一、安装VNC

1.导入rpm包

百度云下载：

链接：https://pan.baidu.com/s/1v2tyjCvL_UxmyV68blouzw

提取码：lfq8

```
rpm -ivh --nodeps tigervnc-1.8.0-13.el7.x86_64.rpm tigervnc-server-1.8.0-
13.el7.x86_64.rpm tigervnc-server-module-1.8.0-17.el7.x86_64.rpm
```

或者

```
yum -y install tigervnc tigervnc-server tigervnc-server-module
```

2、复制配置文件

```
cp /lib/systemd/system/vncserver@.service
/lib/systemd/system/vncserver@:1.service
```

3、修改配置文件

```
vim /lib/systemd/system/vncserver@:1.service
```

```
[Unit]
Description=Remote desktop service (VNC)
After=syslog.target network.target
[Service]
Type=forking
# Clean any existing files in /tmp/.X11-unix environment
ExecStartPre=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'
ExecStart=/usr/sbin/runuser -l root -c "/usr/bin/vncserver %i -geometry
1920x1080"
PIDFile=/root/.vnc/%H%i.pid
ExecStop=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'
[Install]
WantedBy=multi-user.target
```

4.设置vncserver的密码；

```
vncpasswd root
```

按提示输入密码以及确认密码 5.更新systemctl以使其生效；

```
systemctl daemon-reload
```

6.启动该服务用来启用vnc的1号窗口；

```
systemctl start vncserver@:1.service
```

关闭1号窗口：

```
systemctl stop vncserver@:1.service
```

查看状态：

```
systemctl status vncserver@:1.service -l
```

7.设置为开机自动启动

```
systemctl enable vncserver@:1.service
```

8.修改防火墙

```
systemctl start firewalld      #启动firewalld服务
systemctl status firewalld     #查看运行状态
systemctl enable firewalld     #设置开机启动
systemctl stop firewalld       #关闭firewalld服务
```

首先判断firewalld是否启动，输入以下命令判断

```
sudo firewall-cmd --state
```

如果启动应该输出

```
running
```

如果是not running，执行下面命令

```
sudo systemctl start firewalld
```

添加端口号5901-5905

```
sudo firewall-cmd --permanent --zone=public --add-port=5901-5905/tcp
```

重新加载防火墙

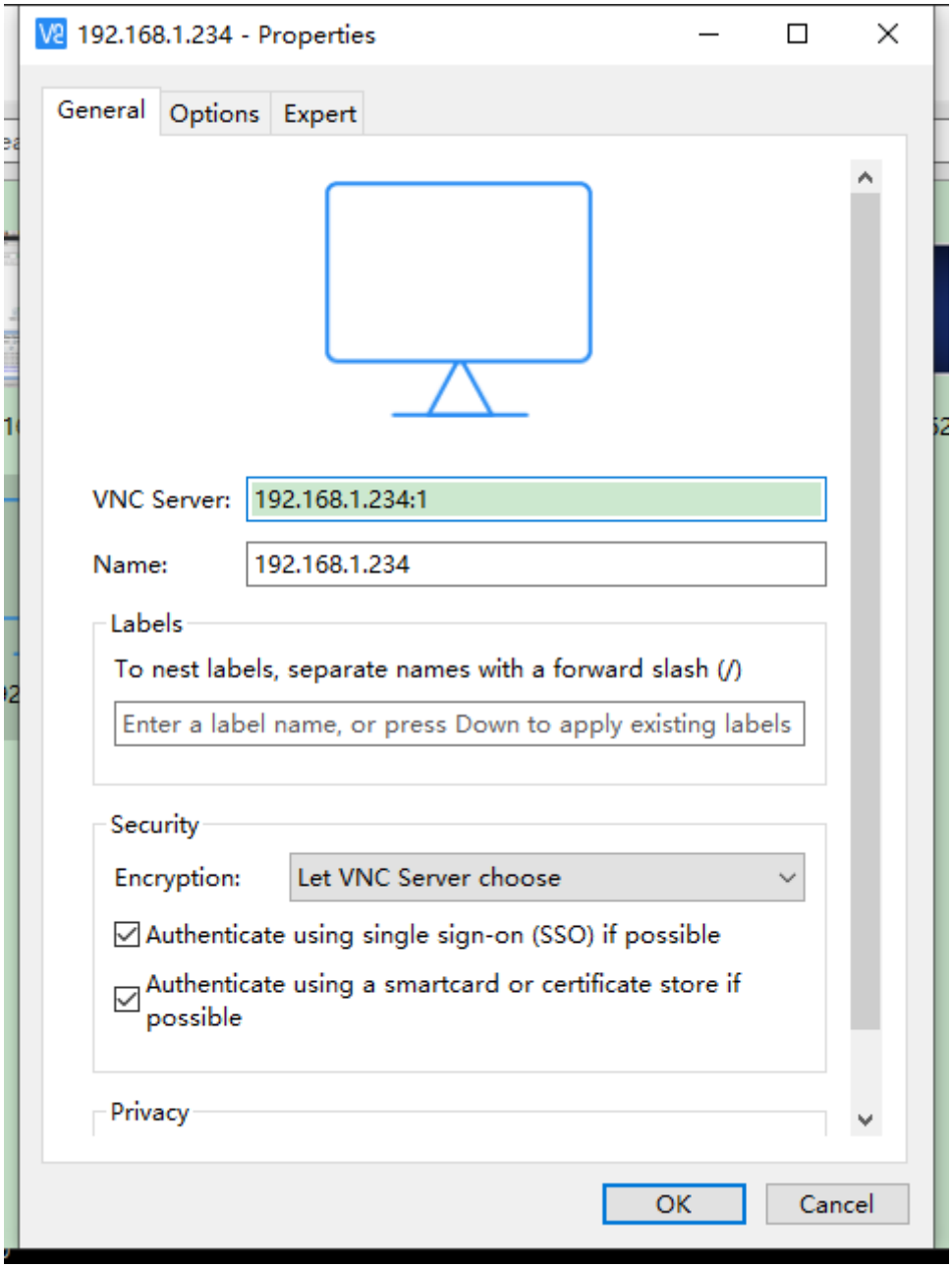
```
sudo firewall-cmd --reload
```

可以使用下面命令查看端口号是否被加入

```
firewall-cmd --list-all-zones
```

9.访问contos7上的vnc

Centos7的ip地址:1 即可访问



10.蓝屏可能是gnome没安造成的,安装GNOME后重启linux

```
yum groupinstall "GNOME Desktop" "Graphical Administration Tools"
reboot
```

11.启动vnc报错： Job for vncserver@:1.service failed because a configured resource limit was exceeded.

执行# systemctl status vncserver@:1.service

发现一条信息:

localhost.localdomain systemd[1]: PID file /root/.vnc/localhost.localdomain:1.pid not readable (yet?) after start.

检查 /root/.vnc/，发现没有localhost.localdomain:1.pid

解决方法：原来目录/tmp/下有一个/.X11-unix目录会占用这个pid序号资源。把这个目录改名/.X11-unix.bak后，再次执行

```
mv /tmp/.X11-unix /tmp/.X11-unix.bak
systemctl start vncserver@:1.service
```

二、安装DB2

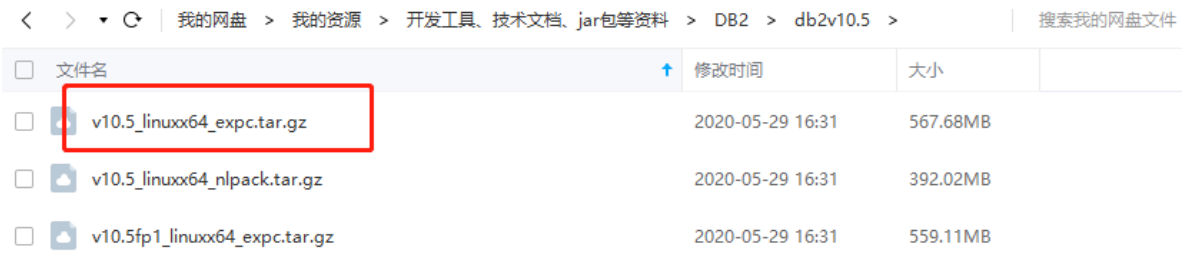
1、下载DB2

百度云下载：

链接：https://pan.baidu.com/s/1l5HEAj4soRJgnV1_-KtO0A

提取码：2614

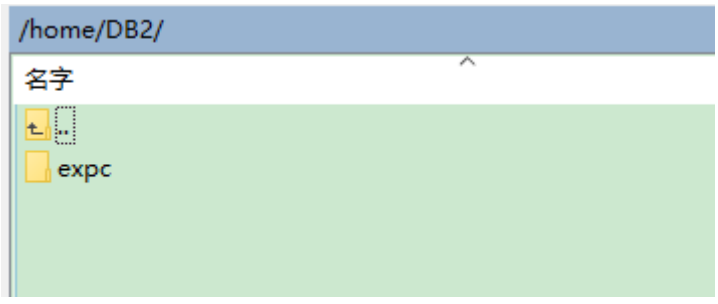
这里我们下载v10.5的版本。



2、上传到/home/DB2目录下并解压

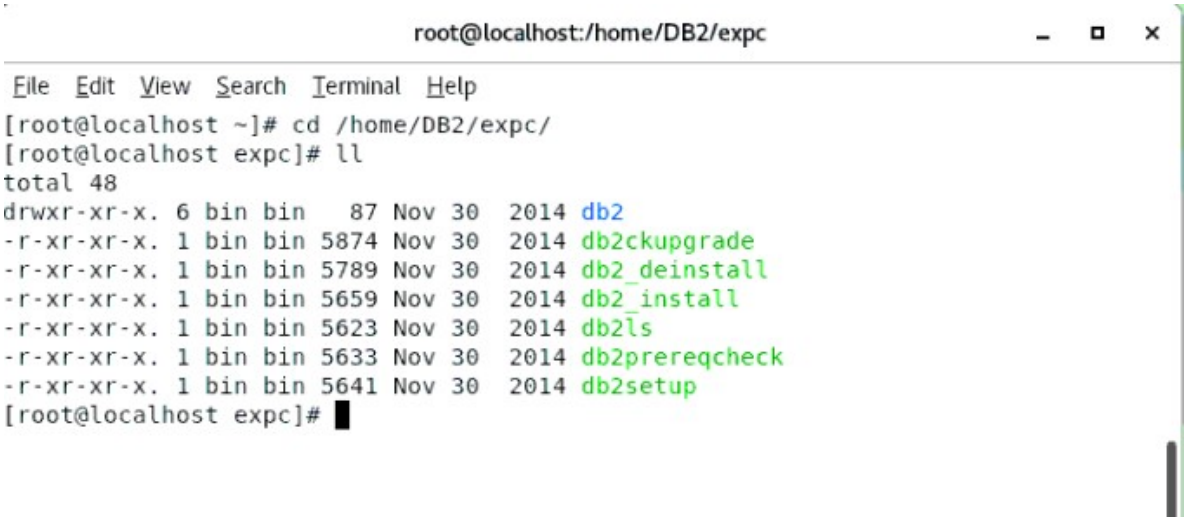
```
tar -zxvf v10.5_linuxx64_expc.tar.gz
```

解压后出现如下目录：

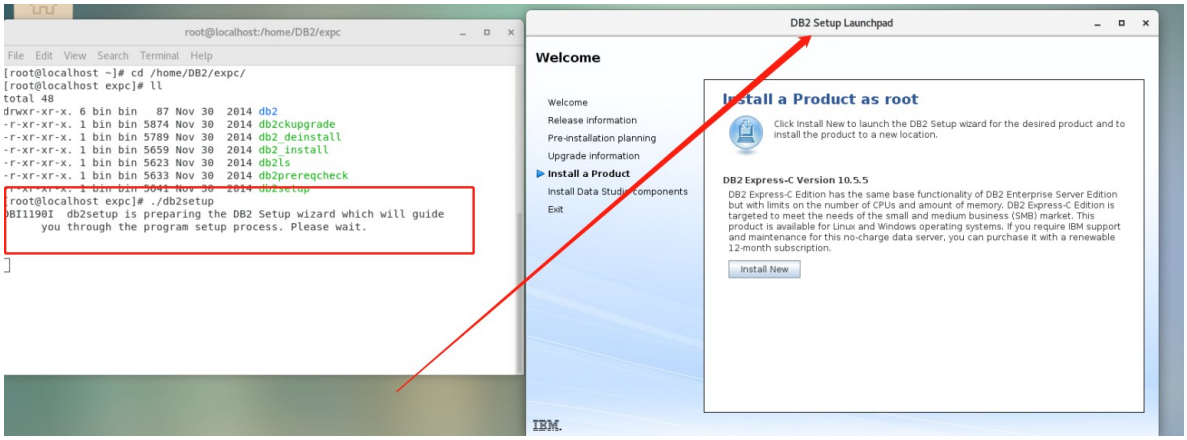


3、使用VNC连接服务器，进入可视化界面

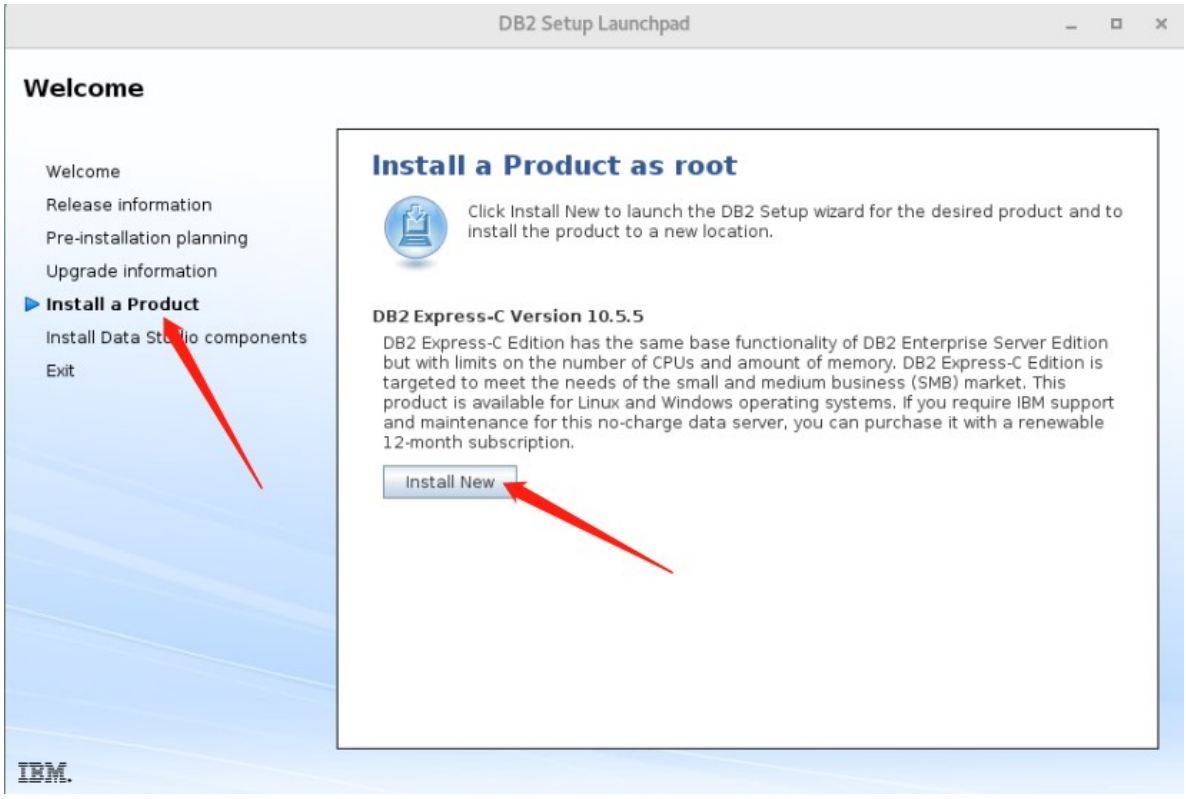
```
cd /home/DB2/expc
```

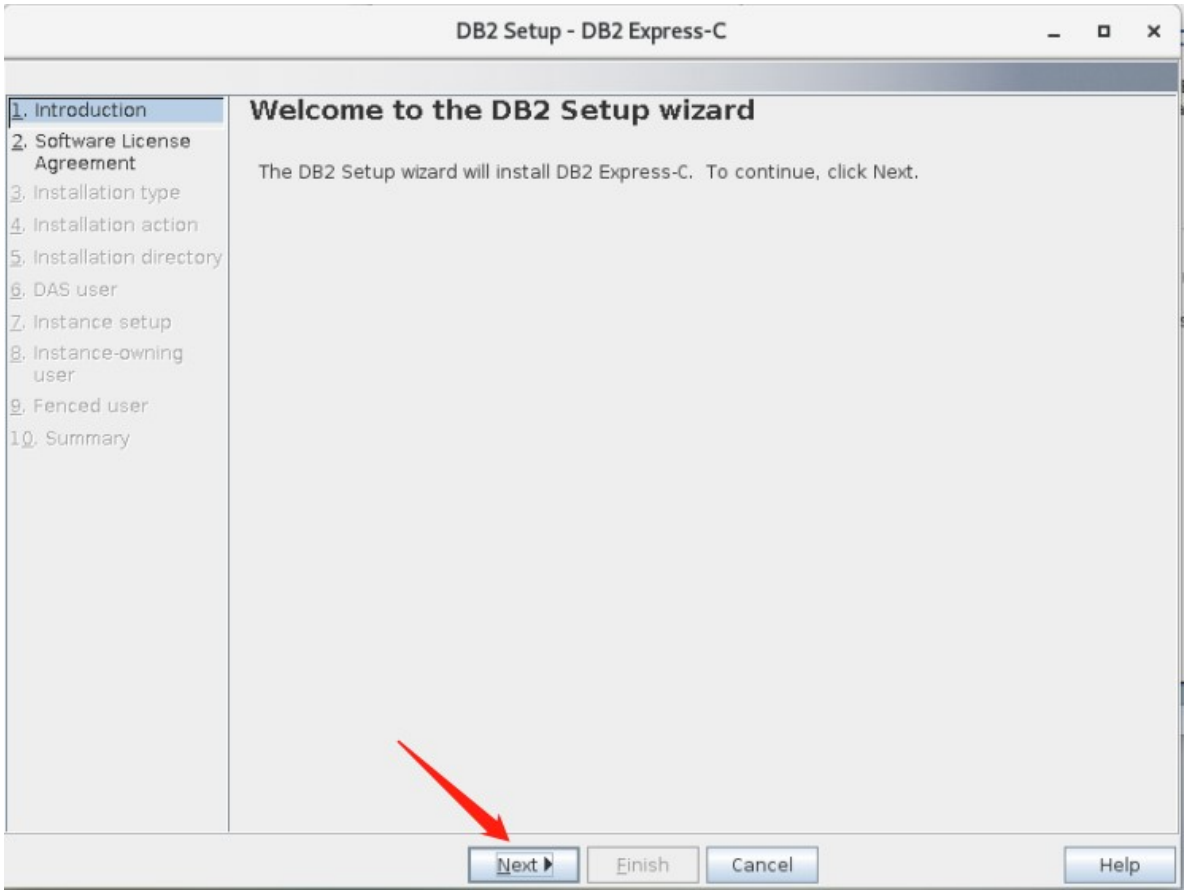


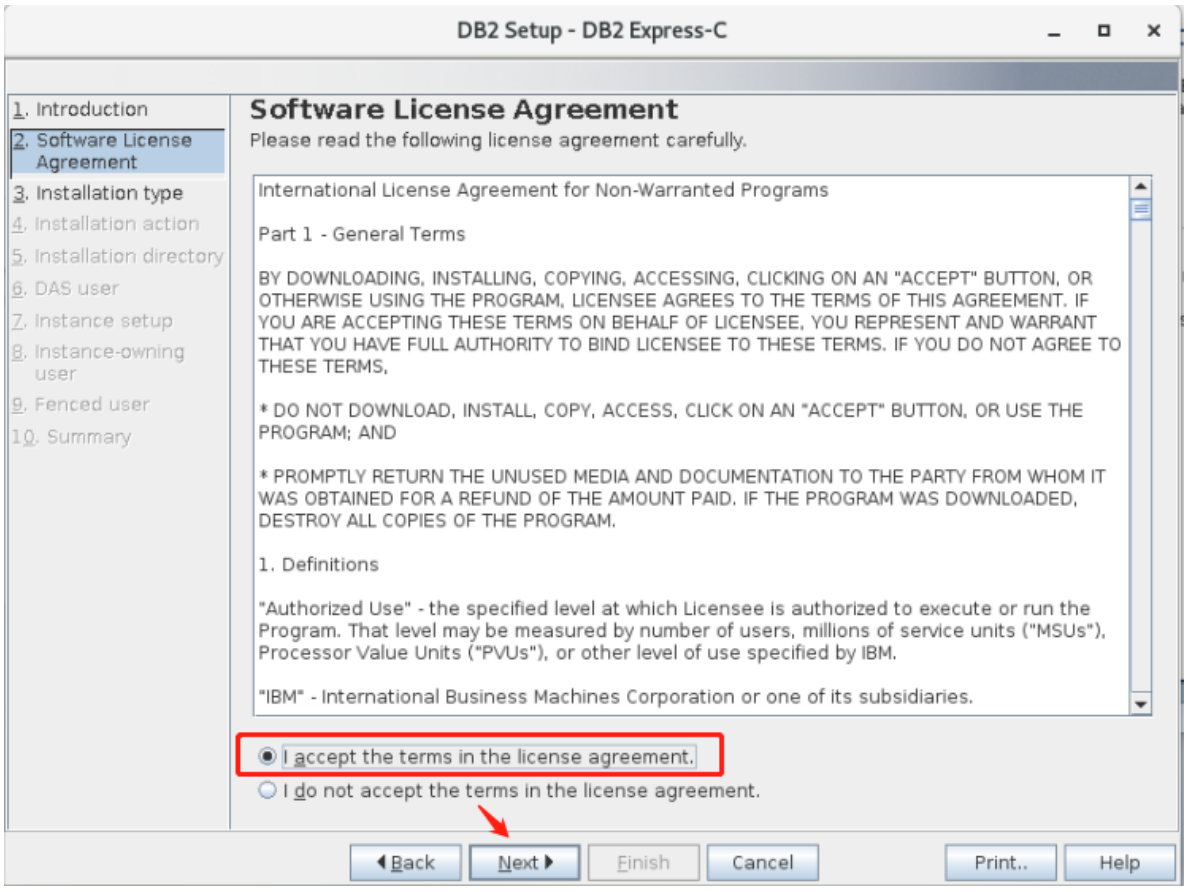
4、执行./db2setup,图形化界面安装

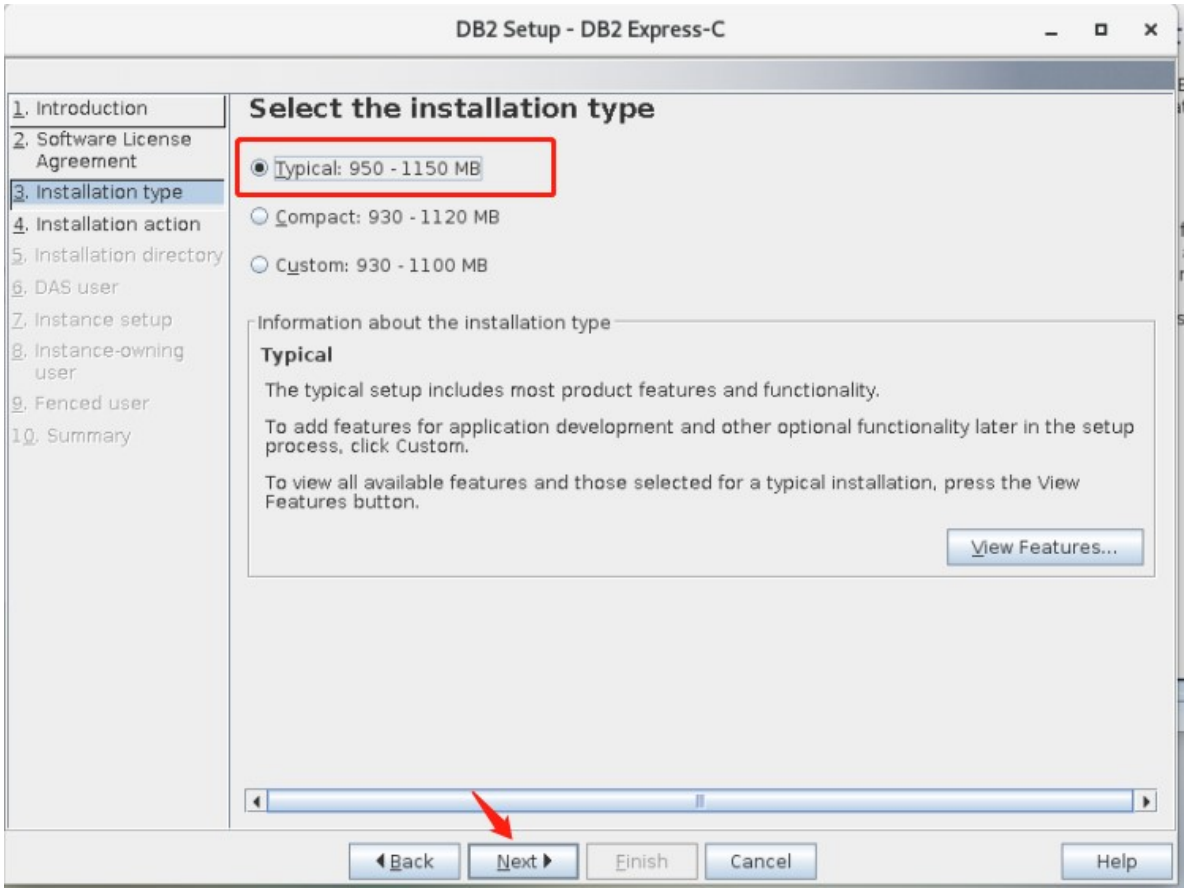


5、按照如下的过程进行安装DB2 v10.5数据库




DB2 Setup - DB2 Express-C
1. Introduction
2. Software License Agreement
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Instance-owning user
9. Fenced user
10. Summary
Welcome to the DB2 Setup wizard
The DB2 Setup wizard will install DB2 Express-C. To continue, click Next.
Next
Finish
Cancel
Help


DB2 Setup - DB2 Express-C
1. Introduction
2. Software License Agreement
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Instance-owning user
9. Fenced user
10. Summary
Software License Agreement
Please read the following license agreement carefully.
International License Agreement for Non-Warranted Programs
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,
* DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND
* PROMPTLY RETURN THE UNUSED MEDIA AND DOCUMENTATION TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.
1. Definitions
"Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"), Processor Value Units ("PVUs"), or other level of use specified by IBM.
"IBM" - International Business Machines Corporation or one of its subsidiaries.
I accept the terms in the license agreement.
I do not accept the terms in the license agreement.
Back
Next
Finish
Cancel
Print..
Help


DB2 Setup - DB2 Express-C
1. Introduction
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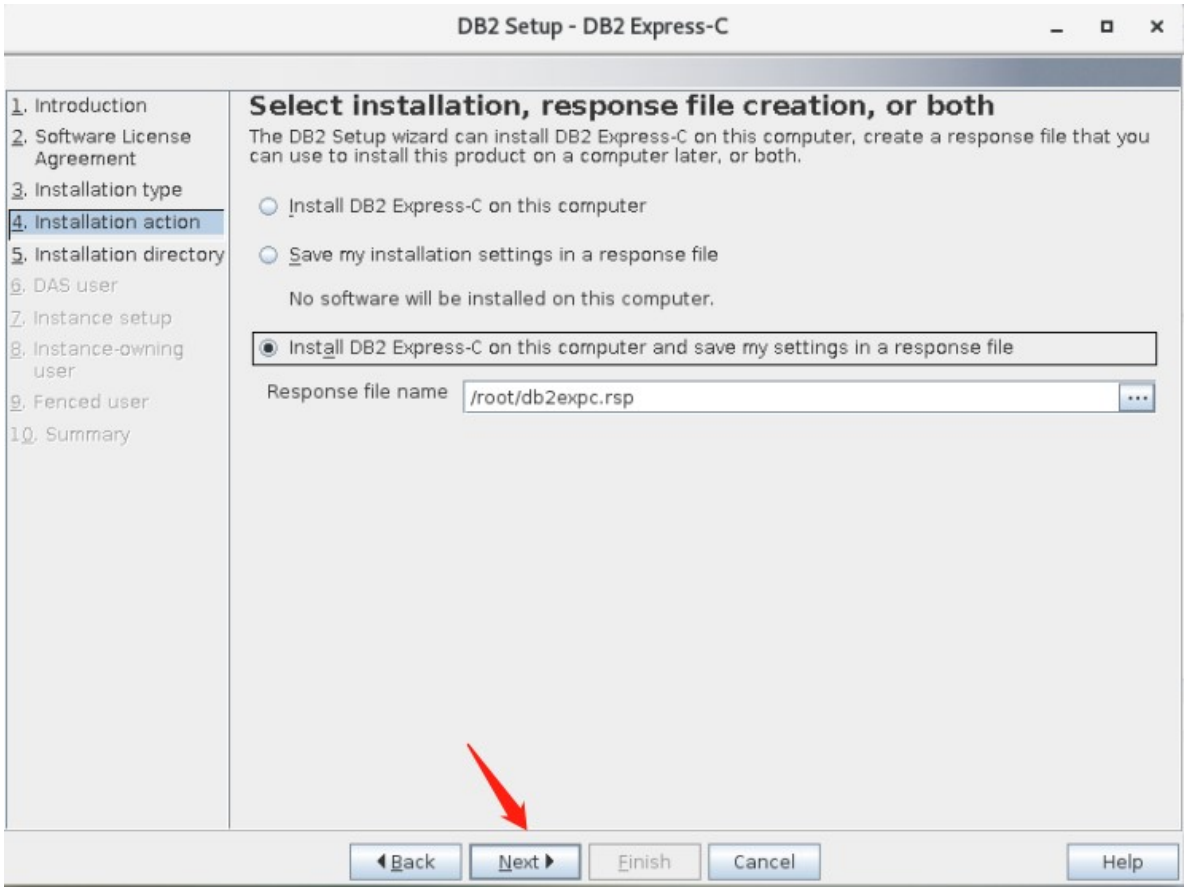
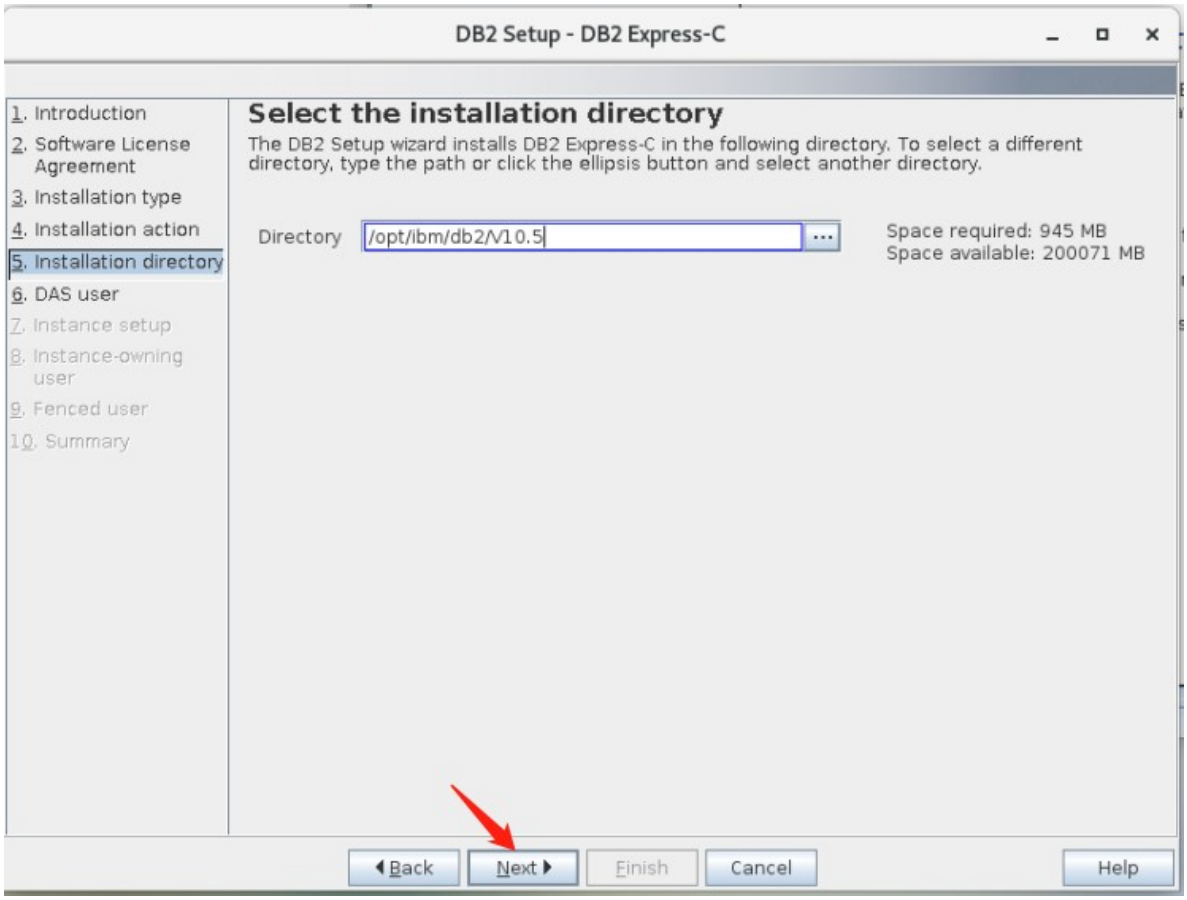
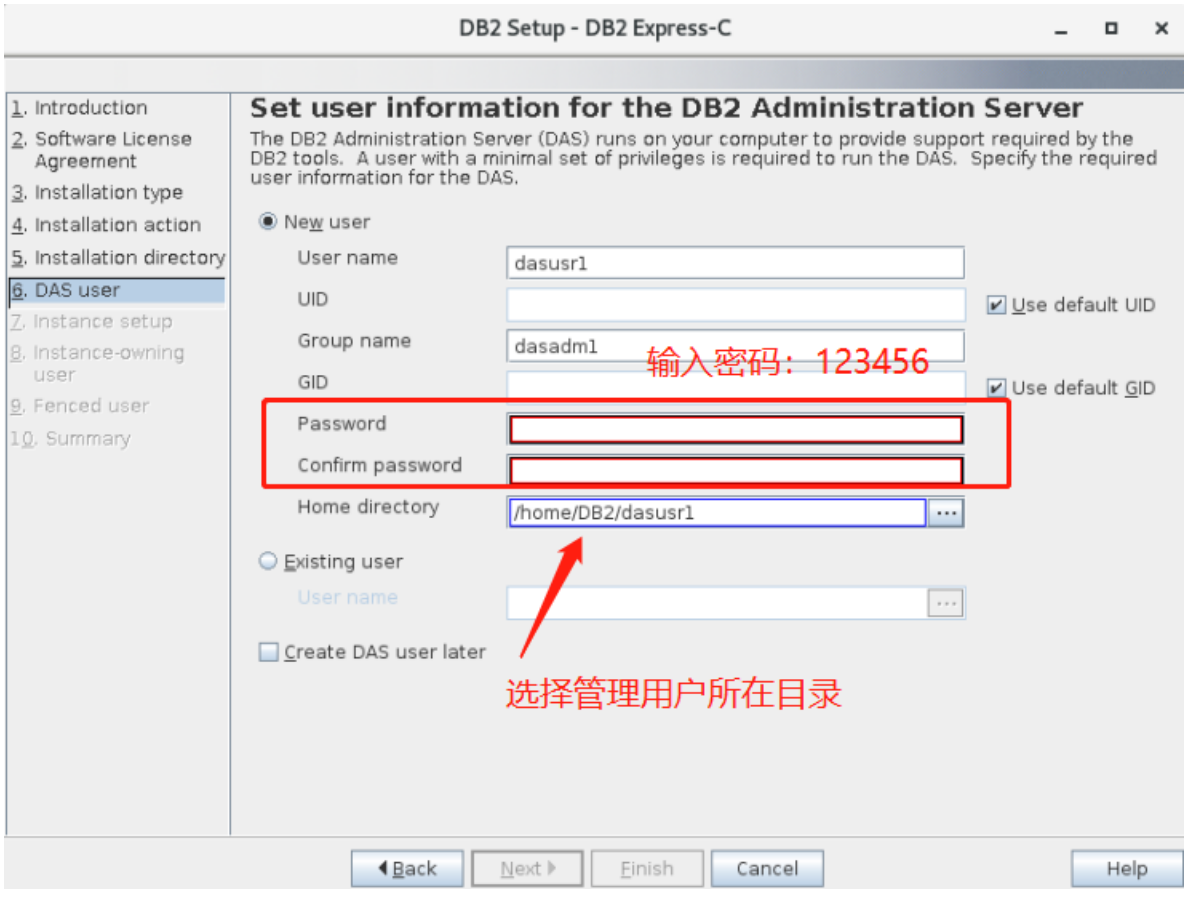
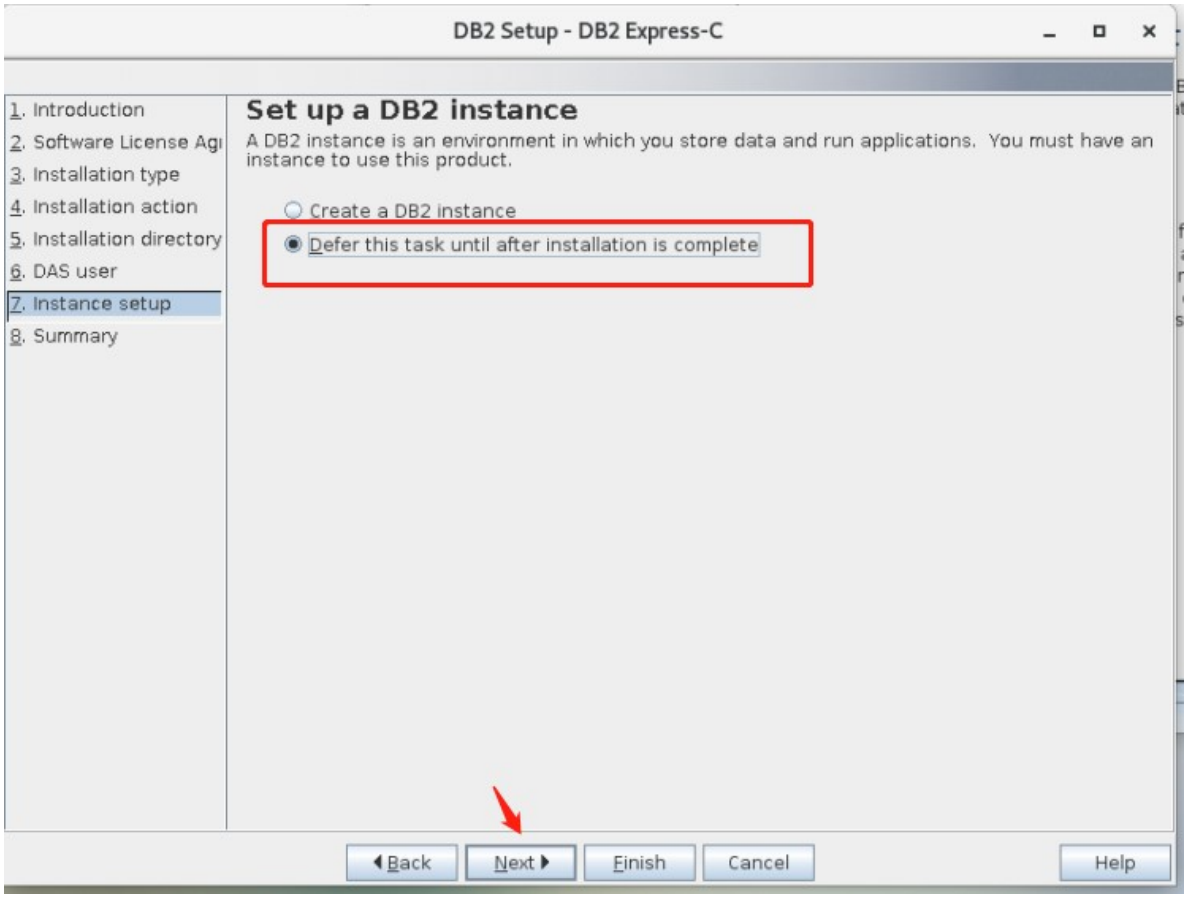
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Instance-owning user
9. Fenced user
10. Summary
Select the installation type
Typical: 950 - 1150 MB
Compact: 930 - 1120 MB
Custom: 930 - 1100 MB
Information about the installation type
Typical
The typical setup includes most product features and functionality.
To add features for application development and other optional functionality later in the setup process, click Custom.
To view all available features and those selected for a typical installation, press the View Features button.
View Features...
Back
Next
Finish
Cancel
Help

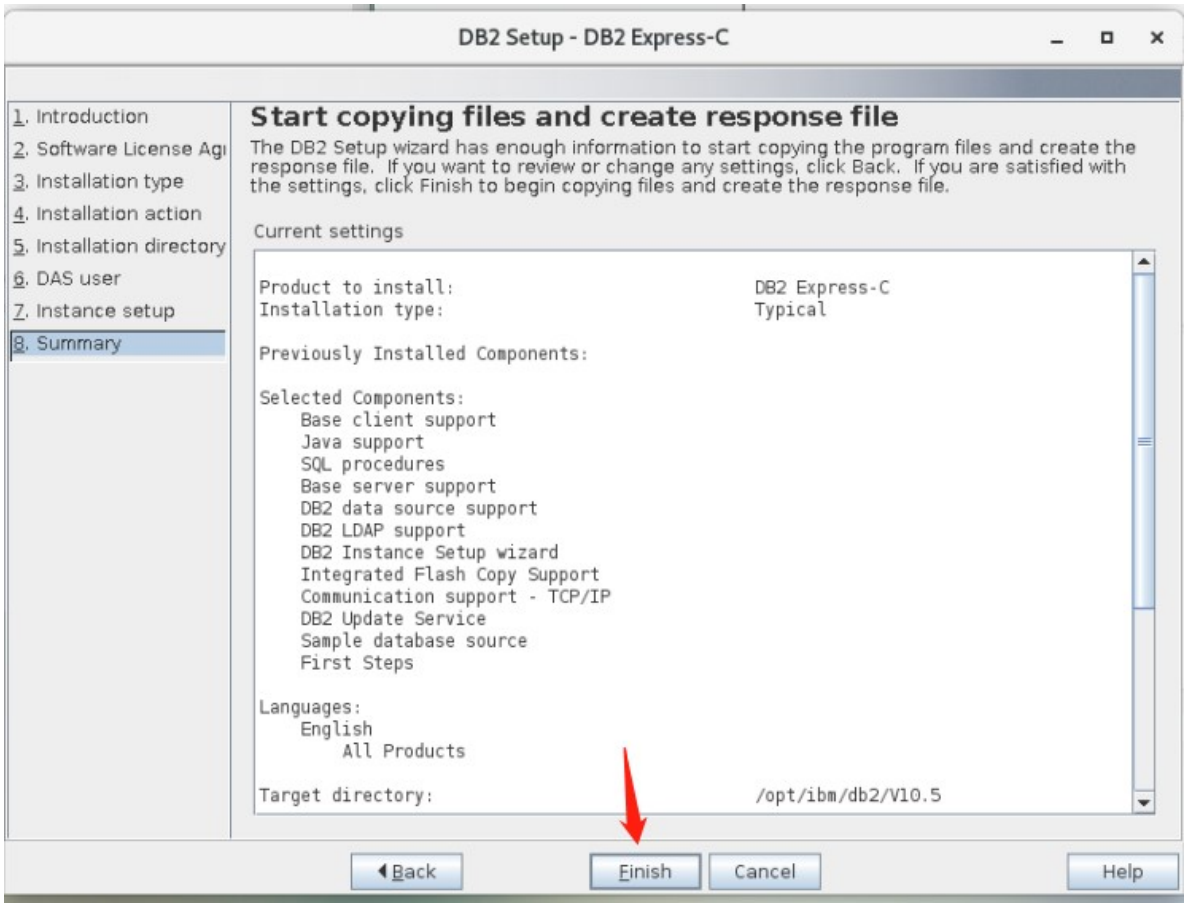

DB2 Setup - DB2 Express-C
1. Introduction
2. Software License Agreement
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Instance-owning user
9. Fenced user
10. Summary
Select installation, response file creation, or both
The DB2 Setup wizard can install DB2 Express-C on this computer, create a response file that you can use to install this product on a computer later, or both.
Install DB2 Express-C on this computer
Save my installation settings in a response file
No software will be installed on this computer.
Install DB2 Express-C on this computer and save my settings in a response file
Response file name
/root/db2expc.rsp
Back
Next
Finish
Cancel
Help

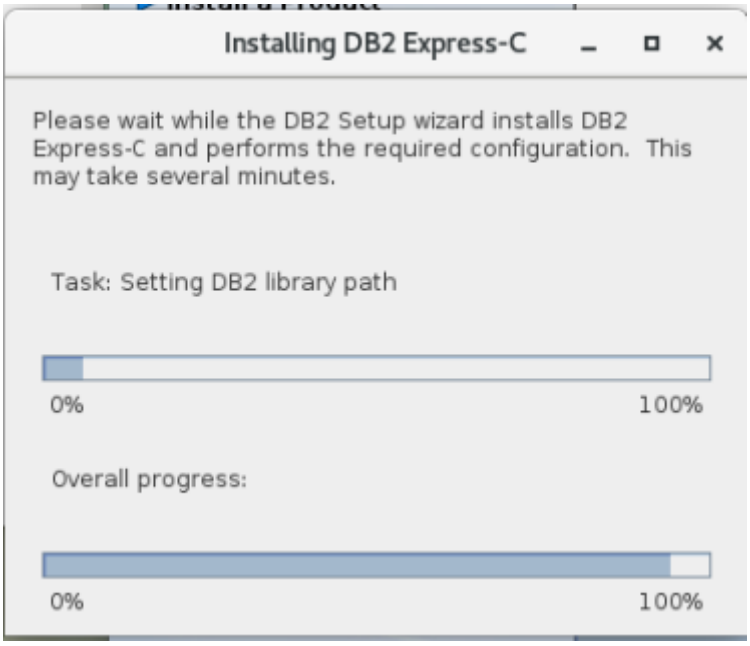


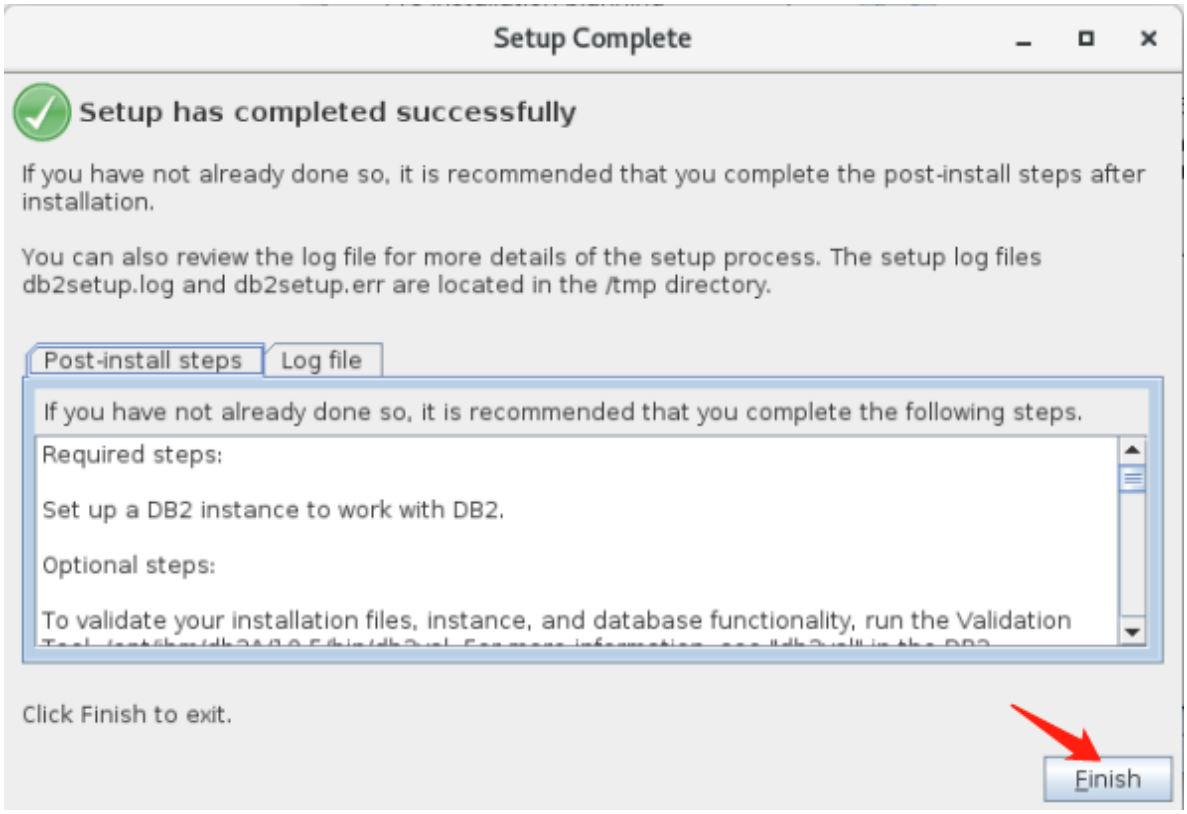


注：选择安装完DB2 再进行创建实例


DB2 Setup - DB2 Express-C
1. Introduction
2. Software License Agr
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Summary
Set up a DB2 instance
A DB2 instance is an environment in which you store data and run applications. You must have an instance to use this product.
Create a DB2 instance
Defer this task until after installation is complete
Back
Next
Finish
Cancel
Help


DB2 Setup - DB2 Express-C
1. Introduction
2. Software License Agr
3. Installation type
4. Installation action
5. Installation directory
6. DAS user
7. Instance setup
8. Summary
Start copying files and create response file
The DB2 Setup wizard has enough information to start copying the program files and create the response file. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files and create the response file.
Current settings
Product to install: DB2 Express-C
Installation type: Typical
Previously Installed Components:
Selected Components:
Base client support
Java support
SQL procedures
Base server support
DB2 data source support
DB2 LDAP support
DB2 Instance Setup wizard
Integrated Flash Copy Support
Communication support - TCP/IP
DB2 Update Service
Sample database source
First Steps
Languages:
English
All Products
Target directory: /opt/ibm/db2/V10.5
Back
Finish
Cancel
Help





6、在数据库服务器上创建用户组

创建组db2iadm1（实例管理组）,db2fgrp1（DB2 fencing管理组）和dasadm1（数据库管理员用户组），其中dasadm1组在安装数据库时已经创建，我们只需要创建db2iadm1和db2fgrp组

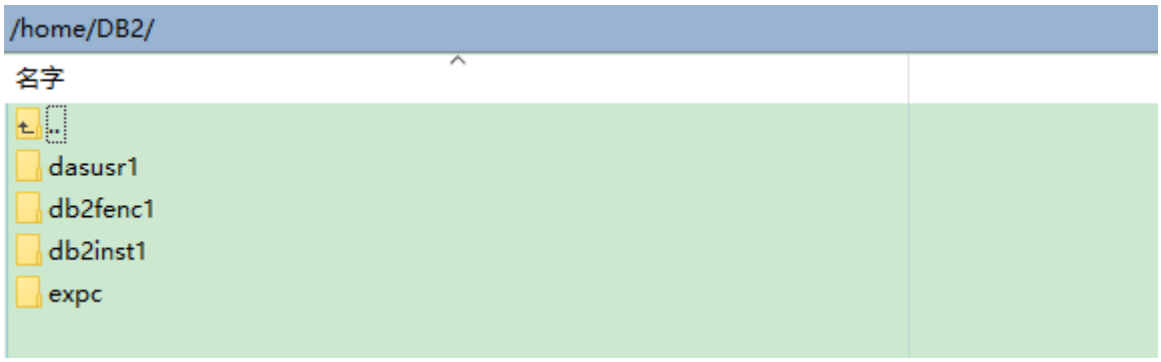
```
groupadd -g 206 db2iadm1
groupadd -g 203 db2fgrp1
```

7、在数据库服务器上创建用户

创建用户db2inst1(实例管理用户)、db2fenc1(DB2 fencing 管理用户)和dasusr1(数据库管理员用户)，其中dasusr1用户在安装数据库时已经创建，我们只需要创建db2inst1和db2fenc用户

```
useradd -g db2iadm1 -u 209 -d /home/DB2/db2inst1 db2inst1
useradd -g db2fgrp1 -u 210 -d /home/DB2/db2fenc1 db2fenc1
```

```
[root@localhost ~]# groupadd -g 206 db2iadm1
[root@localhost ~]# groupadd -g 203 db2fgrp1
[root@localhost ~]# useradd -g db2iadm1 -u 209 -d /home/DB2/db2inst1 db2inst1
Creating mailbox file: File exists
[root@localhost ~]# useradd -g db2fgrp1 -u 210 -d /home/DB2/db2fenc1 db2fenc1
Creating mailbox file: File exists
[root@localhost ~]#
```



8、添加用户的密码

添加用户db2inst1(实例管理用户)、db2fenc1(DB2 fencing 管理用户)和dasusr1(数据库管理员用户)的密码，其中dasusr1用户的密码在安装数据库时已经添加，我们只需要添加db2inst1和db2fenc用户的密码。

```
# 添加实例的用户密码
passwd db2inst1
# 123456

# 添加受防护的用户密码
passwd db2fenc1
# 123456
```

```
[root@localhost ~]# passwd db2inst1
Changing password for user db2inst1.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# passwd db2fenc1
Changing password for user db2fenc1.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
```

9、检查用户组和用户是否创建成功

```
# 用户组:
more /etc/group | grep db2
# 用户:
more /etc/passwd | grep db2
```

```
[root@localhost ~]# more /etc/group | grep db2
db2iadm1:x:206:
db2fgrp1:x:203:
[root@localhost ~]# more /etc/passwd | grep db2
db2inst1:x:209:206::/home/DB2/db2inst1:/bin/bash
db2fenc1:x:210:203::/home/DB2/db2fenc1:/bin/bash
[root@localhost ~]#
```

10、创建实例

db2icrt创建的是实例，这里db2fenc1指定db2inst1为它的防护用户，而db2inst1为一实例用户。

```
cd /opt/ibm/db2/V10.5/instance/

# 创建DB2实例
./db2icrt -u db2fenc1 db2inst1
```

```
[root@localhost ~]# cd /opt/ibm/db2/V10.5/instance/
[root@localhost instance]#
[root@localhost instance]# ./db2icrt -u db2fenc1 db2inst1
DBI1446I  The db2icrt command is running.


DB2 installation is being initialized.

 Total number of tasks to be performed: 4
Total estimated time for all tasks to be performed: 309 second(s)

Task #1 start
Description: Setting default global profile registry variables
Estimated time 1 second(s)
Task #1 end

Task #2 start
Description: Initializing instance list
Estimated time 5 second(s)
Task #2 end

Task #3 start
Description: Configuring DB2 instances
Estimated time 300 second(s)
Task #3 end

Task #4 start
Description: Updating global profile registry
Estimated time 3 second(s)
Task #4 end

The execution completed successfully.

For more information see the DB2 installation log at "/tmp/db2icrt.log.17067".
DBI1070I  Program db2icrt completed successfully.


[root@localhost instance]#
```

11、配置DB2实例

```
cd /opt/ibm/db2/V10.5/instance/

# 设置DB2自启动(注:依然在root用户下)，设置对db2inst1在Linux启动时自动启动。
./db2iauto -on db2inst1

# 修改网络服务端口(注:在db2inst1用户下)
# 修改DB2的服务端口为50000,默认情况下端口也是50000
 su - db2inst1
 db2 update dbm cfg using SVCENAME 50000
 # 修改DB2连接方式为TCP/IP
 # 修改DB2连接方式为TCPIP,然后可通过JDBC、ODBC等访问本DB2服务器上的数据库,安装了DB2客户端的其它机器也可访问数据库
 db2set DB2COMM=TCPIP
```

```
[root@localhost instance]# ./db2iauto -on db2inst1
[root@localhost instance]#  su - db2inst1
Last login: Tue Jun  2 09:14:07 CST 2020 on pts/0
[db2inst1@localhost ~]$  db2 update dbm cfg using SVCENAME 50000
DB20000I  The UPDATE DATABASE MANAGER CONFIGURATION command completed
successfully.
[db2inst1@localhost ~]$  db2set DB2COMM=TCPIP
[db2inst1@localhost ~]$
```

12、查看DB2

```
 su - db2inst1
# 查看DB2许可证情况
db2licm -l
# 查看DB2版本
db2level
# 检查相关参数
 db2set -all
```

```
[db2inst1@localhost ~]$ db2licm -l
Product name:                     "DB2 Express-C"
License type:                     "Unwarranted"
Expiry date:                      "Permanent"
Product identifier:               "db2expc"
Version information:              "10.5"
Max number of CPUs:               "2"
Max amount of memory (GB):        "16"
Enforcement policy:               "Soft Stop"



[db2inst1@localhost ~]$ db2level
DB21085I  This instance or install (instance name, where applicable:
"db2inst1") uses "64" bits and DB2 code release "SQL10055" with level
identifier "0606010E".
Informational tokens are "DB2 v10.5.0.5", "s141128", "IP23633", and Fix Pack
"5".
Product is installed at "/opt/ibm/db2/V10.5".

[db2inst1@localhost ~]$ db2set -all
[i] DB2COMM=TCPIP
[i] DB2AUTOSTART=YES
[g] DB2_COMPATIBILITY_VECTOR=MYS
[g] DB2SYSTEM=localhost.localdomain
[g] DB2INSTDEF=db2inst1
[g] DB2ADMINSERVER=dasusr1
[db2inst1@localhost ~]$
```

13、启动/停止实例

```
su - db2inst1
# 启动
db2start

# 停止
db2stop
# 强制停止
db2stop force

# 停止所有数据库应用程序
db2 force application all
```

14、在数据库服务器上创建数据库 test

```
db2 create database test
```

```
[db2inst1@localhost ~]$ db2start
SQL1063N  DB2START processing was successful.
[db2inst1@localhost ~]$ db2 create database test
DB20000I  The CREATE DATABASE command completed successfully.
```

15、连接数据库test

```
# 指定用户和密码
db2 connect to test user db2inst1 using 123456
```

```
[db2inst1@localhost ~]$ db2 connect to test user db2inst1 using 123456

   Database Connection Information

 Database server        = DB2/LINUXX8664 10.5.5
 SQL authorization ID   = DB2INST1
 Local database alias   = TEST
```

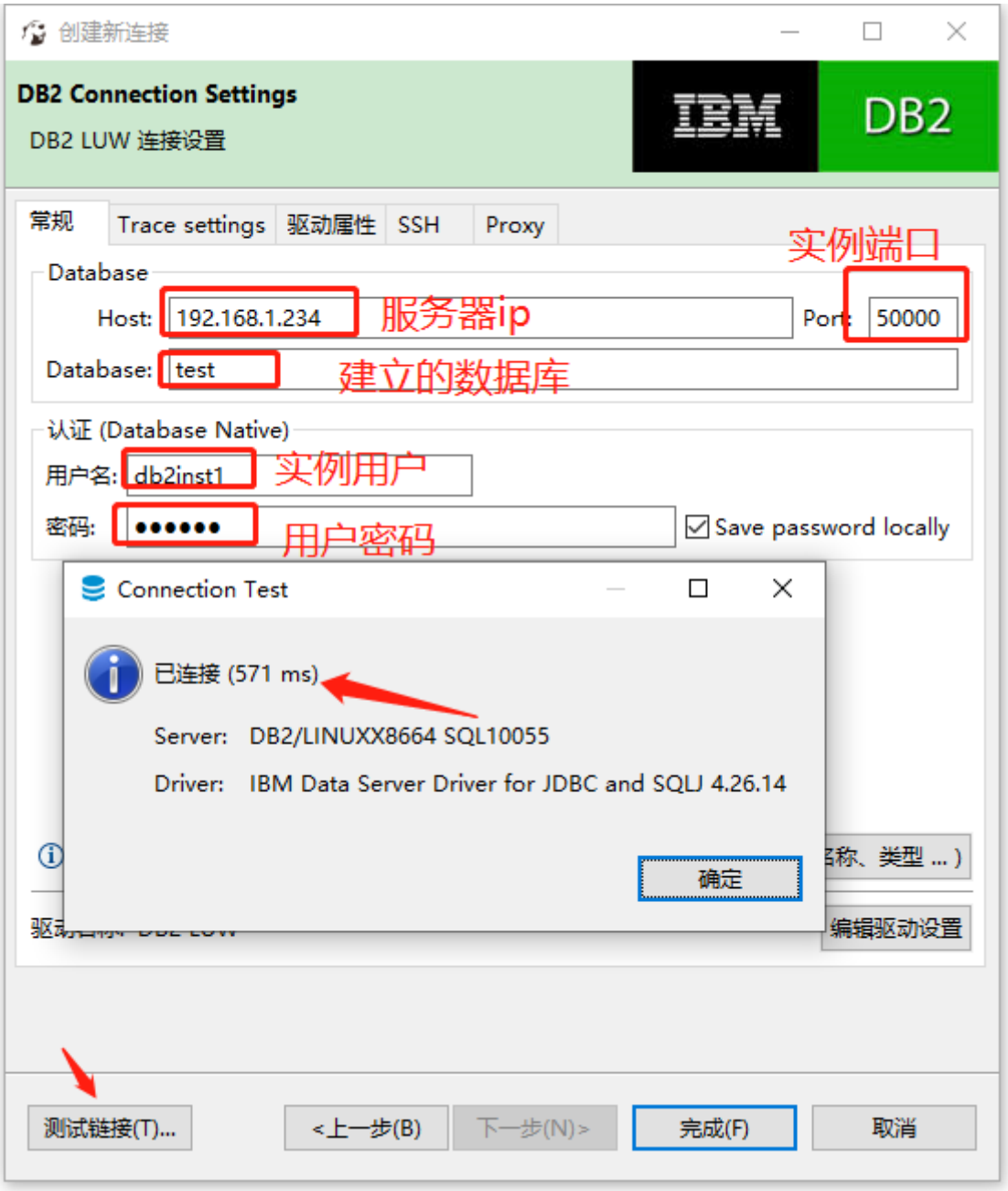
16、使用DBeaver连接DB2

首先防火墙开启端口50000（上面db2inst1实例指定的端口）

```
# 开放50000端口
firewall-cmd --zone=public --add-port=50000/tcp --permanent

# 开启或关闭端口需要重启，重启后配置立即生效
firewall-cmd --reload

#查看所有开放的端口
firewall-cmd --list-ports

#   查看防火墙状态
```

```
systemctl status firewalld
# 停止防火墙
systemctl stop firewalld
# 开启防火墙
systemctl start firewalld
```

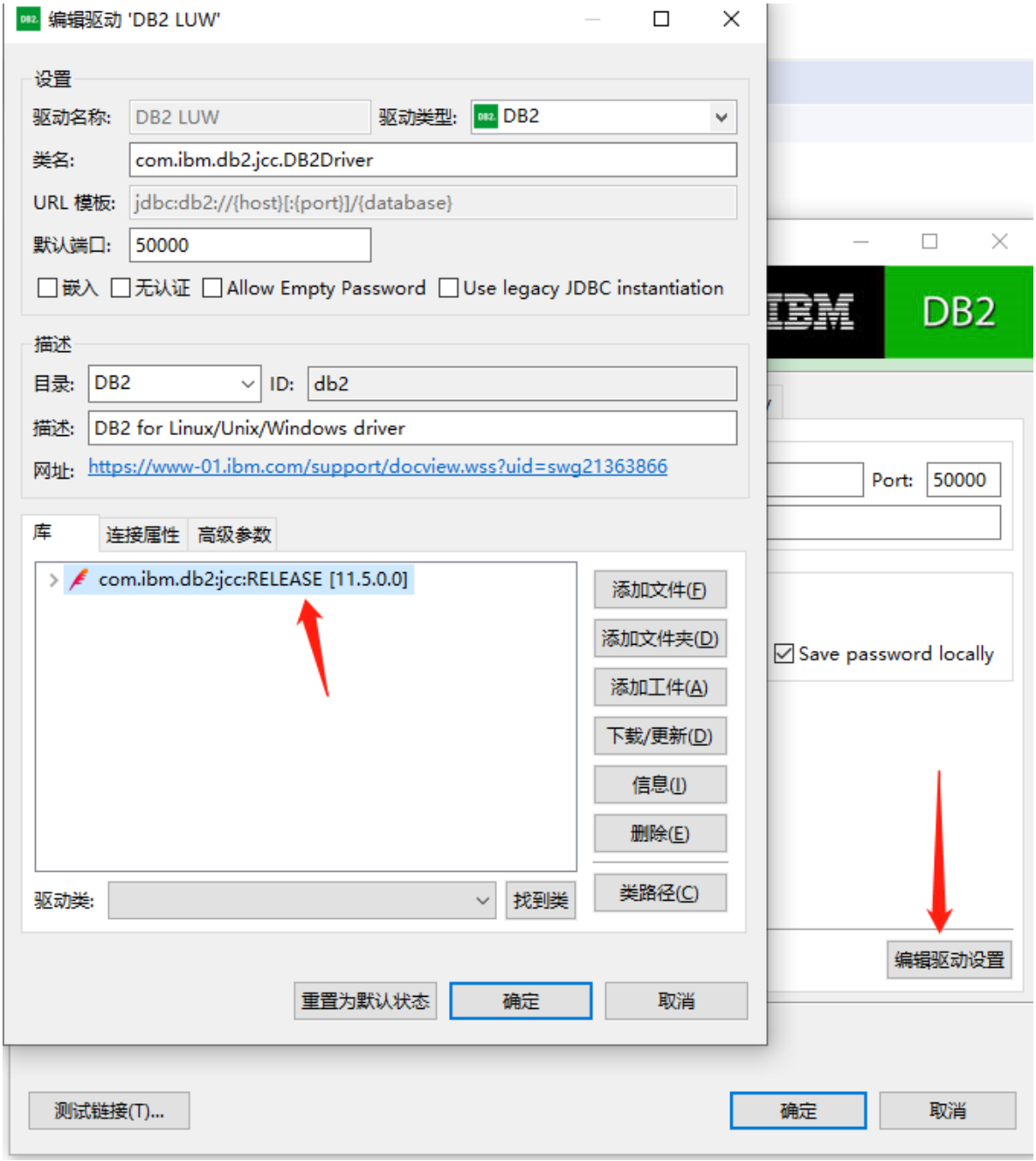
使用DBeaver工具，如下：



注意：需要下载驱动并添加（百度云下载后添加，或者让DBeaver自己下载）

百度云下载：

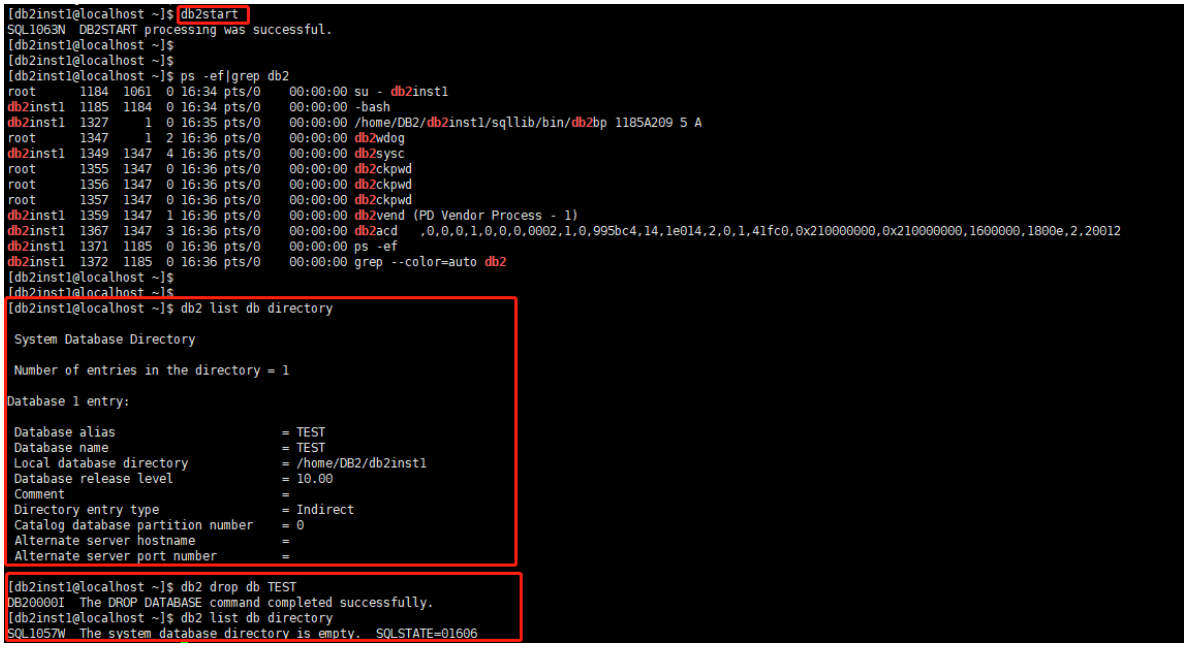
> 链接：https://pan.baidu.com/s/1cM8wiLIDxexMOvujk7f4KQ
>
> 提取码：z162



三、卸载DB2

1、删除db2数据库

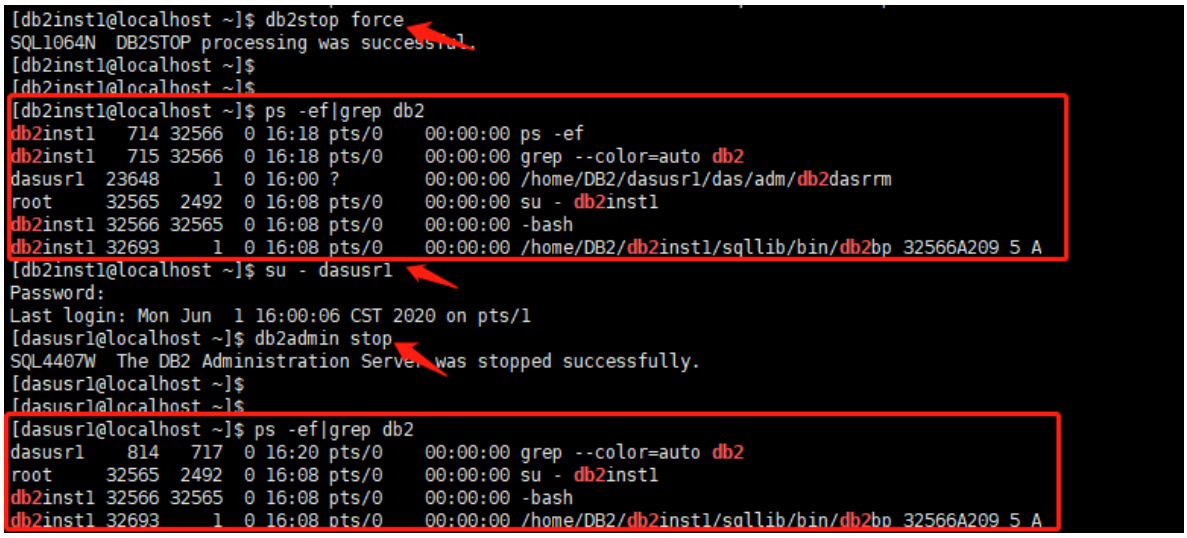
```
# Remove DB[首先删除数据库]
su - db2inst1
db2start
db2 list db directory
db2 drop db <db name>
```



2、停止db2数据库并删除db2进程

```
# 查看db2进程
ps -ef|grep db2
```


```
# 切换到db2inst1用户
su - db2inst1
# 停止数据库
db2stop force

# 切换到dasusr1管理用户
su - dasusr1
# 停止DB2管理服务器
db2admin stop
```



```
# 删除db2进程
su root
kill -9 `ps aux|grep db2 | grep -v 'grep db2' | awk '{print $2}'`
# 查看
ps -ef|grep db2
```

```
[root@localhost db2inst1]# kill -9 `ps aux|grep db2 | grep -v 'grep db2' | awk '{print $2}'`
bash: kill: (1054) - No such process
[root@localhost db2inst1]# Killed
```

```
[root@localhost ~]# ps -ef|grep db2
root       1104   1061  0 16:26 pts/0    00:00:00 grep --color=auto db2
[root@localhost ~]#
```

3、删除实例、das、卸载

```
# Remove Instance【删除实例】
su - root
cd <db2 dir>/instance # 默认/opt/ibm/db2/V10.5/instance/
./db2ilist
./db2idrop <instance name>

# Remove das【删除das】
(1)su - root
(2)cd <db2 dir>/instance # 默认/opt/ibm/db2/V10.5/instance/
(3)./daslist
(4)./dasdrop <das user>

# Uninstall【卸载】
(1)su - root
(2)cd <db2 dir>/install # 默认/opt/ibm/db2/V10.5/install/
(3)./db2_deinstall -a
```

```
[root@localhost instance]# ./db2ilist
db2inst1
[root@localhost instance]# ./db2idrop db2inst1
DBI1446I  The db2idrop command is running.


DB2 installation is being initialized.

 Total number of tasks to be performed: 2
Total estimated time for all tasks to be performed: 305 second(s)

Task #1 start
Description: Initializing instance list
Estimated time 5 second(s)
Task #1 end

Task #2 start
Description: Configuring DB2 instances
Estimated time 300 second(s)
Task #2 end

The execution completed successfully.

For more information see the DB2 installation log at "/tmp/db2idrop.log.3860".
DBI1070I  Program db2idrop completed successfully.


[root@localhost instance]# ./db2ilist
[root@localhost instance]#
```

```
[root@localhost instance]# ./daslist
dasusr1
[root@localhost instance]# ./dasdrop dasusr1
DBI1070I  Program dasdrop completed successfully.


[root@localhost instance]# ./daslist
[root@localhost instance]#
```

```
[root@localhost install]# ./db2_deinstall -a
DBI1016I  Program db2_deinstall is performing uninstallation. Please
      wait.


The execution completed successfully.

For more information see the DB2 uninstallation log at
"/tmp/db2_deinstall.log.9372".
[root@localhost install]#
```

4、删除db2数据库相关文件

```
# 删除db2用户，删除db2相关数据
vim /etc/passwd
# 进入文件后，输入/db2,按enter键查找db2相关配置，按n跳转到下一个
# 删除下图中的三行关于db2的配置
# 选中到某一行，输入dd，即可删除当前行
# 删除成功后，按i键进入输入模式
# 按Esc键后，输入:wq!即可保存退出
```

```
dasusr1:x:1000:101::/home/DB2/dasusr1:/bin/bash
db2instl:x:209:206::/home/DB2/db2instl:/bin/bash
db2fencl:x:210:203::/home/DB2/db2fencl:/bin/bash
/db2
```

```
# 删除db2组
vim /etc/group
# 操作同上，删除下图中的三行关于db2的配置
```

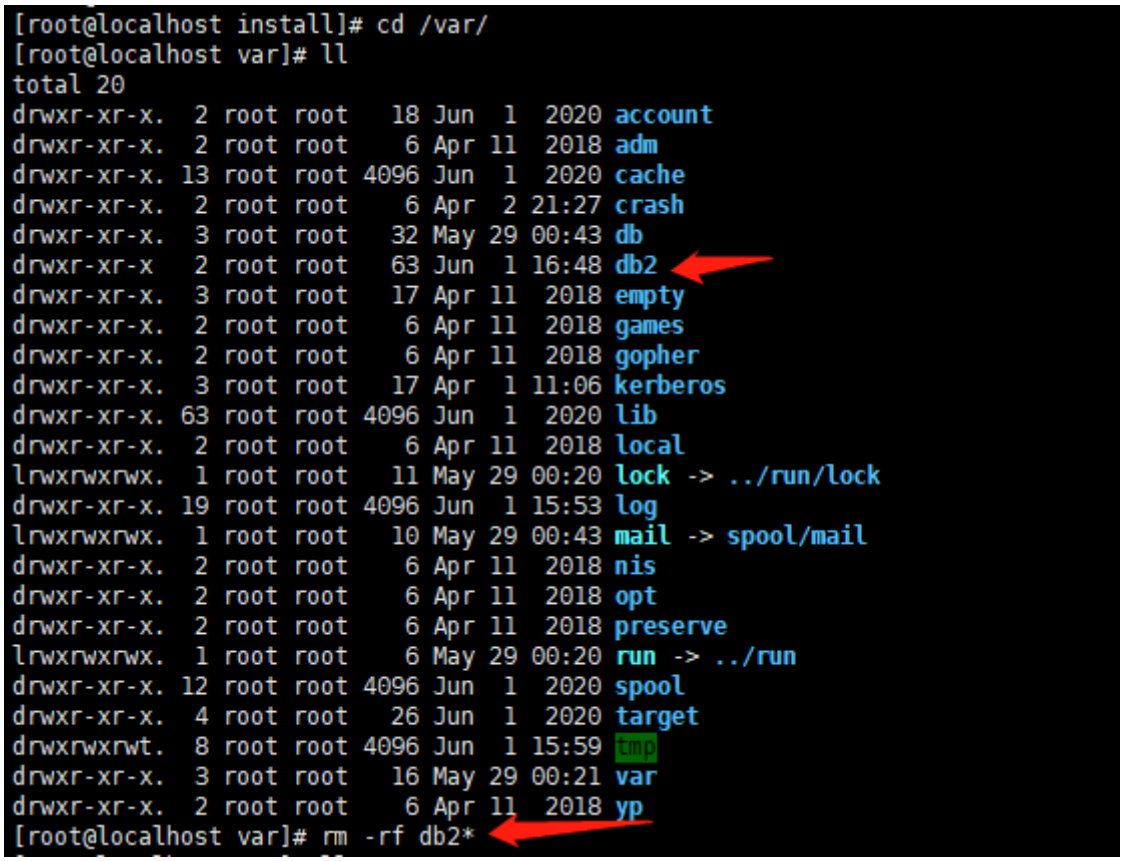
```
dasadml:x:101:db2instl
db2iadml:x:206:
db2fgrpl:x:203:
/db2
```

```
# 删除db2端口
vim /etc/services
# 操作同上,未找到相关db2配置不做操作
# 按i键进入输入模式，按Esc键后，输入:q!即可不保存退出
```

```
# 删除db2相关用户实例
vim /etc/shadow
# 操作同上，删除下图中的三行关于db2的配置
```

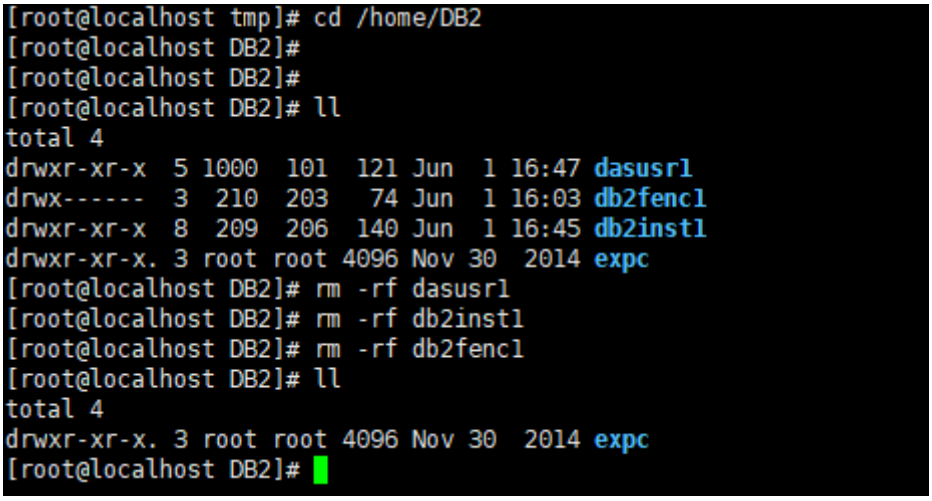
```
dasusr1:O5zjTovHUM7BY:18414:0:99999:7:::
db2instl:$6$VpkovM9b$bv9j4RoGZbbeL7Unx0yUjvsl9gh/6g7EBNP9vIgTq4FD2jVTIDVEi8jEGHt6PVC/IEfqj3YUzWUT0NLgPaTzS/:18414:0:99999:7:::
db2fencl:$6$wfBgKHt9$HBlCnMlyrqbRX2saI4TJq8s4qc1/7w2xzMyC8OIx4ReDmUZ9v7bNt4YHTwl7naNHLwyscHfFxL1.zONaJYarQ0:18414:0:99999:7:::
/db2
```

```
# 删除db2相关目录
cd /var
ll
rm -rf db2*
```




```
# 删除db2相关文件
cd /tmp
ll
rm -rf db2*
rm -rf dascrt*
```

```
# 删除dasusr1，db2inst1,db2fenc1文件夹
cd /home/DB2
rm -rf dasusr1
rm -rf db2inst1
rm -rf db2fenc1
```



```
# 删除db2安装目录和rsp文件
cd /opt
rm -rf ibm/

cd /root
rm -rf db2expc.rsp
```

```
[root@localhost DB2]# cd /opt/
[root@localhost opt]#
[root@localhost opt]# ll
total 0
drwxr-xr-x  3 root root 16 Jun  1 15:59 ibm
drwxr-xr-x. 2 root root  6 Oct 31  2018 rh
[root@localhost opt]# rm -rf ibm/
[root@localhost opt]# ll
total 0
drwxr-xr-x. 2 root root 6 Oct 31  2018 rh
[root@localhost opt]#
[root@localhost opt]#
[root@localhost opt]# cd /root/
[root@localhost ~]# ll
total 12
-rw-------. 1 root root 1422 May 29 00:23 anaconda-ks.cfg
-rw-r--r--  1 root root 1607 Jun  1 15:59 db2expc.rsp
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Desktop
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Documents
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Downloads
drwxr-xr-x. 2 root root   23 Jun  1 13:44 isus
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Music
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Pictures
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Public
-rw-------. 1 root root   16 Jun  1  2020 root
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Templates
drwxr-xr-x. 2 root root    6 Jun  1 12:04 Videos
[root@localhost ~]# rm -rf db2expc.rsp
[root@localhost ~]#
```

到这里就卸载成功了，可以重新安装了。