

Mise en oeuvre du JDBC

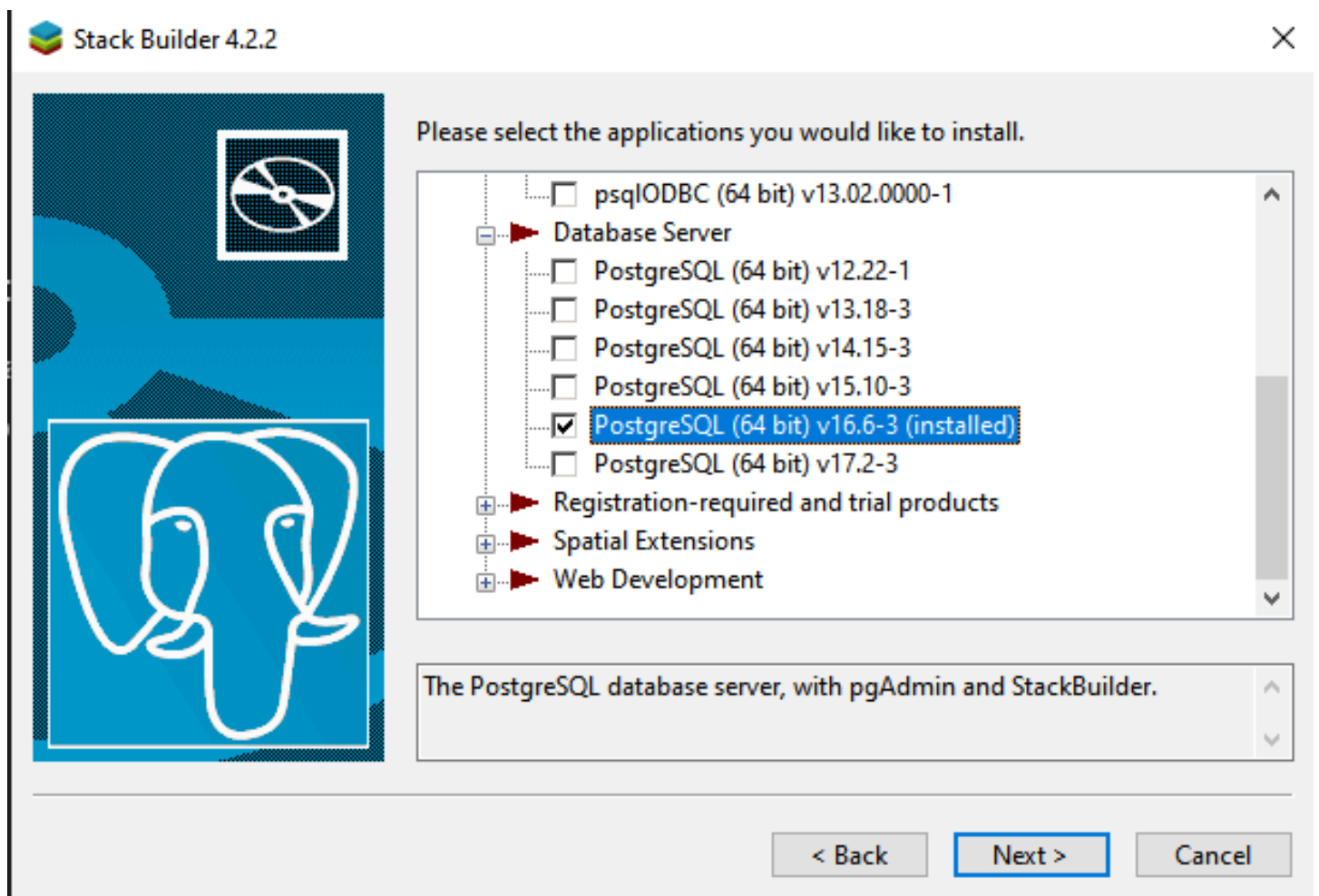
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Date : 2/1/2025

Cours : 020ENDES4 - Applications Distribuées

Environnement de Développement

- **Version de Java :** OpenJDK 17
- **Base de données :** PostgreSQL 16
- **Driver JDBC utilisé :** postgresql-42.7.5.jar
- **IDE utilisé :** VS Code
- **Gestionnaire de versions :** Git avec GitHub



-choix de la la version PostgreSQL 16 deja installée

Register - Server

General **Connection** Parameters SSH Tunnel Advanced Tags

Host name/address

localhost

Port

5432

Maintenance database

postgres



Username




postgres

Kerberos authentication?

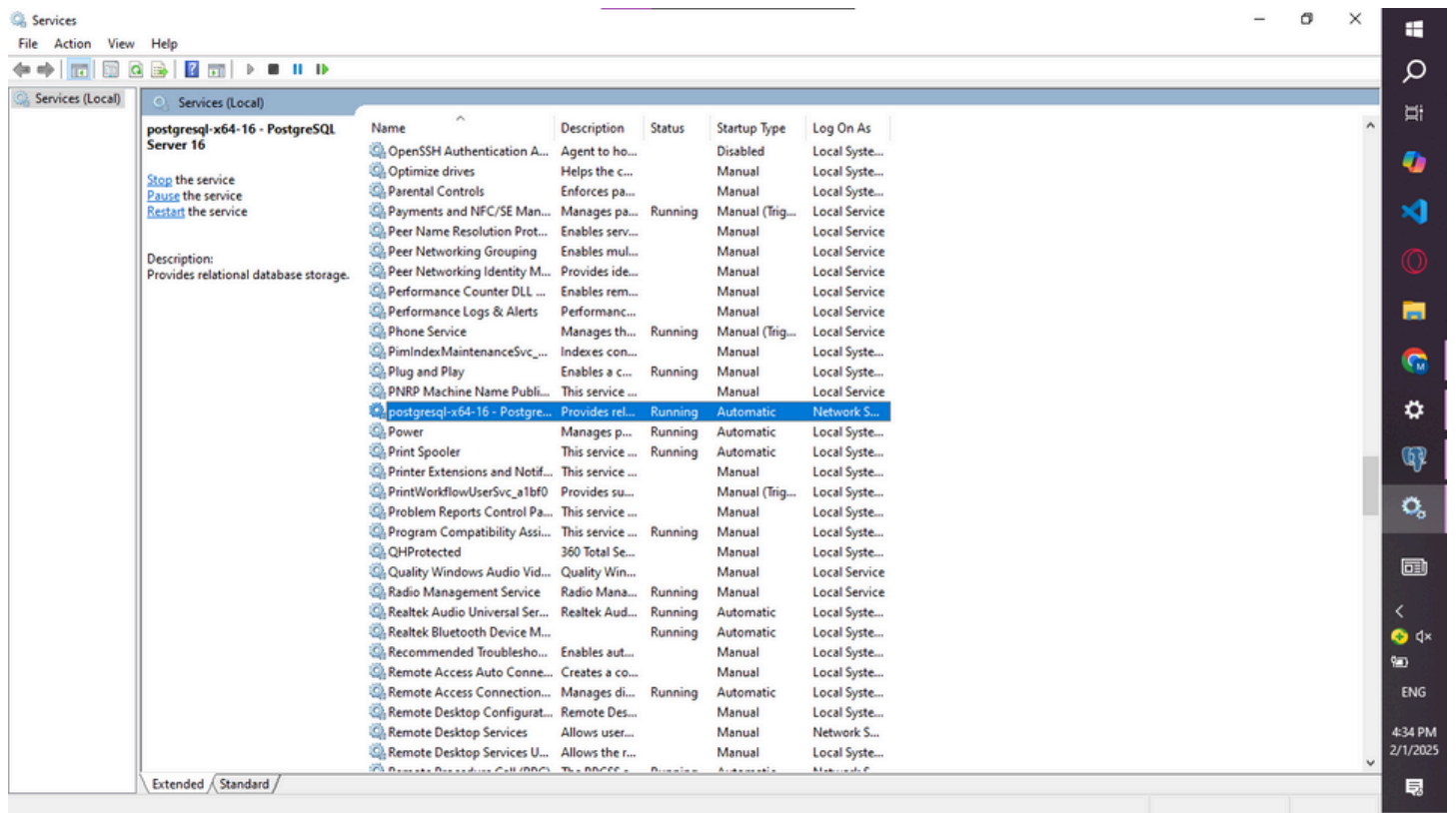
☐

Password

 Close  Reset  Save

choix local host et port 5432



made sure that postgresql is running

Create - Database



General

Definition

Security

Parameters

Advanced


SQL

Database

testdb

OID

Owner

 postgres



Comment

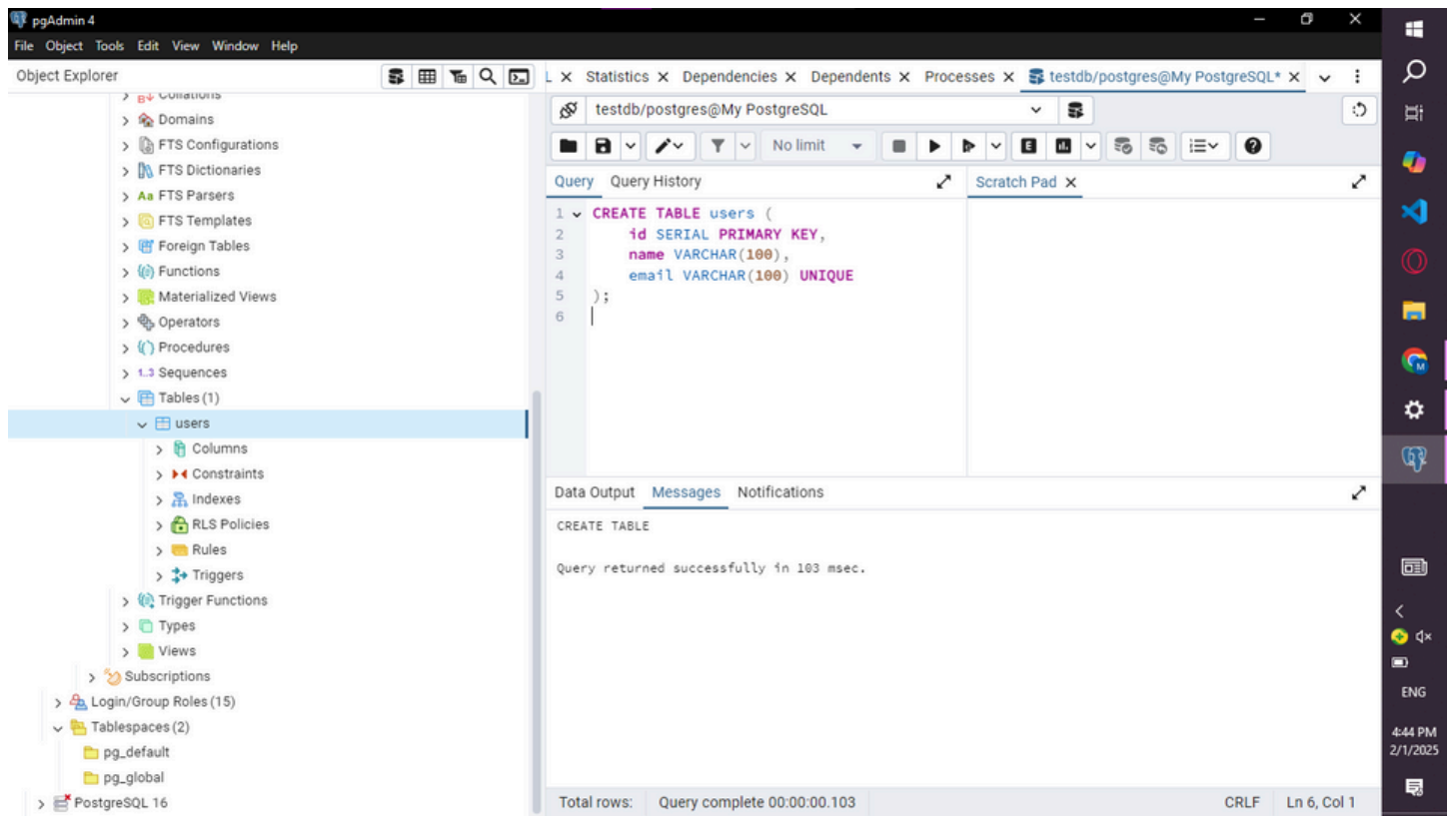


✕ Close

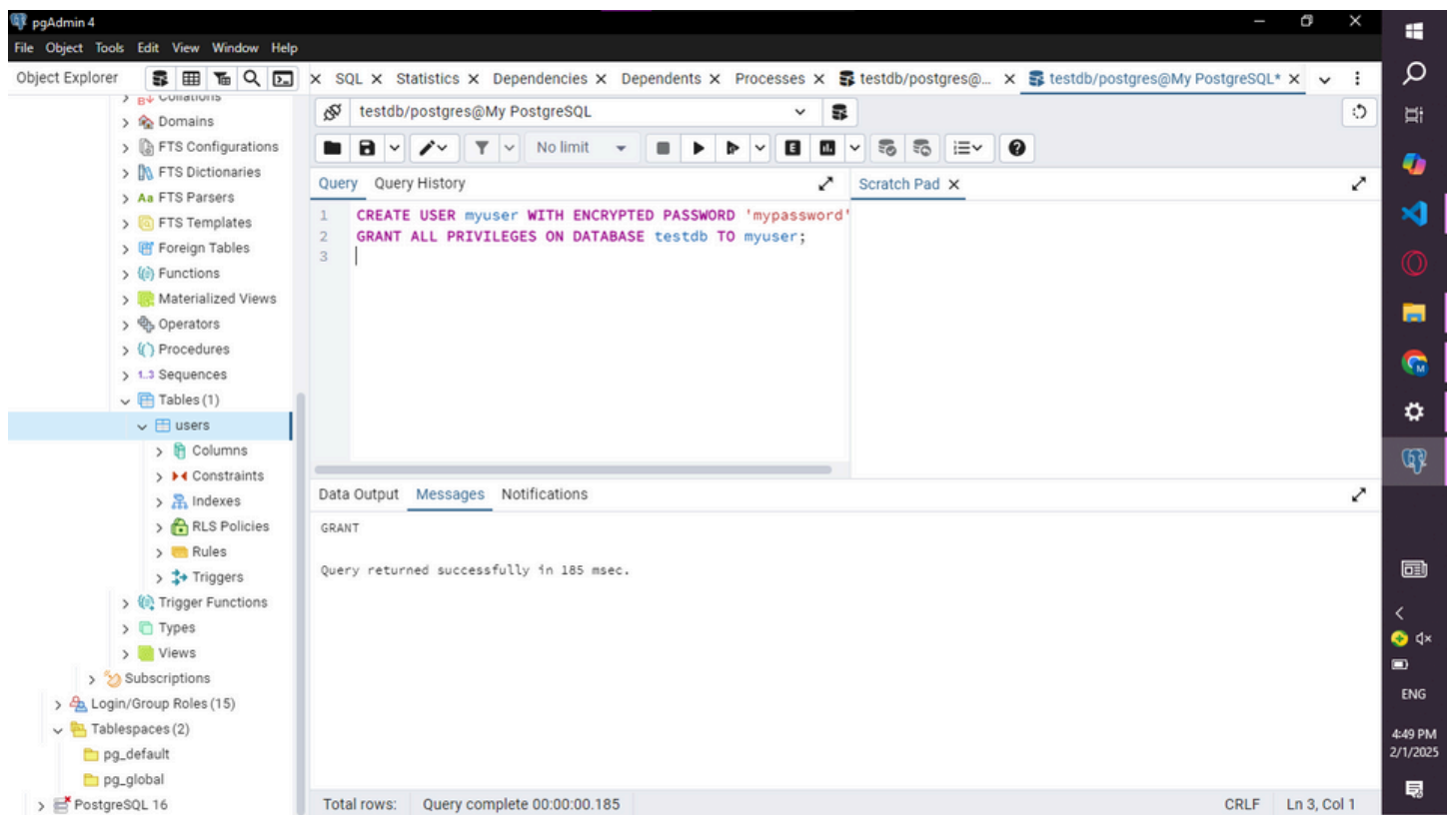
↺ Reset

 Save

creation de la db



-creation de la table users



-creation d'un user

X

[illegible]

-ajout de la variable postgresql a la variable path

```
Command Prompt - psql -U postgres
postgres=# psql -U testdb
postgres=# \dp users
Access privileges
Schema | Name | Type | Access privileges | Column privileges | Policies
(0 rows)

postgres=# GRANT ALL PRIVILEGES ON TABLE users TO myuser;
ERROR: syntax error at or near "psql"
LINE 1: psql -U testdb
        ^

postgres=# \c testdb
You are now connected to database "testdb" as user "postgres".
testdb=# \dp users
Access privileges
Schema | Name | Type | Access privileges | Column privileges | Policies
public | users | table | | | 
(1 row)

testdb=# GRANT ALL PRIVILEGES ON TABLE users TO myuser;
GRANT
testdb=# \ds
List of relations
Schema | Name | Type | Owner
public | users_id_seq | sequence | postgres
(1 row)

testdb=# GRANT ALL PRIVILEGES ON SEQUENCE users_id_seq TO myuser;
GRANT
testdb=# \dp users_id_seq
Access privileges
Schema | Name | Type | Access privileges | Column privileges | Policies
public | users_id_seq | sequence | postgres=rwU/postgres+ | myuser=rwU/postgres | 
(1 row)

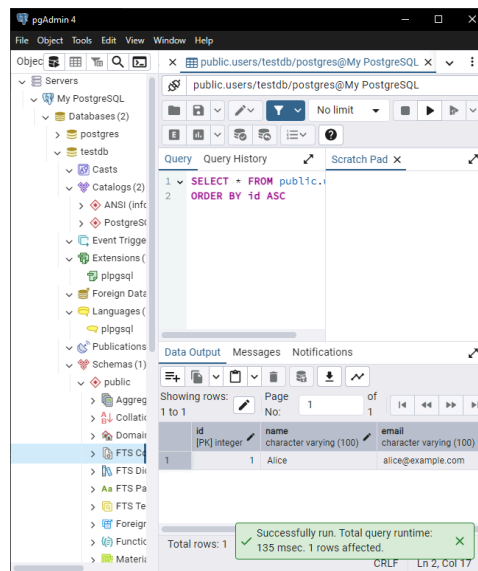
testdb=#
```

-garantir les permissions

```
File Edit Selection View Go Run ...
devoirappli.java 1 x
devoirappli.java > devoirappli > main(String[] args)
3 public class devoirappli {
4     public static void main(String[] args) {
5         String url = "jdbc:postgresql://localhost:5432/testdb";
6         String user = "myuser";
7         String password = "mypassword";
8
9         try (Connection conn = DriverManager.getConnection(url, user, password)) {
10             System.out.println("Connexion réussie !");
11
12             // Insérer un utilisateur
13             String insertSQL = "INSERT INTO users (name, email) VALUES (?, ?)";
14             try (PreparedStatement pstmt = conn.prepareStatement(insertSQL)) {
15                 pstmt.setString(1, "Alice");
16                 pstmt.setString(2, "alice@example.com");
17                 pstmt.executeUpdate();
18             }
19
20             // Lire les données
21             String selectSQL = "SELECT * FROM users";
22             try (Statement stmt = conn.createStatement()) {
23                 ResultSet rs = stmt.executeQuery(selectSQL);
24                 while (rs.next()) {
25                     System.out.println("ID: " + rs.getInt("id") +
26                                     ". Nom: " + rs.getString("name") +
```

```
PS C:\Users\User\Desktop\devoir> javac -cp ".;postgresql-42.7.5.jar" devoirappli.java
PS C:\Users\User\Desktop\devoir> java -cp ".;postgresql-42.7.5.jar" devoirappli
Connexion réussie !
ID: 1, Nom: Alice, Email: alice@example.com
PS C:\Users\User\Desktop\devoir>
```

-connexion reussite



-resultat apparait dans la db