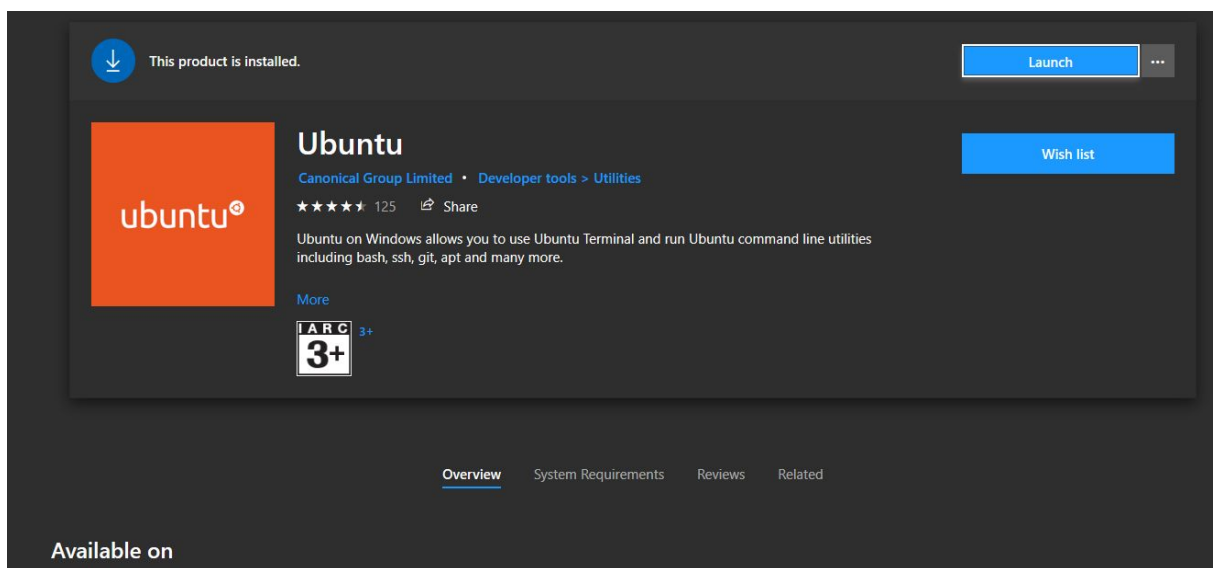


# Apache Superset Installation

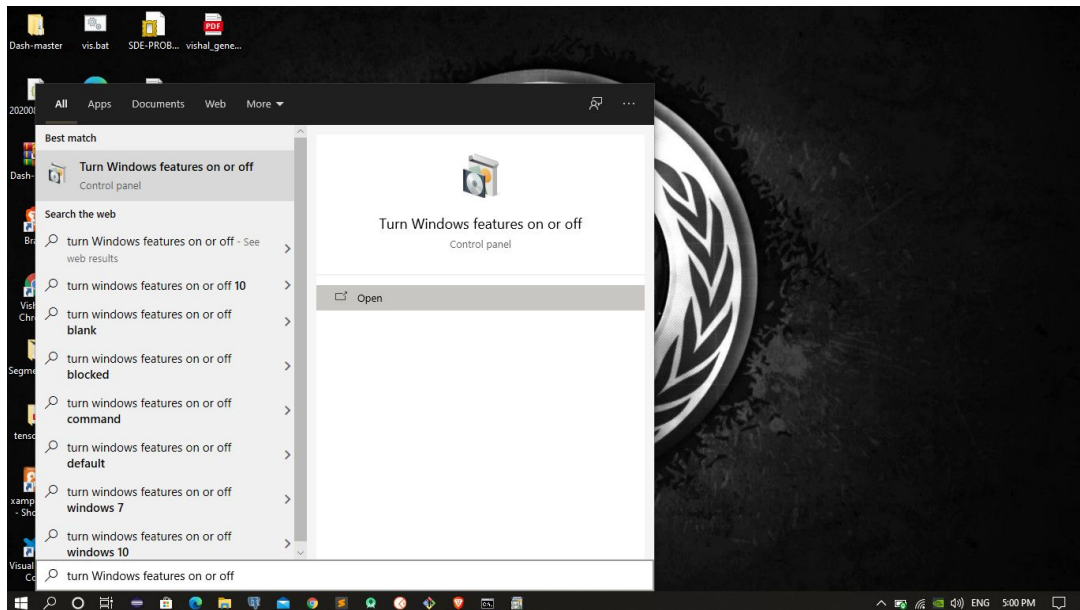
Please follow the commands mentioned below to install apache superset.

## 1. Ubuntu(Windows by Enabling Linux Subsystem For Windows)

**Step 1: Download and install Ubuntu from windows Store.**

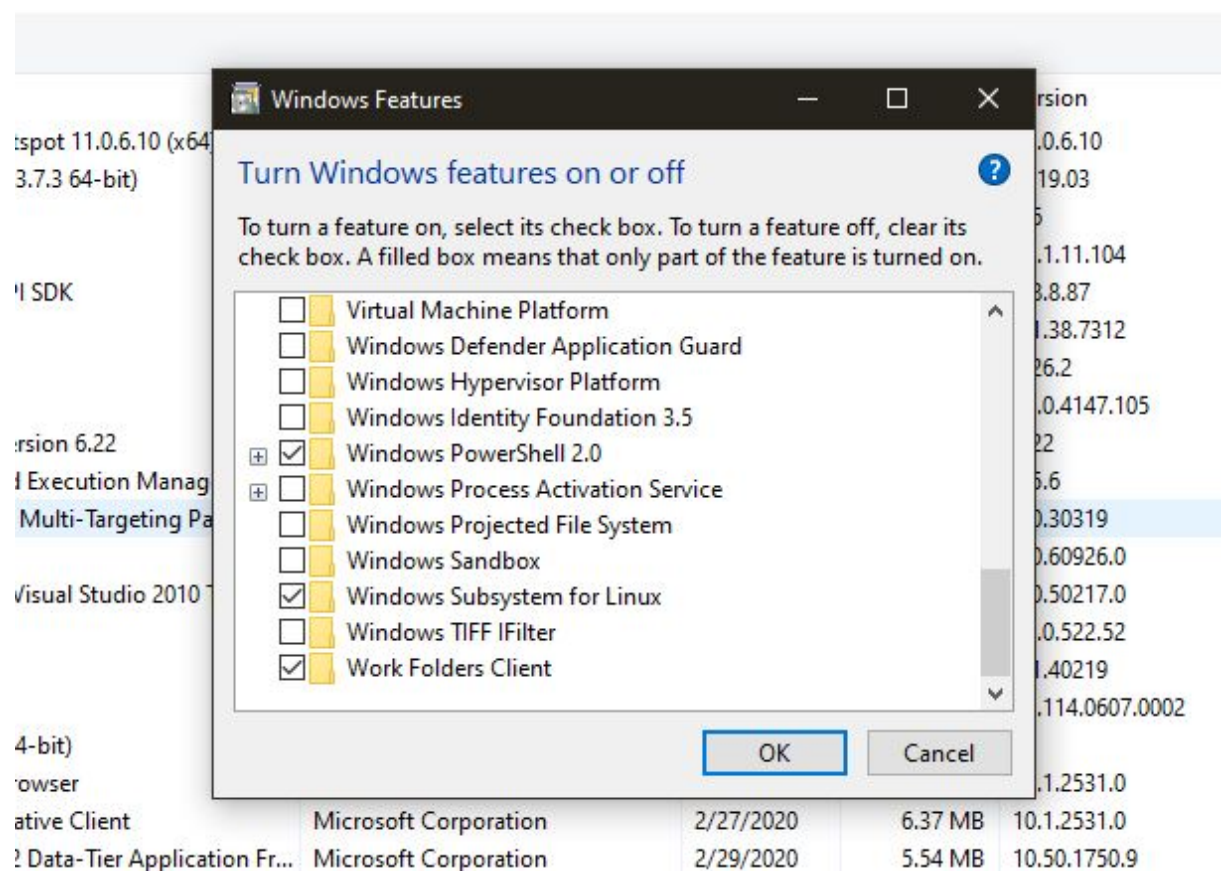


**Step 2: Goto Turn Windows Features on or off (just by searching)**

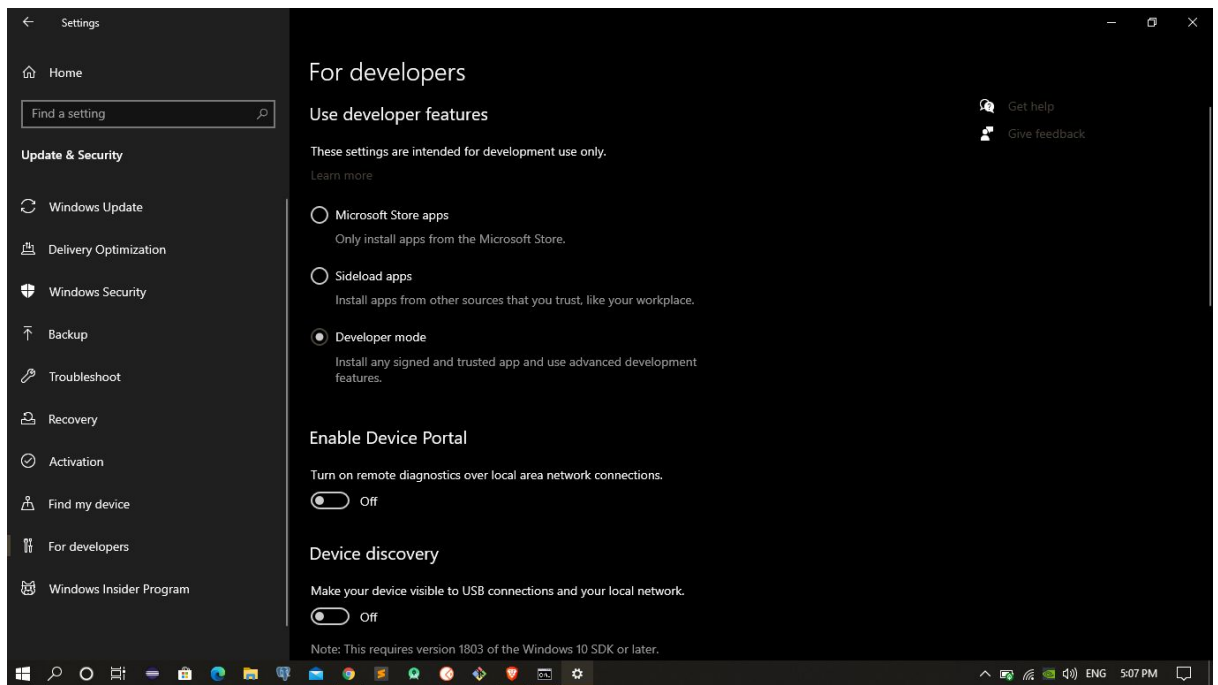


### 3. Select the Windows Subsystem for Linux and then press ok

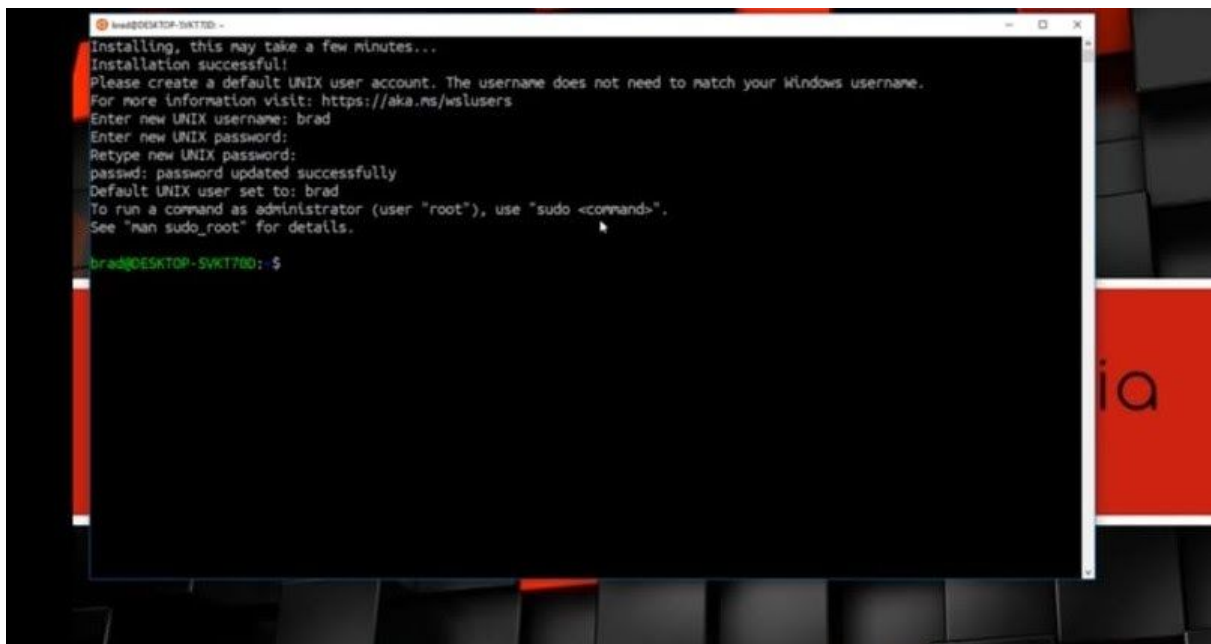
Click on the 'Turn Windows features on or off' link from the list and then click 'Uninstall', 'Change', or 'Repair'.



**Note :-** After that make sure you have turned on Developer mode for windows some time you might face some issue .



**After that open the ubuntu which you have installed.And enter the username & password**



**After that enter the commands in ubuntu :-**

1. `sudo apt update`
2. `sudo apt install python3-pip`
3. `pip3 --version`

```
vishal@vkssolutions: ~  
To check for new updates run: sudo apt update  
  
This message is shown once once a day. To disable it please create the  
/home/vishal/.hushlogin file.  
vishal@vkssolutions:~$ sudo apt update  
[sudo] password for vishal:  
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [107 kB]  
Hit:2 http://archive.ubuntu.com/ubuntu focal InRelease  
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [111 kB]  
Get:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease [98.3 kB]  
Get:5 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [318 kB]  
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [157 kB]  
Get:7 http://archive.ubuntu.com/ubuntu focal-updates/main Translation-en [119 kB]  
Get:8 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [56.4 kB]  
Get:9 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [8160 B]  
Get:10 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [3948 B]  
Get:11 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [29.2 kB]  
Get:12 http://archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [7732 B]  
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [146 kB]  
Get:14 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [29.2 kB]  
Get:15 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [7732 B]  
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [73.9 kB]  
Get:17 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [48.6 kB]  
Get:18 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [4920 B]  
Get:19 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [11.6 kB]  
Get:20 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [26.0 kB]  
Get:21 http://archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-en [3892 B]  
Get:22 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [480 B]  
Get:23 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [1892 B]  
Fetched 1370 kB in 14s (98.2 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
107 packages can be upgraded. Run 'apt list --upgradable' to see them.  
vishal@vkssolutions:~$ sudo apt install python3-pip  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
python3-pip is already the newest version (20.0.2-5ubuntu1).  
0 upgraded, 0 newly installed, 0 to remove and 107 not upgraded.  
vishal@vkssolutions:~$ pip3 --version  
pip 20.0.2 from /usr/lib/python3/dist-packages/pip (python 3.8)  
vishal@vkssolutions:~$
```

4. pip3 install virtualenv
5. sudo apt-get install python3-venv
6. python3 -m venv supersetdata

```
vishal@vkssolutions: ~  
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [157 kB]  
Get:7 http://archive.ubuntu.com/ubuntu focal-updates/main Translation-en [119 kB]  
Get:8 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [56.4 kB]  
Get:9 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [8160 B]  
Get:10 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [3948 B]  
Get:11 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [29.2 kB]  
Get:12 http://archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [7732 B]  
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [146 kB]  
Get:14 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [29.2 kB]  
Get:15 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [7732 B]  
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [73.9 kB]  
Get:17 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [48.6 kB]  
Get:18 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [4920 B]  
Get:19 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [11.6 kB]  
Get:20 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [26.0 kB]  
Get:21 http://archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-en [3892 B]  
Get:22 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [480 B]  
Get:23 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [1892 B]  
Fetched 1370 kB in 14s (98.2 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
107 packages can be upgraded. Run 'apt list --upgradable' to see them.  
vishal@vkssolutions:~$ sudo apt install python3-pip  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
python3-pip is already the newest version (20.0.2-5ubuntu1).  
0 upgraded, 0 newly installed, 0 to remove and 107 not upgraded.  
vishal@vkssolutions:~$ pip3 --version  
pip 20.0.2 from /usr/lib/python3/dist-packages/pip (python 3.8)  
vishal@vkssolutions:~$ pip3 install virtualenv  
Requirement already satisfied: virtualenv in ./local/lib/python3.8/site-packages (20.0.27)  
Requirement already satisfied: filelock<4,>=3.0.0 in ./local/lib/python3.8/site-packages (from virtualenv) (3.0.12)  
Requirement already satisfied: six<2,>=1.9.0 in /usr/lib/python3/dist-packages (from virtualenv) (1.14.0)  
Requirement already satisfied: appdirs<2,>=1.4.3 in ./local/lib/python3.8/site-packages (from virtualenv) (1.4.4)  
Requirement already satisfied: distlib<1,>=0.3.1 in ./local/lib/python3.8/site-packages (from virtualenv) (0.3.1)  
vishal@vkssolutions:~$ sudo apt-get install python3-venv  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
python3-venv is already the newest version (3.8.2-0ubuntu2).  
0 upgraded, 0 newly installed, 0 to remove and 107 not upgraded.  
vishal@vkssolutions:~$ python3 -m venv supersetdata_
```

7. . supersetdata/bin/activate

```
python3-venv is already the newest version (3.8.2-0ubuntu2).  
0 upgraded, 0 newly installed, 0 to remove and 107 not upgraded.  
vishal@vkssolutions:~$ . supersetdata/bin/activate  
(supersetdata) vishal@vkssolutions:~$
```



## After that enter these commands

8. pip install --upgrade setuptools pip
9. pip install apache-superset
10. superset db upgrade
11. export FLASK\_APP=superset
12. superset fab create-admin  
( Username [admin]: admin  
User first name [admin]: admin  
User last name [user]: admin  
Email [admin@fab.org]: xyz@gmail.com  
Password:  
Repeat for confirmation: )

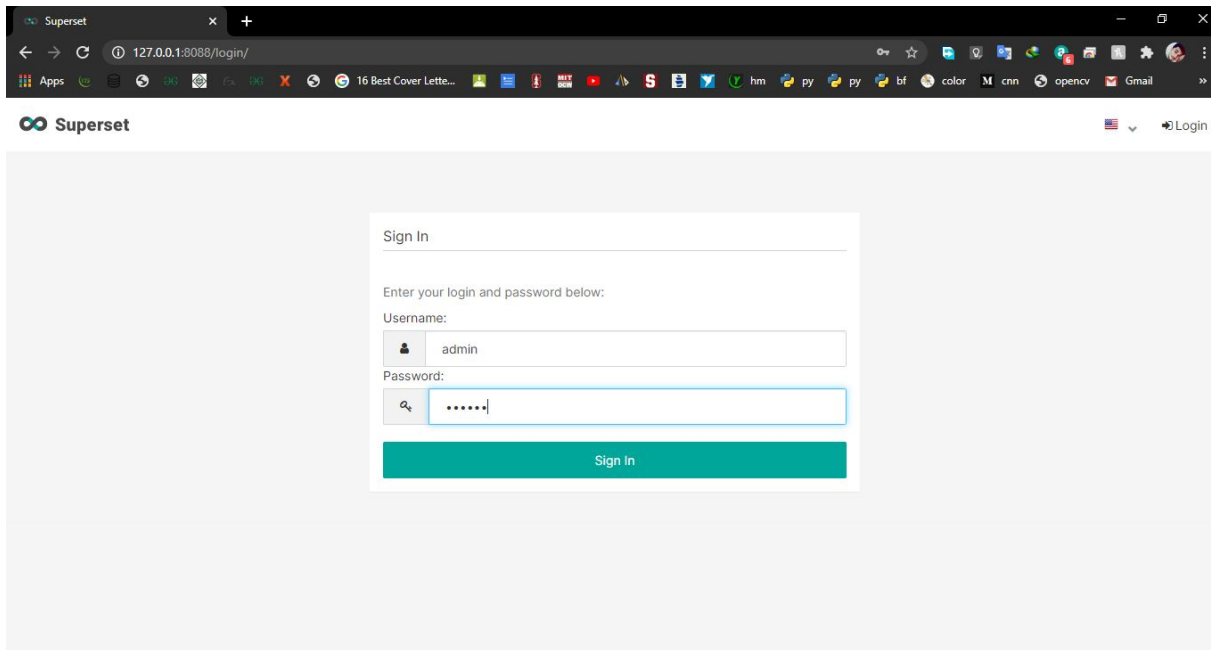
13. superset load\_examples
14. superset init

```
vishal@vksolutions:~$ . supersetdata/bin/activate
(supersetdata) vishal@vksolutions:~$ superset init
logging was configured successfully
INFO:superset.utils.logging_configurator:logging was configured successfully
/home/vishal/supersetdata/lib/python3.8/site-packages/flask_caching/__init__.py:191: UserWarning: Flask-Caching: CACHE_TYPE is set to null, caching is effectively disabled.
  warnings.warn(
Syncing role definition
INFO:superset.security.manager:Syncing role definition
Syncing Admin perms
INFO:superset.security.manager:Syncing Admin perms
Syncing Alpha perms
INFO:superset.security.manager:Syncing Alpha perms
Syncing Gamma perms
INFO:superset.security.manager:Syncing Gamma perms
Syncing granter perms
INFO:superset.security.manager:Syncing granter perms
Syncing sql_lab perms
INFO:superset.security.manager:Syncing sql_lab perms
Fetching a set of all perms to lookup which ones are missing
INFO:superset.security.manager:Fetching a set of all perms to lookup which ones are missing
Creating missing datasource permissions.
INFO:superset.security.manager:Creating missing datasource permissions.
Creating missing database permissions.
INFO:superset.security.manager:Creating missing database permissions.
Creating missing metrics permissions
INFO:superset.security.manager:Creating missing metrics permissions
Cleaning faulty perms
INFO:superset.security.manager:Cleaning faulty perms
(supersetdata) vishal@vksolutions:~$
```

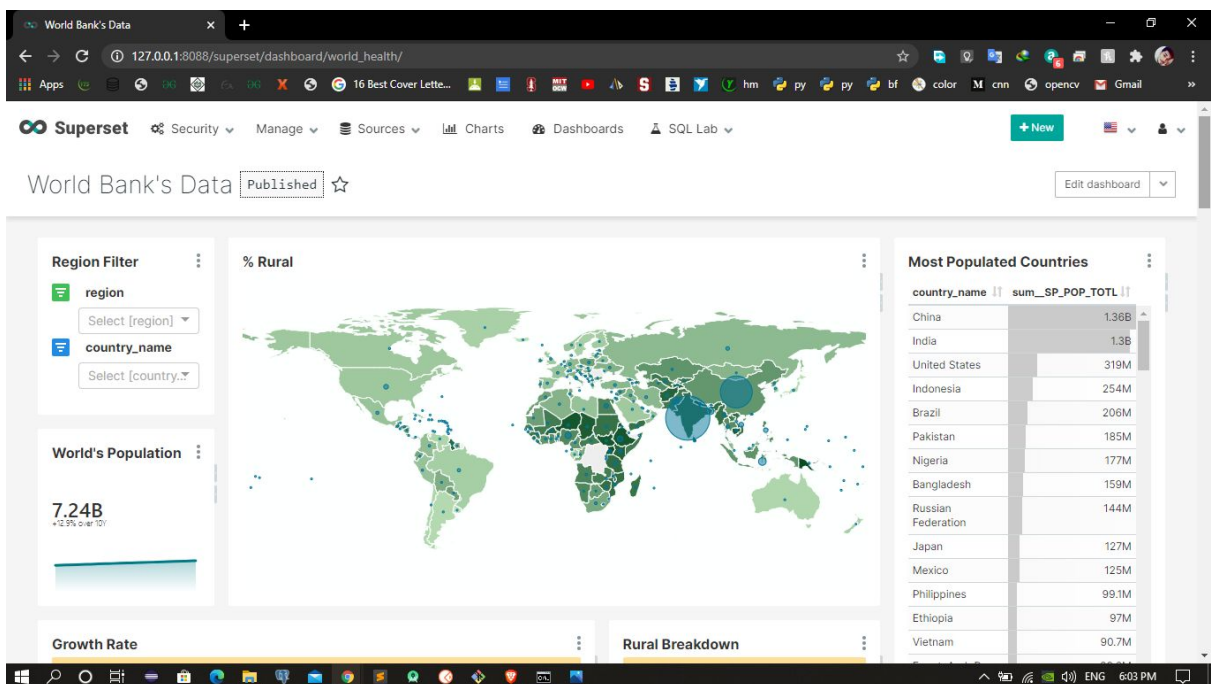
15. superset run -p 8088 --with-threads --reload --debugger

```
(supersetdata) vishal@vksolutions:~$ superset run -p 8088 --with-threads --reload --debugger
logging was configured successfully
INFO:superset.utils.logging_configurator:logging was configured successfully
/home/vishal/supersetdata/lib/python3.8/site-packages/flask_caching/__init__.py:191: UserWarning: Flask-Caching: CACHE_TYPE is set to null, caching is effectively disabled.
  warnings.warn(
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
INFO:werkzeug: * Running on http://127.0.0.1:8088/ (Press CTRL+C to quit)
INFO:werkzeug: * Restarting with stat
logging was configured successfully
INFO:superset.utils.logging_configurator:logging was configured successfully
/home/vishal/supersetdata/lib/python3.8/site-packages/flask_caching/__init__.py:191: UserWarning: Flask-Caching: CACHE_TYPE is set to null, caching is effectively disabled.
  warnings.warn(
WARNING:werkzeug: * Debugger is active!
INFO:werkzeug: * Debugger PIN: 236-297-510
```

Enter the url in your Browser :- <http://127.0.0.1:8088/>



After Sign in you will see Dashboards Explore the DashBoards



# How to Get MSSQL Data in PostgreSql ?

Using (Foreign Data Wrapper) tds\_fdw

## PostgreSql Installation

Here I am using PostgreSQL 12 .([PostgreSql Download Link](#))

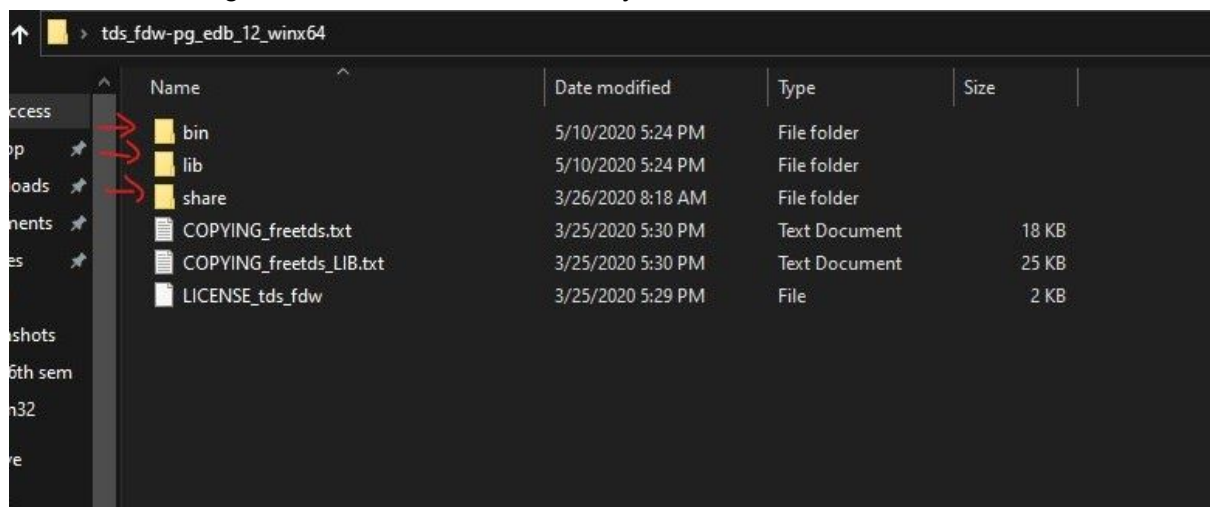
## tds\_fdw installation and configuration

You need to download suitable Binaries according to your Software.

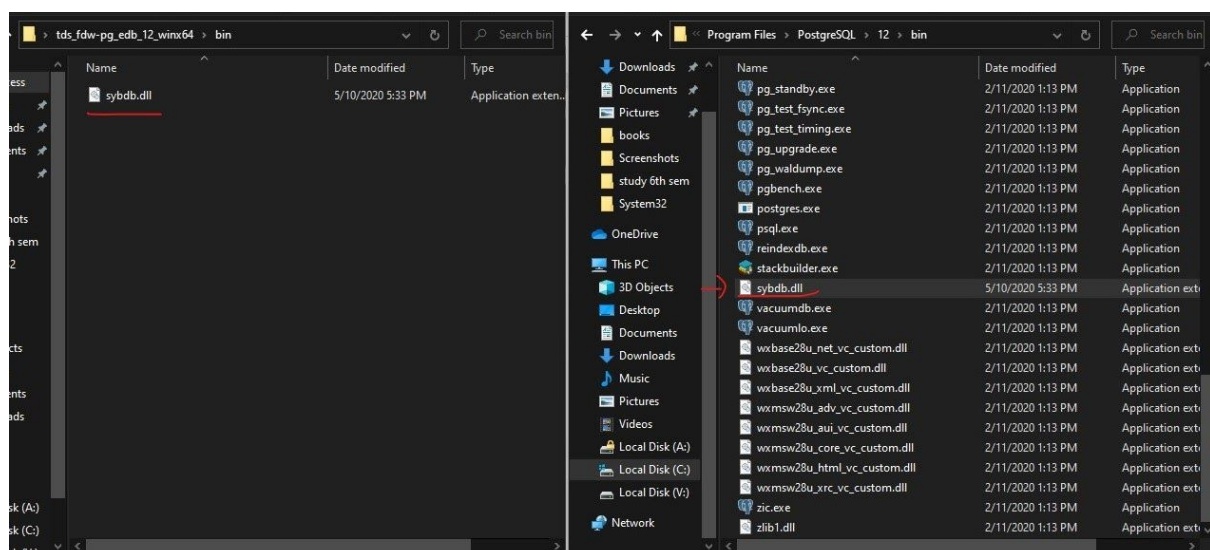
For Binaries You can refer the below link .([Binary file link](#))

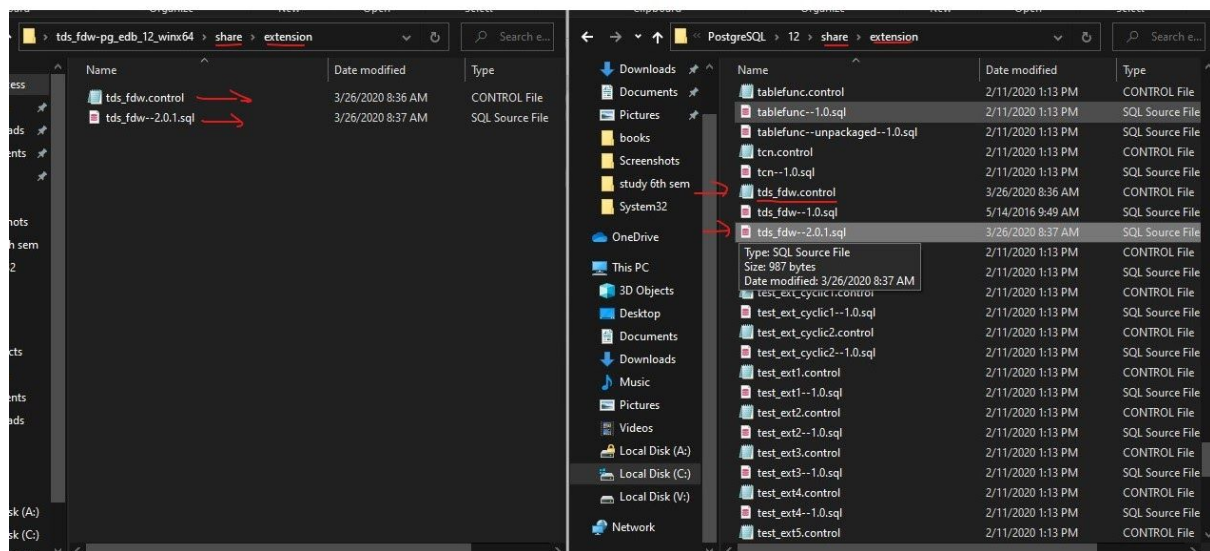
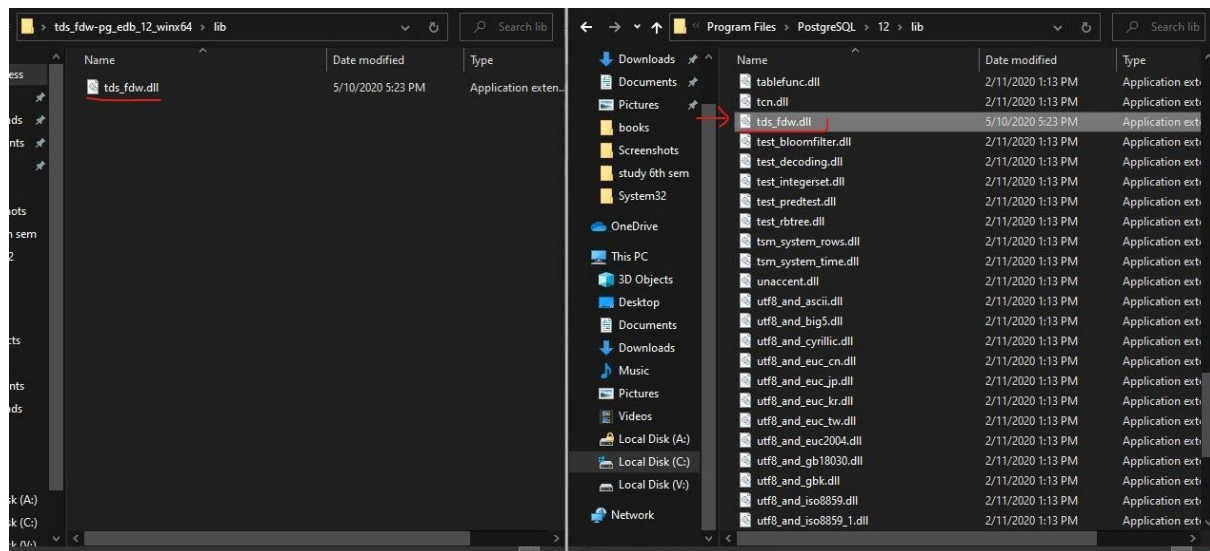
([https://github.com/tds-fdw/tds\\_fdw/issues/53#issuecomment-626329771](https://github.com/tds-fdw/tds_fdw/issues/53#issuecomment-626329771))

After downloading the binaries extract the Binary file .



After that go to PostgreSQL Folder in Program files and Paste the Binary file according to given instruction.

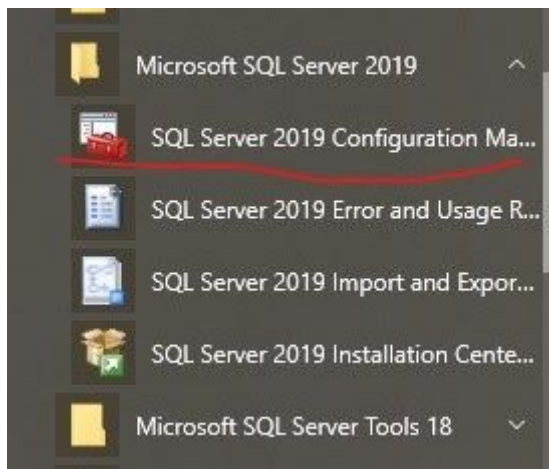




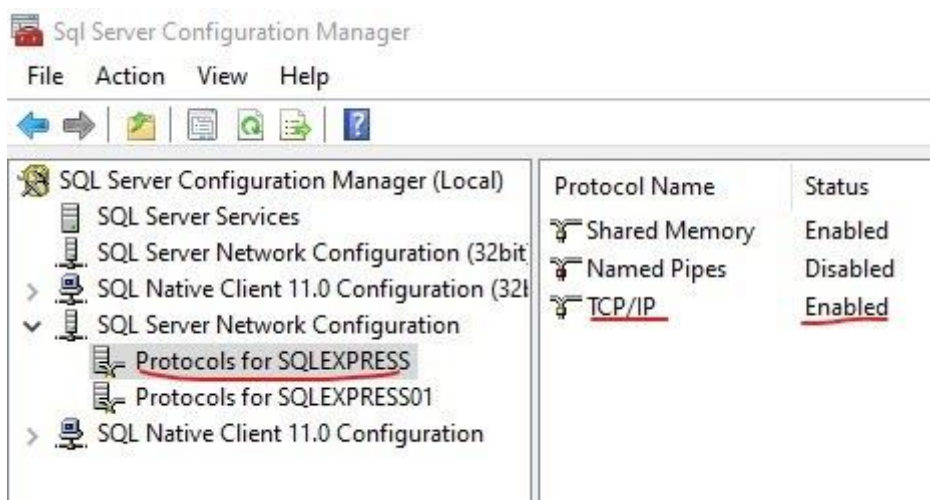
Before creating extension check on which port your Ms sql server is Running.

1. Open SQL sever 2019(your version) configuration Manager.



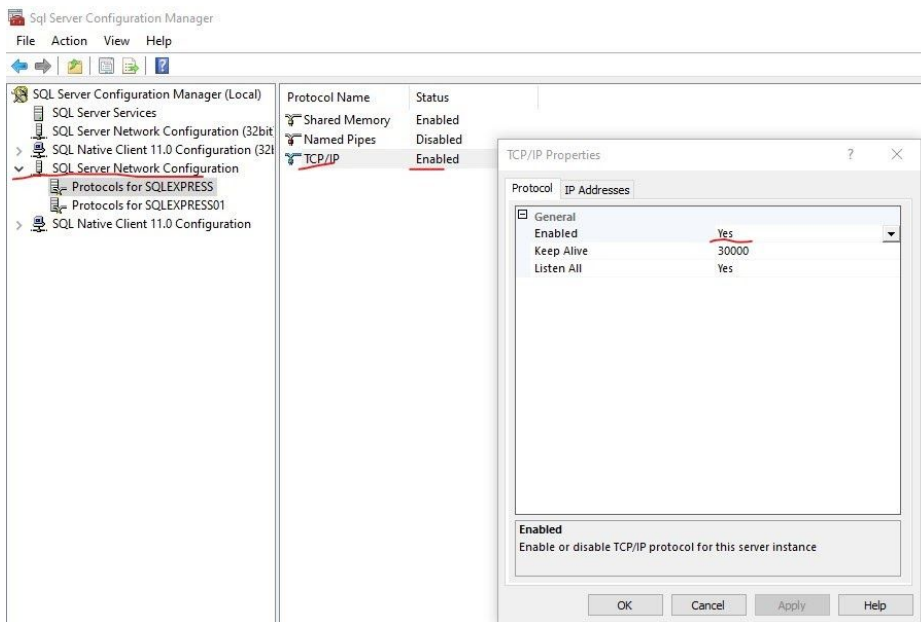


## 2. Open the Sql Server 2019 configuration Manager

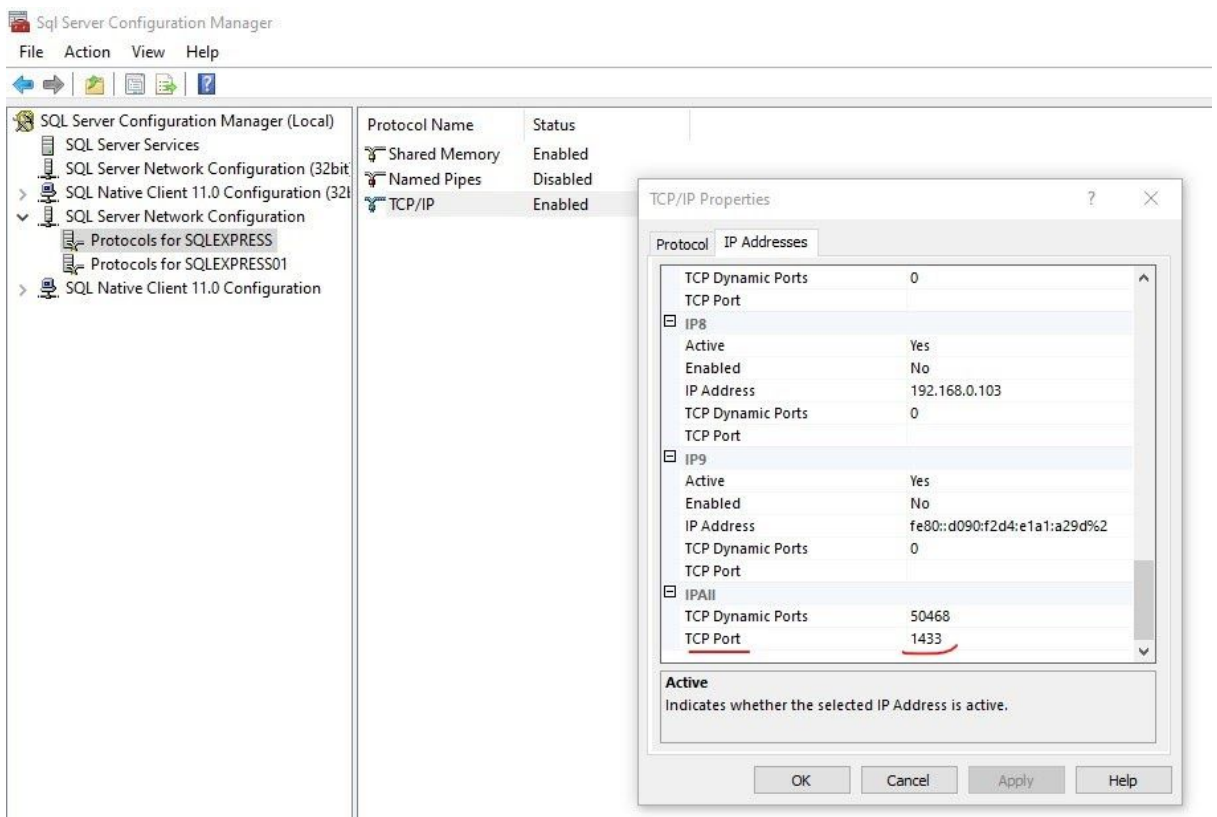


Check TCP/IP is enabled.

### 3 Click on the TCP/IP and check on which port it is running

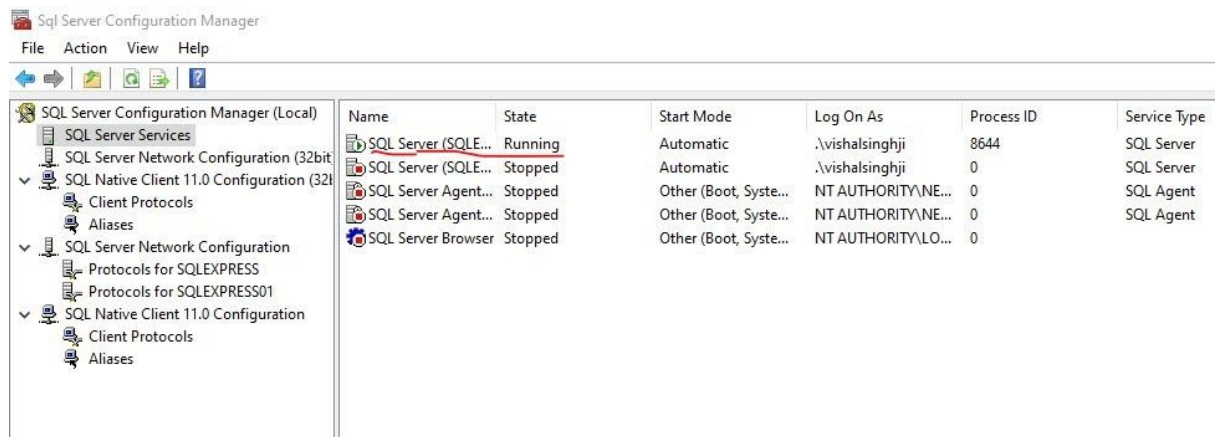


See if there is **port number** mentioned or not & click ok .



**After that restart the server.**

Click on the Sql server (which is running) and Restart it .

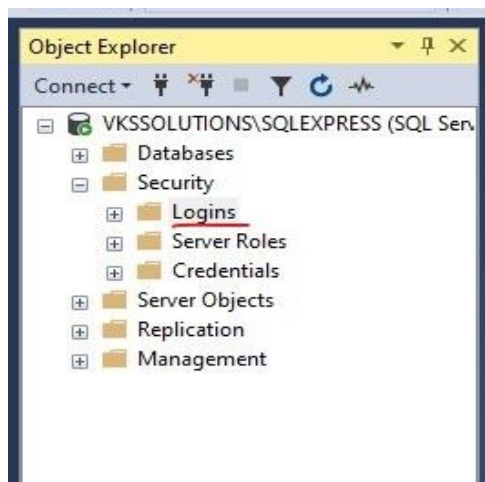


## MSSQL Table Creation and accessing in Postgres

### Open Microsoft SQL Server Management Studio 18



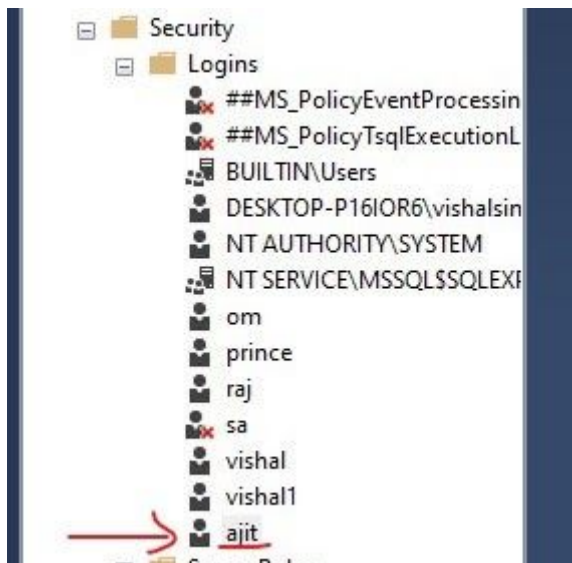
Open it and we are going to **create new user** first.  
Go to login and click on it to create new user.



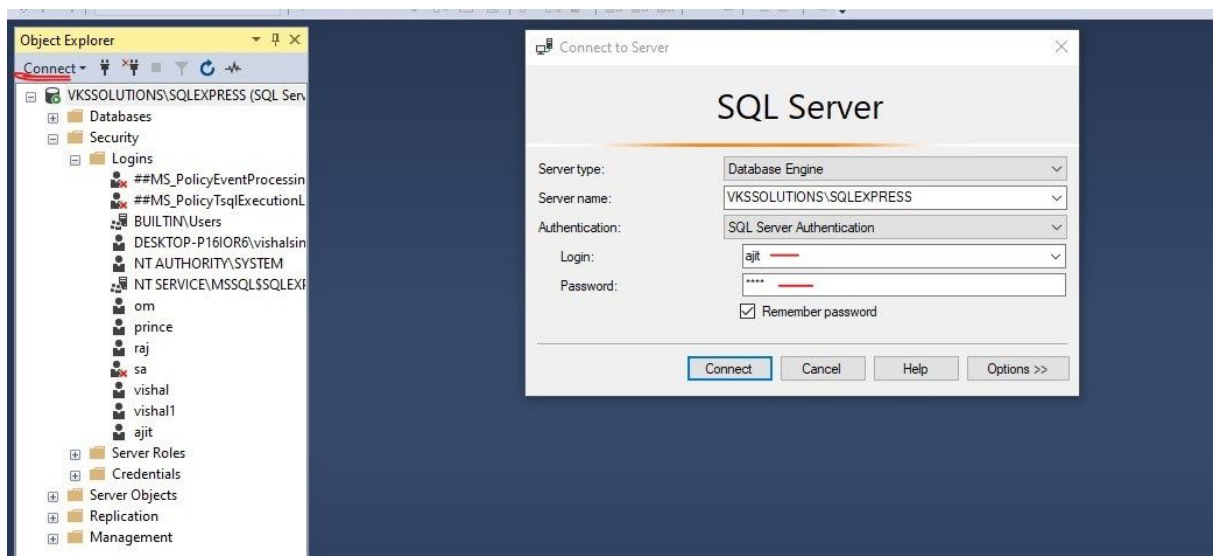
After that write the **UserName & Password** and give certain **permission of sysadmin**(to fetch all the database if you wish)



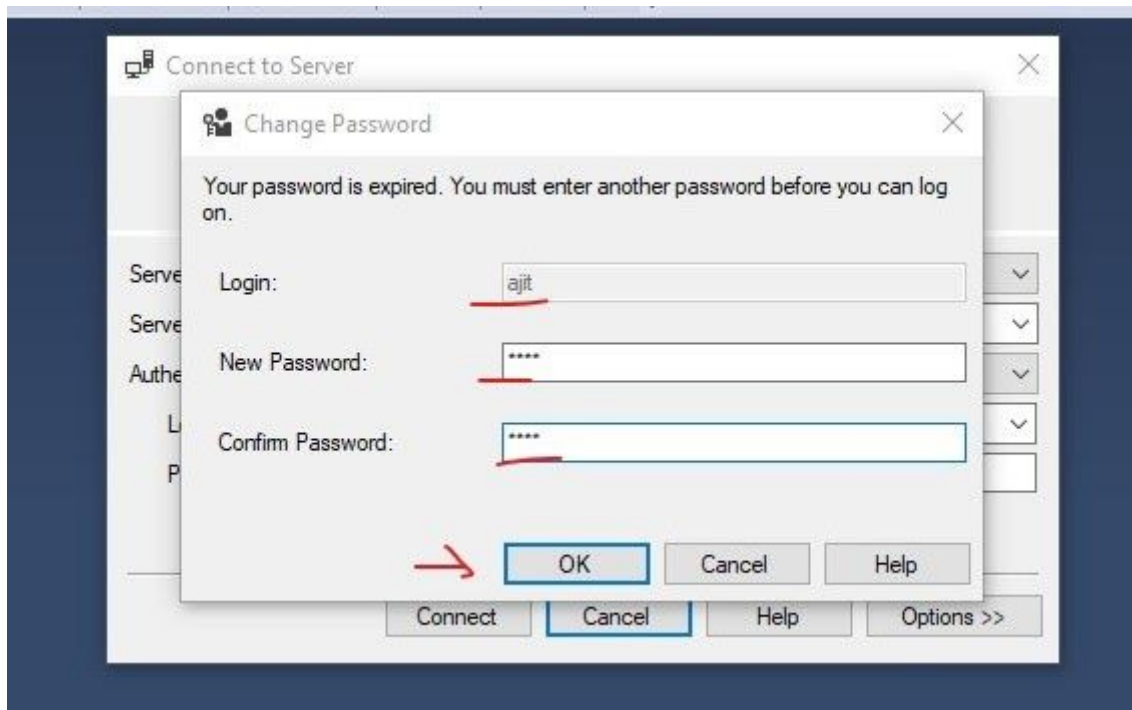




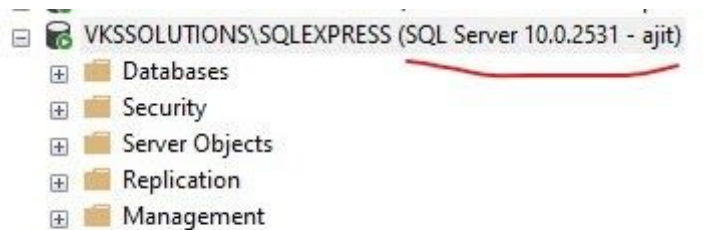
After that we are going to **log in** with the new user .



As the new user it will ask for new password you can enter same password as you wish.



Press Ok you will find that you have signed into **MS SQL** with same **UserName**.

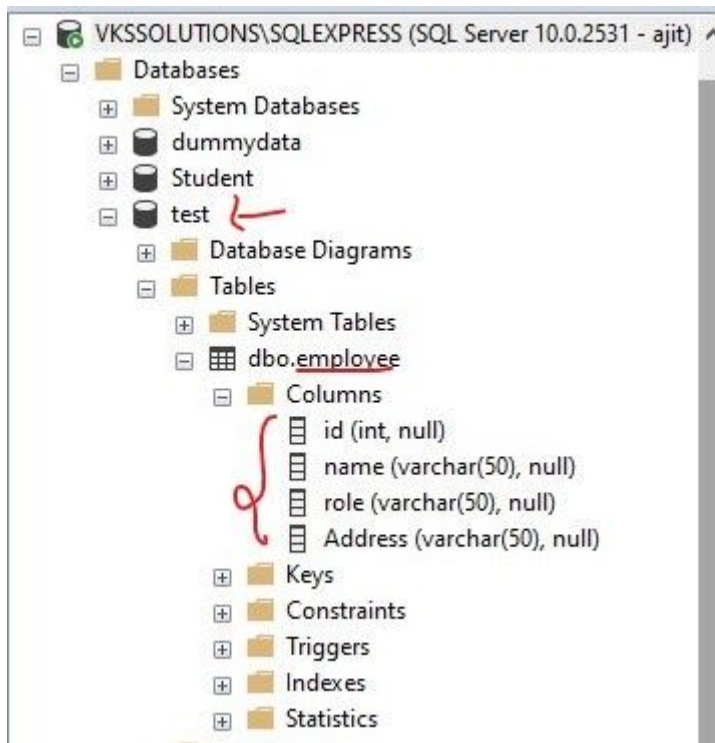


**So create one Database and Table .**

**Database Name** - Test

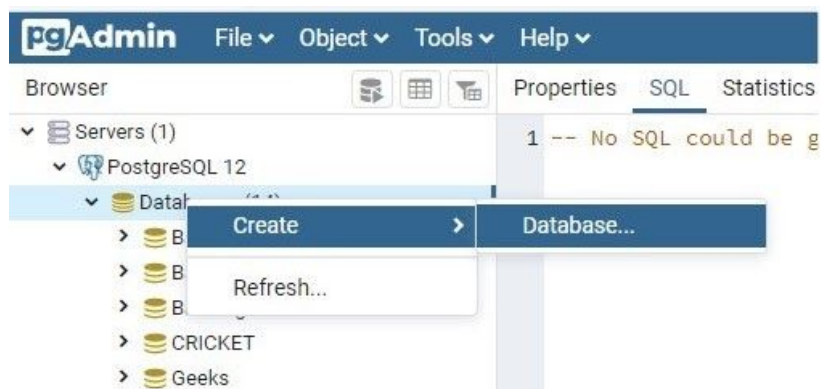
**Table Name**- employee (with 4 attributes)

**Schema** - dbo

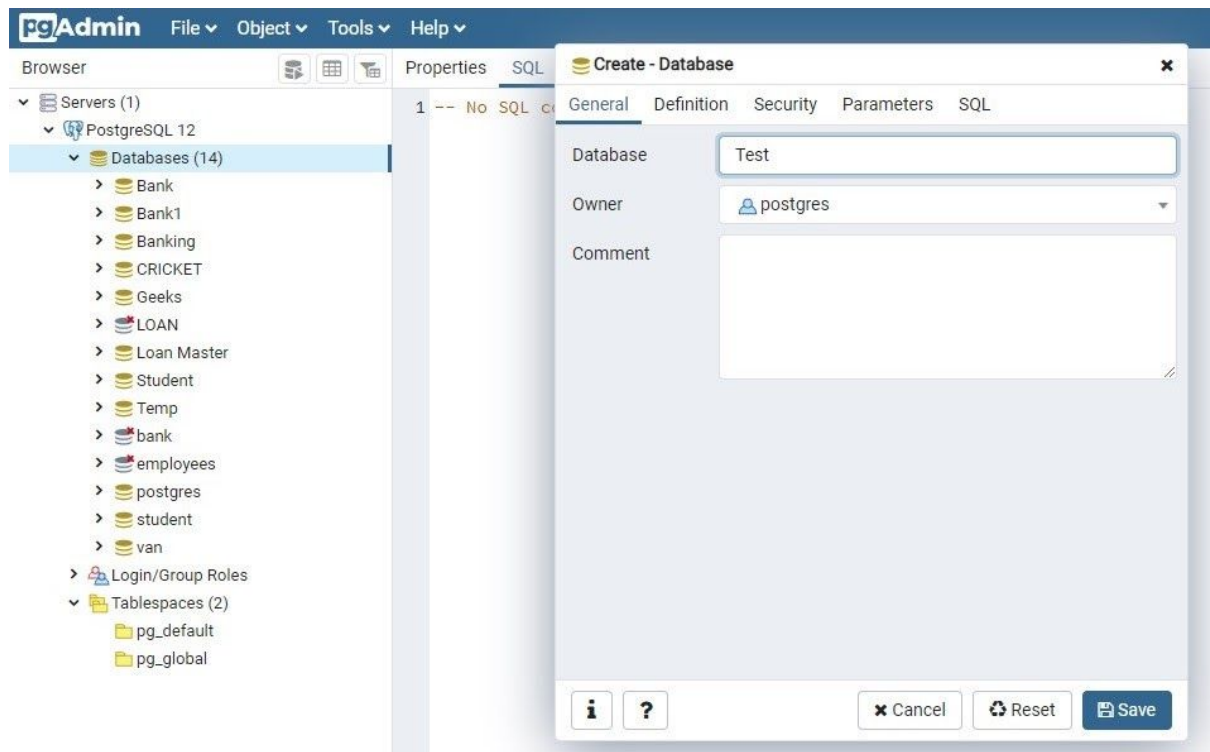


After that we will go to PostgreSQL we will create extension and try to fetch data using Foreign Data wrapper.

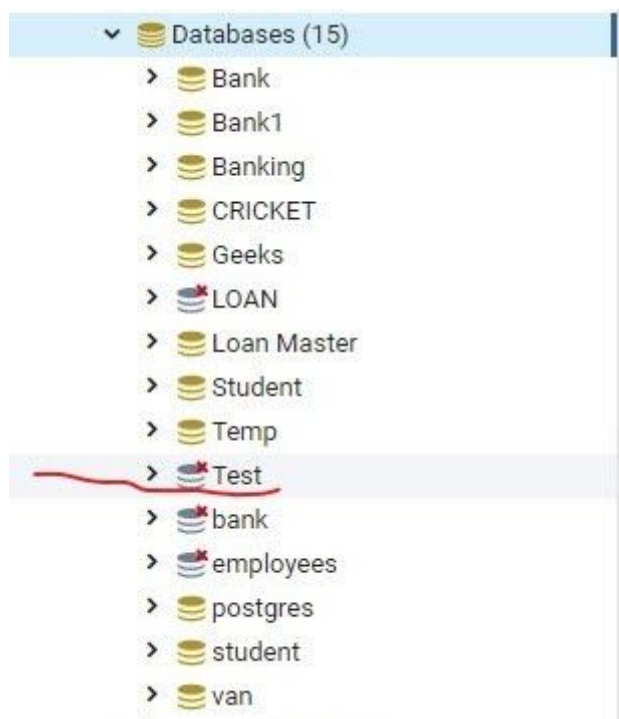
### 1 Create Database



Enter the **DataBase Name** and press **Save**.

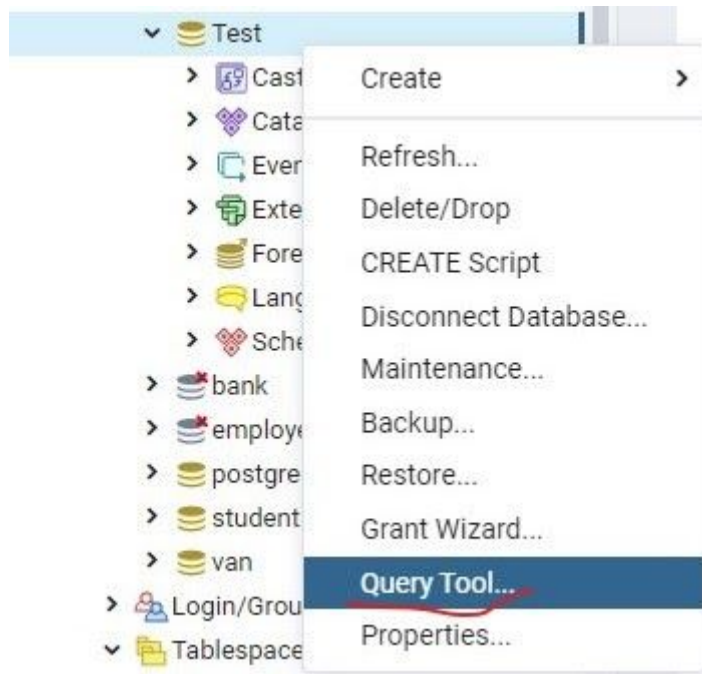


After that you will find DatabaseName in Databases.



Open Query tool

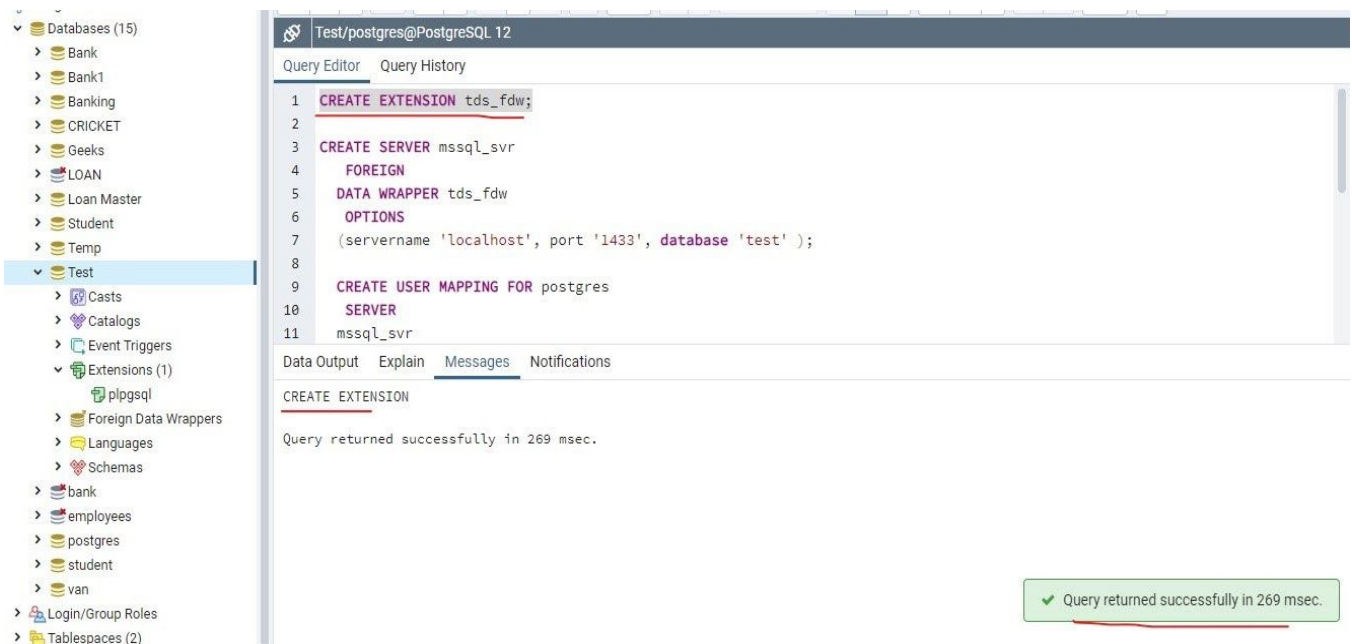




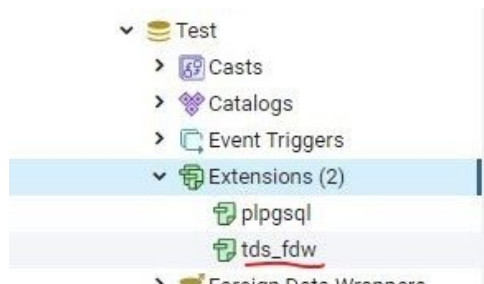
We are going to create extension(tds\_fdw)

I have followed this link for syntax reference([Syntax Link](#))

Step :1



After execution you can find extension.



## Step 2: Foreign server Creation

Object Explorer: VKSSOLUTIONS\SQLEXPRESS (SQL Server 10.0.2531 - ajit)

SQLQuery1.sql - VKSS...ESS.test (ajit (53))

```

USE [test]
GO

SELECT [id]
      ,[name]
      ,[role]
      ,[Address]
FROM [dbo].[employee]
GO
  
```

Query Editor: Test/postgre

```

1 CREATE EXTENSION tds_fdw;
2
3 CREATE SERVER mssql_svr
4 FOREIGN
5 DATA WRAPPER tds_fdw
6 OPTIONS
7 (servername 'localhost', port '1433', database 'test');
8
9 CREATE USER MAPPING FOR postgres
10 SERVER
11 mssql_svr
  
```

Results:

id	name	role	Address
1	vishal	student	patna
2	ankit	student	ranchi

SQL Server Object Explorer: Extensions (2) - tds\_fdw

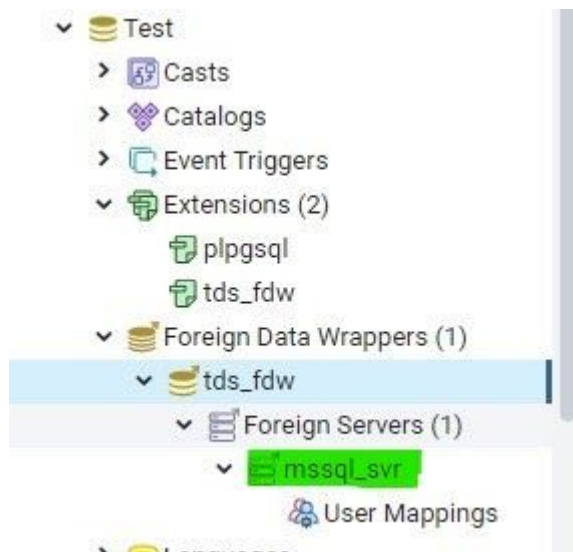
Foreign Data Wrappers (1) - tds\_fdw

Foreign Servers (1) - mssql\_svr

User Mappings

Query returned successfully in 77 msec.

You will find foreign server you created on foreign servers.



### Step 3: We are going to create userMapping

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'test'. The central pane shows a SQL query: `USE [test] GO SELECT [id], [name], [role], [Address] FROM [dbo].[employee] GO`. The Results pane shows two rows of data: (1, vishal, student, patna) and (2, ankit, student, ranchi). On the right, the Query Editor shows the execution of a PostgreSQL query: `CREATE USER MAPPING FOR postgres SERVER mssql_svr OPTIONS (username 'ajit', password 'ajit'); CREATE FOREIGN TABLE employee ( id integer, name`. The Messages pane at the bottom right indicates: 'Query returned successfully in 201 msec.'

You can see user Mappings in user Mapping that you have created.

The screenshot shows a portion of the Object Explorer. Under the 'Test' database, the 'Foreign Data Wrappers (1)' folder is expanded, showing 'tds\_fdw'. Under 'tds\_fdw', the 'Foreign Servers (1)' folder is expanded, showing 'mssql\_svr'. Under 'mssql\_svr', the 'User Mappings (1)' folder is expanded, showing 'postgres'.

#### Step 4: We will create Foreign Table

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the 'test' database with a table named 'employee' highlighted. The table's columns are: id (int, null), name (varchar(50), null), role (varchar(50), null), and Address (varchar(50), null). In the center, the SQL Query Editor shows a query: 

```
USE [test]
GO
SELECT [id]
,[name]
,[role]
,[Address]
FROM [dbo].[employee]
GO
```

 The Results pane shows two rows of data: (1, vishal, student, patna) and (2, ankit, student, ranchi). On the right, the Query Editor shows the SQL command to create a foreign table: 

```
CREATE FOREIGN TABLE employee (
    id
    integer,
    name
    varchar(50),role varchar(50),Address varchar(50))
SERVER
mssql_svr
OPTIONS
(schema_name 'dbo', table_name 'employee');
```

 The Messages pane at the bottom right indicates: 'Query returned successfully in 78 msec.'

#### You can see created Foreign Table

The screenshot shows the Object Explorer with the 'test' database expanded. Under the 'Schemas (1)' folder, the 'public' schema is expanded, and the 'Foreign Tables (1)' folder is highlighted. The 'employee' foreign table is listed under this folder, indicated by a red arrow.



**Step 5: Now we are going to Run a Query to check we can fetch Data .**

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the 'Databases' tree shows 'test' expanded, with 'dbo.employee' selected. The center pane shows the query editor with the following SQL code:

```
USE [test]
GO
SELECT [id]
      ,[name]
      ,[role]
      ,[Address]
FROM [dbo].[employee]
GO
```

The bottom pane shows the 'Results' tab with the following data:

	id	name	role	Address
1	1	vishal	student	patna
2	2	ankit	student	ranchi

The right pane shows the 'Query Editor' with the same SQL code. Below the editor, the 'Data Output' tab shows the results of the query, which matches the data in the 'Results' tab. A green status bar at the bottom indicates: 'Successfully run. Total query runtime: 145 msec. 2 rows affected.'