Даалгавар№-9 User privileges

У.Болормаа /20B1NUM2563/

3 төрлийн хэрэглэгчийг үүсгээд хэрэглэгч болгон дээр зөвшөөрөгдөөгүй үйлдлүүдийг хийж үүнийгээ баримтжуулаж авна уу?

1. User A
   ● Access: all tables
   ● Commands: all
   ● Created by admin
2. User B
   ● Access: only some tables
   ● Commands: all
   ● Created by admin with grant privileges
3. User C
   ● Access: only some tables
   ● Commands: select, insert, delete
   ● Created by user B

Үүний дараа revoke command ашиглан User C аль нэг хүснэгтэн дээр delete эрхийг хасна уу.

Сонгон авсан өгөгдлийн сан: Тэнгис кино театр
Ашигласан sql: Postge

1.
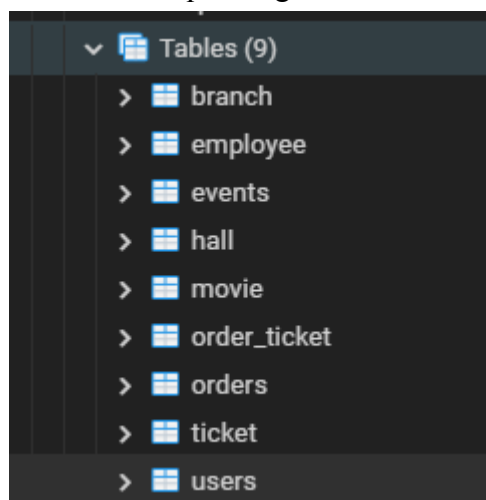
```
1  CREATE USER user_a WITH PASSWORD 'huurhunmaa';
2  GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA public TO user_a;
```

ERROR: syntax error a
or near "echo"
LINE 1: echo %PATH%

Command Prompt - psql -d mama user_a

```
C:\Users\DELL>psql -d mama user_a
Password for user user_a:
psql (15.2)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

mama=> SELECT * FROM ticket;
id  | ticket_type | price | quantity
-----+-------------+-------+----------
999 | regular     | 10000 |      100
989 | VIP         | 30000 |       10
979 | VIP         | 30000 |        5
(3 rows)


mama=> SELECT * FROM movie;
id | title   |       description        | language_type | director | duration_time |   release_date    | movie_price
   | movie_type |       modified_at
---+---------+--------------------------+---------------+----------+---------------+-------------------+------------
 6 | avatar_1 | maash goy kino goy ym gardG | english    | John     |             4 | 2023-03-25 18:00:00 |       15000
   | adal yvdalt | 2023-03-28 15:53:20.577818
 8 | frozen   | urt vstei gvn garnaa        | english    | bella    |             1 | 2023-04-25 18:00:00 |       13000
   | cartoon     | 2023-03-28 16:46:33.329643
 9 | zura     | omogshood l yvchdg kino doo | Mongol     | Joy      |             2 | 2023-03-25 18:00:00 |       15000
   | horror      | 2023-05-09 09:47:06.372551
(3 rows)
```

```
mama=> SELECT * FROM users;
 id |   l_name    |   f_name    | phone_number |        email
----+-------------+-------------+--------------+----------------------
  1 | bolormaa    | uuganbayar  |     99708150 | bolormaa@gmail.com
  2 | tsetsegmaa  | uuganaa     |     99999999 | tsetsegmaa@gmail.com
  3 | khangerel   | uugan       |     88888888 | khangerel@gmail.com
  4 | tsend_ayush | osorjamaa   |     90909090 | tsendee@gmail.com
  5 | uuganbayr   | turmunkh    |     98989898 | uuganaa@gmail.com
(5 rows)


mama=> SELECT * FROM orders;
 id  | total_payment | users_id | employee_id | order_code | total | orders_date
-----+---------------+----------+-------------+------------+-------+-------------
7001 |       7500000 |        1 |          10 |            |   500 | 2022-02-28
7002 |       4500000 |        3 |          11 |            |   300 | 2021-04-28
7003 |       3705000 |        5 |          12 |            |   247 | 2023-02-14
(3 rows)


mama=> SELECT * FROM employee;
id | last_name | first_name | phone_number |  home_adress   | salary
----+-----------+------------+--------------+----------------+---------
10 | bataa     | bold       |     88111111 | ih toiruu st   | 2500000
11 | dorjoo    | dulam      |     88222222 | urt tsagaan st | 3500000
12 | selengee  | sender     |     88333333 | jukov st       | 3000000
13 | sergelen  | jambaa     |     99119999 | ankara         | 4000000
(4 rows)
```

2.

```
3
4  CREATE USER user_b WITH PASSWORD 'tenegsanjaa';
5  GRANT USAGE ON SCHEMA public TO user_b;
6  GRANT ALL PRIVILEGES ON TABLE "users" TO user_b;
7  GRANT ALL PRIVILEGES ON TABLE "movie" TO user_b;
8  |
```

```
Command Prompt - psql  -d mama user_b                                    —   □   ×

mama-> \q

C:\Users\DELL>psql -d mama user_b
Password for user user_b:
psql (15.2)
WARNING: Console code page (437) differs from Windows code page (1252)
        8-bit characters might not work correctly. See psql reference
        page "Notes for Windows users" for details.
Type "help" for help.

mama=> SELECT * FROM users;
 id |   l_name    |  f_name   | phone_number |        email
----+-------------+-----------+--------------+----------------------
  1 | bolormaa    | uuganbayar |     99708150 | bolormaa@gmail.com
  2 | tsetsegmaa  | uuganaa   |     99999999 | tsetsegmaa@gmail.com
  3 | khangerel   | uugan     |     88888888 | khangerel@gmail.com
  4 | tsend_ayush | osorjamaa |     90909090 | tsendee@gmail.com
  5 | uuganbayr   | turmunkh  |     98989898 | uuganaa@gmail.com
(5 rows)


mama=> SELECT * FROM movie;
 id | title   |           description        | language_type | director | duration_time |    release_date     | movie_price
  | movie_type |        modified_at
----+---------+-----------------------------+---------------+----------+---------------+---------------------+----------
--+------------+-----------------------------
  6 | avatar_1 | maash goy kino goy ym gardG | english       | John     |             4 | 2023-03-25 18:00:00 |       15000
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  | horror    | 2023-05-09 09:47:06.372551
(3 rows)


mama=> SELECT * FROM employee;
ERROR:  permission denied for table employee
mama=> SELECT * FROM orders;
ERROR:  permission denied for table orders
mama=> SELECT * FROM ticket;
ERROR:  permission denied for table ticket
mama=> SELECT * FROM branch;
ERROR:  permission denied for table branch
mama=>
```

3.

```
mama=# GRANT ALL PRIVILEGES ON orders TO user_b WITH GRANT OPTION;
GRANT
mama=# GRANT ALL PRIVILEGES ON ticket TO user_b WITH GRANT OPTION;
GRANT
mama=# GRANT ALL PRIVILEGES ON order_ticket TO user_b WITH GRANT OPTION;
GRANT
mama=#
```

```
 9   CREATE USER user_c WITH PASSWORD 'malena';
10   GRANT SELECT, INSERT, DELETE ON order_ticket TO user_c;
11
12   GRANT SELECT, INSERT ON orders TO user_c;
13   GRANT SELECT, INSERT, DELETE ON order_ticket TO user_c;
14   GRANT USAGE, SELECT ON SEQUENCE order_ticket_id_seq TO user_c;
15   GRANT USAGE, SELECT ON SEQUENCE orders_id_seq TO user_c;
16
17
```

user C нь orders хүснэгтэд SELECT, INSERT эрх, order_products хүснэгтэд INSERT, SELECT болон DELETE эрхийг олгосон. USAGE эрхийг эдгээр хүснэгтэд олгосноор user C-д хүснэгтэд өгөгдөл оруулах үед шинэ ID үүсгэх боломжийг олгоно.

```
C:\Users\DELL>psql -d mama user_b
Password for user user_b:
psql (15.2)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

mama=> CREATE USER user_b WITH PASSWORD 'malena';
CREATE ROLE
mama=> CRANT SELECT, INSERT ON orders TO user_c;
GRANT
mama=> CRANT SELECT, INSERT, DELETE ON order_ticket TO user_c;
GRANT
mama=>
```

User B-н эрхийг шалгаж байгаа нь

```
C:\Users\DELL>psql -U user_c -d mama
Password for user c:
psql (15.2)
WARNING: Console code page (437) differs from Windows code page (1252)
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Type "help" for help.

mama=> SELECT * FROM orders;
  id  | total_payment | users_id | employee_id | order_code | total | orders_date
------+---------------+----------+-------------+------------+-------+------------
 7001 |       7500000 |        1 |          10 |            |   500 | 2022-02-28
 7002 |       4500000 |        3 |          11 |            |   300 | 2021-04-28
 7003 |       3705000 |        5 |          12 |            |   247 | 2023-02-14
(3 rows)
```

Revoke command ашиглан order_products хүснэгтэн дээрх delete эрхийг нь хасаж буй нь

```
C:\Users\DELL>psql -d mama user_b
Password for user user_b:
psql (15.2)
WARNING: Console code page (437) differs from Windows
         8-bit characters might not work correctly. Se
         page "Notes for Windows users" for details.
Type "help" for help.

mama=> REVOKE DELETE ON order_ticket FROM user_c;
REVOKE
mama=>
```

Delete эрхийг хасагдсан эсэхийг шалгасан байдал

```
C:\Users\DELL>psql -U user_c -d mama
Password for user_c:
psql (15.2)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

mama=> DELETE FROM order_ticket WHERE id=3;
ERROR:  permision denied for table order_ticket
mama=>
```