S5_T1";
2
3 select * from (person join player on person.id = player.player_id)
4 where player.team_id=7;

```

id	first_name	middle_name	last_name	age	contact_no	email_address	user_type	username
1	25 Dax	necessitatibus	Crooks	42	6624748290	joel.koch@example.or	player	kovacek.jordon
2	57 Cleta	reprehenderit	Legros	15	1958453160	gmosciskl@example.co	player	theresia50
3	60 Cristian	qui	Wisozk	70	1245369794	lowell.spinka@exampl	player	delphine.gulgowski
4	73 Corrine	autem	Runolfsdottir	60	802333377	cmurazik@example.net	player	

No. of tuple : 4

9. Find details of workers who have more than 35000 salary.

```
select * from (person join worker on person.id=worker.worker_id
               join roles on worker.role = roles.r_name)
where roles.salary>=35000;
```

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays the database structure, with the 'worker' table under the 'roles' schema selected. The 'Query Editor' pane contains the following SQL query:

```
1 set search_path to "S5_T1";
2
3 select * from (person join worker on person.id=worker.worker_id
4               join roles on worker.role = roles.r_name)
5 where roles.salary>=35000;
```

The 'Data Output' pane shows the results of the query, which are 16 rows of worker details. The status bar at the bottom indicates 'Successfully run. Total query runtime: 217 msec. 16 rows affected.'

id	first_name	middle_name	last_name	age	contact_no	email_address	user_type	username
1	Mariane	tempore	Ebert	28	4525241104	jaylen67@example.com	worker	edd08
2	Hayley	officia	Zulauf	36	2433853467	vwindler@example.com	worker	darron04
3	Santiago	quidem	Harber	41	440802965	brycen.treutel@examp	worker	mayra.dooley
4	Judy	eveniet	Ebert	54	1418330653	o'conner.destini@exa	worker	donald26
5	Nannie	voluptas	Emmerich	29	1975972028	angelina.veum@exampl	worker	bartell.alice
6	Allie	quos	Rowe	34	1724718606	ressie.hessel@exampl	worker	smarks
7	Makayla	voluptatem	O'Reilly	25	8145301157	brandon71@example.co	worker	virgie.champlin
8	Mazie	et	Reilly	34	6586913855	zolfson@exampla.com	worker	olacoh
9	Hellen	et	Morissette	35	6494518760			

No. of tuple = 16