

LAB 10

Front-End Development

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We connect the database using PYTHON. First we install the “psycopg2” using the “pip install psycopg2” command.

Then we connect the out database using below code:

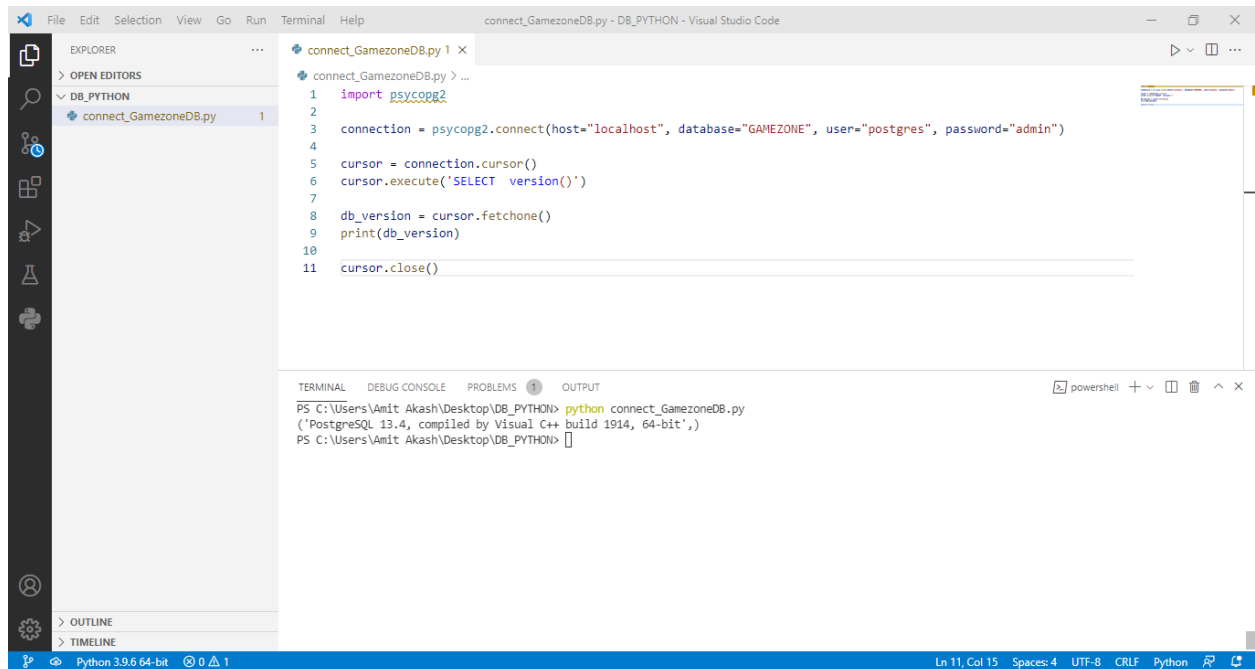
```
import psycopg2

connection = psycopg2.connect(host="localhost", database="GAMEZONE",
user="postgres", password="admin")

cursor = connection.cursor()
cursor.execute('SELECT version()')

db_version = cursor.fetchone()
print(db_version)

cursor.close()
```



- WE run the query to print the “manager” relation in our database.

Code:

```
import psycopg2

connection = psycopg2.connect(host="localhost", database="GAMEZONE",
user="postgres", password="admin")

cursor = connection.cursor()
cursor.execute('SELECT version()')

db_version = cursor.fetchone()
print(db_version)

query = "SELECT * FROM gamezone_db.manager"
cursor.execute(query)
rows = cursor.fetchall()
for r in rows:
    print(r)

cursor.close()
```

The screenshot shows the Visual Studio Code interface with a Python file named `connect_GamezoneDB.py`. The script uses the `psycopg2` library to connect to a PostgreSQL database named `GAMEZONE` on `localhost` with the `postgres` user and `admin` password. It executes a `SELECT version()` query and prints the result. Below the script, the terminal shows the command `python connect_GamezoneDB.py` being executed, and the output displays the PostgreSQL version and various configuration parameters.

```
3 connection = psycopg2.connect(host="localhost", database="GAMEZONE", user="postgres", password="admin")
4
5 cursor = connection.cursor()
6 cursor.execute('SELECT version()')
7
8 db_version = cursor.fetchone()
9 print(db_version)
10
11 query = "SELECT * FROM gamezone_db.manager"
12 cursor.execute(query)
13 rows = cursor.fetchall()
14 for r in rows:
15     print(r)
16
17 cursor.close()
```

Terminal Output:

```
PS C:\Users\Amit Akash\Desktop\DB_PYTHON> python connect_GamezoneDB.py
('PostgreSQL 13.4, compiled by Visual C++ build 1914, 64-bit',)
(1, 'fuga')
(4, 'ut')
(5, 'hic')
(6, 'vitae')
(8, 'exercitationem')
```

- We are going to run a query to add one game in “game” relation.
“game” relation before inserting.

The screenshot shows the pgAdmin 4 interface. The 'Query Editor' tab is active, displaying a query that sets the search path to `gamezone_db` and executes a `SELECT * FROM game` query. The 'Data Output' tab shows the results of the query, which is a table with 10 columns: `game_id` (PK integer), `game_name` (character varying (20)), `type` (character varying (20)), `mode` (character varying (20)), `price` (integer), `reward` (integer), `age` (integer), `height` (integer), and `weight` (integer). The table contains 17 rows of data.

game_id	game_name	type	mode	price	reward	age	height	weight
26	molestiae	Racing	offline	21270	541	54	162	46
27	quia	Racing	online	45817	637	22	146	56
28	enim	Sports	offline	77073	845	25	112	66
29	distinctio	Racing	offline	32322	715	40	194	45
30	quo	Sports	offline	60630	586	67	165	83
31	deleniti	Sports	offline	34702	962	39	107	47
32	praesentium	Action	offline	57266	1000	39	191	44
33	et	Adventure	offline	74332	903	6	200	20
34	quasi	Board	offline	12369	952	61	152	25
35	perferendis	Board	online	55065	966	8	130	51
36	consequatur	Racing	online	18211	928	45	166	63
37	in	Casino	offline	3730	898	53	162	61
38	quidem	Board	online	14569	928	11	167	62
39	temporibus	Sports	online	30750	745	55	163	73
40	rerum	Racing	offline	90598	583	8	191	62

Messages: Successfully run. Total query runtime: 849 msec. 40 rows affected.

Code:

```
import psycopg2

connection = psycopg2.connect(host="localhost", database="GAMEZONE",
user="postgres", password="admin")

cursor = connection.cursor()
cursor.execute('SELECT version()')

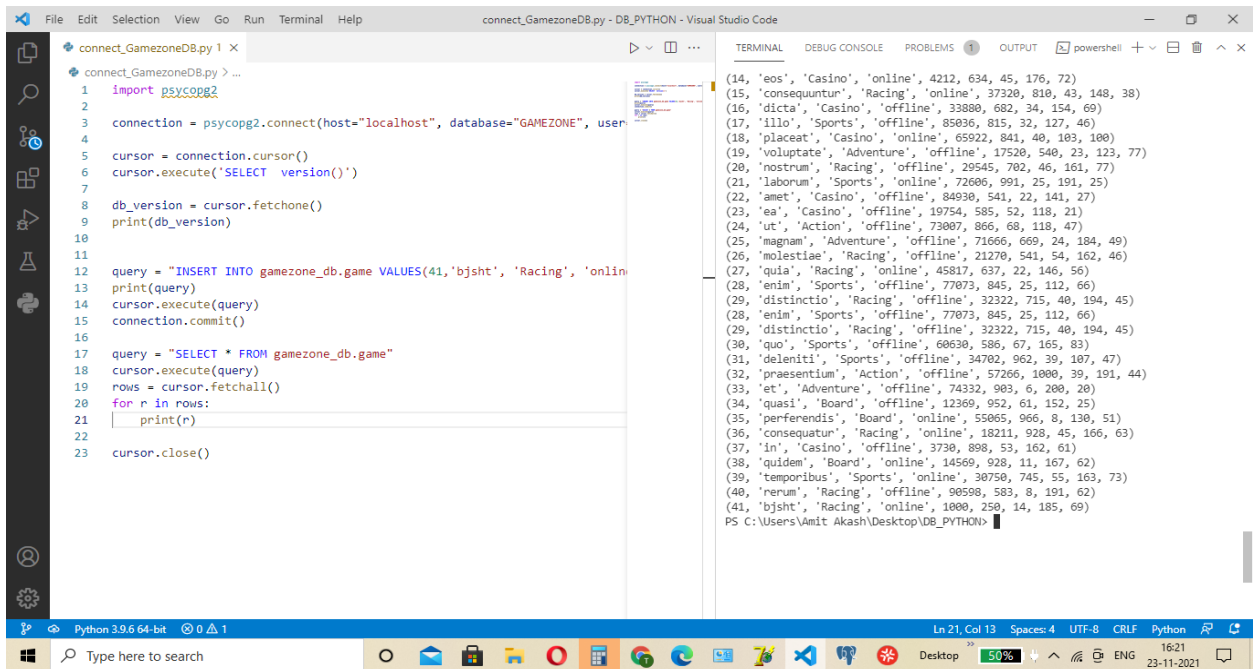
db_version = cursor.fetchone()
print(db_version)

query = "INSERT INTO gamezone_db.game VALUES(41,'bjsht', 'Racing',
'online', 1000, 250, 14, 185, 69)"
print(query)
cursor.execute(query)
connection.commit()

query = "SELECT * FROM gamezone_db.game"
cursor.execute(query)
rows = cursor.fetchall()
for r in rows:
    print(r)

cursor.close()
```

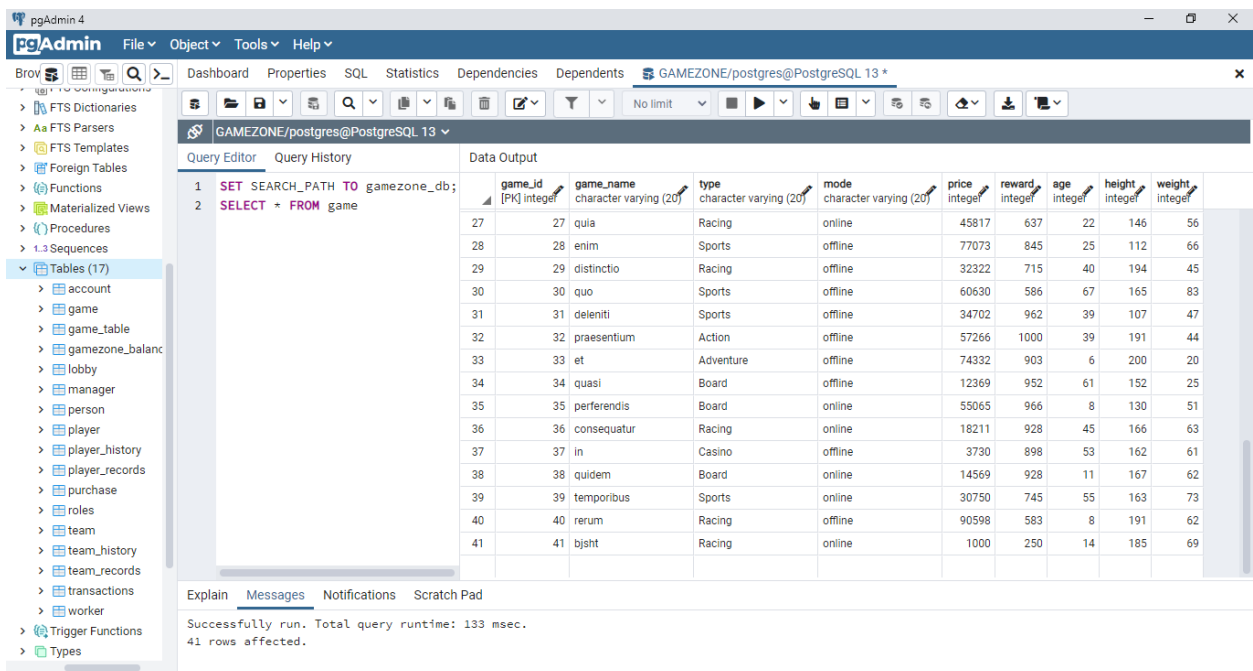
OUTPUT in terminal:



```
connect_GamezoneDB.py 1 X
connect_GamezoneDB.py > ...
1 import psycopg2
2
3 connection = psycopg2.connect(host="localhost", database="GAMEZONE", user=
4
5 cursor = connection.cursor()
6 cursor.execute('SELECT version()')
7
8 db_version = cursor.fetchone()
9 print(db_version)
10
11
12 query = "INSERT INTO gamezone_db.game VALUES(41,'bjsht', 'Racing', 'onlin
13 print(query)
14 cursor.execute(query)
15 connection.commit()
16
17 query = "SELECT * FROM gamezone_db.game"
18 cursor.execute(query)
19 rows = cursor.fetchall()
20 for r in rows:
21     print(r)
22
23 cursor.close()
```

(14, 'eos', 'Casino', 'online', 4212, 634, 45, 176, 72)
(15, 'consequuntur', 'Racing', 'online', 37320, 810, 43, 148, 38)
(16, 'dicta', 'Casino', 'offline', 33880, 682, 34, 154, 69)
(17, 'illo', 'Sports', 'offline', 85036, 815, 32, 127, 46)
(18, 'placeat', 'Casino', 'online', 65922, 841, 40, 103, 100)
(19, 'voluptate', 'Adventure', 'offline', 17520, 540, 23, 123, 77)
(20, 'nostrum', 'Racing', 'offline', 29545, 702, 46, 161, 77)
(21, 'laborum', 'Sports', 'online', 72606, 991, 25, 191, 25)
(22, 'amet', 'Casino', 'offline', 84930, 541, 22, 141, 27)
(23, 'ea', 'Casino', 'offline', 19754, 585, 52, 118, 21)
(24, 'ut', 'Action', 'offline', 73007, 866, 68, 118, 47)
(25, 'magnam', 'Adventure', 'offline', 71666, 669, 24, 184, 49)
(26, 'molestiae', 'Racing', 'offline', 21270, 541, 54, 162, 46)
(27, 'quia', 'Racing', 'online', 45817, 637, 22, 146, 56)
(28, 'enim', 'Sports', 'offline', 77073, 845, 25, 112, 66)
(29, 'distinctio', 'Racing', 'offline', 32322, 715, 40, 194, 45)
(28, 'enim', 'Sports', 'offline', 77073, 845, 25, 112, 66)
(29, 'distinctio', 'Racing', 'offline', 32322, 715, 40, 194, 45)
(30, 'quo', 'Sports', 'offline', 60630, 586, 67, 165, 83)
(31, 'deleniti', 'Sports', 'offline', 34702, 962, 39, 107, 47)
(32, 'praesentium', 'Action', 'offline', 57266, 1000, 39, 191, 44)
(33, 'et', 'Adventure', 'offline', 74332, 903, 6, 200, 20)
(34, 'quasi', 'Board', 'offline', 12369, 952, 61, 152, 25)
(35, 'perferendis', 'Board', 'online', 55065, 966, 8, 130, 51)
(36, 'consequatur', 'Racing', 'online', 18211, 928, 45, 166, 63)
(37, 'in', 'Casino', 'offline', 3730, 898, 53, 162, 61)
(38, 'quidem', 'Board', 'online', 14569, 928, 11, 167, 62)
(39, 'temporibus', 'Sports', 'online', 30750, 745, 55, 163, 73)
(40, 'rerum', 'Racing', 'offline', 90598, 583, 8, 191, 62)
(41, 'bjsht', 'Racing', 'online', 1000, 250, 14, 185, 69)
PS C:\Users\Amit Akash\Desktop\DB_PYTHON>

Output in pgAdmin



game_id	game_name	type	mode	price	reward	age	height	weight
27	quia	Racing	online	45817	637	22	146	56
28	enim	Sports	offline	77073	845	25	112	66
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