PROJET DE FIN DU MODULE

Administration base de donnees (sql server)

2020/2021

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Sommaire :

Phase 1 : installation et configuration de AD .

- Les etapes à faire :

- Dans VirtualBox

1. installer Windows Server, et :

a. Configurer le service Active Directory : créer un domaine et un nom de
connexion Windows Server

b. Installer SQL Server

c. Rendre le non de connexion Windows Server un nom de connexion SQL Server

d. Se connecter à SQL Server avec Authentification Windows

e. Créer une Base de Donnée dans SQL Server (installée dans Windows Server) :
BD1

- Dans VirtualBox:

1. Installer PostgreSQL dans Linux (CentOS ou Ubuntu)

a. Créer un nom de connexion

b. Créer une base de données : BD2

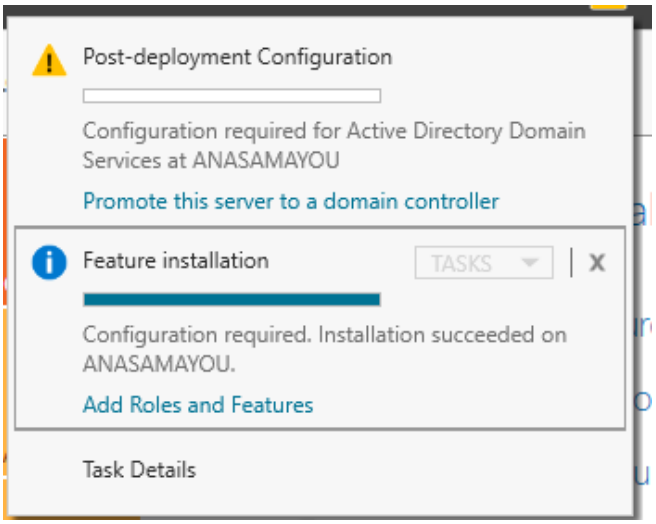
- Dans Windows 10

1. Tourner SQL Server avec l'authentification mixte. La base de données est : BD3

2. Tourner le système Oracle. La base de données est : BD4

Les captures d’écran :

-configuration de AD :



Review your selections:

Configure this server as the first Active Directory domain controller in a new forest.

The new domain name is "anas.local". This is also the name of the new forest.

The NetBIOS name of the domain: ANAS

Forest Functional Level: Windows Server 2016

Domain Functional Level: Windows Server 2016

Additional Options:

Global catalog: Yes

DNS Server: Yes

Create DNS Delegation: No

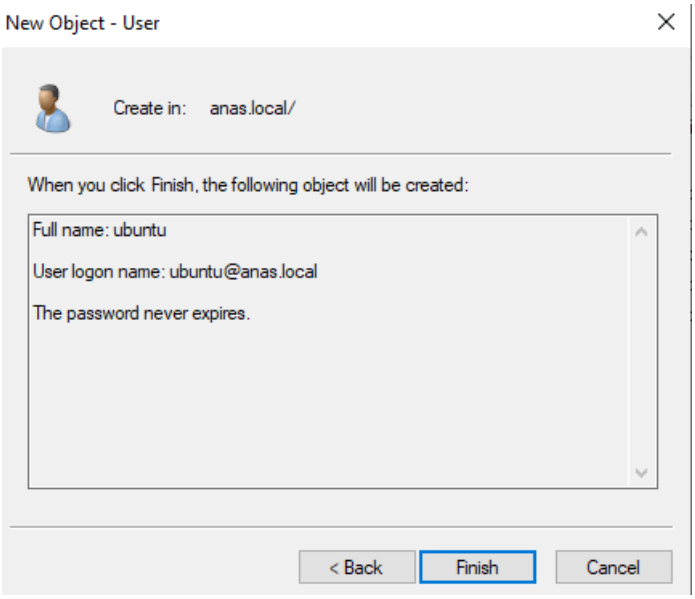
-- > configuration de domaine name server :

Computer name	ANASAMAYOU
Domain	anas.local

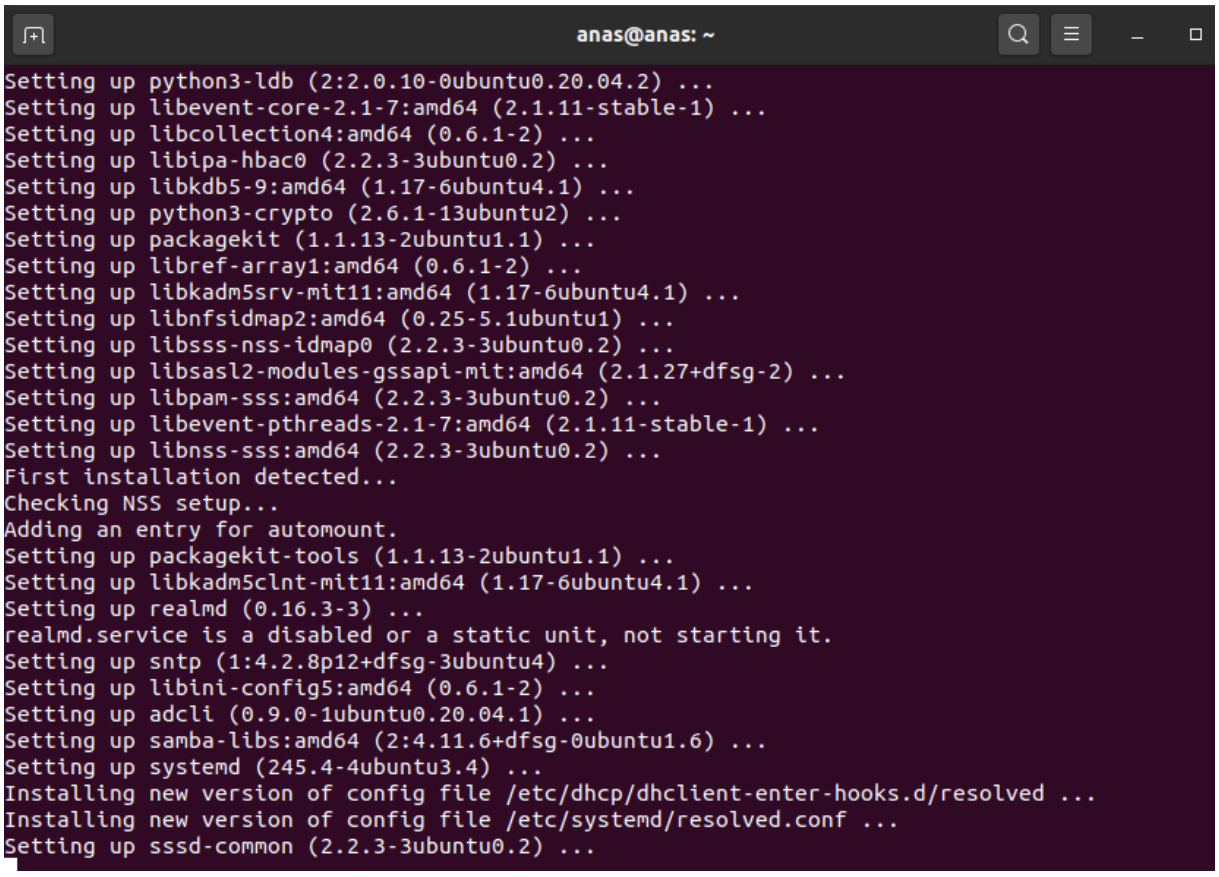
Windows Defender Firewall	Public: On
Remote management	Enabled
Remote Desktop	Disabled
NIC Teaming	Disabled
Ethernet	169.254.9.176, IPv6 enabled

Operating system version	Microsoft Windows Server 2019 Datacenter Evaluation
Hardware information	innotek GmbH VirtualBox

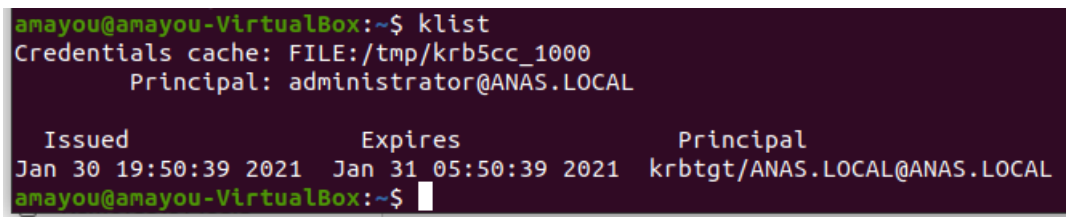
-->creation user (ubuntu) :



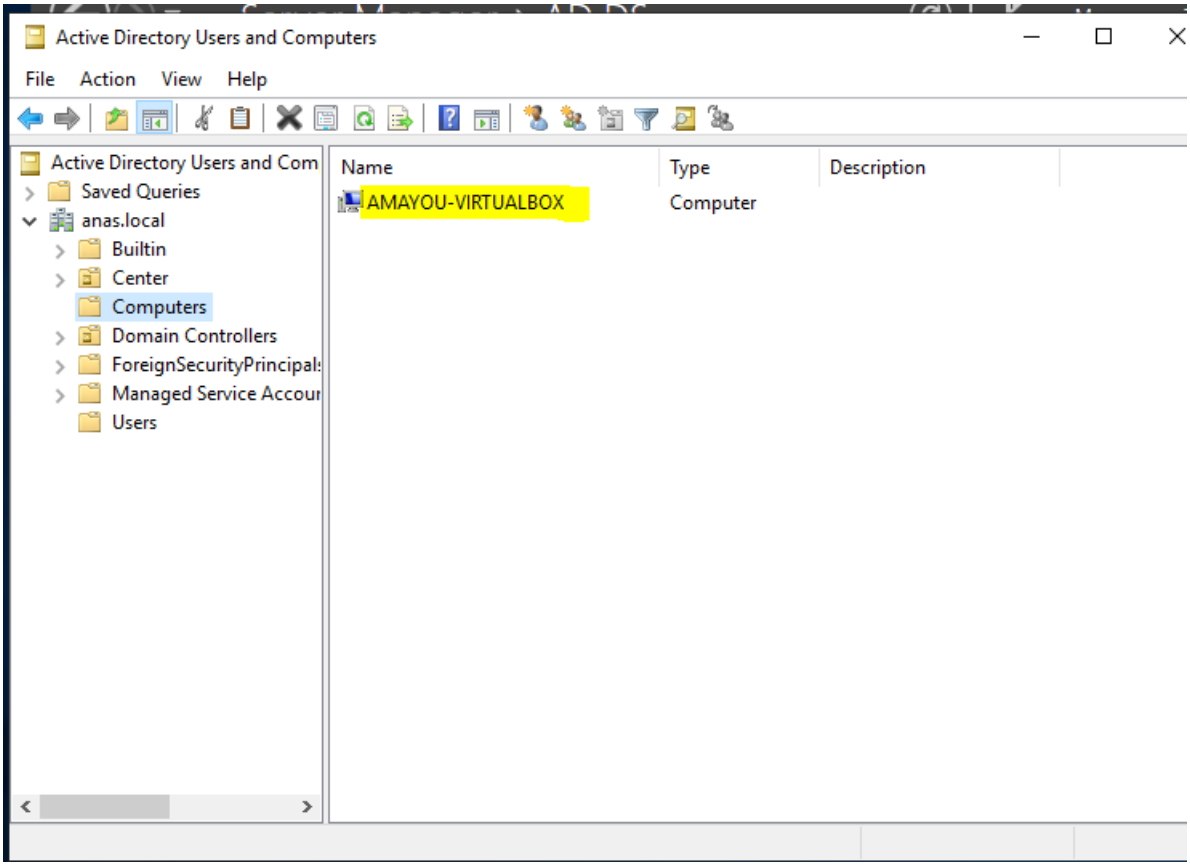
→connexion de ubuntu vers win.server :



➔ Test login by admistrator account :

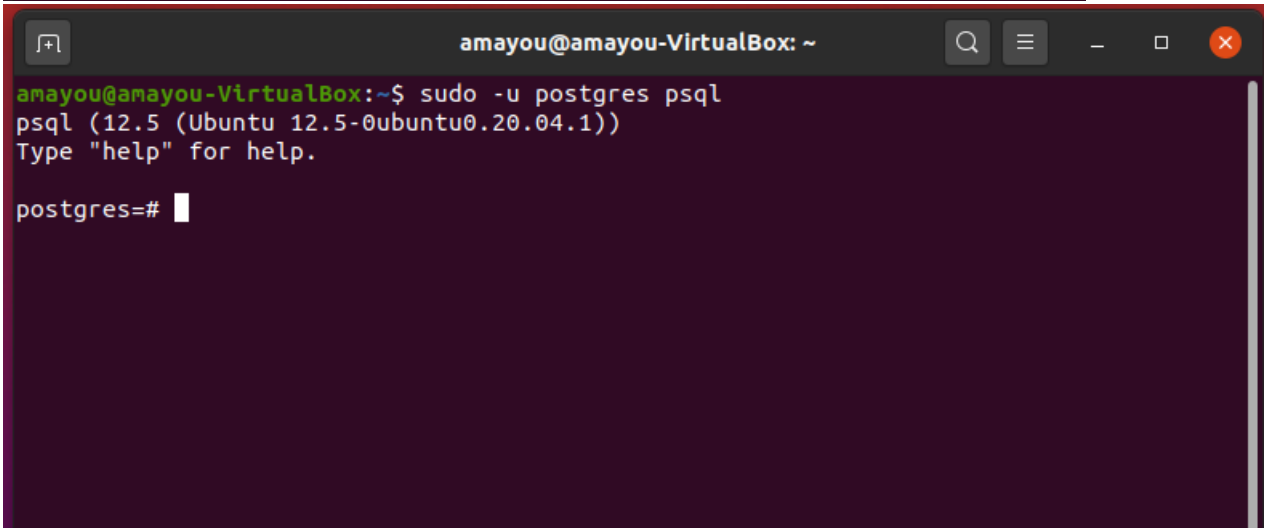


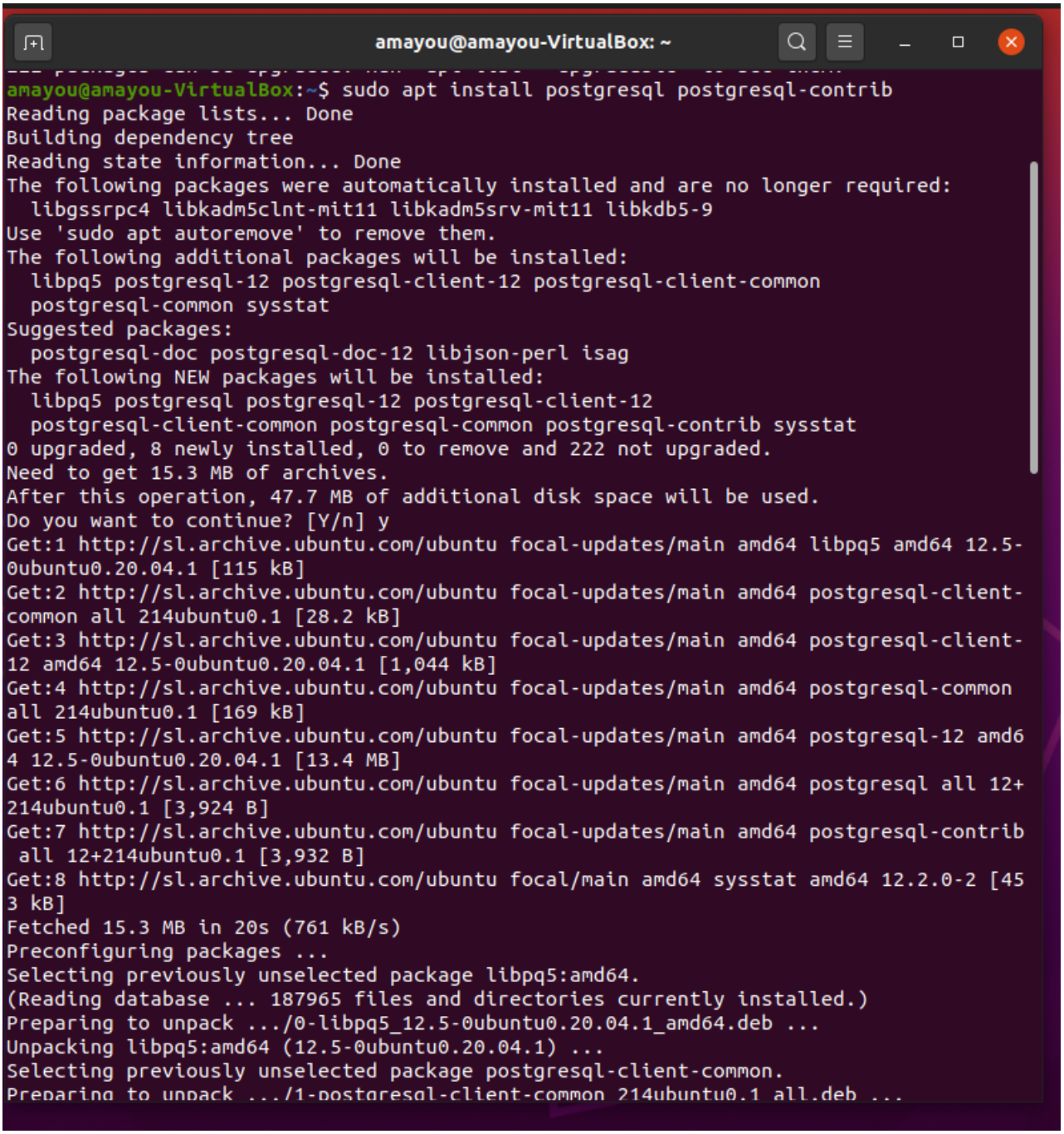
→connected ubutnu client to win.server : AMAYOU-VBOX

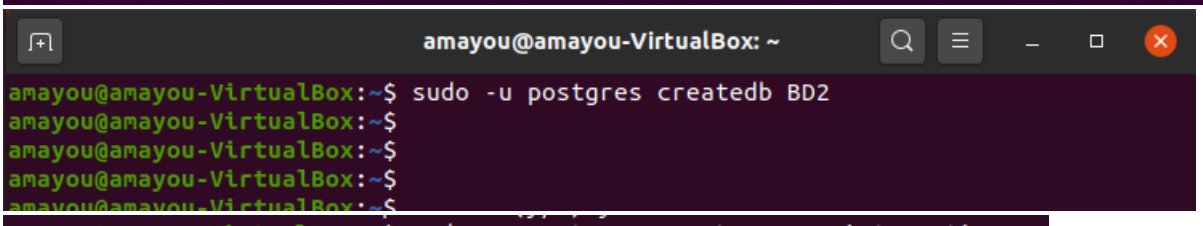


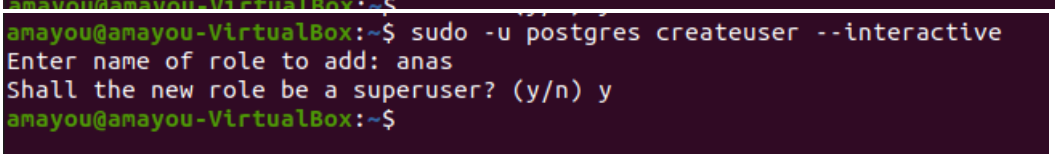
→ Installation et configuration de postgresql :

```
amayou@amayou-VirtualBox:~$ sudo -u postgres createuser --interactive
[sudo] password for amayou:
Enter name of role to add: linuxhint
Shall the new role be a superuser? (y/n) y
amayou@amayou-VirtualBox:~$
```




amayou@amayou-VirtualBox: ~
amayou@amayou-VirtualBox:~$ sudo apt install postgresql postgresql-contrib
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
libgssrpc4 libkadm5clnt-mit11 libkadm5srv-mit11 libkdb5-9
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
libpq5 postgresql-12 postgresql-client-12 postgresql-client-common
postgresql-common sysstat
Suggested packages:
postgresql-doc postgresql-doc-12 libjson-perl isag
The following NEW packages will be installed:
libpq5 postgresql postgresql-12 postgresql-client-12
postgresql-client-common postgresql-common postgresql-contrib sysstat
0 upgraded, 8 newly installed, 0 to remove and 222 not upgraded.
Need to get 15.3 MB of archives.
After this operation, 47.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 libpq5 amd64 12.5-0ubuntu0.20.04.1 [115 kB]
Get:2 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql-client-common all 214ubuntu0.1 [28.2 kB]
Get:3 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql-client-12 amd64 12.5-0ubuntu0.20.04.1 [1,044 kB]
Get:4 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql-common all 214ubuntu0.1 [169 kB]
Get:5 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql-12 amd64 12.5-0ubuntu0.20.04.1 [13.4 MB]
Get:6 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql all 12+214ubuntu0.1 [3,924 B]
Get:7 http://sl.archive.ubuntu.com/ubuntu focal-updates/main amd64 postgresql-contrib all 12+214ubuntu0.1 [3,932 B]
Get:8 http://sl.archive.ubuntu.com/ubuntu focal/main amd64 sysstat amd64 12.2.0-2 [453 kB]
Fetched 15.3 MB in 20s (761 kB/s)
Preconfiguring packages ...
Selecting previously unselected package libpq5:amd64.
(Reading database ... 187965 files and directories currently installed.)
Preparing to unpack .../0-libpq5_12.5-0ubuntu0.20.04.1_amd64.deb ...
Unpacking libpq5:amd64 (12.5-0ubuntu0.20.04.1) ...
Selecting previously unselected package postgresql-client-common.

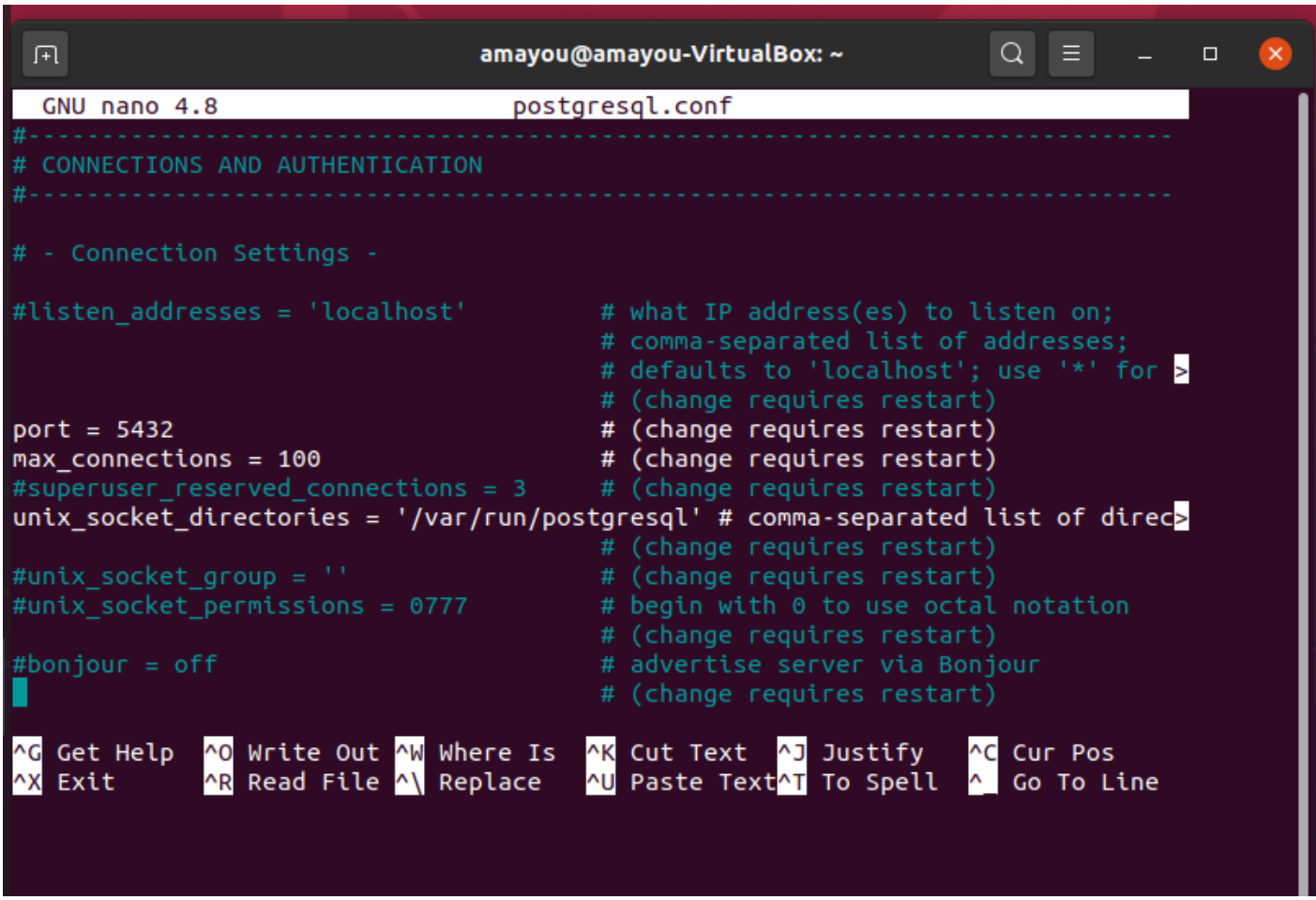

amayou@amayou-VirtualBox: ~
amayou@amayou-VirtualBox:~$ sudo -u postgres createdb BD2
amayou@amayou-VirtualBox:~$
amayou@amayou-VirtualBox:~$
amayou@amayou-VirtualBox:~$

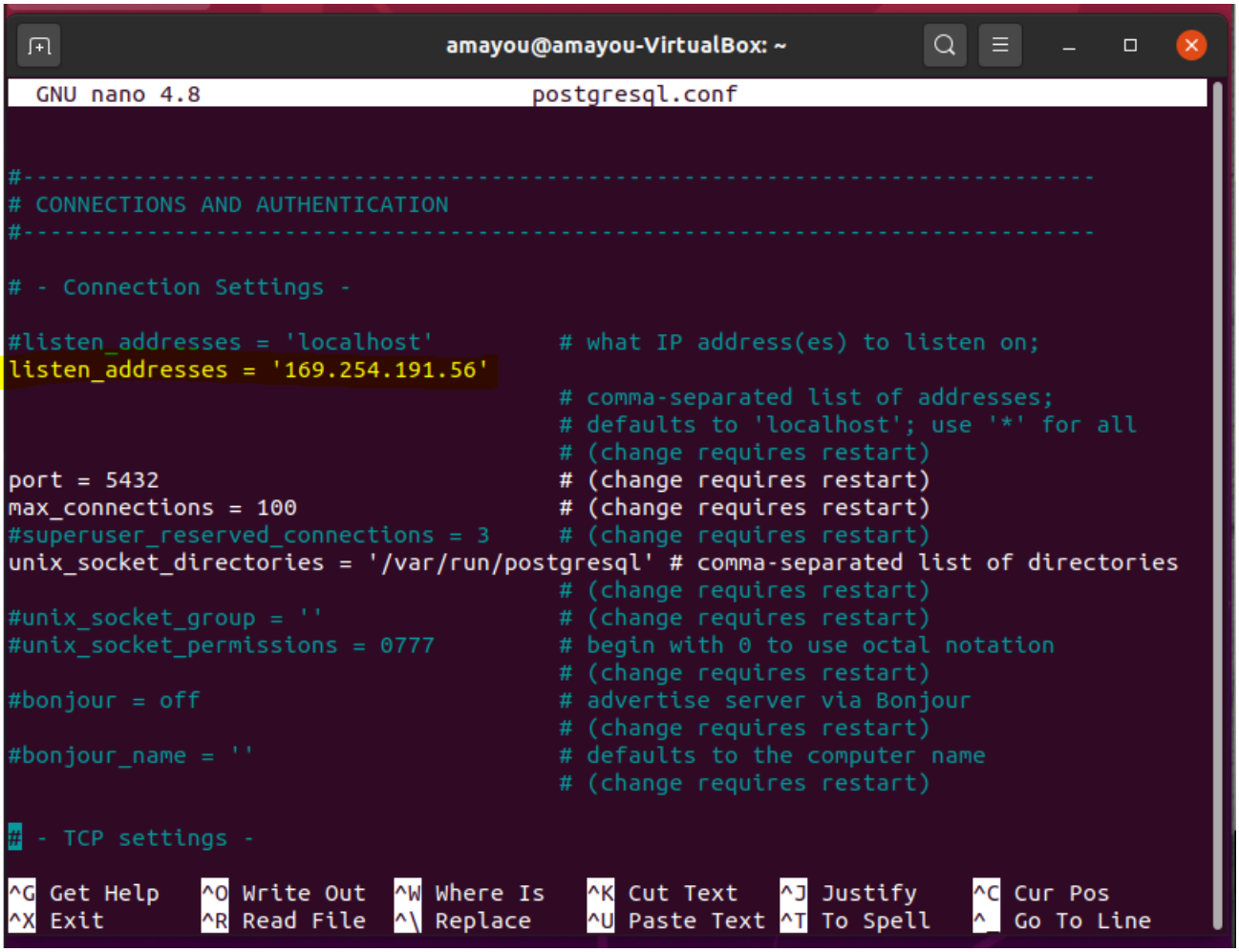

amayou@amayou-VirtualBox:~$ sudo -u postgres createuser --interactive
Enter name of role to add: anas
Shall the new role be a superuser? (y/n) y
amayou@amayou-VirtualBox:~$

→afficher tous les BD du postgresql :

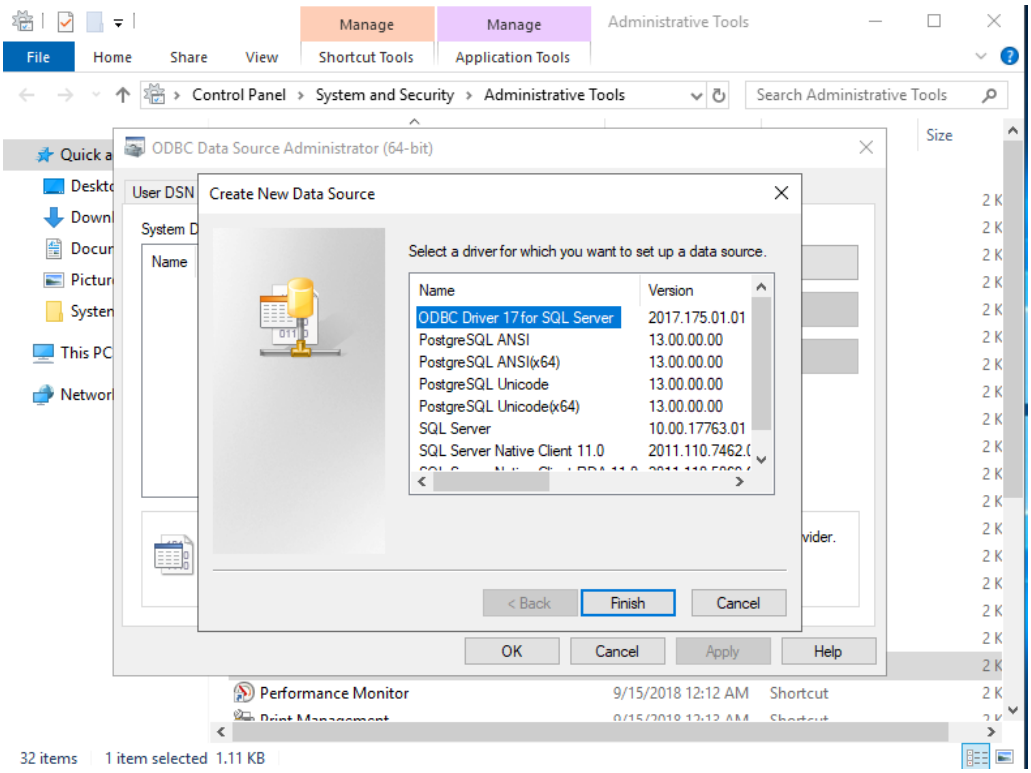
```
amayou@amayou-VirtualBox:~$ sudo su - postgres
[sudo] password for amayou:
postgres@amayou-VirtualBox:~$ psql
psql (12.5 (Ubuntu 12.5-0ubuntu0.20.04.1))
Type "help" for help.

postgres=# \l
                                  List of databases
   Name    |  Owner   | Encoding |   Collate   |    Ctype    |   Access privileges
-----------+----------+----------+-------------+-------------+-----------------------
 BD2       | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres  | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 template0 | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres          +
           |          |          |             |             | postgres=CTc/postgres
 template1 | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres          +
           |          |          |             |             | postgres=CTc/postgres
(4 rows)
```

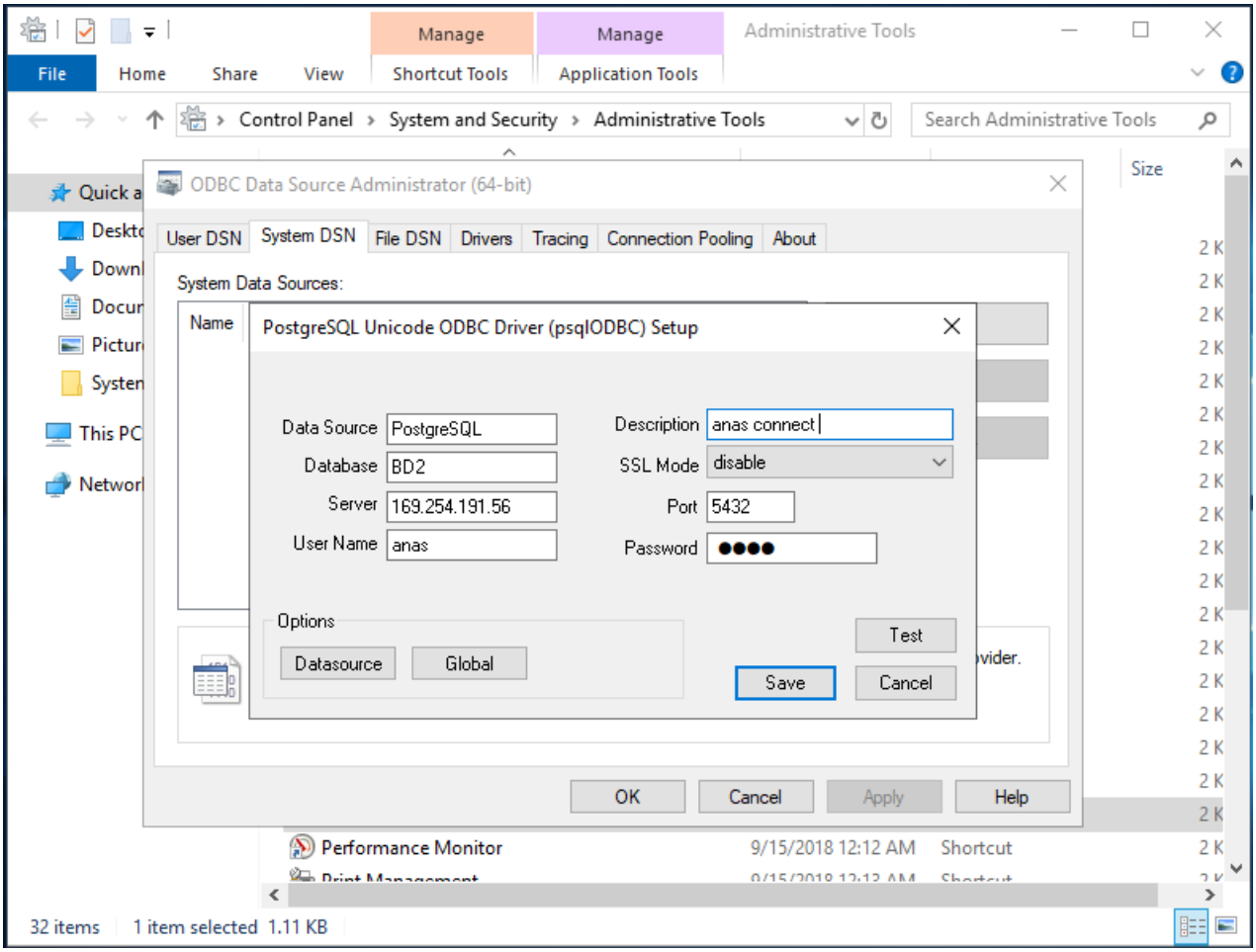
→postgresql : fichier de configuration : remote access

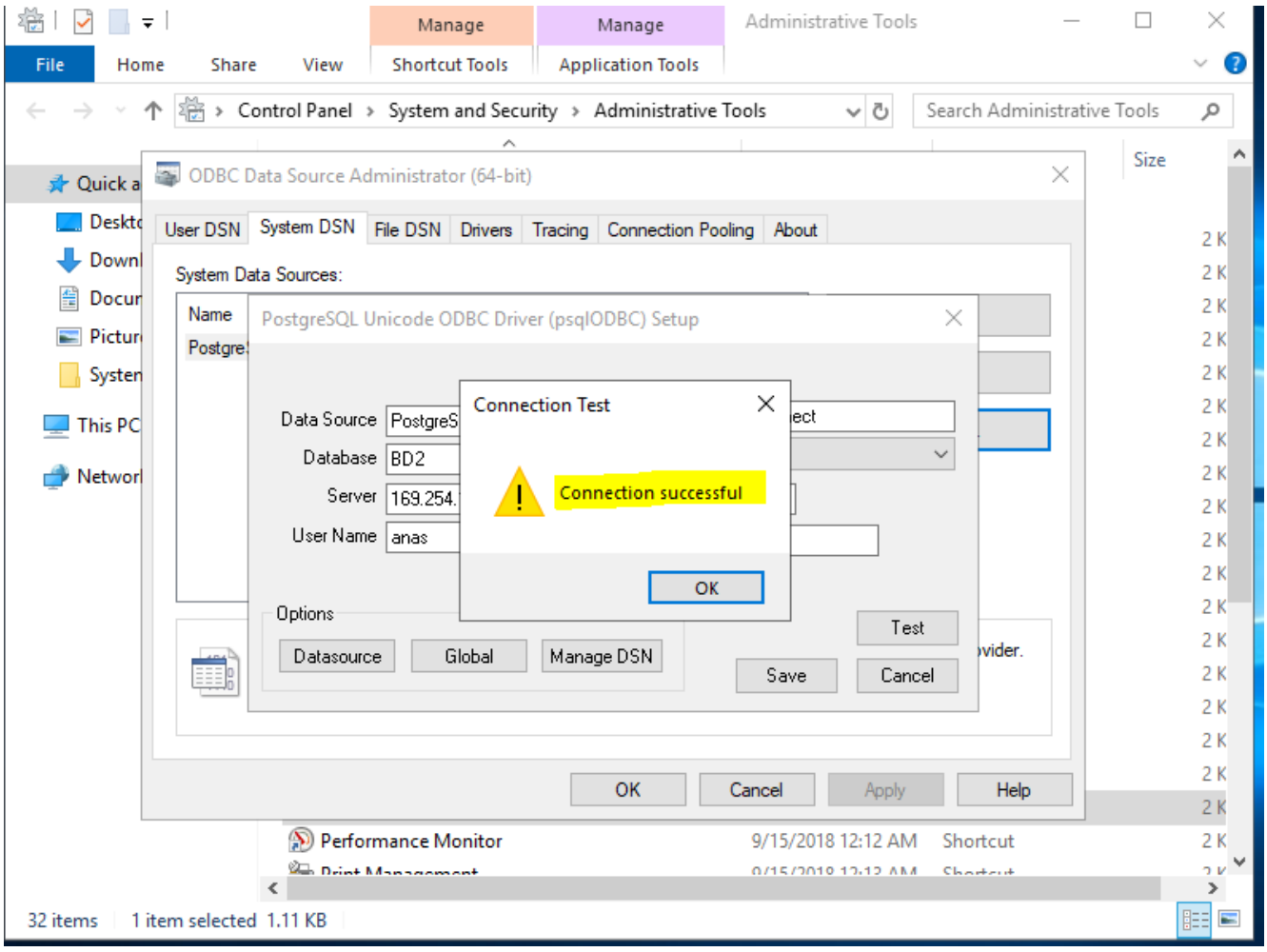




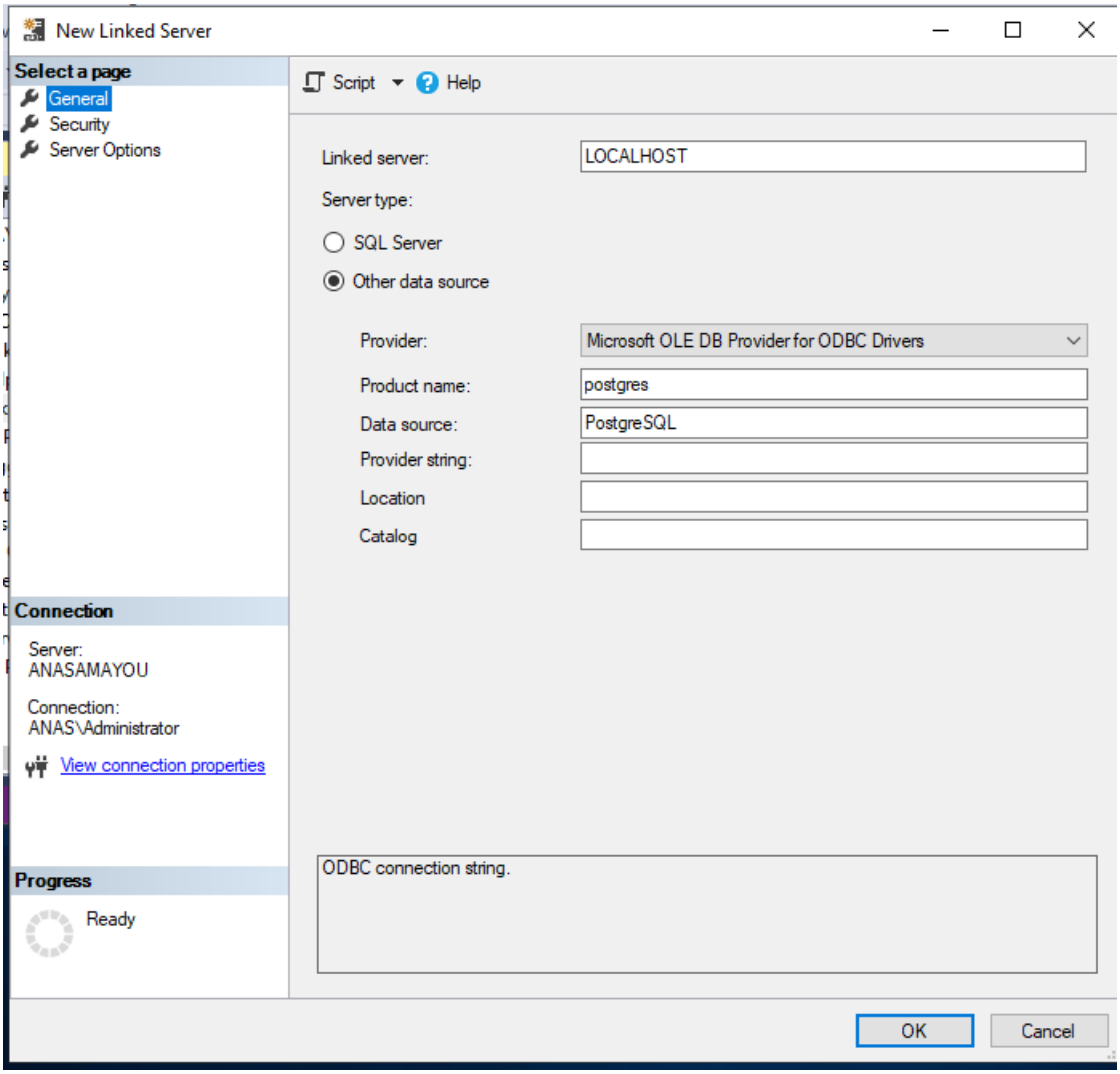
→ajoute postgresql driver et etablier la connextion :



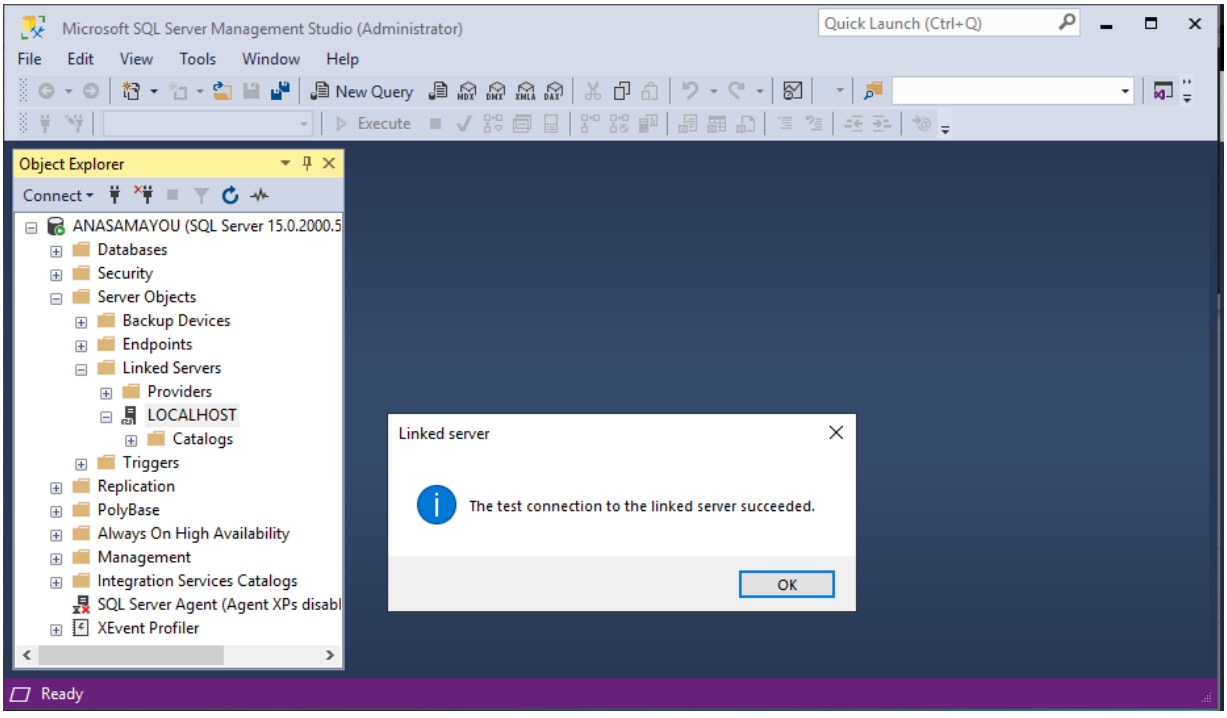

Administrative Tools
Control Panel › System and Security › Administrative Tools
Search Administrative Tools
ODBC Data Source Administrator (64-bit)
User DSN
System DSN
File DSN
Drivers
Tracing
Connection Pooling
About
System Data Sources:
Name
PostgreSQL Unicode ODBC Driver (psqlODBC) Setup
Data Source PostgreSQL
Database BD2
Server 169.254.191.56
User Name anas
Description anas connect
SSL Mode disable
Port 5432
Password ●●●●
Options
Datasource
Global
Test
Save
Cancel
OK
Cancel
Apply
Help
Performance Monitor
9/15/2018 12:12 AM
Shortcut
32 items
1 item selected 1.11 KB


Administrative Tools
Control Panel › System and Security › Administrative Tools
Search Administrative Tools
ODBC Data Source Administrator (64-bit)
User DSN
System DSN
File DSN
Drivers
Tracing
Connection Pooling
About
System Data Sources:
Name
PostgreSQL Unicode ODBC Driver (psqlODBC) Setup
Connection Test
Connection successful
OK
Data Source
Database BD2
Server
User Name anas
Options
Datasource
Global
Manage DSN
Test
Save
Cancel
OK
Cancel
Apply
Help
Performance Monitor
9/15/2018 12:12 AM
Shortcut
32 items
1 item selected 1.11 KB

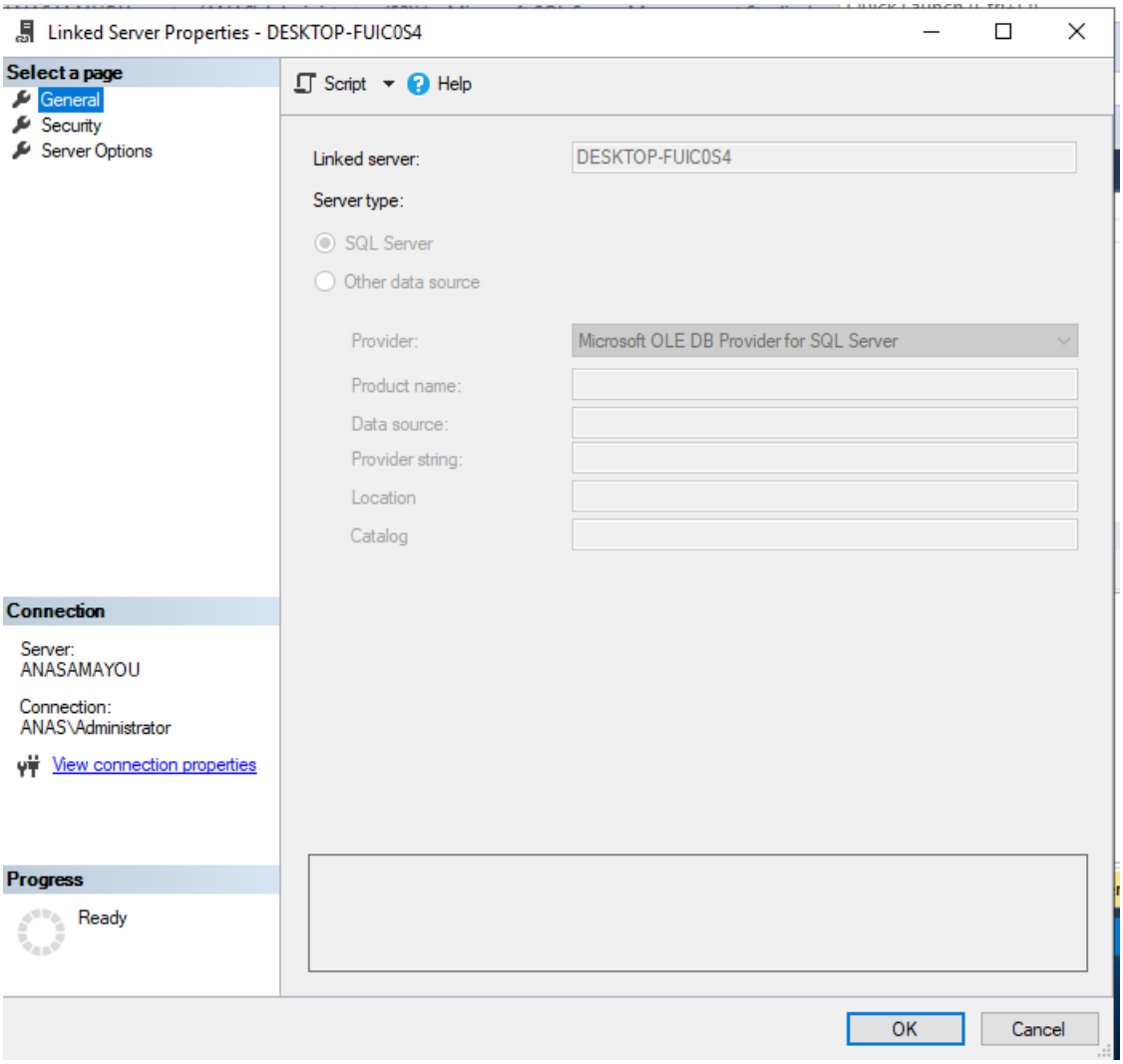
→ajoute postgresql en linked server :

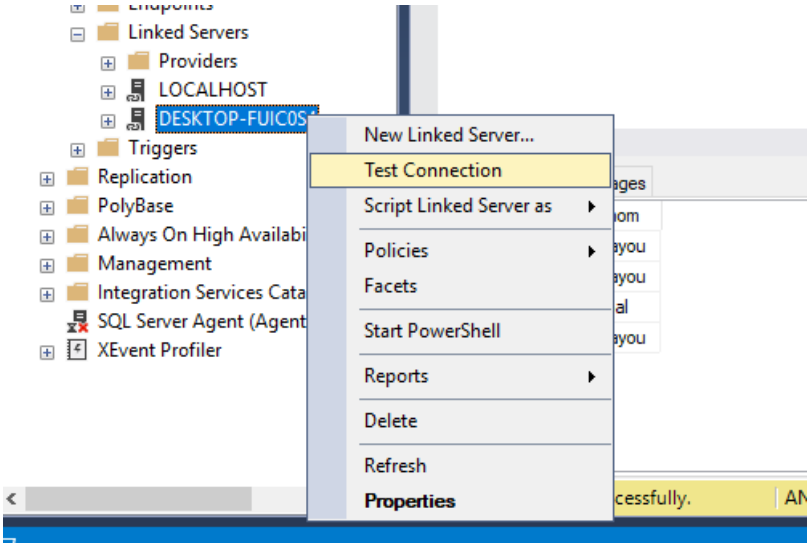


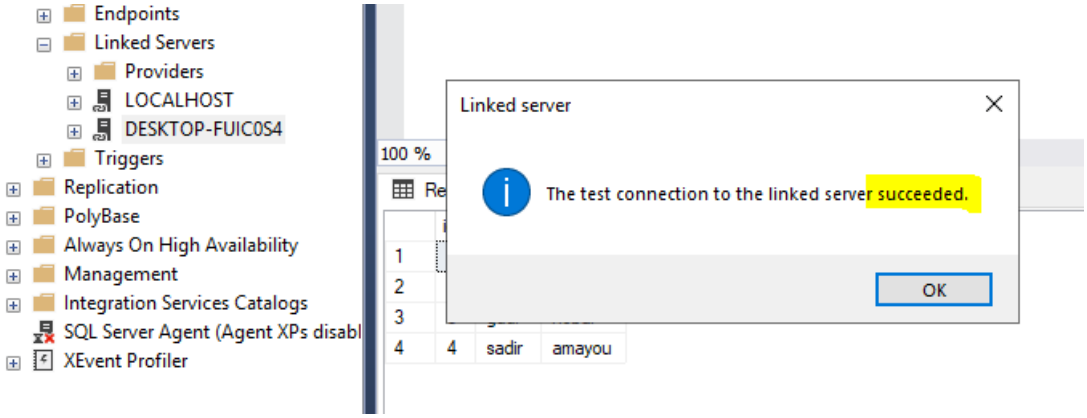
→test conection :



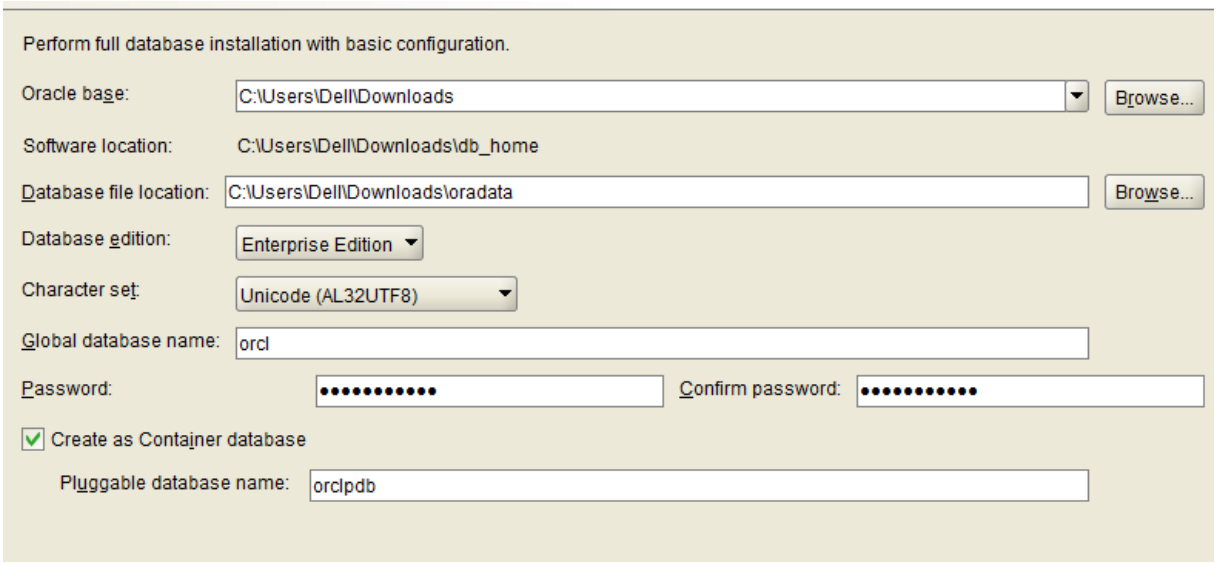
→ linked server to Host machine et test de connection :

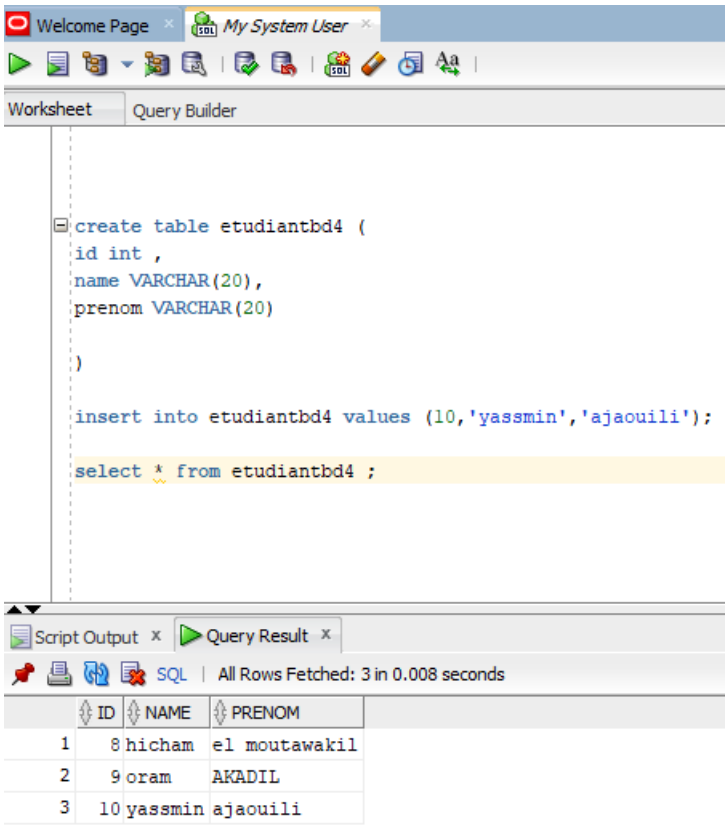


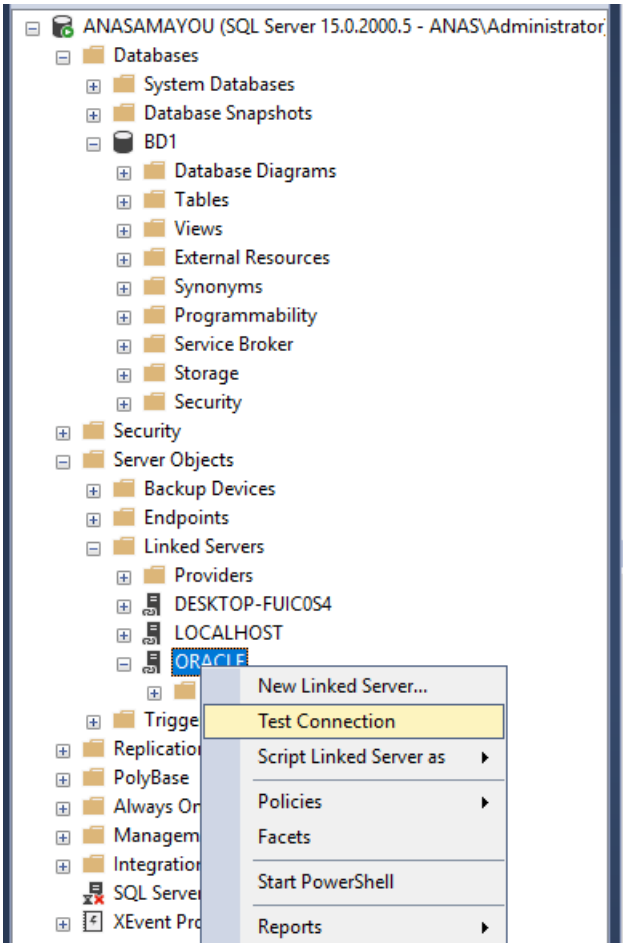


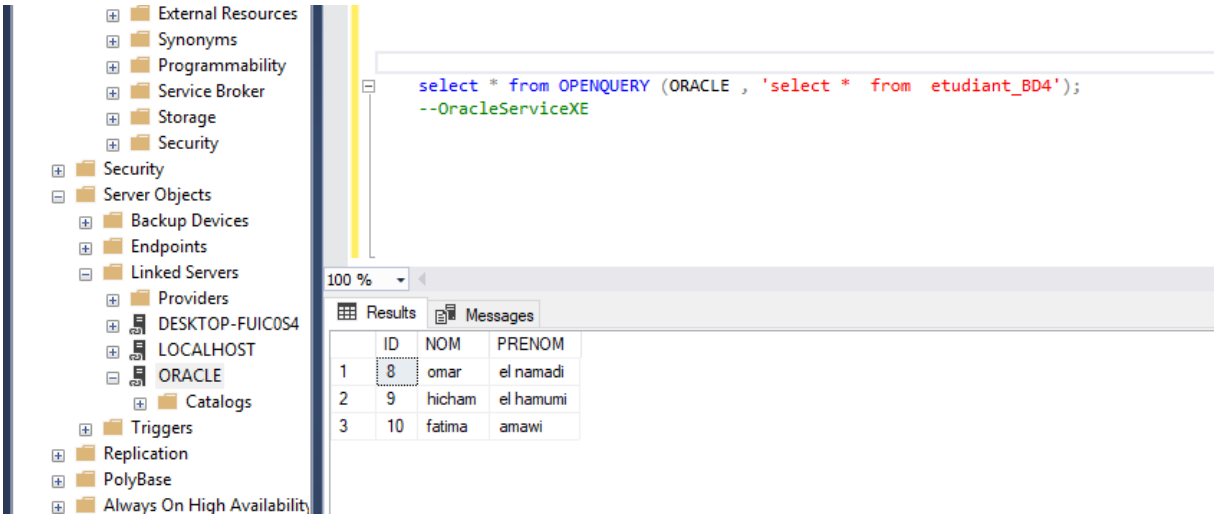


→ oracle : installation et test connection linked server :

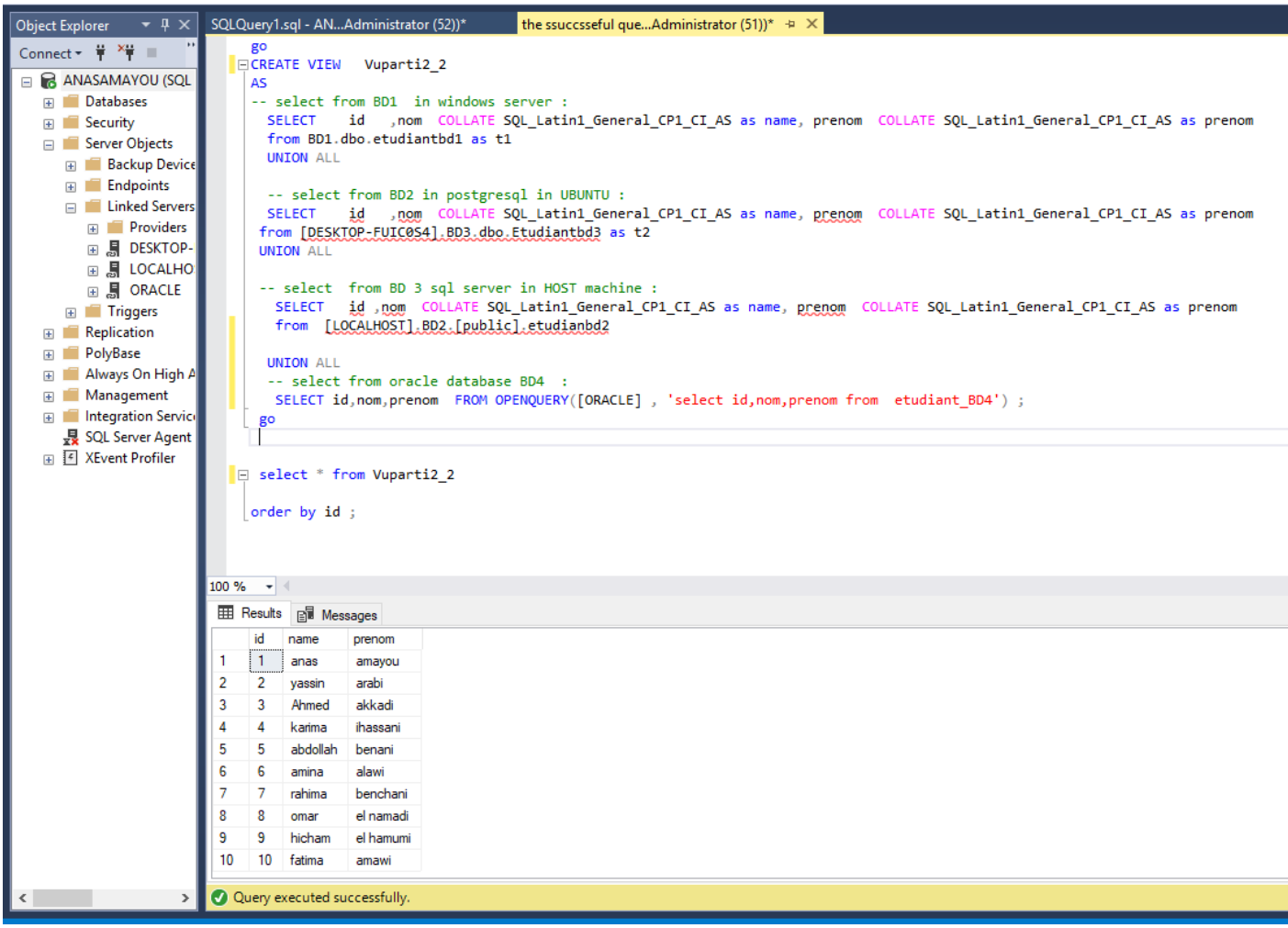




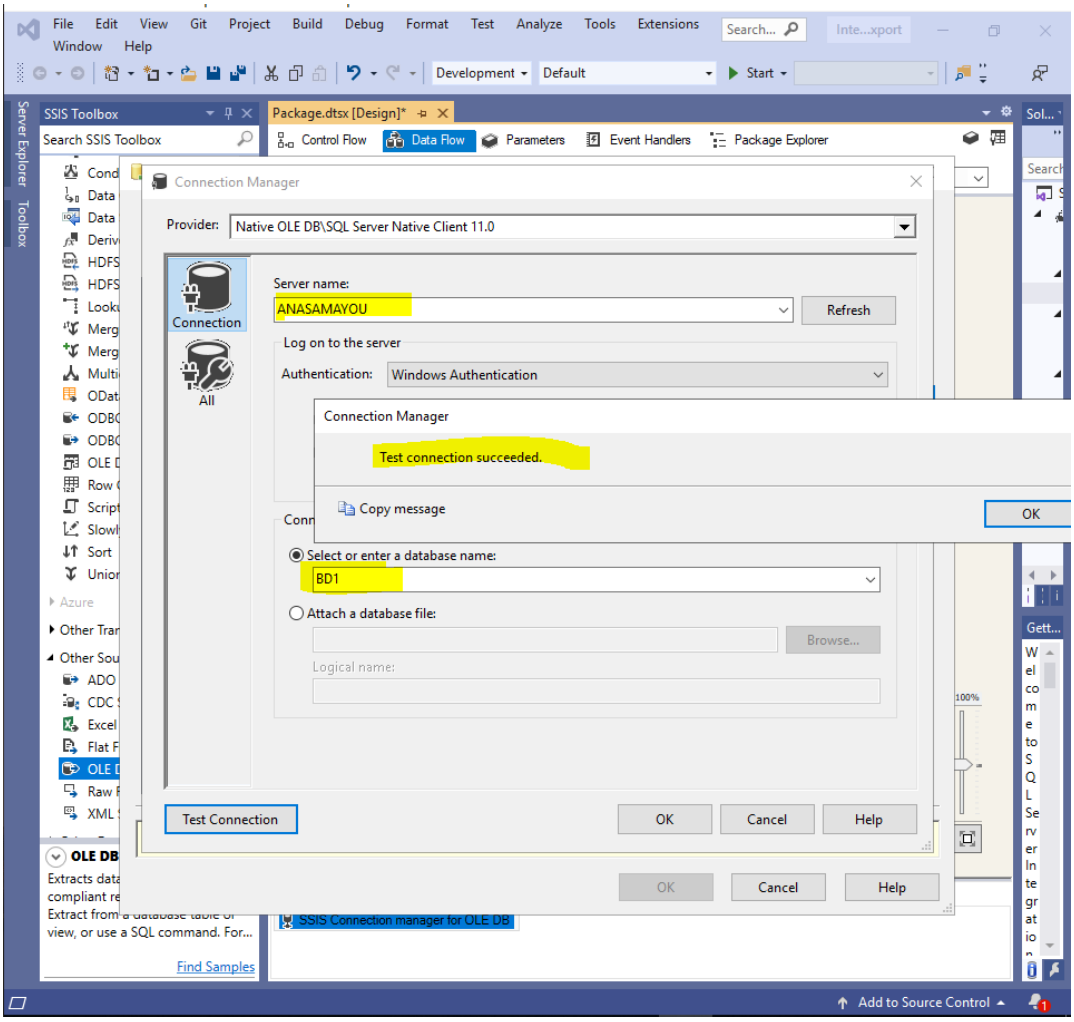

ANASAMAYOU (SQL Server 15.0.2000.5 - ANAS\Administrator
Databases
System Databases
Database Snapshots
BD1
Database Diagrams
Tables
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Security
Server Objects
Backup Devices
Endpoints
Linked Servers
Providers
DESKTOP-FUIC0S4
LOCALHOST
ORACLE
New Linked Server...
Test Connection
Script Linked Server as
Policies
Facets
Start PowerShell
Reports

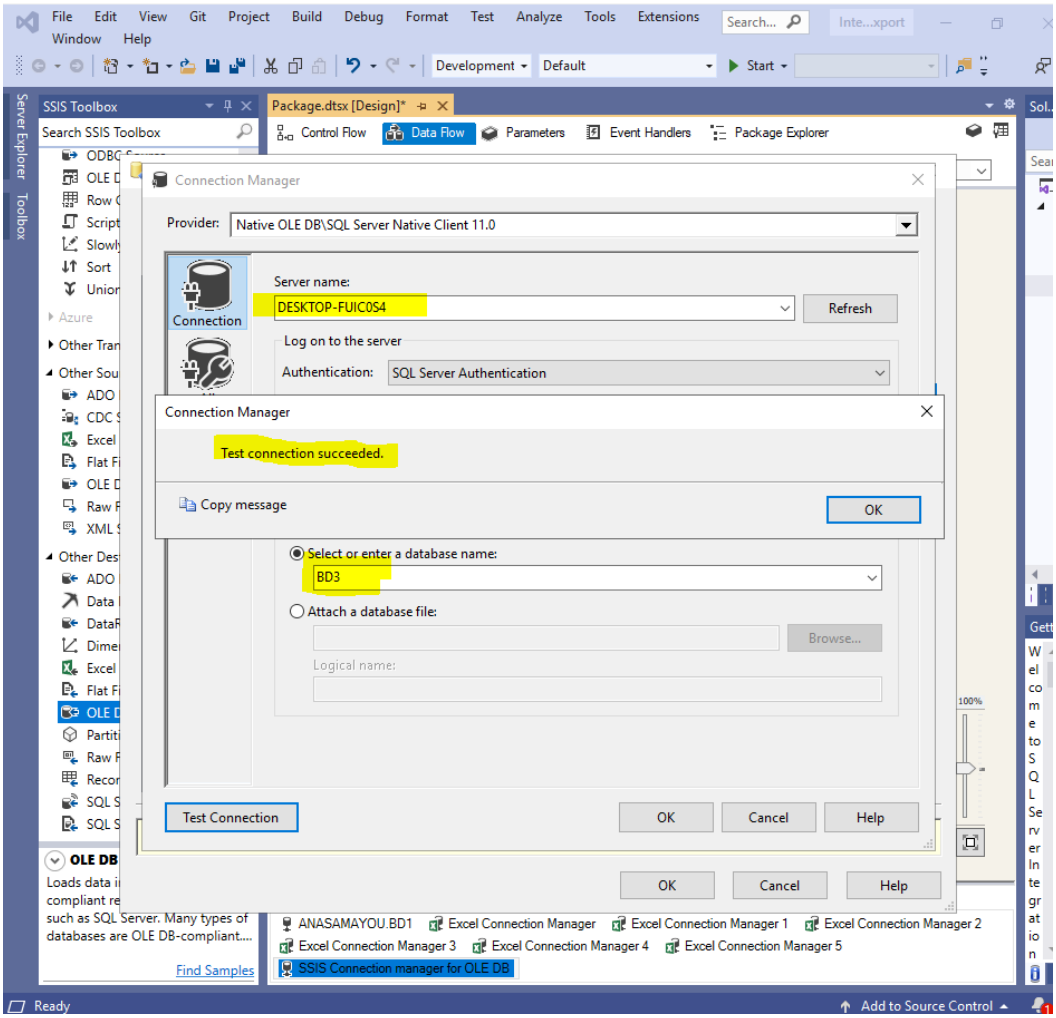

External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Security
Server Objects
Backup Devices
Endpoints
Linked Servers
Providers
DESKTOP-FUIC0S4
LOCALHOST
ORACLE
Catalogs
Triggers
Replication
PolyBase
Always On High Availability
select * from OPENQUERY (ORACLE , 'select * from etudiant_BD4');
--OracleServiceXE
100 %
Results
Messages
ID NOM PRENOM
1 8 omar el namadi
2 9 hicham el hamumi
3 10 fatima amawi

Phase 2 : une vue partitionnée basée sur les 4 bases de données. (question 1)

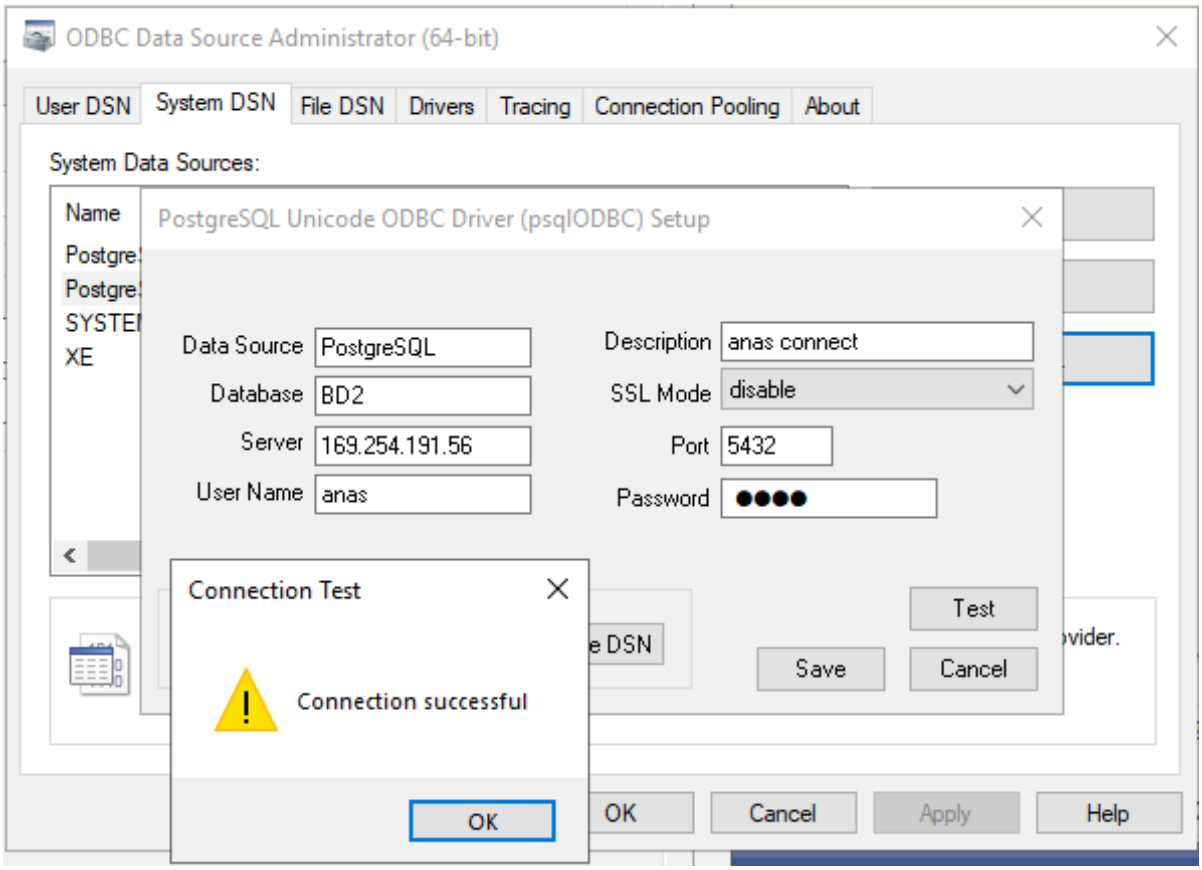


Phase 3 : creation un package SSIS montrant l'exportation, en même temps, de données de BD1 vers..(question 2)

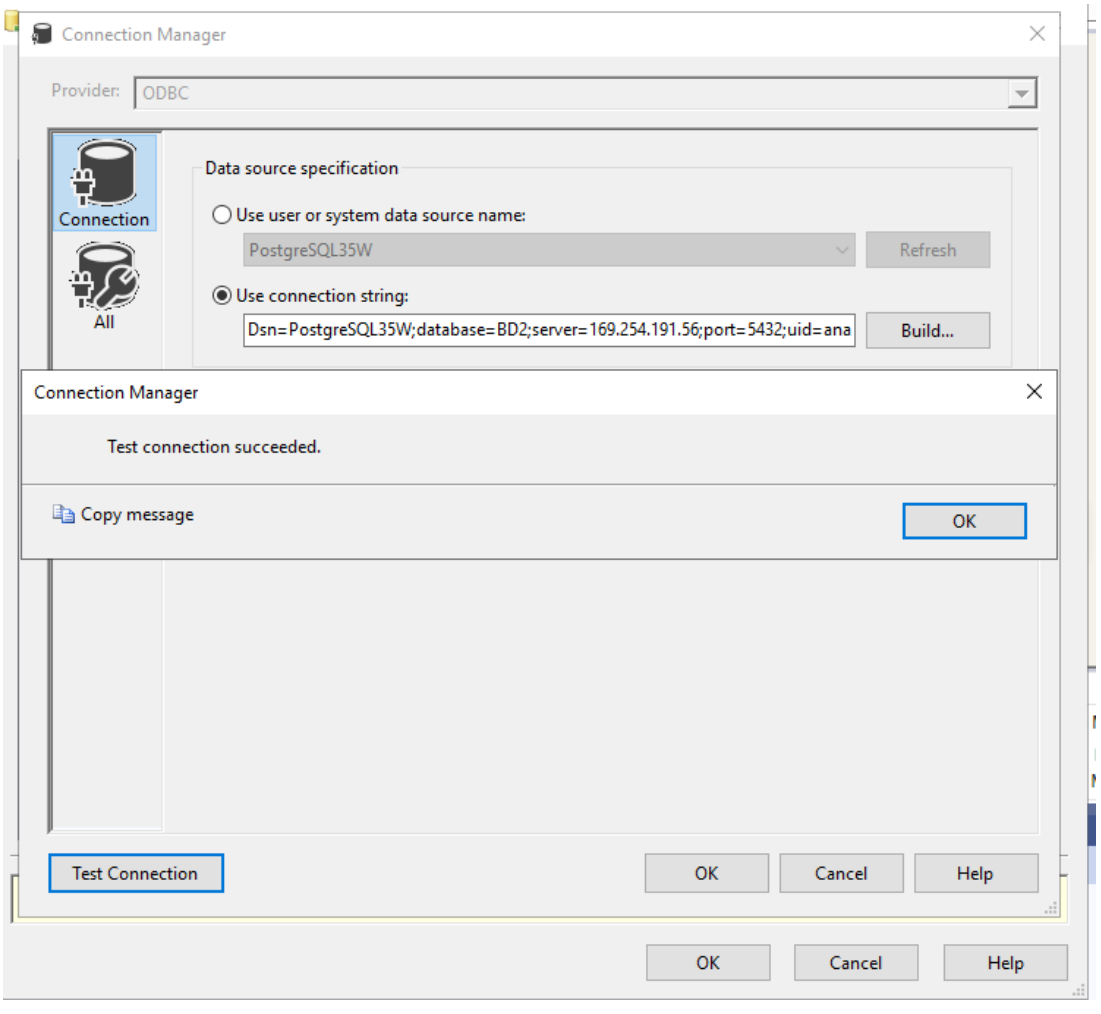

Connection Manager
Provider: Native OLE DB\SQL Server Native Client 11.0
Server name: ANASAMAYOU
Refresh
Log on to the server
Authentication: Windows Authentication
Connection Manager
Test connection succeeded.
Copy message
OK
Select or enter a database name:
BD1
Attach a database file:
Browse...
Logical name:
Test Connection
OK
Cancel
Help


Connection Manager
Provider: Native OLE DB\SQL Server Native Client 11.0
Server name: DESKTOP-FUIC0S4
Refresh
Log on to the server
Authentication: SQL Server Authentication
Connection Manager
Test connection succeeded.
Copy message
OK
Select or enter a database name:
BD3
Attach a database file:
Browse...
Logical name:
Test Connection
OK
Cancel
Help

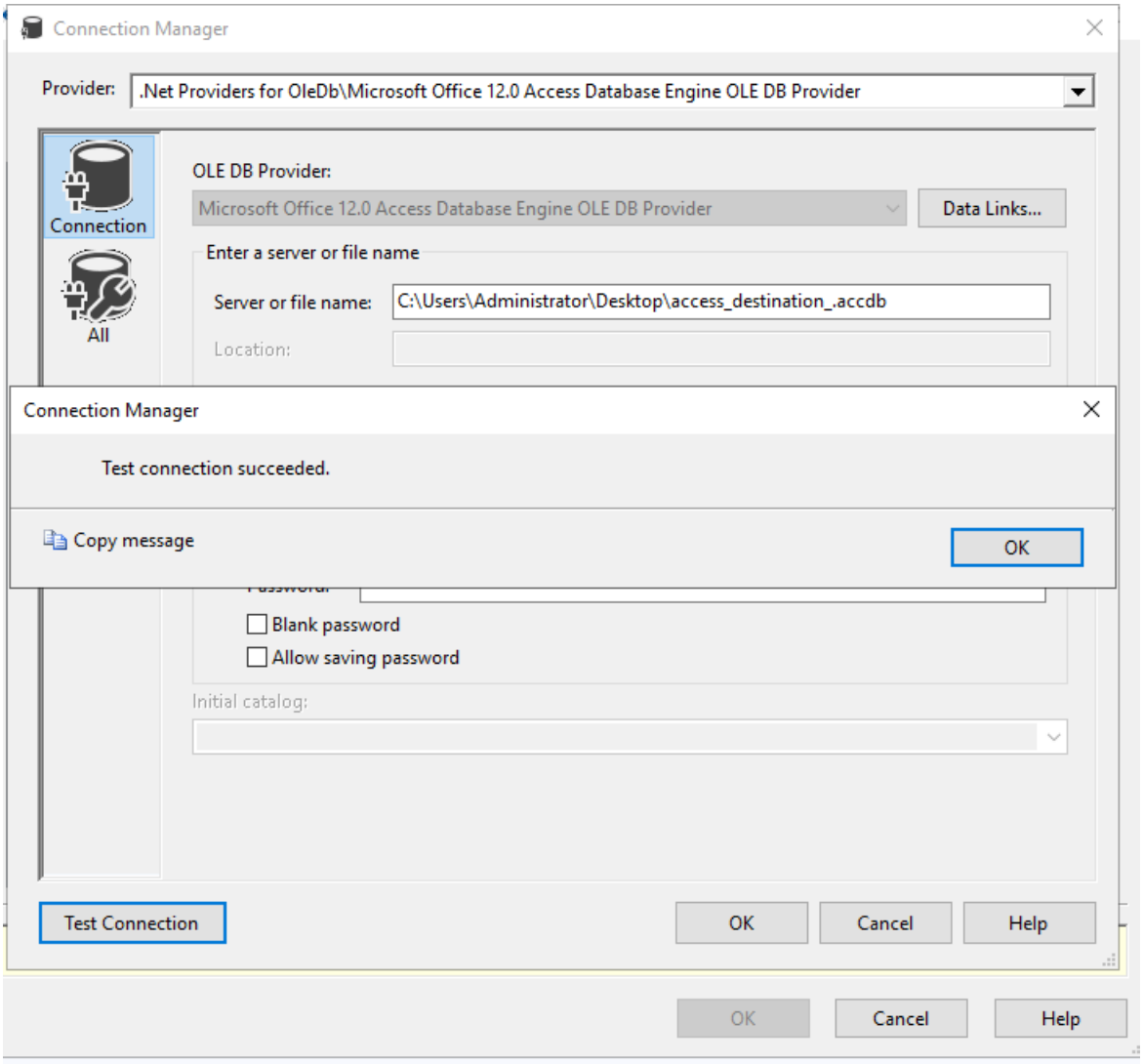
➔ Postgresql provider :



→test :



→Access database :



(même chose pour Excel)

Finalement : voila la création un package SSIS montrant l'exportation, en même temps, de données de BD1

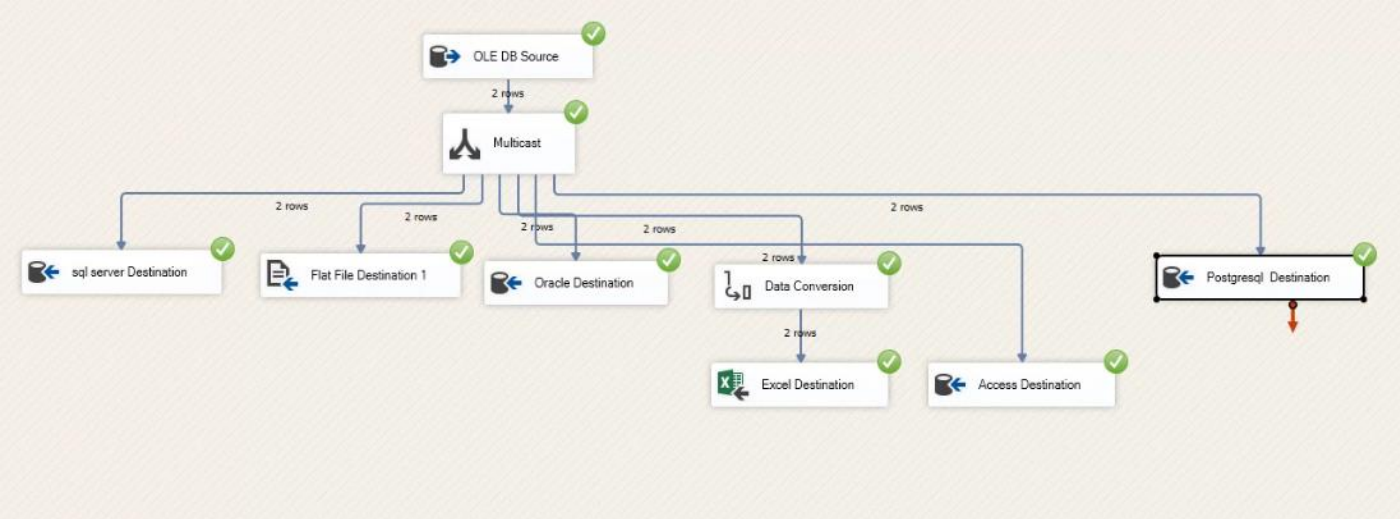
vers :

a. les 3 autres bases de données

b. une base de données Access

c. un fichier Excel

d. un fichier texte



Finalement ce projet a été vraiment un projet intéressant et "challenging" . merci !