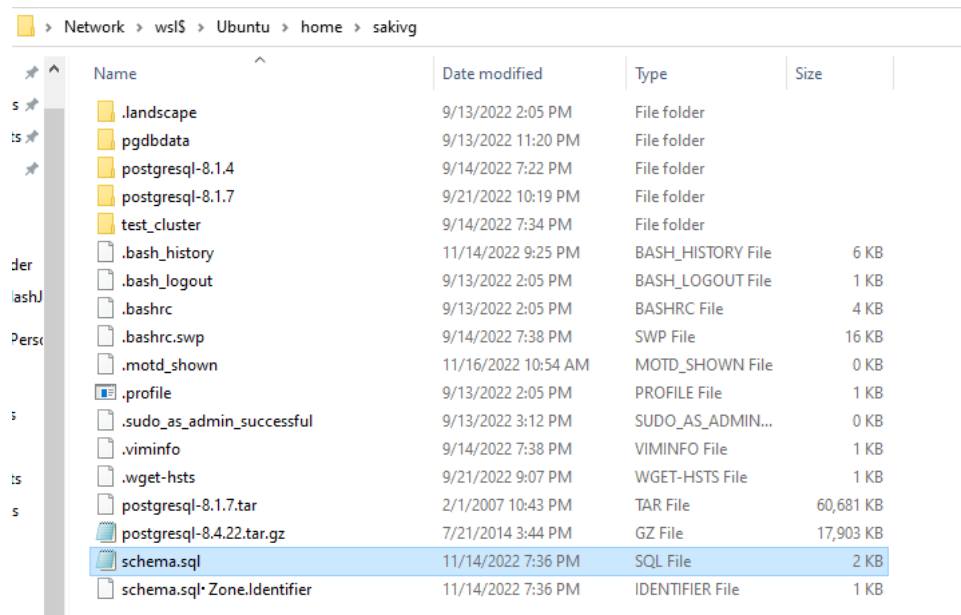# Get started with test query

Copy **schema.sql** to the path where the explorer opens after writing explorer.exe command

Start the server

```
/usr/local/pgsql/bin/pg_ctl start -D /usr/local/pgsql/data
```

Open a new ubuntu instance in your Windows and change to your postgres user

```
sudo su <name_of_your_postgres_user>
```

Create a **"test"** database

```
/usr/local/pgsql/bin/createdb test
```

Type below command to load schema and insert values into the tables:

```
/usr/local/pgsql/bin/psql test -f schema.sql
```

Test it

```
# switch to test database
/usr/local/pgsql/bin/psql test

# test it
SELECT * FROM emp;
```

Basic SHJ Test Query

```
SELECT e.name, d.name FROM emp e, dept d
WHERE e.dno = d.dno;
```

```
test=# select e.ename, d.dname from emp e, dept d where e.dno = d.d
   ename    |    dname
------------+------------
 Smith      | accounting
 Kevin      | sales
 Sally      | accounting
 Matt       | accounting
 Jeff       | shipping
 Amy        | sales
 Tom        | shipping
 Alex       | sales
 Sam        | accounting
 Joe        | management
 Sean       | management
 Martin     | sales
 Simon      | sales
 Jane       | accounting
 Max        | testing
 Mike       | management
 Sarah      | accounting
 Jack       | accounting
 Jen        | sales
 John       | management
(20 rows)
```

```
both inner (5.000000 tuples) and outer (20.000000 tuples) exhausted
Got 20 matches by probing inner hash table
Got 0 matches by probing outer hash table
Assuming outer is always probed first
```

Project SHJ Test Query

```
SELECT e1.name as "manager", e2.name as "employee"
FROM emp e1, emp e2, dept d, manages m
WHERE e1.eno = m.eno AND m.dno = d.dno AND d.dno = e2.dno
ORDER BY manager;
```

```
     manager    |  employee
----------------+------------
   Jack         |  Jack
   Jack         |  Sarah
   Jack         |  Jane
   Jack         |  Sam
   Jack         |  Matt
   Jack         |  Sally
   Jack         |  Smith
   John         |  Mike
   John         |  Joe
   John         |  Sean
   John         |  John
   Sean         |  Jeff
   Sean         |  Max
   Sean         |  Tom
   Simon        |  Alex
   Simon        |  Martin
   Simon        |  Simon
   Simon        |  Jen
   Simon        |  Kevin
   Simon        |  Amy
(20 rows)


both inner (20 tuples) and outer (5 tuples) exhausted
Got 0 matches by probing inner hash table
Got 5 matches by probing outer hash table
Assuming outer is always probed first
both inner (5 tuples) and outer (20 tuples) exhausted
Got 20 matches by probing inner hash table
Got 0 matches by probing outer hash table
Assuming outer is always probed first
both inner (20 tuples) and outer (5 tuples) exhausted
Got 5 matches by probing inner hash table
Got 15 matches by probing outer hash table
Assuming outer is always probed first
```