

homework:0

한양대학교 공과대학 컴퓨터소프트웨어학부 최가은

2019009261

1. Docker container에 접속하여 데이터베이스 목록 확인

```
관리자: Windows PowerShell
- 4518c6b2e553 Pull complete
- de136ea9fe52 Pull complete
- 018ace23b9af Pull complete
- ebc726df28b6 Pull complete
- postgres Pulled
- a330b6cecb98 Pull complete
- 3b0b899b4747 Pull complete
- cc0b2671a552 Pull complete
- 1a7c7905989a Pull complete
- 02cdeed79556 Pull complete
- 0d8fba9259d6 Pull complete
- 974epd47baa7 Pull complete
- e9abf0d5d0bc Pull complete
- 7e189c298f90 Pull complete
- 4629cd6083ea Pull complete
- ea9abf153dc4 Pull complete
- 5db27f65d686 Pull complete
- 5c9bcf85b9a6 Pull complete

- Network homework0_default Created
- Container homework0_pgadmin_1 Started
- Container homework0_postgres_1 Started
PS C:\Users\USER\Documents\21-fall-dbs\homework0> docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED    STATUS    PORTS                               NAMES
51e84bdd43b   postgres:12 "docker-entrypoint.s..." 38 seconds ago Up 33 seconds 0.0.0.0:54321->5432/tcp, :::54321->5432/tcp homework0_postgres_1
a4191954aed6   doage/pgadmin4:4.23 "/entrypoint.sh"         39 seconds ago Up 36 seconds 443/tcp, 0.0.0.0:8880->80/tcp, :::8880->80/tcp homework0_pgadmin_1
511a471ec3ee   docker101tutorial "/docker-entrypoint. ..." 4 minutes ago Up 4 minutes 0.0.0.0:80->80/tcp, :::80->80/tcp docker-tutorial
PS C:\Users\USER\Documents\21-fall-dbs\homework0> docker exec -it 51e84bdd43b /bin/bash
root@51e84bdd43b:/# psql -U postgres
psql (12.8 (Debian 12.8-1.pgdg100+1))
type "help" for help.

postgres=# \l
      List of databases
  Name | Owner  | Encoding | Collate | Ctype  | Access privileges
-----+-----+-----+-----+-----+-----
 postgres | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
 template0 | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 template1 | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
          postgres=Ctc/postgres
(3 rows)

postgres=#
```

```
관리자: Windows PowerShell
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED    STATUS    PORTS                               NAMES
a3b34a62887   postgres:12 "docker-entrypoint.s..." 2 minutes ago Up 2 minutes 0.0.0.0:54321->5432/tcp, :::54321->5432/tcp homework0_postgres_1
424edcda6038   doage/pgadmin4:4.23 "/entrypoint.sh"         2 minutes ago Up 2 minutes 443/tcp, 0.0.0.0:8880->80/tcp, :::8880->80/tcp homework0_pgadmin_1
PS C:\WINDOWS\system32> docker exec -it 6c bin/bash
root@6c3b34a62887:/# psql -U postgres
psql (12.8 (Debian 12.8-1.pgdg100+1))
type "help" for help.

postgres=# \l
      List of databases
  Name | Owner  | Encoding | Collate | Ctype  | Access privileges
-----+-----+-----+-----+-----+-----
 postgres | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
 template0 | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 template1 | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
          postgres=Ctc/postgres
(3 rows)

postgres=# \du
      List of roles
 Role name | Attributes                                      | Member of
-----+-----+-----+-----+-----+-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}

postgres=# CREATE USER test1;
CREATE ROLE
postgres=# \du
      List of roles
 Role name | Attributes                                      | Member of
-----+-----+-----+-----+-----+-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}
 test1    |                                                                    | {}

postgres=# CREATE ROLE test2;
CREATE ROLE
postgres=# \du
      List of roles
 Role name | Attributes                                      | Member of
-----+-----+-----+-----+-----+-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}
 test1    |                                                                    | {}
 test2    | Cannot login                                                  | {}

postgres=# ALTER ROLE test1 superuser createdb;
```

```
관리자: Windows PowerShell
postgres=# ALTER ROLE test1 superuser createdb;
ALTER ROLE
postgres=# \du

```

Role name	List of roles Attributes	Member of
postgres	Superuser, Create role, Create DB, Replication, Bypass RLS	{ }
test1	Superuser, Create DB	{ }
test2	Cannot login	{ }

```
postgres=# \q
root@6c3b34a62887:/# psql -U test1 postgres:
psql (12.8 (Debian 12.8-1.pgd100+1))
Type "help" for help.

postgres=# DROP USER test1;
ERROR: current user cannot be dropped
postgres=# DROP USER test2;
DROP ROLE
postgres=# \du

```

Role name	List of roles Attributes	Member of
postgres	Superuser, Create role, Create DB, Replication, Bypass RLS	{ }
test1	Superuser, Create DB	{ }

```
postgres=# CREATE DATABASE testdb;
CREATE DATABASE
postgres=# \q
root@6c3b34a62887:/# psql -U test1 testdb:
psql (12.8 (Debian 12.8-1.pgd100+1))
Type "help" for help.

testdb=# \c postgres
You are now connected to database "postgres" as user "test1".
testdb=# \c test1
FATAL: database "test1" does not exist
Previous connection kept
testdb=# \c testdb
You are now connected to database "testdb" as user "test1".
testdb=# CREATE TABLE contact (name VARCHAR, age INTEGER, address VARCHAR);
CREATE TABLE
testdb=# select * from contact;
 name | age | address
-----+----+-----
(0 rows)

```

```
관리자: Windows PowerShell
(0 rows)

testdb=# DROP TABLE contact;
DROP TABLE
testdb=# \c postgres
You are now connected to database "postgres" as user "test1".
postgres=# DROP DATABASE testdb;
DROP DATABASE
postgres=# \l

```

Name	Owner	Encoding	List of databases Collate	Ctype	Access privileges
postgres	postgres	UTF8	en_US.utf8	en_US.utf8	
template0	postgres	UTF8	en_US.utf8	en_US.utf8	=c/postgres +
template1	postgres	UTF8	en_US.utf8	en_US.utf8	postgres=Ctc/postgres +

```
(3 rows)

postgres=#

```

2. pgadmin에 접속하여 서버 연결

The screenshot shows the pgAdmin 4 web interface in a browser window. The left sidebar displays a tree view of database objects, including 'Servers (1)' with a 'test' server, and 'Databases (2)' with 'postgres' and 'tmp'. The main panel shows various performance metrics and a table of server activity.

Database sessions

Metric	Value
Total	1.00
Active	0.00
Idle	1.00

Transactions per second

Metric	Value
Transactions	10.0
Commits	0.0
Rollbacks	0.0

Tuples in

Metric	Value
Inserts	1.00
Updates	0.00
Deletes	0.00

Tuples out

Metric	Value
Fetches	20000
Returned	0

Block I/O

Metric	Value
Reads	2500
Hits	0

Server activity

Session	Locks	Prepared Transactions
PID	User	Application
Client	Backend start	

The screenshot shows a Windows PowerShell terminal window with the following commands and output:

```
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS
6c3b34a62887   postgres:12   "docker-entrypoint.s..." 43 minutes ago Up 43 minutes 0.0.0.0:54321->5432/tcp, :::54321->5432/tcp
b24edcd9a6000   dpape/pgadmin4:4.23   "/entrypoint.sh"         43 minutes ago Up 43 minutes 443/tcp, 0.0.0.0:8880->80/tcp, :::8880->80/tcp
PS C:\WINDOWS\system32> docker exec -it 6c bin/bash
root@6c3b34a62887:/# psql -U postgres
psql (12.8 (Debian 12.8-1.pgd100+1))
Type "help" for help.

postgres=# \l
      Name      | Owner   | Encoding | Collate | Ctype   | Access privileges
-----+-----+-----+-----+-----+-----
 postgres      | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
 template0     | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 template1     | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 (3 rows)

postgres=# \l
      Name      | Owner   | Encoding | Collate | Ctype   | Access privileges
-----+-----+-----+-----+-----+-----
 postgres      | postgres | UTF8     | en_US.utf8 | en_US.utf8 | =c/postgres,+
 template0     | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 template1     | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 tmp           | postgres | UTF8     | en_US.utf8 | en_US.utf8 | postgres=Ctc/postgres,+
 (4 rows)

postgres=#
```

3. intelij, pgmodeler가 설치되었다는 것을 보여주는 것
(데스크톱 바로가기, 프로그램 실행창 등)

