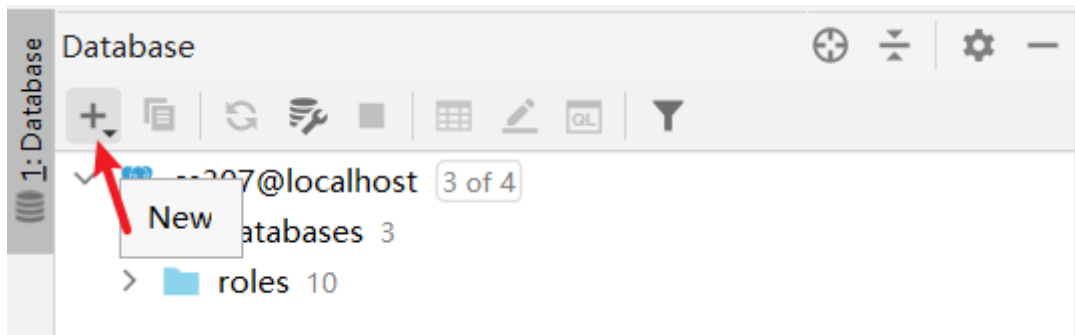


Software Installing

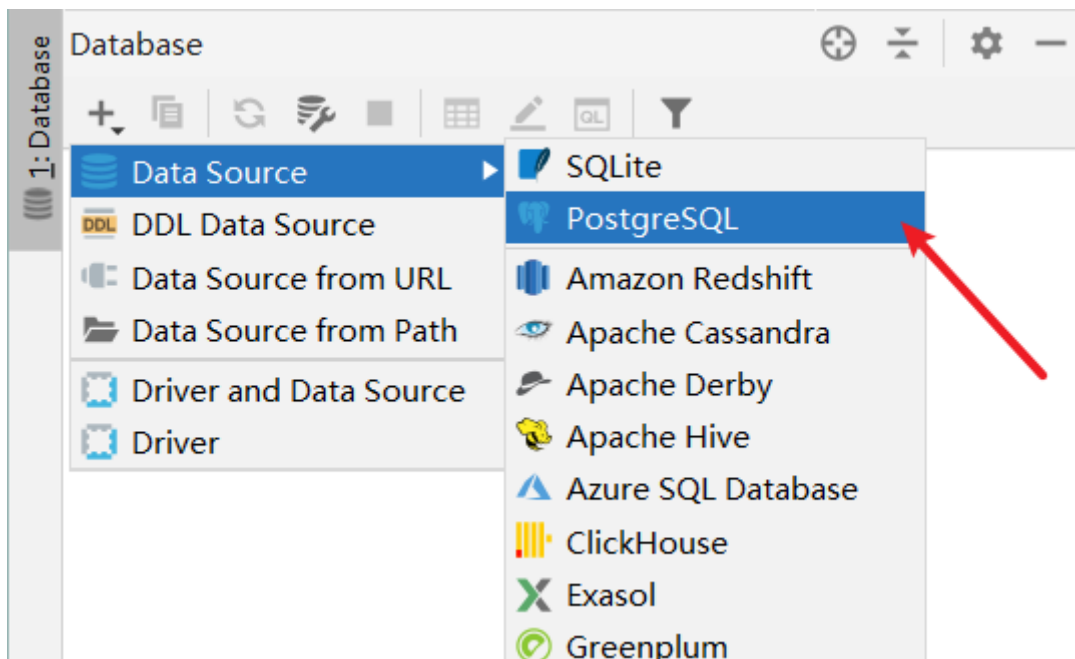
Experiment 1:

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
- 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: postgres Password: <hidden> Save: Forever

Database: postgres

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

Overrides settings above

Test Connection

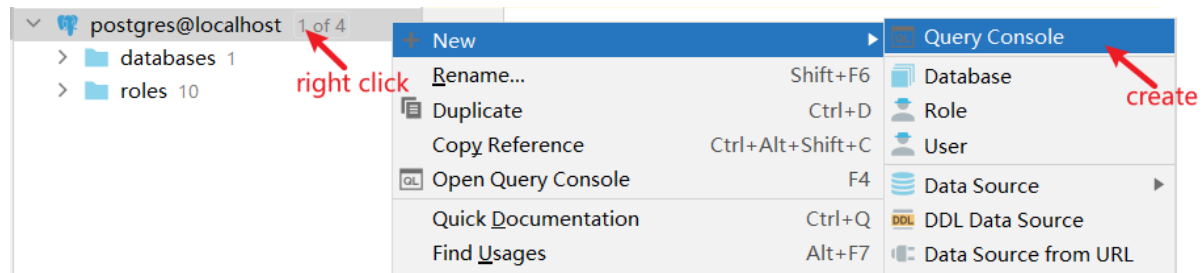
OK Cancel Apply

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

Experiment 2:

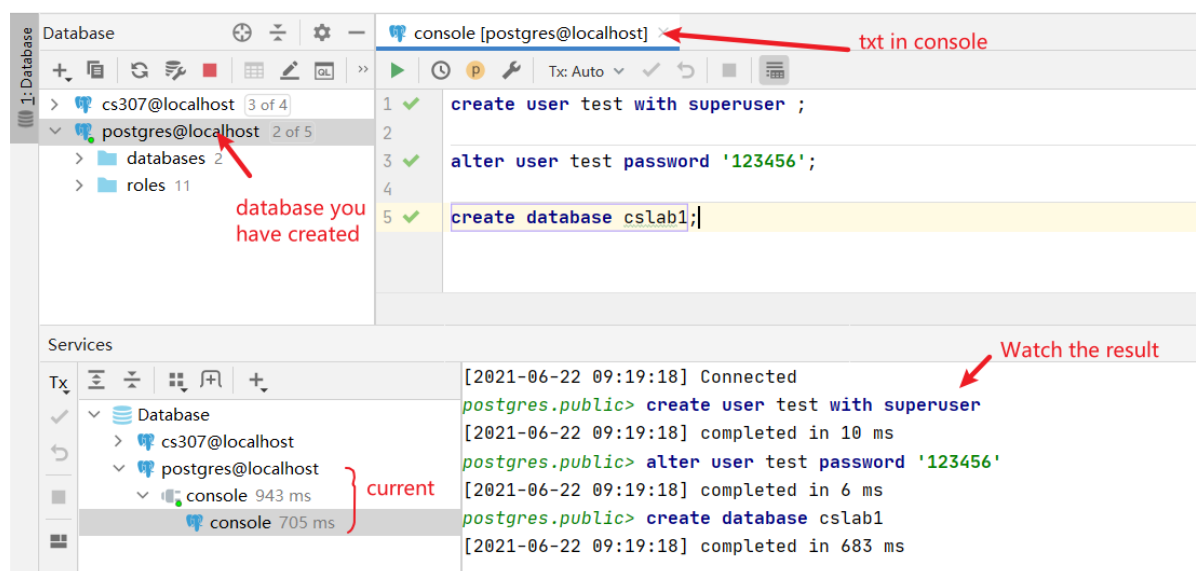
Create a superuser, change your password and create a new database.

Step1:create a new Query Console



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

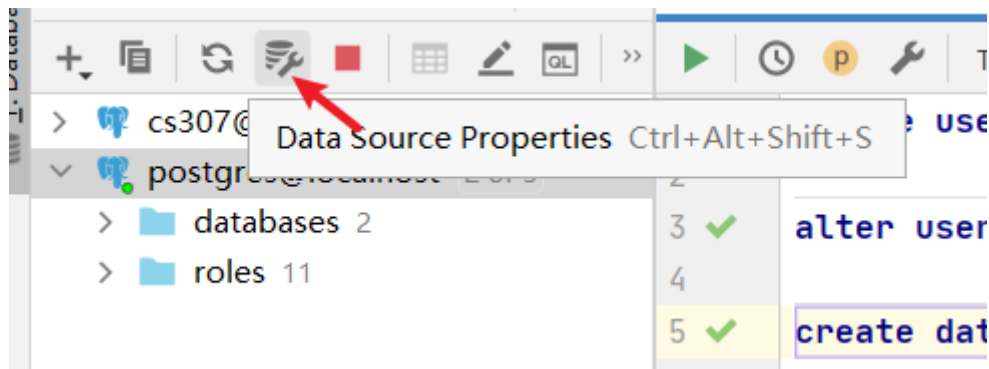
```
create user test with superuser ;  
  
alter user test password '123456';  
  
create database cs1ab1;
```



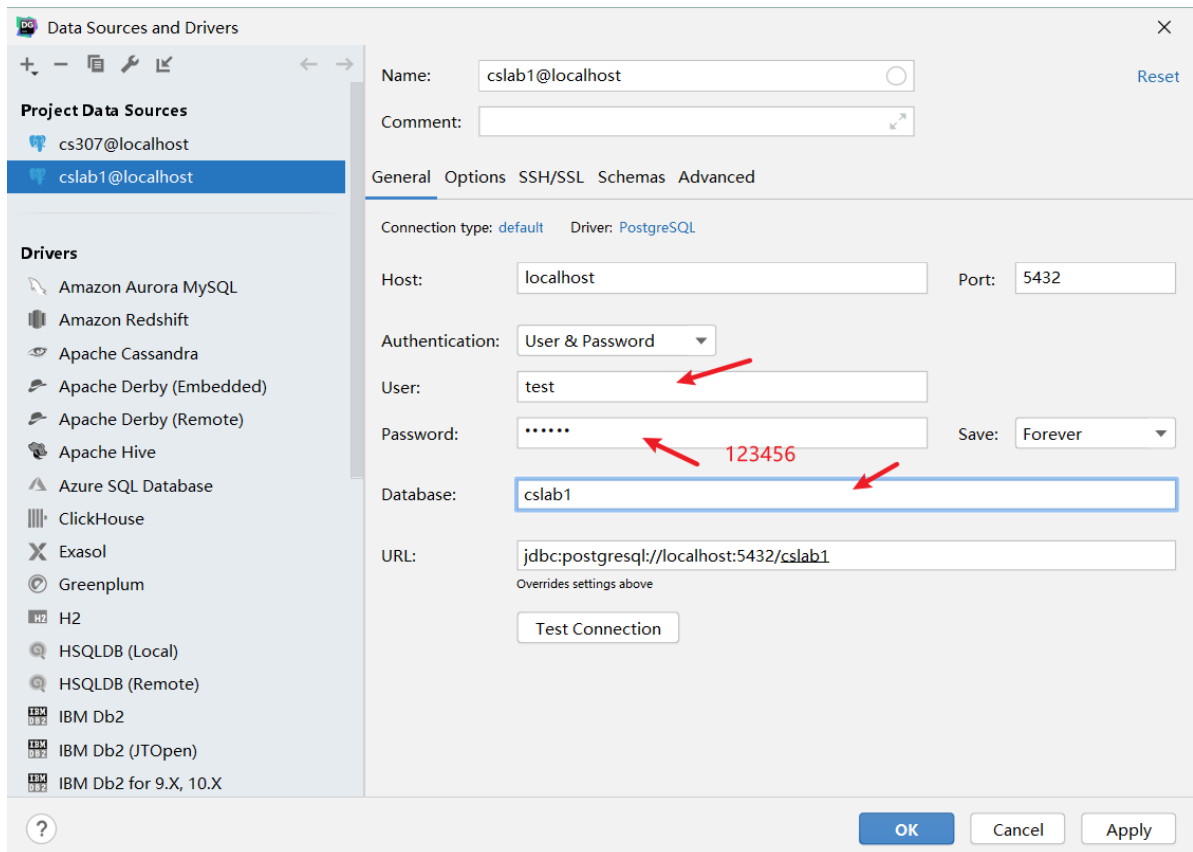
Experiment 3:

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

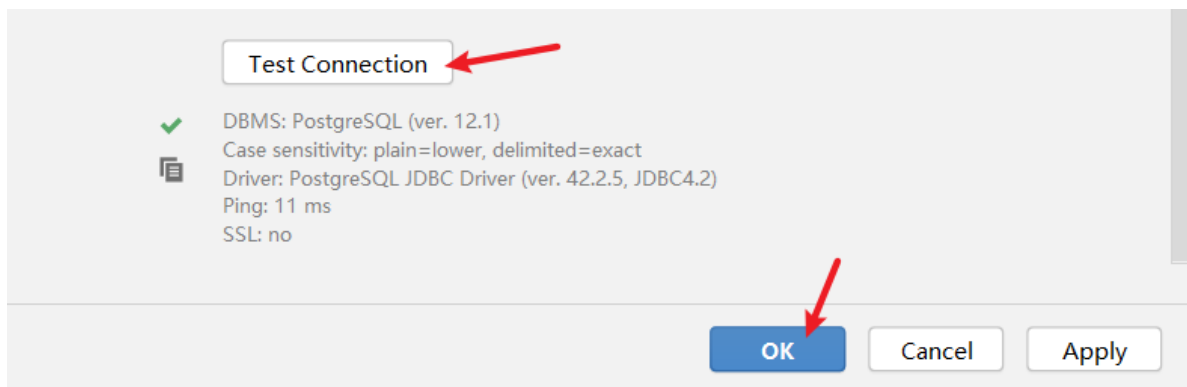
Step1:open data source properties to edit new properties.



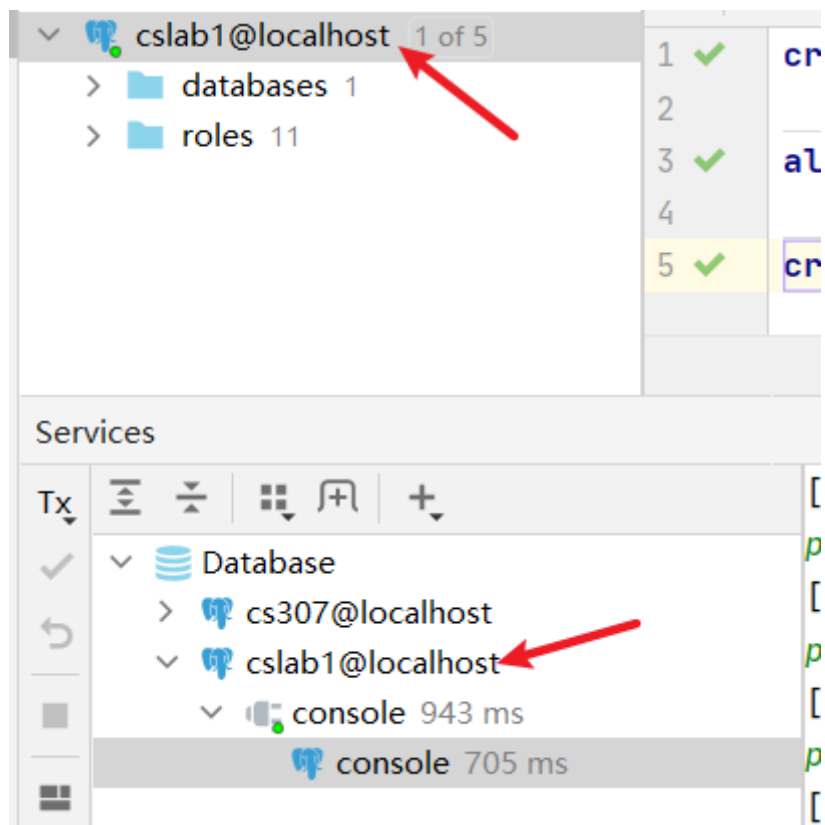
Step2: fill in user, password, database you have created in step 2 in experiment 2.



Step3: test connection again and press OK button.



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
);

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

alter table lab1 add column score integer;

drop table lab1;

drop schema schema1;

show search_path ;
```