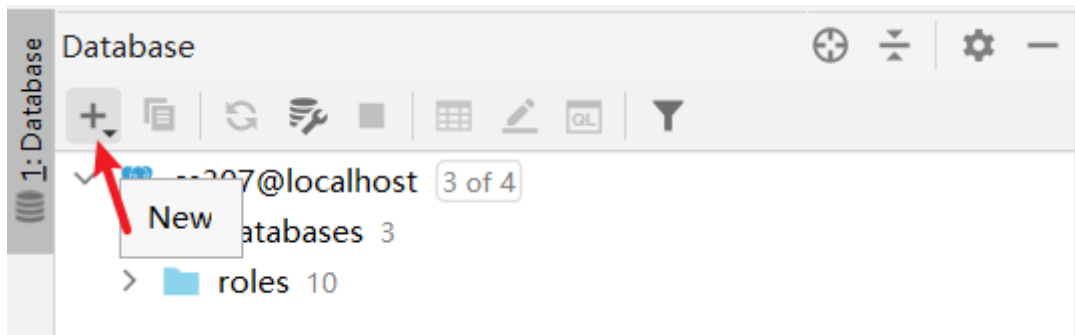


Software Installing

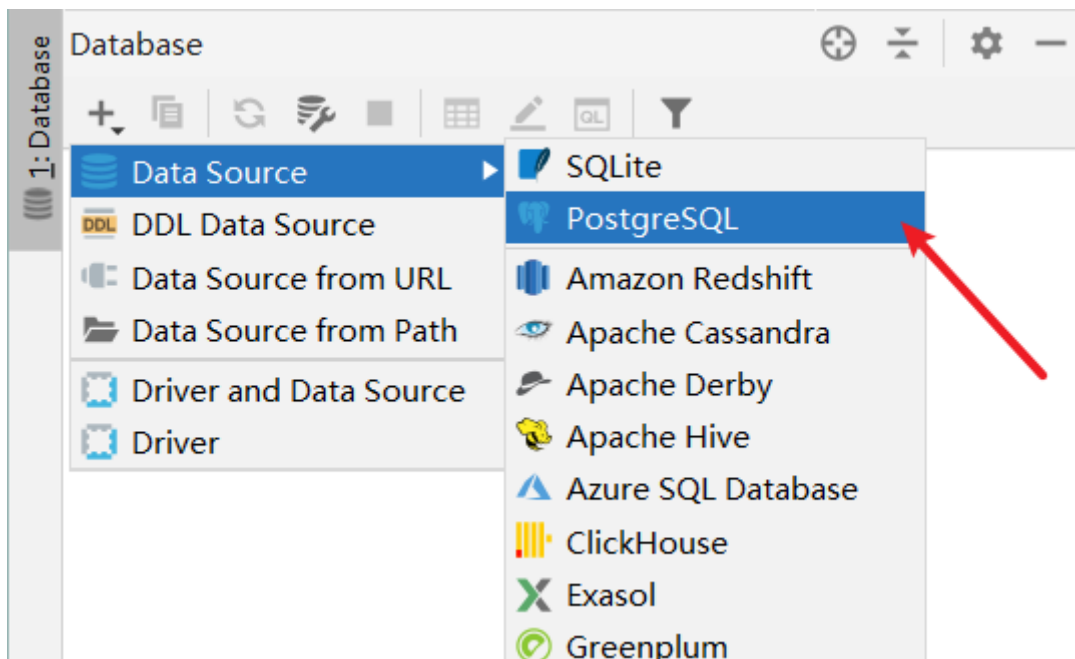
Experiment 1:

Create a database using data source PostgreSQL(Here use DataGrip as client).

Step1 :create a new database



Step2:choose data source Postgres



Step3: fill in host,port,user,password,database as following. Some of them should be default mode. Notice your Operating System, there will be little difference.

Tips: Here URL contain all information of host,port,user,password,database.

Data Sources and Drivers

Project Data Sources

- cs307@localhost
- postgres@localhost**

Drivers

- Amazon Aurora MySQL
- Amazon Redshift
- Apache Cassandra
- Apache Derby (Embedded)
- Apache Derby (Remote)
- Apache Hive
- Azure SQL Database
- ClickHouse
- Exasol
- Greenplum
- H2
- HSQldb (Local)
- HSQldb (Remote)

General Options SSH/SSL Schemas Advanced

Connection type: default Driver: PostgreSQL

Host: localhost Port: 5432

Authentication: User & Password

User: postgres Password: <hidden> Save: Forever

Database: postgres

URL: jdbc:postgresql://localhost:5432/postgres

Overrides settings above

Test Connection

OK Cancel Apply

Step4: press 'Test Connection' button, maybe extra driver should be download.

Data Sources and Drivers

Project Data Sources

- cs307@localhost
- postgres@localhost**

Drivers

- Amazon Aurora MySQL
- Amazon Redshift
- Apache Cassandra
- Apache Derby (Embedded)
- Apache Derby (Remote)
- Apache Hive
- Azure SQL Database
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- Exasol
- Greenplum
- H2
- HSQldb (Local)
- HSQldb (Remote)
- IBM Db2
- IBM Db2 (JOpen)
- IBM Db2 for 9.X, 10.X

General Options SSH/SSL Schemas Advanced

Connection type: default Driver: PostgreSQL

Host: localhost Port: 5432

Authentication: User & Password

User: postgres Password: <hidden> Save: Forever

Database: postgres

URL: jdbc:postgresql://localhost:5432/postgres

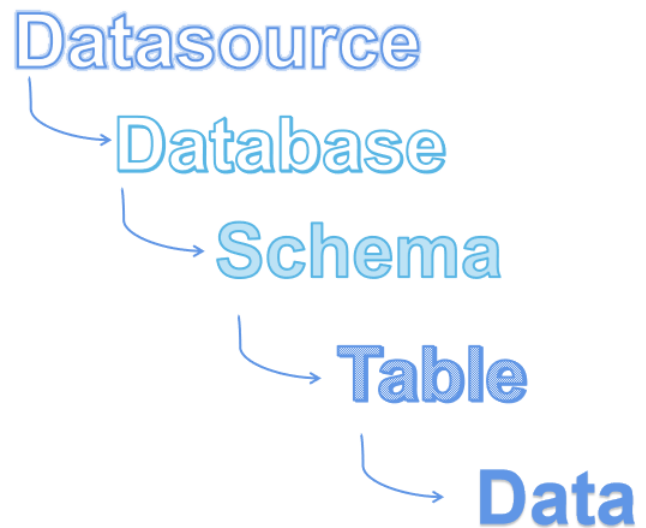
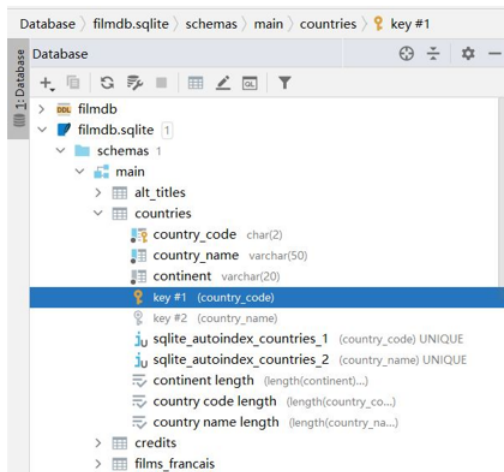
Overrides settings above

Test Connection

OK Cancel Apply

DBMS: PostgreSQL (ver. 12.1)
Case sensitivity: plain=lower, delimited=exact
Driver: PostgreSQL JDBC Driver (ver. 42.2.5, JDBC4.2)
Ping: 32 ms
SSL: no

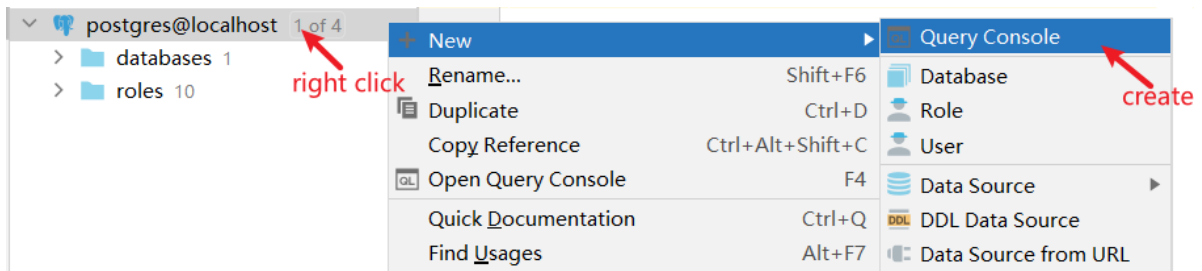
Datasource Database Schema Table



Experiment 2:

Create a superuser, change your password and create a new database.

Step1: create a new Query Console



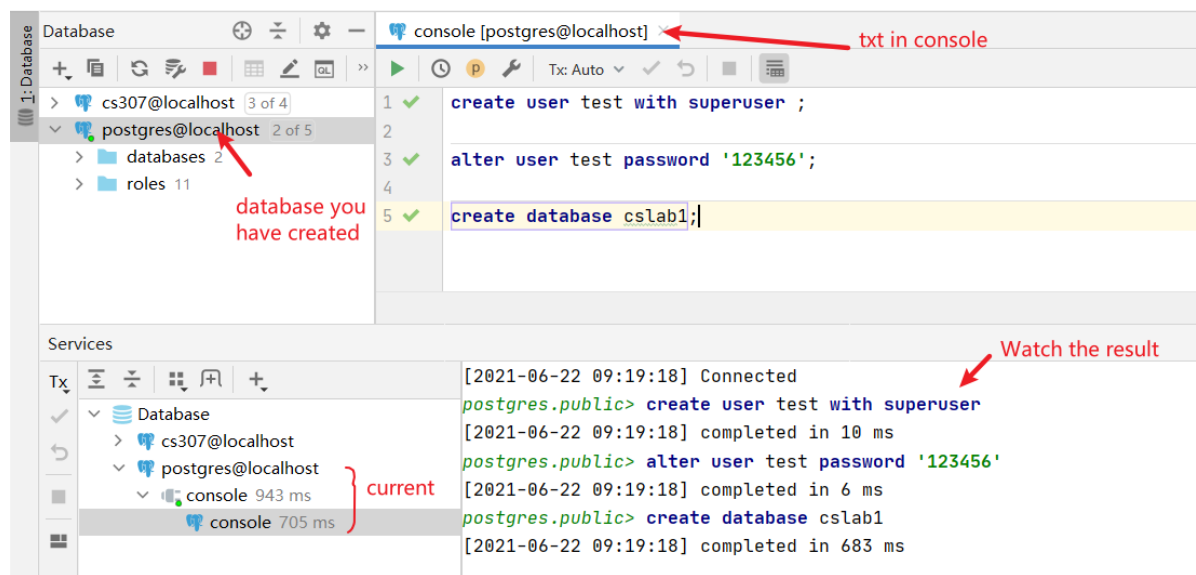
Step2: text following language in console, and execute. Watch the result in window.

```

create user test with superuser ;

alter user test password '123456';

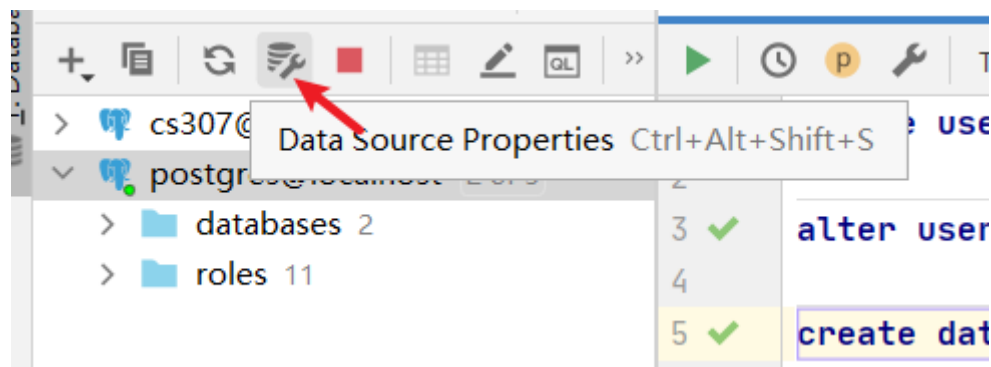
create database cs1ab1;
  
```



Experiment 3:

Visit the database you have created in Experiment 2 with new superuser and new password.

Step1: open data source properties to edit new properties.



Step2: fill in user, password, database you have created in step 2 in experiment 2.

Data Sources and Drivers

Project Data Sources

- cs307@localhost
- cslab1@localhost**

Drivers

- Amazon Aurora MySQL
- Amazon Redshift
- Apache Cassandra
- Apache Derby (Embedded)
- Apache Derby (Remote)
- Apache Hive
- Azure SQL Database
- ClickHouse
- Exasol
- Greenplum
- H2
- HSQldb (Local)
- HSQldb (Remote)
- IBM Db2
- IBM Db2 (JOpen)
- IBM Db2 for 9.X, 10.X

General Options SSH/SSL Schemas Advanced

Connection type: default Driver: PostgreSQL

Host: localhost Port: 5432

Authentication: User & Password

User: test

Password: 123456

Save: Forever

Database: cslab1

URL: jdbc:postgresql://localhost:5432/cslab1

Overrides settings above

Test Connection

OK Cancel Apply

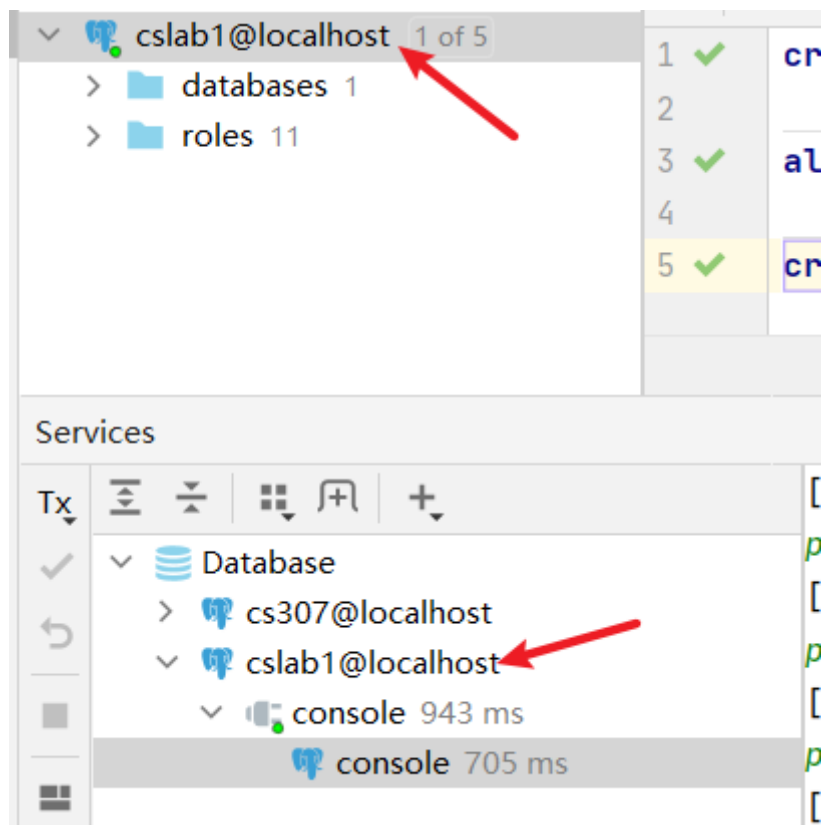
Step3: test connection again and press OK button.

Test Connection

✓ DBMS: PostgreSQL (ver. 12.1)
Case sensitivity: plain=lower, delimited=exact
Driver: PostgreSQL JDBC Driver (ver. 42.2.5, JDBC4.2)
Ping: 11 ms
SSL: no

OK Cancel Apply

Step6: you can see the current database connected has changed.



Experiment 4: Test some data definition language(DDL), drop, create, alter.

Step1: you can test following language, execute and watch the result.

```
create schema schema1;  
  
create table lab1(  
    name varchar(30),  
    sid numeric  
);
```

Step2: insert a record(a row of data)

```
insert into lab1(name, sid) values ('zhangsan',00001);
```

Step3: add an attribute(a column of data)

```
alter table lab1 add column score integer;
```

Step4: Delete a table

```
drop table lab1;
```

Step4: Delete a schema

```
drop schema schema1;
```

Step5: show your query path

```
show search_path ;
```