

Step1: Check postgresql

Open in Terminal

```
Su postgres;  
psql;  
postgres=# CREATE USER root WITH PASSWORD '12345';  
CREATE ROLE
```

```
postgres=# create database collegejava;  
CREATE DATABASE  
postgres=# \c collegejava
```

```
collegejava=# create table student(rollno int,name varchar(20),class varchar(20));  
CREATE TABLE  
collegejava=# insert into student values(1,'dipali','ty');  
INSERT 0 1
```

step 2: Install Java (if not installed)

Check if Java is installed:

```
java -version
```

If not installed, install OpenJDK:

```
sudo dnf install java-11-openjdk-devel
```

Verify installation:

```
java -version
```

Step 3: Download PostgreSQL JDBC Driver

1. Download the latest .jar file (e.g., [postgresql-42.6.0.jar](https://jdbc.postgresql.org/download/postgresql-42.6.0.jar)) to your CentOS system. You can use link

```
wget https://jdbc.postgresql.org/download/postgresql-42.6.0.jar -P  
/usr/local/lib/
```

Here `/usr/local/lib/` is just an example location.

Step 4: Verify the JAR is Accessible

You can check if the JAR is accessible by running:

```
javac -cp usr/local/lib/postgresql-42.6.0.jar TestJDBC.java
```

Replace `TestJDBC.java` with your Java file that uses PostgreSQL.

Set Class Path

`vim ~/.bashrc`

`Source ~/.bashrc`

`Press i for insert`

Copy path of jar file at the end next to export keyword

```
export CLASSPATH=$CLASSPATH:.:/usr/local/lib/postgresql-42.6.0.jar
```

`Save and exit`

`Run file using command`

```
source ~/.bashrc
```

Step 5: Sample Java Code to Test Connection

Open location `/usr/local/lib/`

Open terminal and

Write this program

Here's a small Java example to test:

```
import java.sql.Connection;
import java.sql.DriverManager;

public class TestJDBC {
    public static void main(String[] args) {
```

```
try {
    Class.forName("org.postgresql.Driver");
    //Connection con = DriverManager.getConnection(
    //    "jdbc:postgresql://localhost:5432/yourDB", "username",
    "password");

    Connection con = DriverManager.getConnection(
        "jdbc:postgresql://localhost:5432/collegejava", "root",
    "12345");
        System.out.println("Connection Successful!");
        con.close();
    } catch (Exception e) {
        e.printStackTrace();
    }
}
}
```

Compile and run:

```
javac TestJDBC.java
java TestJDBC
```

Or If Class Path is not set

```
javac -cp /usr/local/lib/postgresql-42.6.0.jar TestJDBC.java
java -cp .:/usr/local/lib/postgresql-42.6.0.jar TestJDBC
```

If everything is correct, you'll see:

```
Connection Successful!
```