Nama : **JONATHAN HENRY EMAN**

NIM : **230211060041**

SQL Shell (psql)

```
Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: admin
Password for user admin:

psql (16.4)
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.

postgres=> SELECT session_user, current_user;
 session_user | current_user
--------------+--------------
 admin        | admin
(1 row)


postgres=>
```

28°C
Rain showers   8:23 PM
                                                                   10/18/2024

MINGW64:/c/Program Files/PostgreSQL/16/data

```
theki@N MINGW64 ~
$ openssl version
OpenSSL 3.2.1 30 Jan 2024 (Library: OpenSSL 3.2.1 30 Jan 2024)

theki@N MINGW64 ~
$ 0
bash: 0: command not found

theki@N MINGW64 ~
$ 00
bash: 00: command not found

theki@N MINGW64 ~
$

theki@N MINGW64 ~
$

theki@N MINGW64 ~
$ C:\Program Files\PostgreSQL\16\data
bash: C:Program: command not found

theki@N MINGW64 ~
$ cd "C:/Program Files/PostgreSQL/16/data"

theki@N MINGW64 /c/Program Files/PostgreSQL/16/data
$ openssl req -new -x509 -days 365 -nodes -out server.crt -keyout server.key
..+++++++++++++++++++++++++++++*....+......+.+.................+.+.....+....+...+...+.....+...+.+..+...+..+++++++++++++++++++++++++++++++++*......+...+...+.
+..+.+...+.........+....+...+.+...........+.+.....+....+...+...+.......+.....+...+....+..+....+...
+...+.+.....+....+.+...+..+++++
.+.......+..+.+...+...++++++++++++++++++++++++++++++++++*.....+..+....+...+....+.....+....+...+..+............+.......+...+.....+...+.
.....+..+.+...+...+.+...+.....+....+..+...+.+...........++++++
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:ID
State or Province Name (full name) [Some-State]:Manado
Locality Name (eg, city) []:Manado
Organization Name (eg, company) [Internet Widgits Pty Ltd]:Universitas Sam Ratulangi
Organizational Unit Name (eg, section) []:Prodi Informatika
Common Name (e.g. server FQDN or YOUR name) []:Natan
Email Address []:natansaint69@gmail.com

theki@N MINGW64 /c/Program Files/PostgreSQL/16/data
$ pwd
/c/Program Files/PostgreSQL/16/data
```

28°C
Rain showers   9:29 PM
                                                                   10/18/2024

```
#synchronize_seqscans = on

# - Other Platforms and Clients -

#transform_null_equals = off


#------------------------------------------------------------------------------
# ERROR HANDLING
#------------------------------------------------------------------------------

#exit_on_error = off                    # terminate session on any error?
#restart_after_crash = on               # reinitialize after backend crash?
#data_sync_retry = off                  # retry or panic on failure to fsync
                                        # data?
                                        # (change requires restart)
#recovery_init_sync_method = fsync      # fsync, syncfs (Linux 5.8+)


#------------------------------------------------------------------------------
# CONFIG FILE INCLUDES
#------------------------------------------------------------------------------

# These options allow settings to be loaded from files other than the
# default postgresql.conf.  Note that these are directives, not variable
# assignments, so they can usefully be given more than once.

#include_dir = '...'                    # include files ending in '.conf' from
                                        # a directory, e.g., 'conf.d'
#include_if_exists = '...'              # include file only if it exists
#include = '...'                        # include file


#------------------------------------------------------------------------------
# CUSTOMIZED OPTIONS
#------------------------------------------------------------------------------

# Add settings for extensions here

ssl=on
ssl_cert_file= 'server.crt'
ssl_key_file= 'server.key'
```

SQL Shell (psql)

```
Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: postgres
Password for user postgres:

psql (16.4)
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.

postgres=# SHOW config_file;
                    config_file
-----------------------------------------------------------
 C:/Program Files/PostgreSQL/16/data/postgresql.conf
(1 row)


postgres=#
```

```
# or execute  SELECT pg_reload_conf().
#
# ----------------------------------
# Put your actual configuration here
# ----------------------------------
#
# If you want to allow non-local connections, you need to add more
# "host" records.  In that case you will also need to make PostgreSQL
# listen on a non-local interface via the listen_addresses
# configuration parameter, or via the -i or -h command line switches.



# TYPE  DATABASE        USER            ADDRESS                 METHOD

# "local" is for Unix domain socket connections only
local   all             all                                     scram-sha-256
# IPv4 local connections:
host    all             all             127.0.0.1/32            scram-sha-256
# IPv6 local connections:
host    all             all             ::1/128                 scram-sha-256
# Allow replication connections from localhost, by a user with the
# replication privilege.
local   replication     all                                     scram-sha-256
host    replication     all             127.0.0.1/32            scram-sha-256
host    replication     all             ::1/128                 scram-sha-256
hostssl latihan1 all 0.0.0.0/0 cert
```
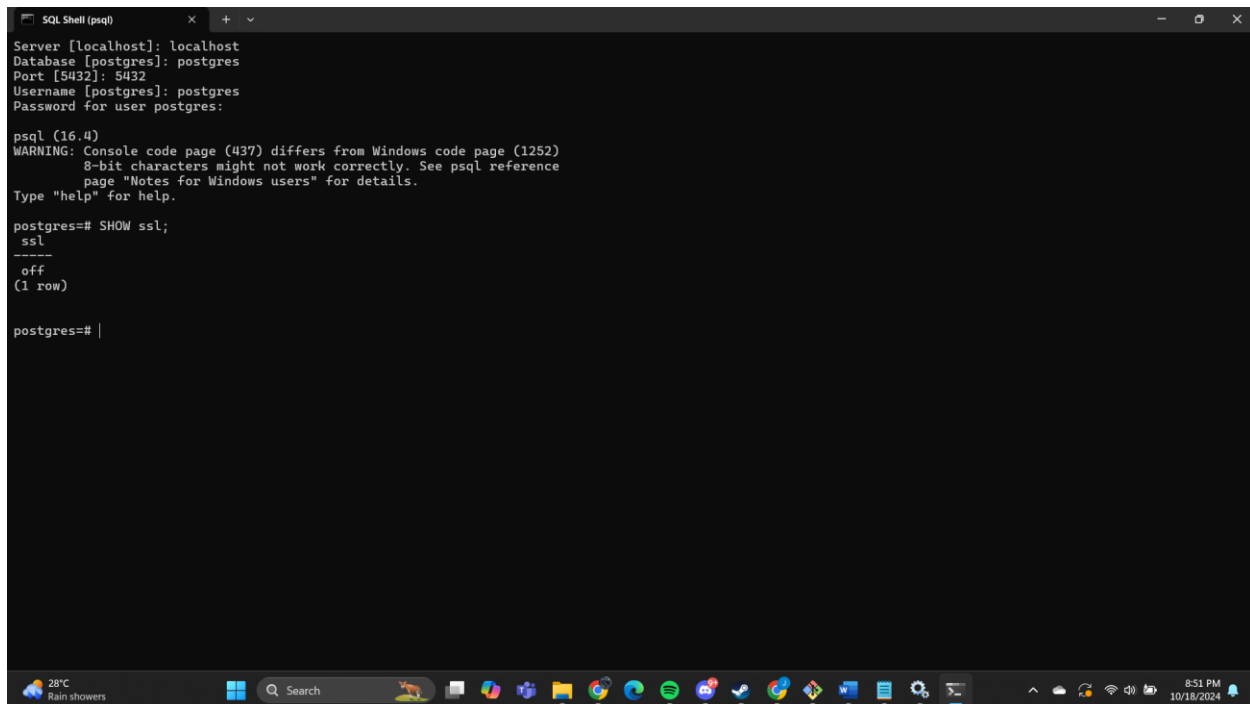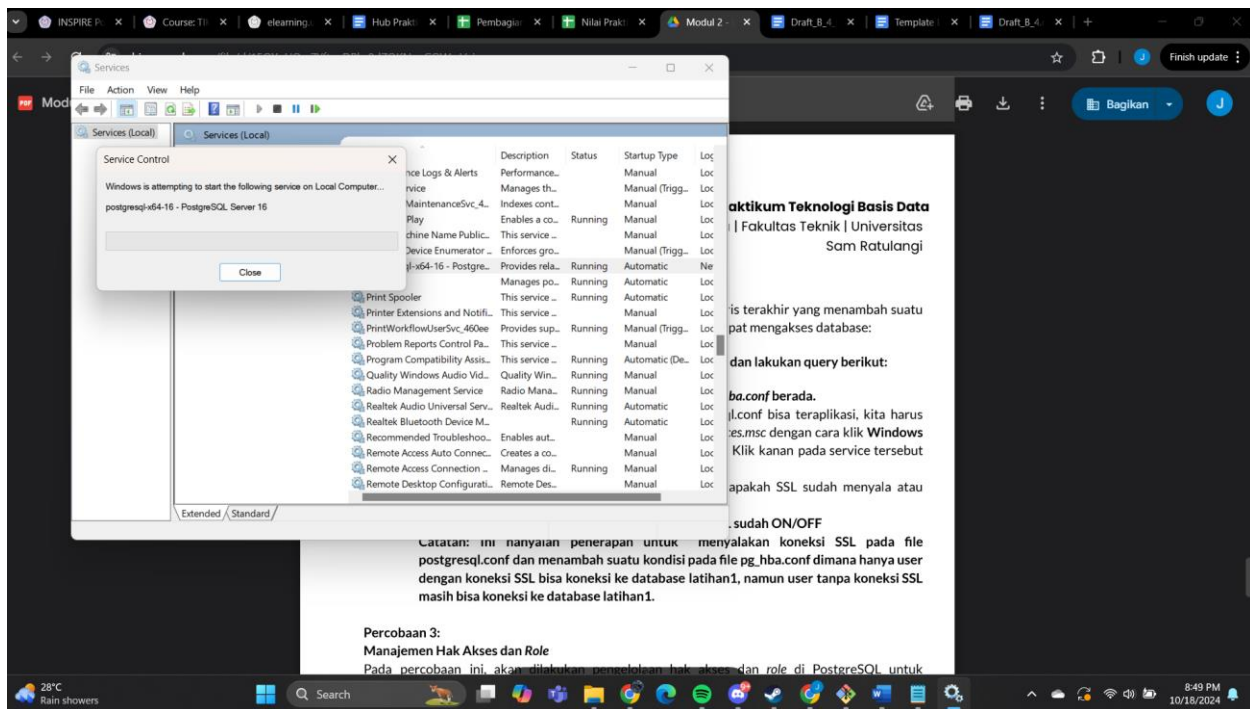
```
Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: postgres
Password for user postgres:

psql (16.4)
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.

postgres=# SHOW hba_file;
                  hba_file
-------------------------------------------------
 C:/Program Files/PostgreSQL/16/data/pg_hba.conf
(1 row)


postgres=#
```

aktikum Teknologi Basis Data

| Fakultas Teknik | Universitas
Sam Ratulangi

is terakhir yang menambah suatu
pat mengakses database:

dan lakukan query berikut:

ba.conf berada.
ql.conf bisa teraplikasi, kita harus
es.msc dengan cara klik **Windows**
Klik kanan pada service tersebut

apakah SSL sudah menyala atau
sudah ON/OFF

Catatan: ini hanyalah penerapan untuk menyalakan koneksi SSL pada file postgresql.conf dan menambah suatu kondisi pada file pg_hba.conf dimana hanya user dengan koneksi SSL bisa koneksi ke database latihan1, namun user tanpa koneksi SSL masih bisa koneksi ke database latihan1.

Percobaan 3:
Manajemen Hak Akses dan *Role*
Pada percobaan ini, akan dilakukan pengelolaan hak akses dan *role* di PostgreSQL untuk

---

```
Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: postgres
Password for user postgres:

psql (16.4)
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.

postgres=# SHOW ssl;
 ssl
-----
 off
(1 row)


postgres=#
```

```
SQL Shell (psql)

Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: mahasiswa
Password for user mahasiswa:

psql (16.4)
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.

postgres=> \c latihan1
You are now connected to database "latihan1" as user "mahasiswa".
latihan1=> SET search_path TO toko_online;
SET
latihan1=> DELETE FROM customers WHERE customer_id = 'C004';
ERROR:  permission denied for table customers
latihan1=>
```



```
SQL Shell (psql)

Server [localhost]: localhost
Database [postgres]: postgres
Port [5432]: 5432
Username [postgres]: admin
Password for user admin:

psql (16.4)
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.

postgres=> \c latihan1
You are now connected to database "latihan1" as user "admin".
latihan1=> SET search_path TO toko_online;
SET
latihan1=> INSERT INTO orders (order_id, customer_id, commodity_id, units, total_cost) VALUES ('R004', 'C001', 'M002', 10, 30);
INSERT 0 1
latihan1=> DELETE FROM orders WHERE order_id = 'R004';
DELETE 1
latihan1=>
```