

사전 준비

- 네트워크 설정

```
root@sol1:~# netadm enable -p ncp Automatic  
root@sol1:~# pkg install motif  
root@sol1:~# pkg install --no-backup-be slim_install
```

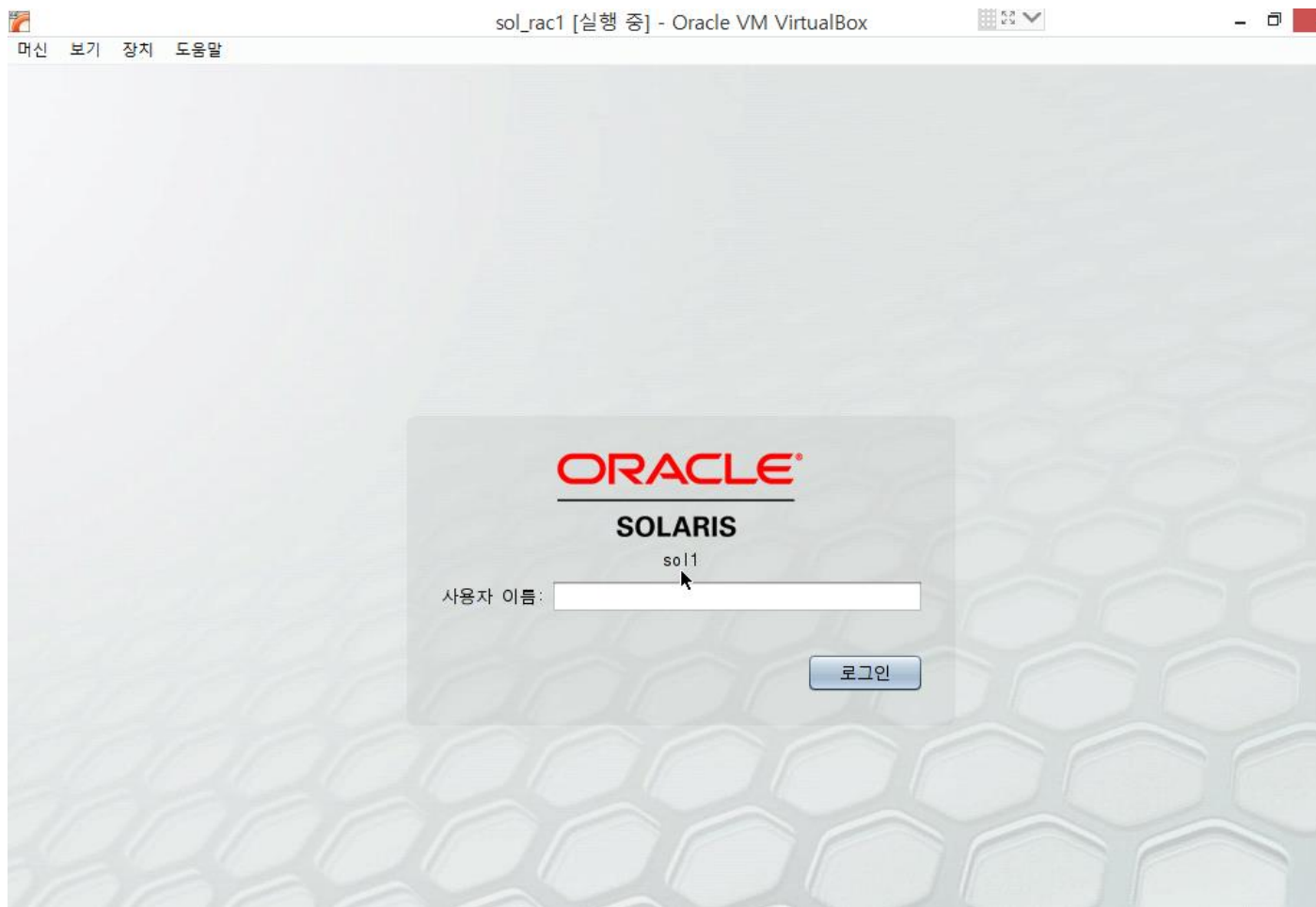
아래와 같이 진행

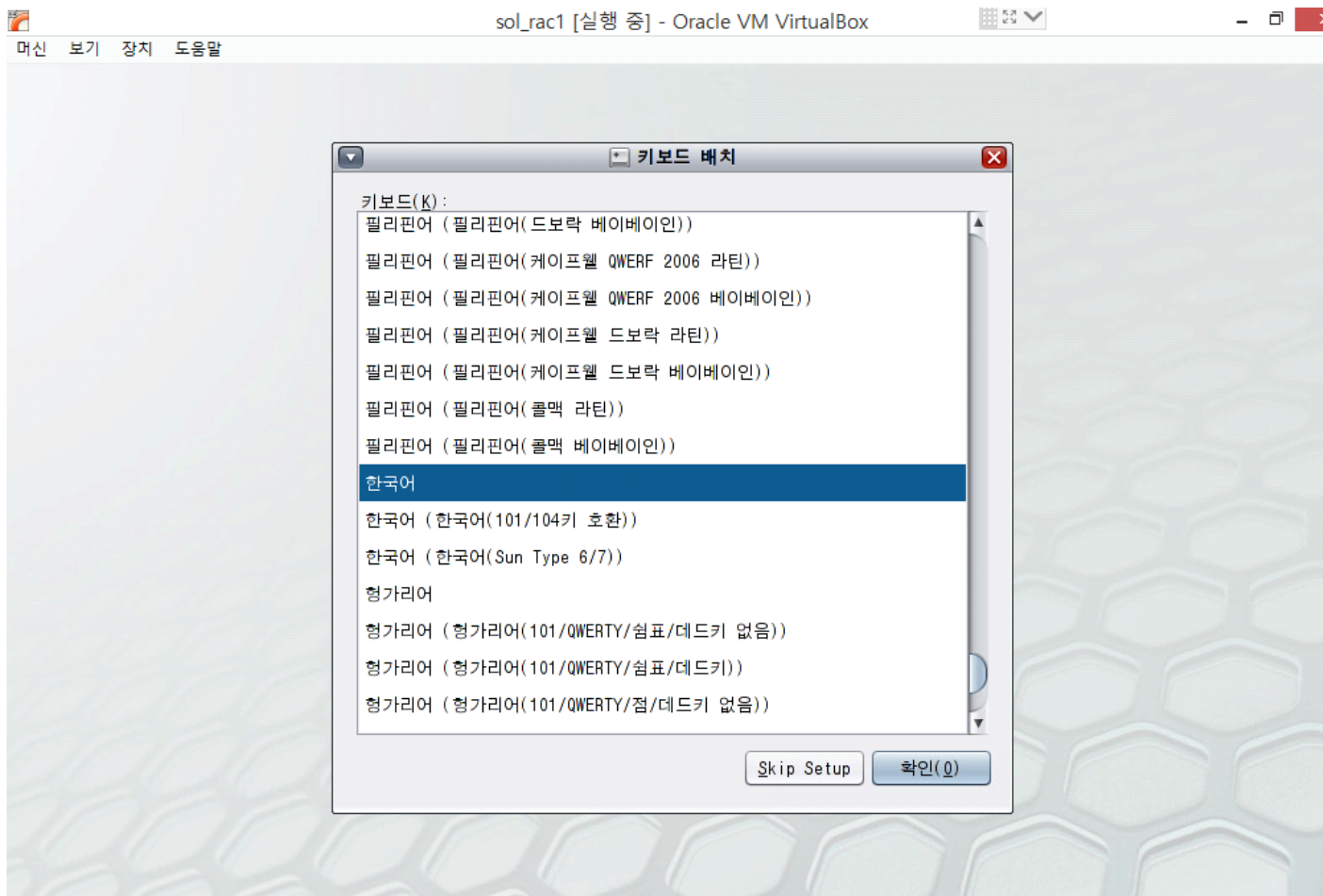
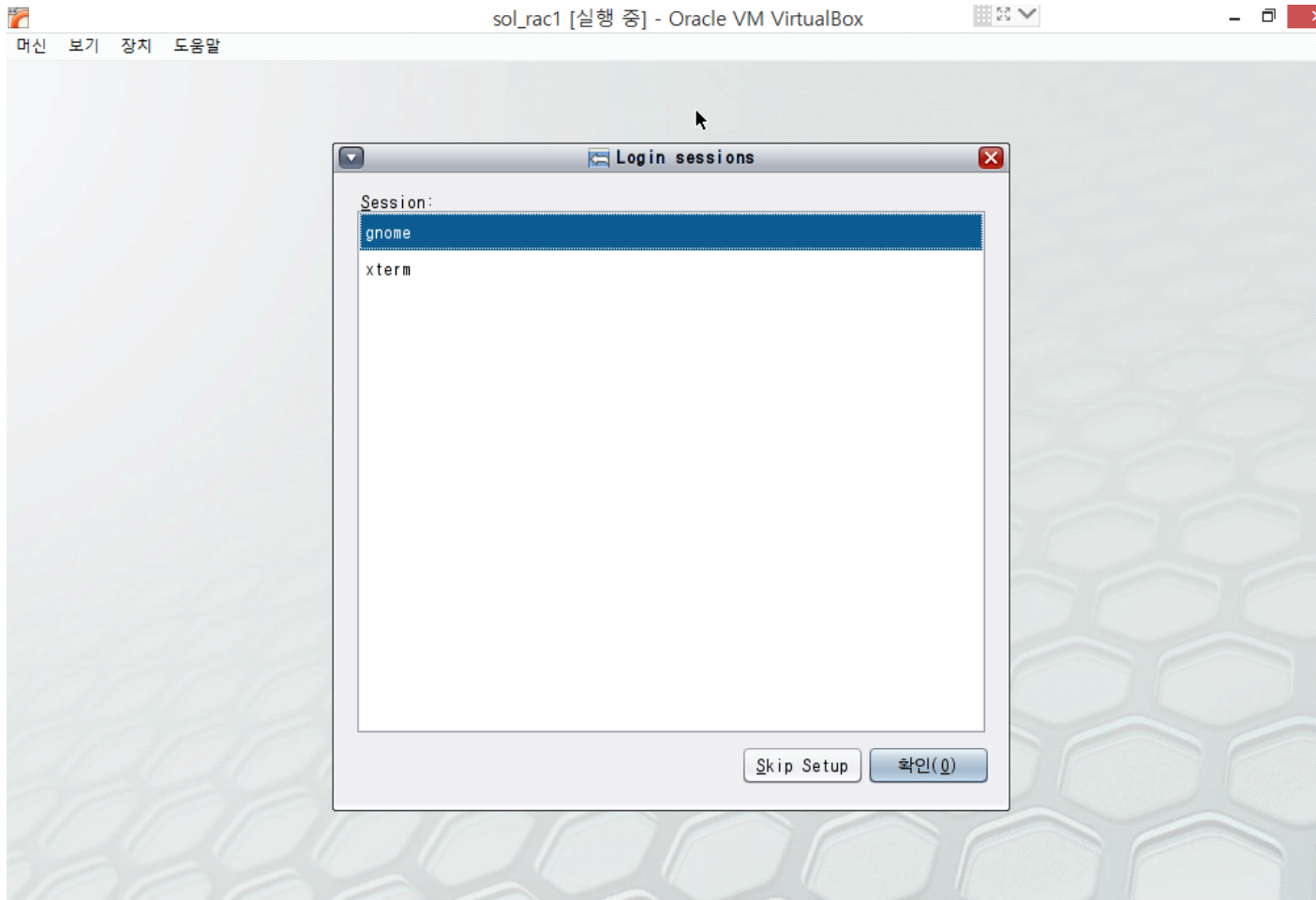
```
driver/graphics/nvidia 54/367 7121/48032 87.1/624.7 2.4M/s
```

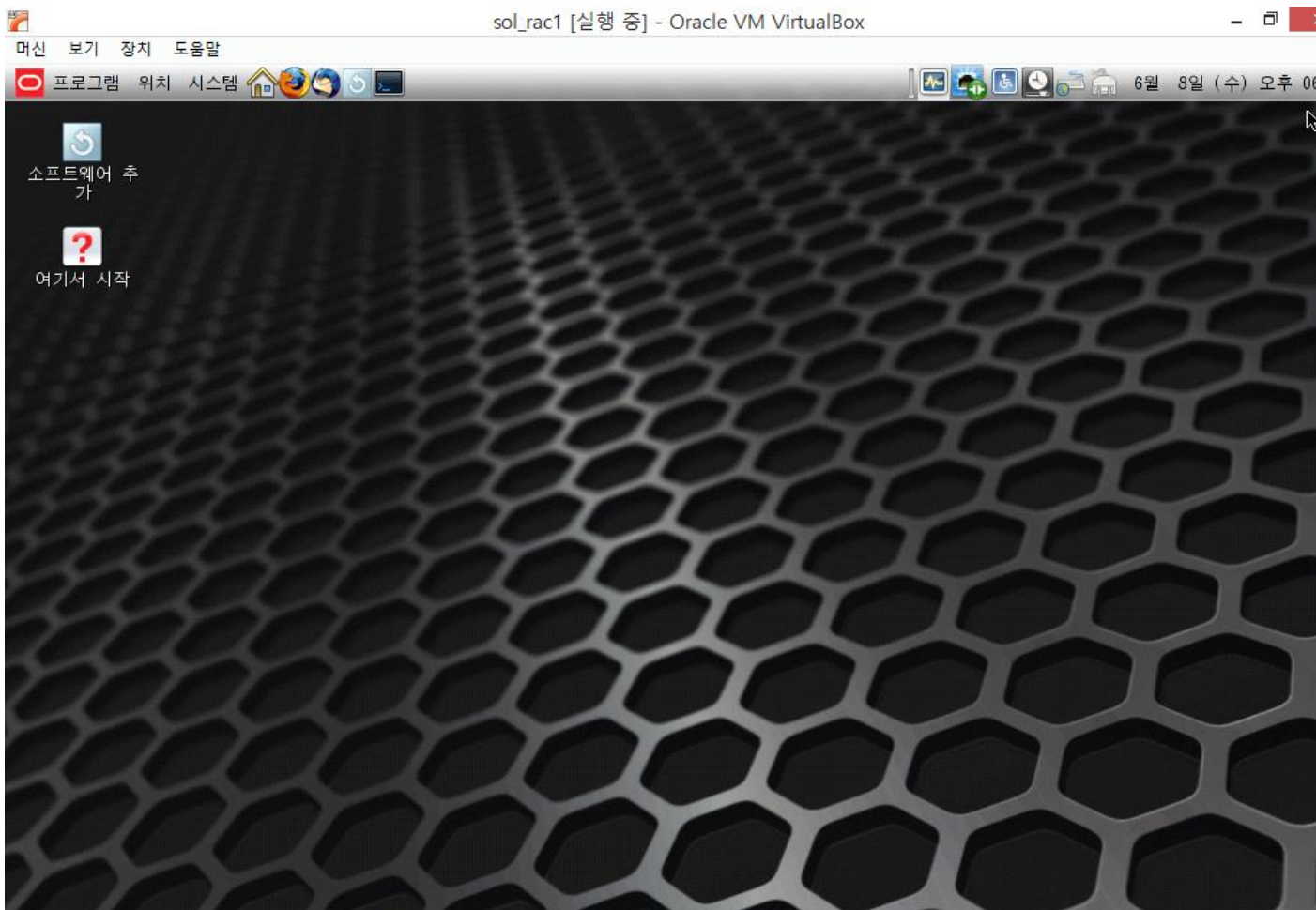
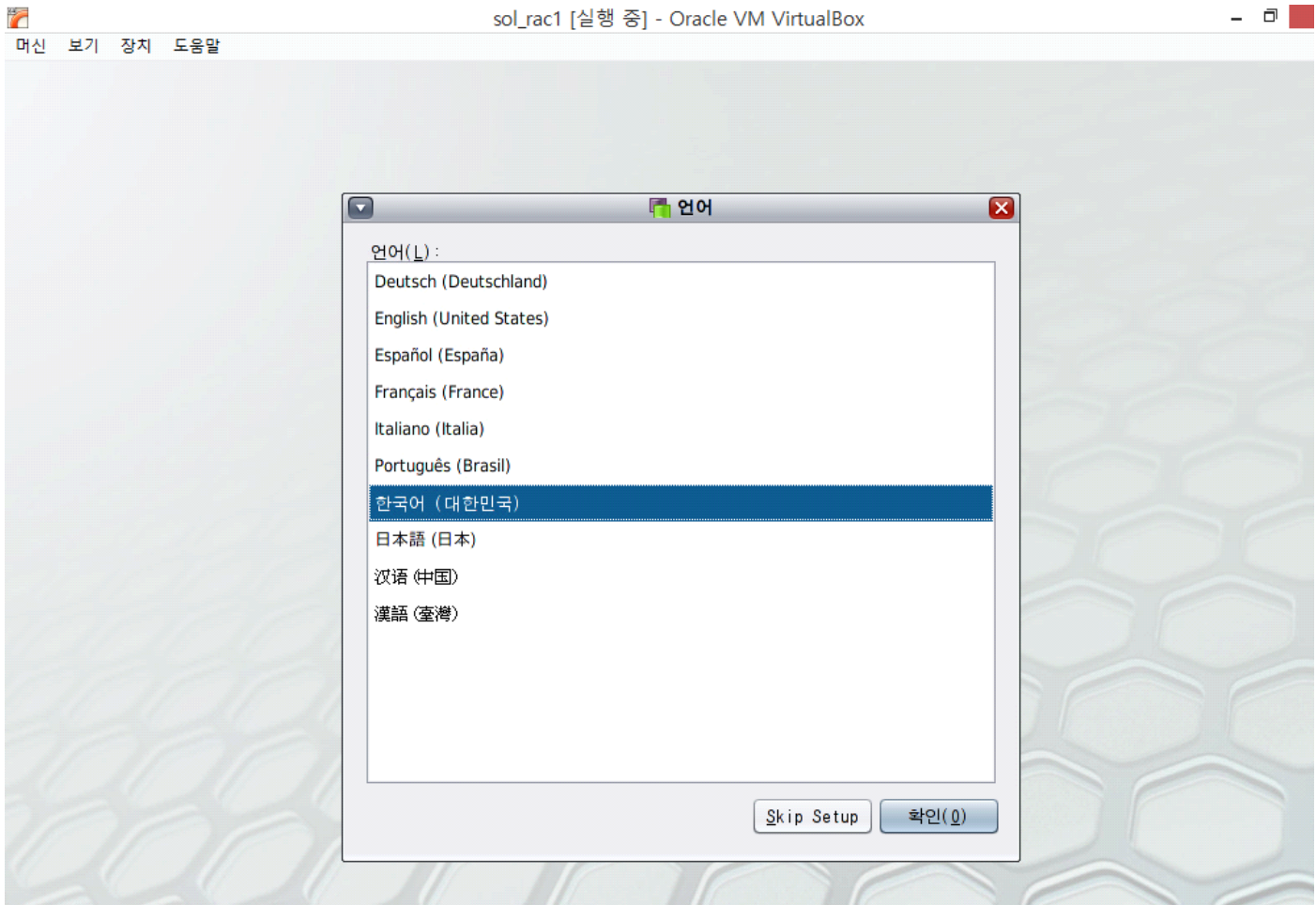
설치 완료되면 재부팅(shutdown -y -g0 -i5). 하면 gnome 환경으로 접속.

```
root@sol1:~# shutdown -y -g0 -i5
```

1. Gnome 환경으로 접속.







2. 오라클 PKG Require 확인

2-1. 네트워크 모드 확인 (root 접속)

```
$ su -root
Password:
root@sol1:~# pkg install SUNWhea
root@sol1:~# pkg install SUNWi1of
root@sol1:~# pkg install SUNWi15cs
root@sol1:~# pkg install SUNWxwfnt
```

```
파일(E) 편집(E) 보기(V) 터미널(T) 도움말(H)
admin1@sol1:~$ su - root
Password:
Oracle Corporation      SunOS 5.11      11.3      September 2015
You have new mail.
root@sol1:~#
root@sol1:~# pkg install SUNWhea
설치할 패키지: 1
부트 환경 만들기: 아니오
백업 부트 환경 만들기: 아니오

다운로드      패키지      파일      XFER(MB)  속도
완료됨                1/1      1640/1640      3.3/3.3  193k/s

단계      항목
새 작업 설치      1757/1757
패키지 상태 데이터베이스 업데이트      완료
패키지 캐시 업데이트      0/0
이미지 상태 업데이트      완료
빠른 조회 데이터베이스 만들기      완료
패키지 캐시 업데이트      1/1
root@sol1:~#

root@sol1:~# pkg install SUNWi1of
pkg install: 다음 패턴이 허용 가능한 패키지와 일치하지 않습니다.
다른 일치 패턴을 사용하거나 게시자 정보를 새로 고쳐 보십시오.

SUNWi1of
root@sol1:~#
root@sol1:~# pkg install SUNWi15cs
해당 이미지는 어떠한 업데이트도 필요하지 않습니다.
root@sol1:~# pkg install SUNWi15cs
해당 이미지는 어떠한 업데이트도 필요하지 않습니다.
root@sol1:~# pkg install SUNWxwfnt
pkg install: 다음 패턴이 허용 가능한 패키지와 일치하지 않습니다.
다른 일치 패턴을 사용하거나 게시자 정보를 새로 고쳐 보십시오.

SUNWxwfnt
root@sol1:~#
```

3. 네트워크 설정

(후에 RAC 설치를 위해 아래와 같이 진행한다)

3-1. 네트워크 모드 확인

```
root@sol1:~# netadm list |grep ncp
root@sol1:~# netadm enable -p ncp EdfaultFixed
root@sol1:~# ipadm show-if
```

```
root@sol1:~# netadm list |grep ncp
ncp      Automatic      online
ncp      DefaultFixed   disabled
root@sol1:~# netadm enable -p ncp DefaultFixed
Enabling ncp 'DefaultFixed'
root@sol1:~#
root@sol1:~# #ipadm show-if
IFNAME    CLASS  STATE    ACTIVE OVER
lo0       loopback ok       yes    --
root@sol1:~#
```

* 네트워크를 DefaultFixed모드로 사용했기 때문에 ipadm show-if 를 하면 자기자신(lo0)만 볼 수 있음.

3-2. net0~net1 까지 2개의 네트워크 대역 생성, IPMP 그룹을 0,1 2개 추가 및 확인

```
root@sol1:~# ipadm create-ip net0
root@sol1:~# ipadm create-ip net1
root@sol1:~# ipadm create-ipmp IPMP0
root@sol1:~# ipadm create-ipmp IPMP1
root@sol1:~# ipadm create-addr -T static -a 192.168.56.21/24 IPMP0/v4
root@sol1:~# ipadm create-addr -T static -a 192.168.55.3/24 IPMP1/v4
root@sol1:~# ipadm add-ipmp -i net0 IPMP0
root@sol1:~# ipadm add-ipmp -i net1 IPMP1
root@sol1:~# ipadm show-if
root@sol1:~# ipmpstat -g
```

```

root@sol1:~#
root@sol1:~# ipadm create-ip net0
root@sol1:~# ipadm create-ip net1
root@sol1:~# ipadm create-ipmp IPMP0
root@sol1:~# ipadm create-ipmp IPMP1
root@sol1:~# ipadm create-addr -T static -a 192.168.56.21/24 IPMP0/v4
root@sol1:~# ipadm create-addr -T static -a 192.168.55.3/24 IPMP1/v4
root@sol1:~# ipadm add-ipmp -i net0 IPMP0
root@sol1:~# ipadm add-ipmp -i net1 IPMP1
root@sol1:~#
root@sol1:~# dpadm show-if
-bash: dpadm: command not found
root@sol1:~# ipadm show-if
IFNAME      CLASS  STATE  ACTIVE OVER
lo0         loopback ok      yes   --
net0        ip     ok      yes   --
net1        ip     ok      yes   --
IPMP0       ipmp   ok      yes   net0
IPMP1       ipmp   ok      yes   net1
root@sol1:~#
root@sol1:~# ipmpstat -g
GROUP      GROUPNAME STATE  FDT    INTERFACES
IPMP1      IPMP1    ok     --     net1
IPMP0      IPMP0    ok     --     net0
root@sol1:~# █

```

4. 오라클 Requirement 확인

4-1. /tmp 용량 확인 및 오라클 install이 가능한 환경인지 확인

```

root@sol1:~# df -h /tmp
root@sol1:~# isainfo -kv
root@sol1:~# uname -a

```

```

admin1@sol1:~$
admin1@sol1:~$ su - root
Password:
Oracle Corporation      SunOS 5.11      11.3      September 2015
You have new mail.
root@sol1:~# df -h /tmp
Filesystem      Size  Used  Available Capacity  Mounted on
swap            2.3G  64M   2.2G      3%    /tmp
root@sol1:~#
root@sol1:~# isainfo -kv
64-bit amd64 kernel modules
root@sol1:~#
root@sol1:~# uname -a
SunOS sol1 5.11 11.3 i86pc i386 i86pc
root@sol1:~#

```

5. Oracle User 접속 가능 설정

5-1. oracle 계정에서 su - root이 가능하도록 설정

```

root@sol1:~# Vi /etc/user_attr
(/etc/user_attr 가장 밑에 아래의 command 추가)
Oracle:::defaultpriv=basic,net_privaddr;roles=foot

```

6. /etc/hosts/ 수정

```

root@sol1:~# Vi /etc/user_attr

```

```

파일(F) 편집(E) 보기(V) 터미널(T) 도움말(H)
#
# Copyright 2009 Sun Microsystems, Inc. All rights reserved.
# Use is subject to license terms.
#
# Internet host table
#
#::1 sol1 localhost
#127.0.0.1 sol1 localhost localhost
#::1 localhost6 localhost6.localdomain6
127.0.0.1 localhost.localdomain localhost

#####NODES#####
192.168.56.21 sol1
192.168.56.22 sol2
#####
#####NODE-One-IP#####
192.168.56.21 sol1-vip
192.168.55.3 sol1-priv
#####
#####NODE-Two-IP#####
192.168.56.29 sol2-vip
192.168.55.4 sol2-priv
#####
#####SCAN_IP#####
192.168.56.30 rac-scan
#####

```

* RAC 설치가 아닐 경우 sol2과 관련된 부분은 입력하지 않아도 된다.

7. 오라클 계정 및 그룹 생성

```

root@sol1:~# zfs create -o mountpoint=/u01 rpool/u01
root@sol1:~# groupadd -g 1001 oinstall
root@sol1:~# groupadd -g 1002 dba
root@sol1:~# groupadd -g 1003 oper
root@sol1:~# zfs create -o mountpoint=/export/home/oracle rpool/export/home/oracle
root@sol1:~# useradd -g oinstall -G dba oracle
root@sol1:~# passwd oracle
New Password:
Re-enter new Password:
passwd: password successfully changed for oracle

root@sol1:~#
root@sol1:~# chown -R oracle:oinstall /export/home/oracle
root@sol1:~# mkdir -p /u01/app/oracle
root@sol1:~# chown oracle:oinstall /u01/app/oracle
root@sol1:~# chmod -R 775 /u01/
root@sol1:~# chown -R oracle:oinstall /u01
root@sol1:~#

```

8. Directory 생성 및 .bash_profile 생성

8-1. Directory 생성

```

root@sol1:~# mkdir /u01/app/12.1.0/oracle
root@sol1:~# mkdir /u01/app/oracle
root@sol1:~# chown oracle:oinstall /u01/app/12.1.0/oracle
root@sol1:~# chown oracle:oinstall /u01/app/oracle
root@sol1:~# chown -R oracle:oinstall /u01

```

8-2. .bash_profile 생성

```

root@sol1:~# touch /export/home/oracle/.bash_profile
root@sol1:~# chown oracle:oinstall /export/home/oracle/.bash_profile
root@sol1:~# vi /export/home/oracle/.bash_profile

```

9. NTP 중지 및 Oracle USER 메모리 설정 확인

9-1. NTP 중지

```

root@sol1:~# svcadm, disable ntp

```

9-2. oracle 메모리 설정 확인

```

root@sol1:~# su - oracle
Oracle Corporation SunOS 5.11 11.1 September 2012
-bash-4.1$ prctl -n project.max-shm-memory -i process $$
process: 1567: -bash
NAME PRIVILEGE VALUE FLAG ACTION RECIPIENT
project.max-shm-memory
privileged 764MB - deny -
system 16.0EB max deny -

```

9-3. oracle, root의 max memory를 32G로 늘려 줌(늘려준 후 재부팅 해야 적용 됨)

```

root@sol1:~# projmod -a -K "project.max-shm-memory=(priviledg,32G,deny)" -U oracle
root@sol1:~# projmod -a -K "project.max-shm-memory=(priviledg,32G,deny)" default

```

9-4. swap 메모리 설정 확인 후 늘려 줌 (늘려준 후 재부팅 해야 적용 됨)

* (물리메모리 1G~2G -> Swap 1.5배 , 2G~16G 사이는 -> Swap 물리메모리랑 동일 16G 이상 Swap 16G 로 설정)

```

root@sol1:~# su - oracle
Oracle Corporation SunOS 5.11 11.3 September 2015
-bash-4.1$ prctl -n project.max-shm-memory -i process $$
process: 2238: -bash
NAME PRIVILEGE VALUE FLAG ACTION RECIPIENT
project.max-shm-memory
usage 0B
privileged 32.0GB - deny -
system 16.0EB max deny -

```

```

root@sol1:~# swap -lh
swapfile dev swaplo blocks free
/dev/zvol/dsk/rpool/swap 274,2 4K 1.0G 1.0G
root@sol1:~# swap -d /dev/zvol/dsk/rpool/swap
/dev/zvol/dsk/rpool/swap: Not enough space
root@sol1:~# zfs set volsize=5G rpool/swap
root@sol1:~# swap -a /dev/zvol/dsk/rpool/swap
root@sol1:~# swap -lh
swapfile dev swaplo blocks free
/dev/zvol/dsk/rpool/swap 274,2 4K 5.0G 5.0G

```

9-5. 재부팅

```

root@sol1:~# shutdown -y -g0 -i5

```

10. Oracle 설치

10-1. 압축 해제

```
root@sol1:~# su - oracle
Passwd:
bash-4.1$ unzip -d /u0q solaris.x64_12102_database_1of2.zip
bash-4.1$ unzip -d /u0q solaris.x64_12102_database_2of2.zip
```

```
inflating: /u01/database/stage/Actions/ntw32FoldersActions/10.2.0.3.0/1/WindowsFolders.jar
creating: /u01/database/stage/Actions/ntGrpActionLib/
creating: /u01/database/stage/Actions/ntGrpActionLib/10.2.0.1.0/
creating: /u01/database/stage/Actions/ntGrpActionLib/10.2.0.1.0/1/
inflating: /u01/database/stage/Actions/ntGrpActionLib/10.2.0.1.0/1/ntGrpActionLib.jar
creating: /u01/database/stage/Actions/ntServicesActions/
creating: /u01/database/stage/Actions/ntServicesActions/10.2.0.6.0/
creating: /u01/database/stage/Actions/ntServicesActions/10.2.0.6.0/1/
inflating: /u01/database/stage/Actions/ntServicesActions/10.2.0.6.0/1/ntServicesActions.jar
creating: /u01/database/stage/Actions/docActionLib/
creating: /u01/database/stage/Actions/docActionLib/2.2/
creating: /u01/database/stage/Actions/docActionLib/2.2/1/
inflating: /u01/database/stage/Actions/docActionLib/2.2/1/docActionLib.jar
creating: /u01/database/stage/Actions/w320cxRegActions/
creating: /u01/database/stage/Actions/w320cxRegActions/10.2.0.1.0/
creating: /u01/database/stage/Actions/w320cxRegActions/10.2.0.1.0/1/
inflating: /u01/database/stage/Actions/w320cxRegActions/10.2.0.1.0/1/w320cxLib.jar
inflating: /u01/database/stage/install1.jar
inflating: /u01/database/stage/oracle.server.12_1_0_2_0_1404845555380.bak
inflating: /u01/database/stage/invDetails.properties
inflating: /u01/database/stage/labels.txt
inflating: /u01/database/stage/oracle.server.12_1_0_2_0_1404845555621.bak
```

11. Database 설치

11-1. 설치

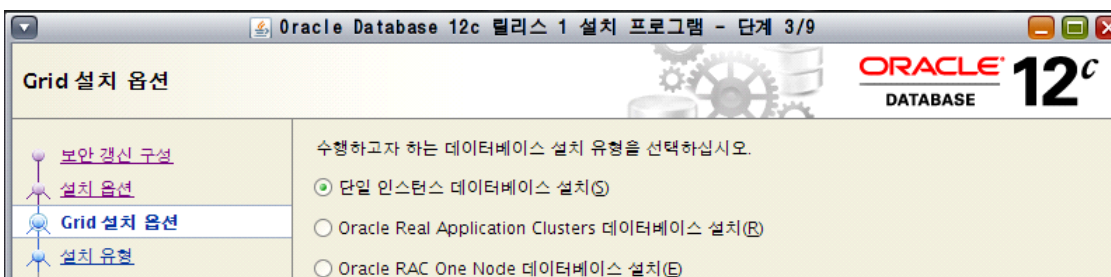
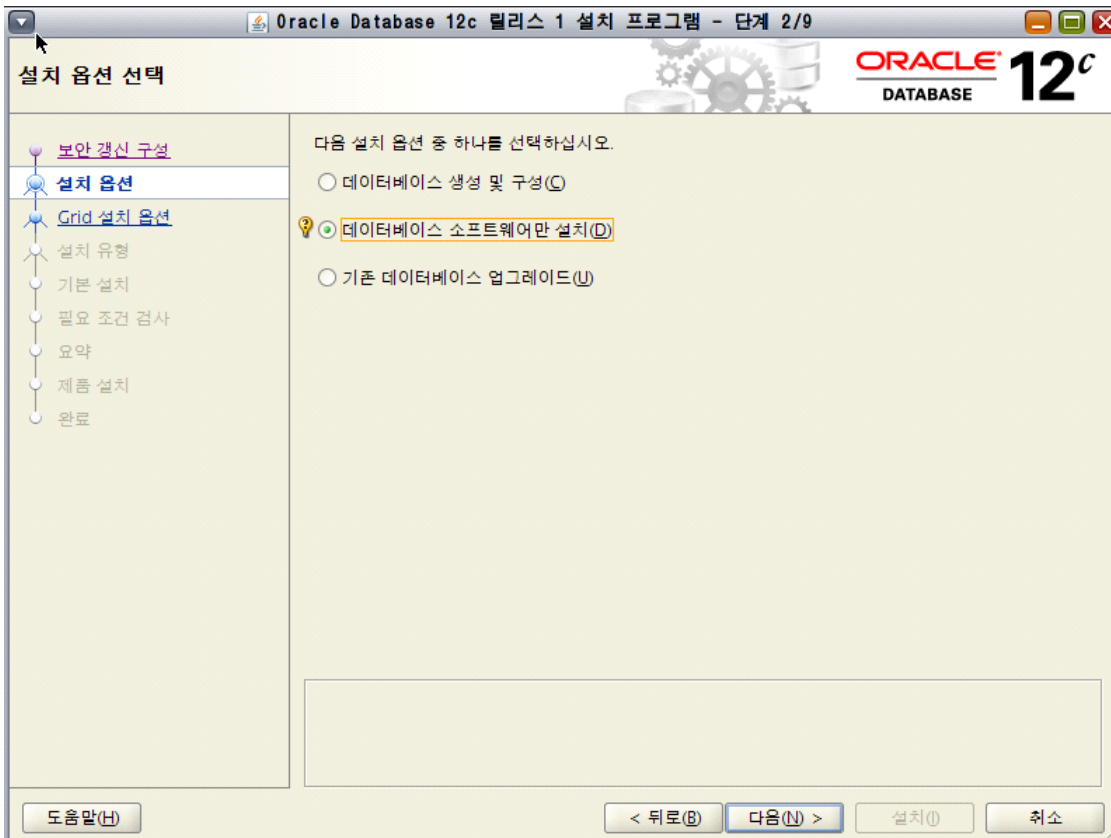
```
bash-4.1$ export DISPLAY=192.168.1.128:0.0
bash-4.1$ cd /u01/database/runInstaller
```

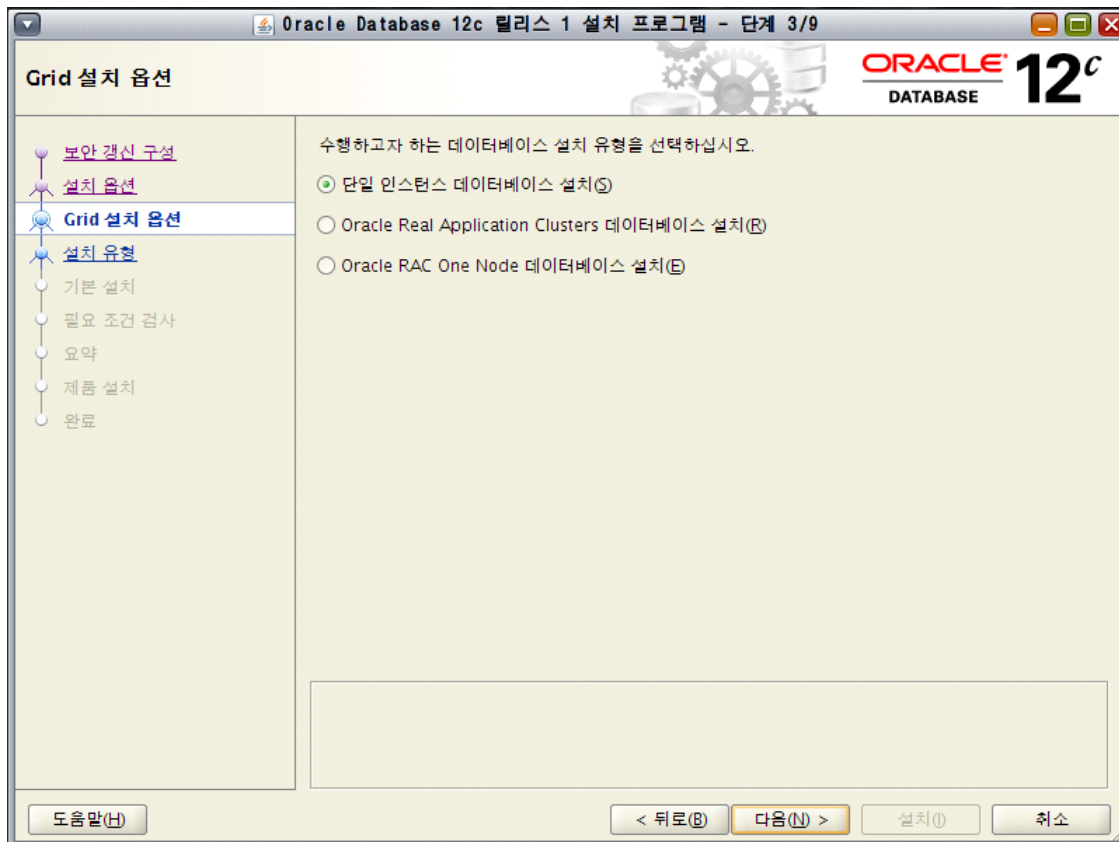
```
-bash-4.1$ export DISPLAY=192.168.1.128:0.0
-bash-4.1$ runInstaller
Oracle Universal Installer 시작 중...
```

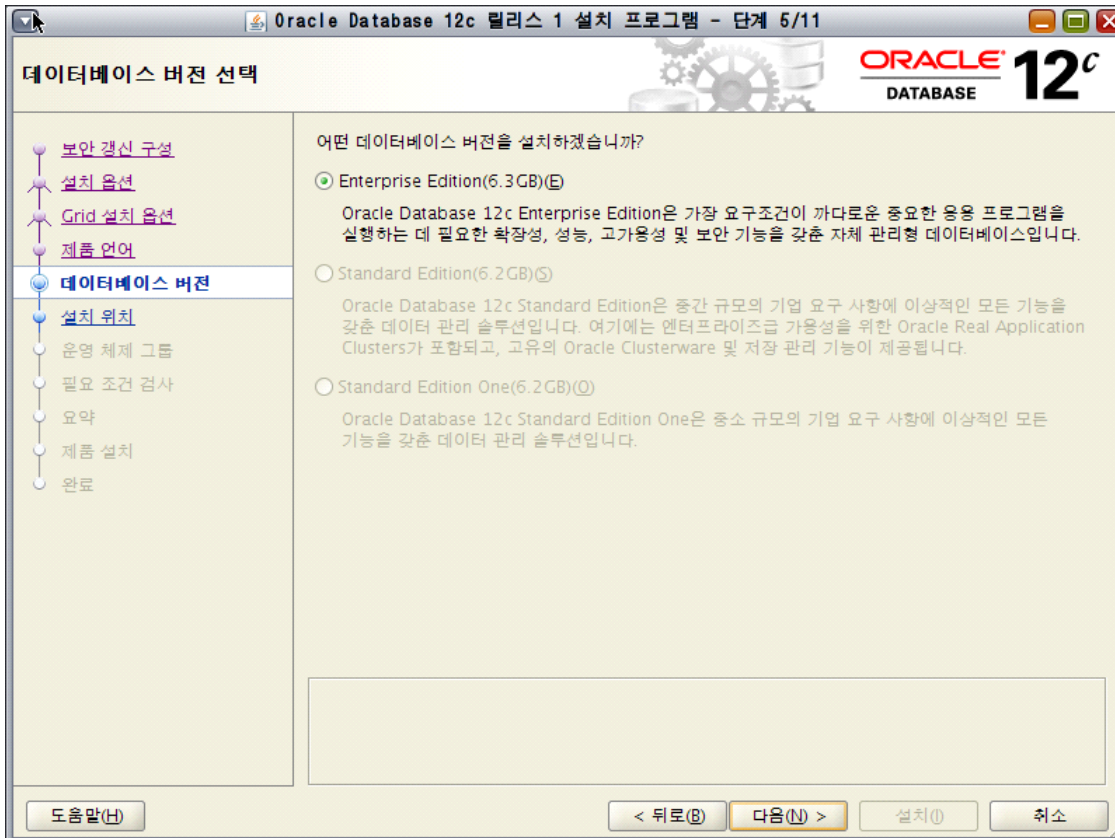
```
임시 공간 확인 중: 180MB 이상이어야 합니다... 실제 5098MB 성공
스왑 공간 확인 중: 150MB 이상이어야 합니다... 실제 6165MB 성공
모니터 확인 중: 최소 256 색상을 표시하도록 구성되어 있어야 합니다. █
```

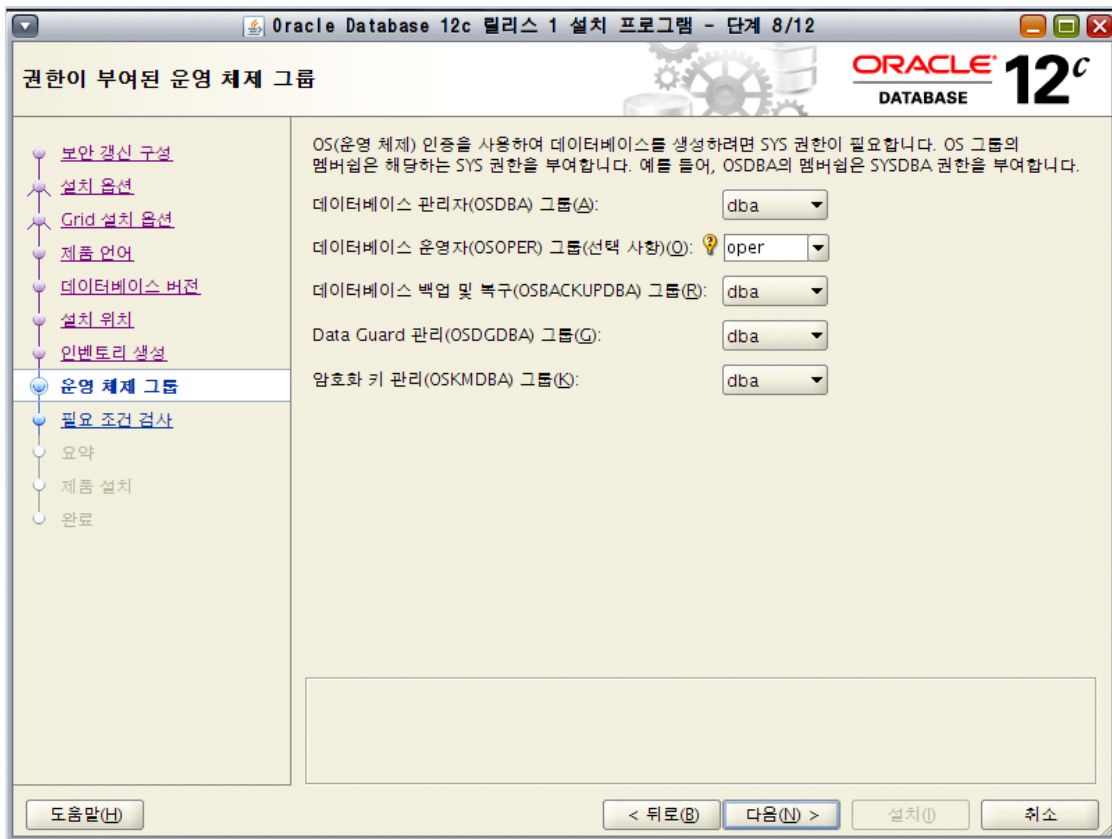
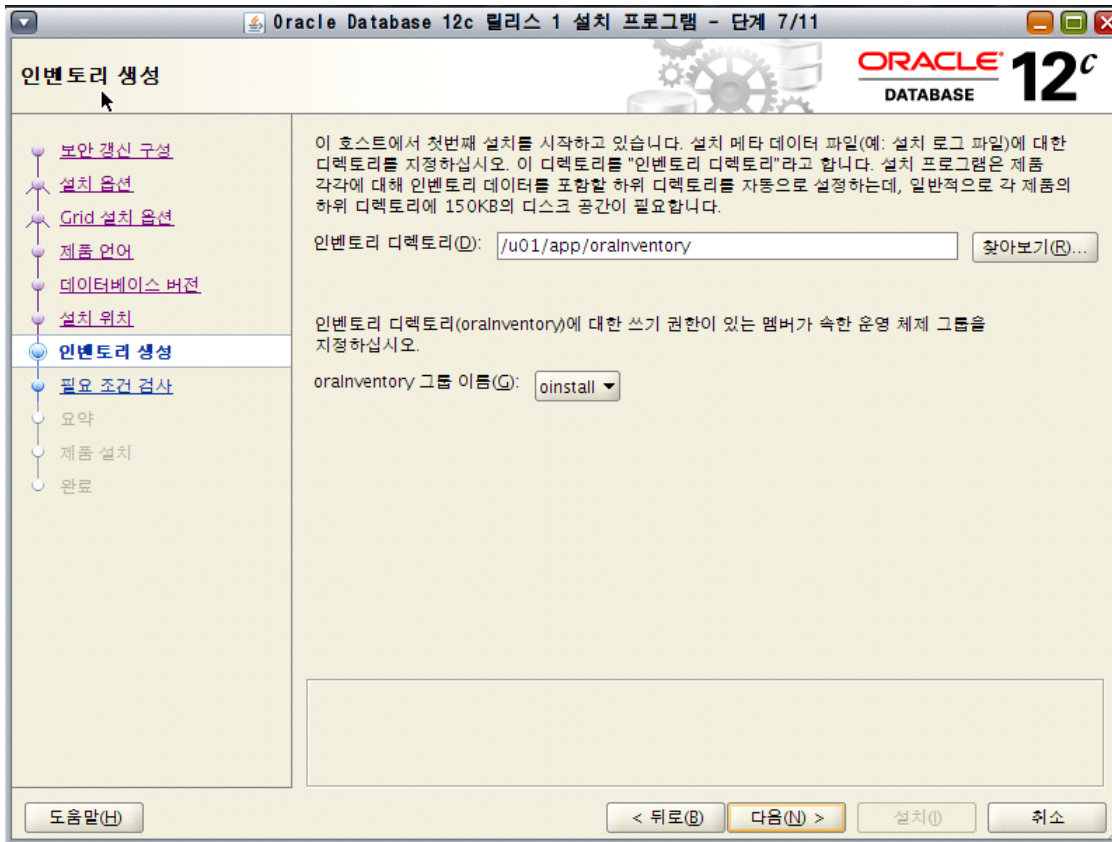
처음 부팅 후 oracle 계정으로 접속해야 설치가 가능하다.

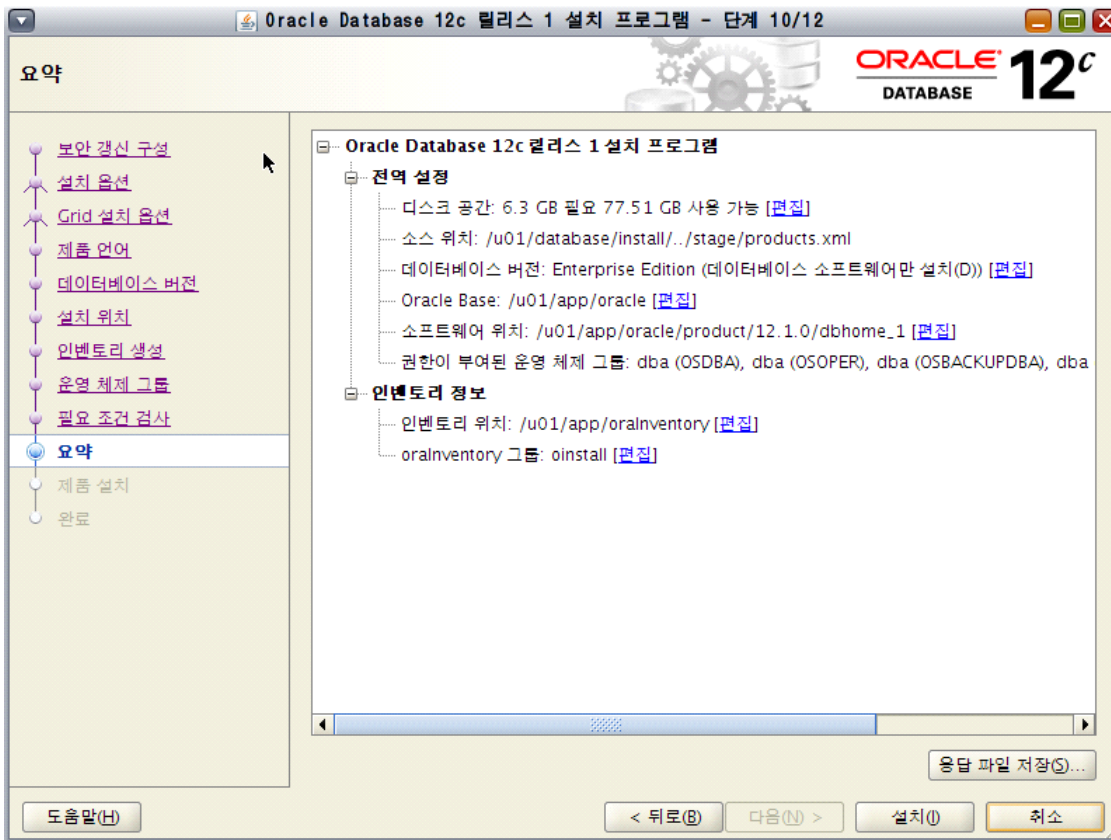


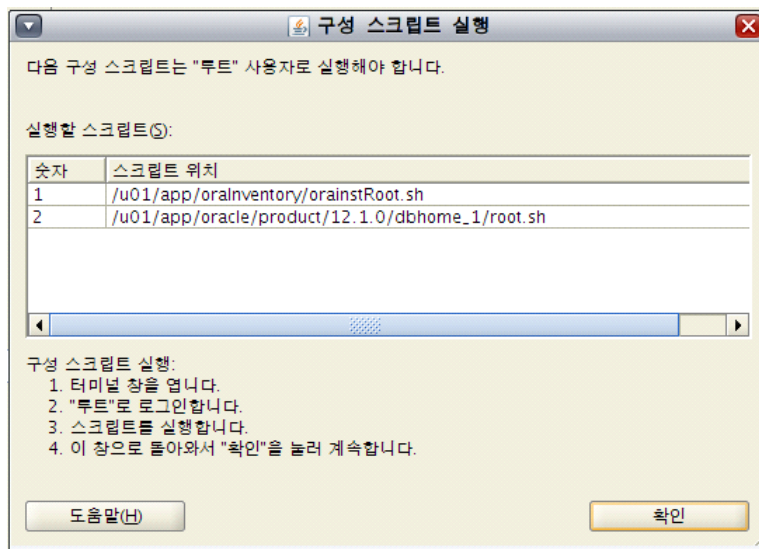
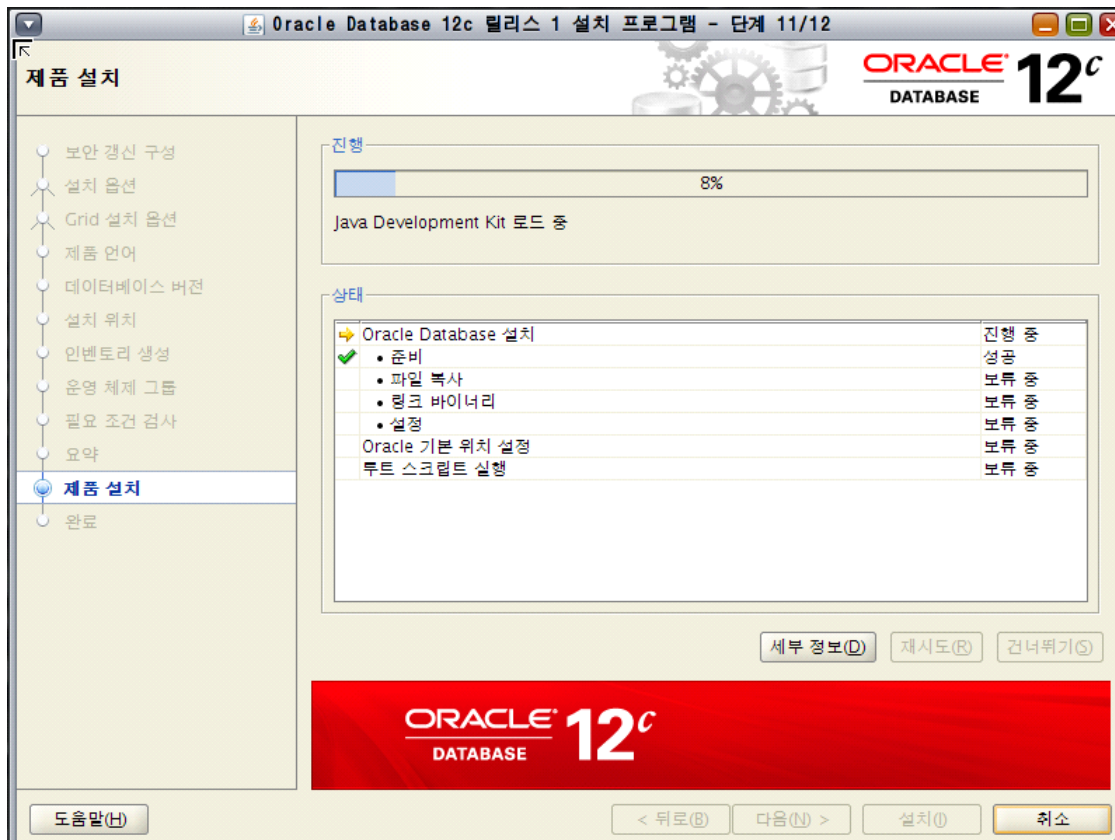












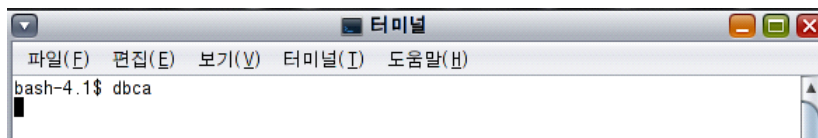
```
bash-4.1$ su -
Password:
Oracle Corporation      SunOS 5.11      11.3   September 2015
You have new mail.
```

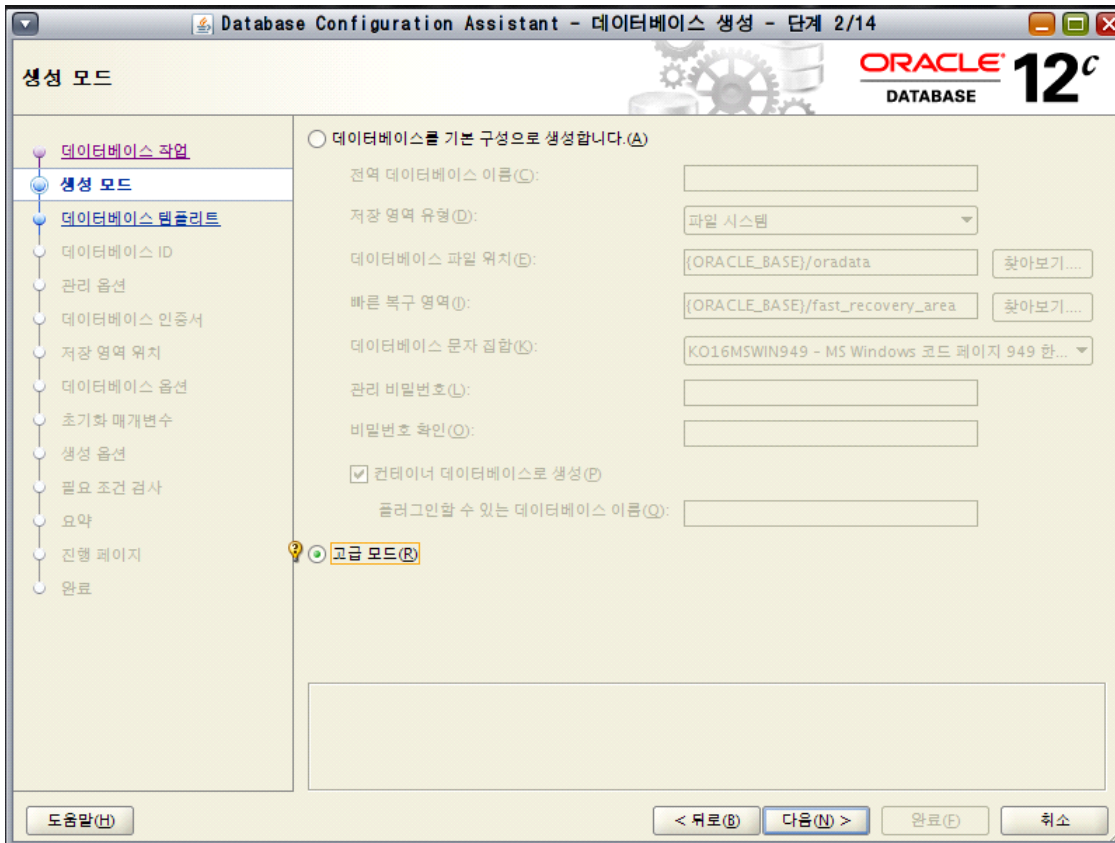
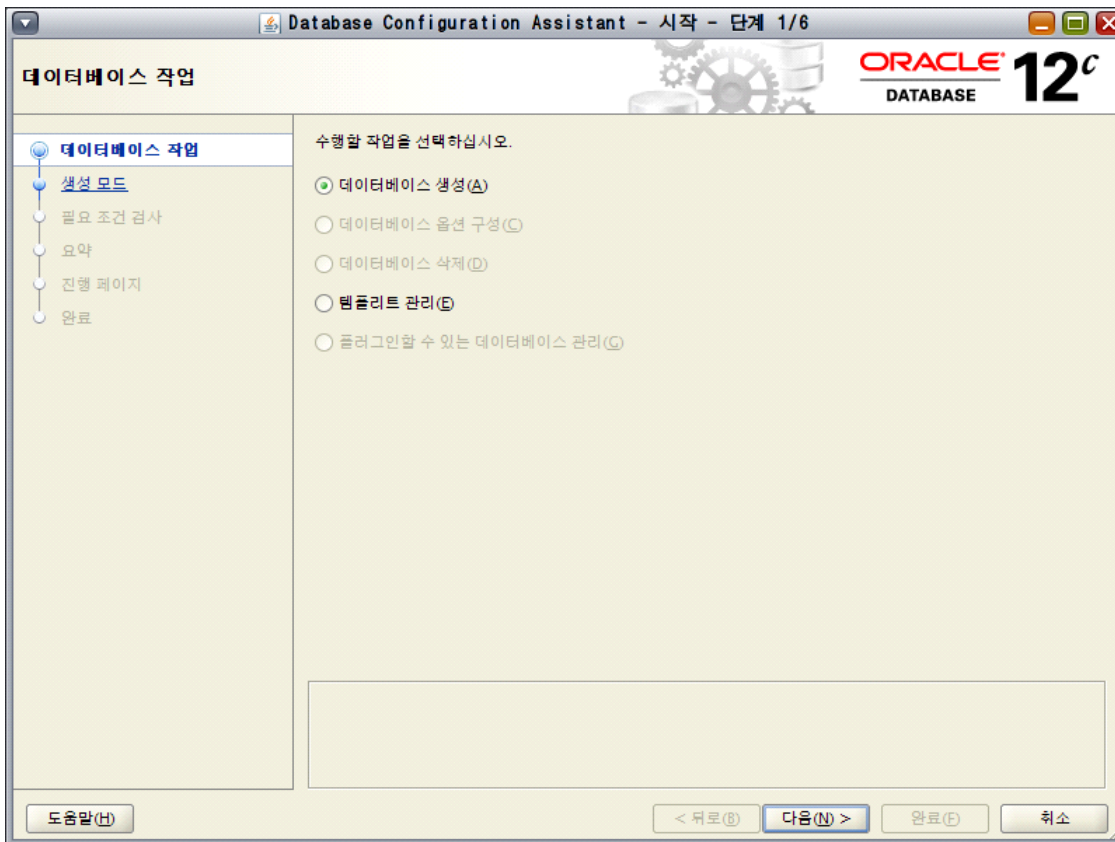
```
root@solaris:~# sh /u01/app/orainventory/orainstRoot.sh
다음 권한 변경 중 /u01/app/orainventory.
그룹에 대한 읽기, 쓰기 권한을 추가하는 중입니다.
월드에 대한 읽기, 쓰기, 실행 권한을 제거하는 중입니다.
```

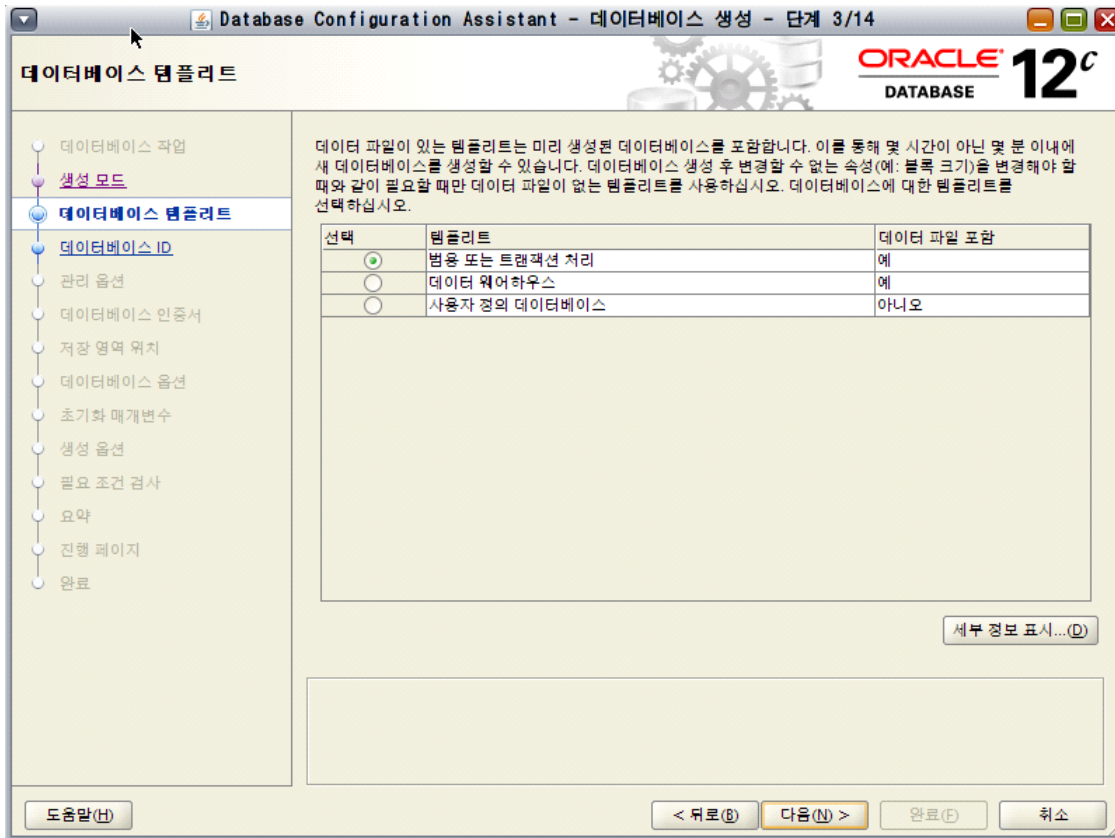
```
그룹 이름 변경 중 /u01/app/orainventory 대상 oinstall.
스크립트 실행이 완료되었습니다.
```

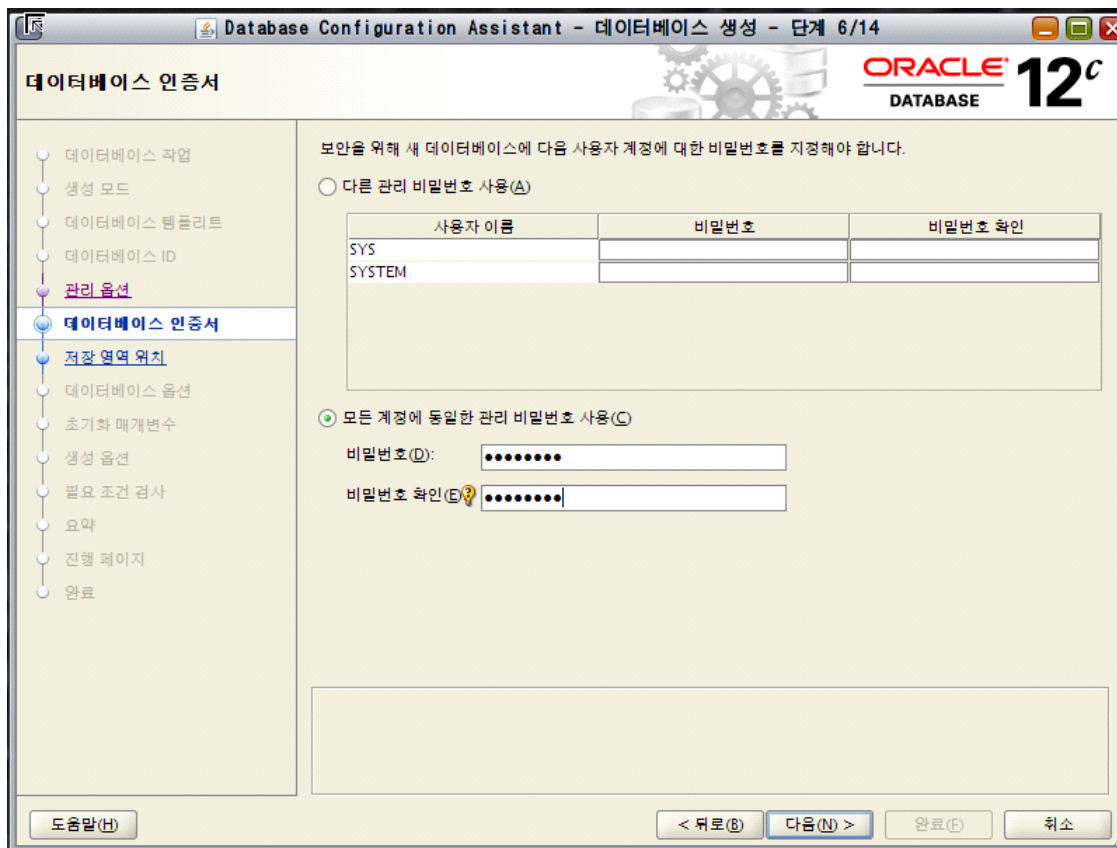


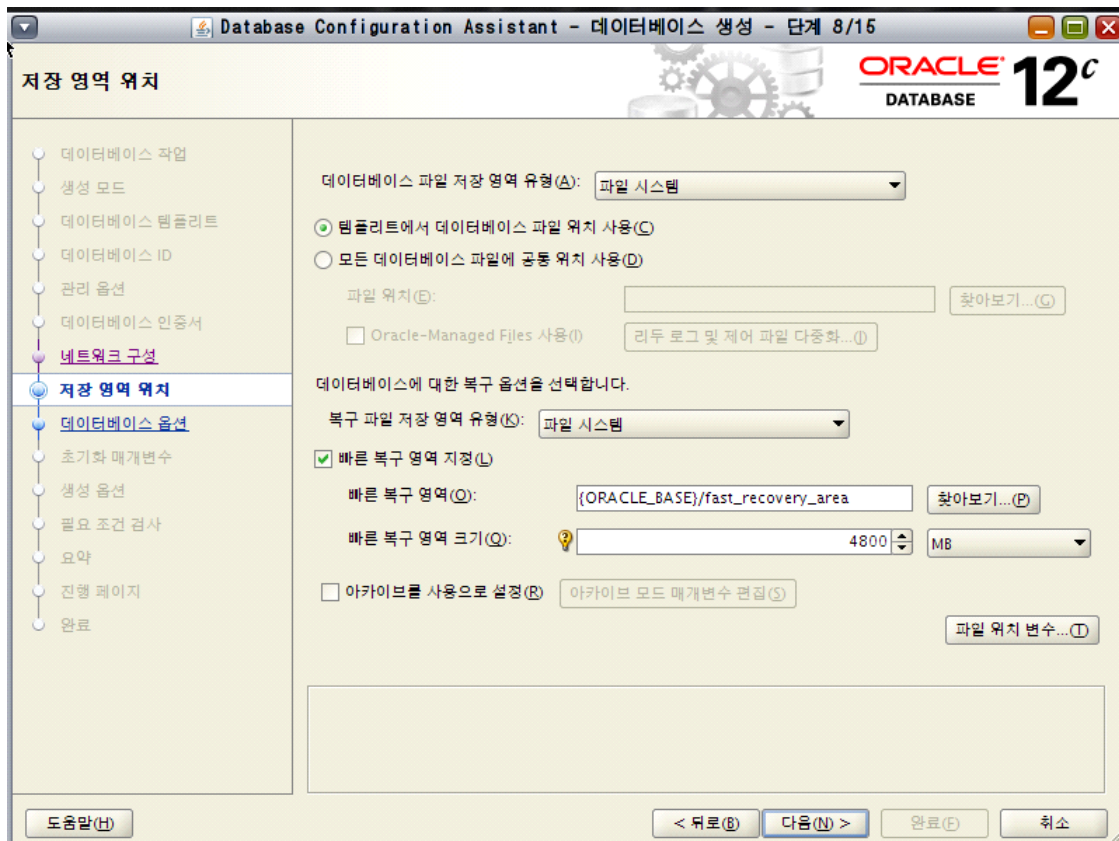
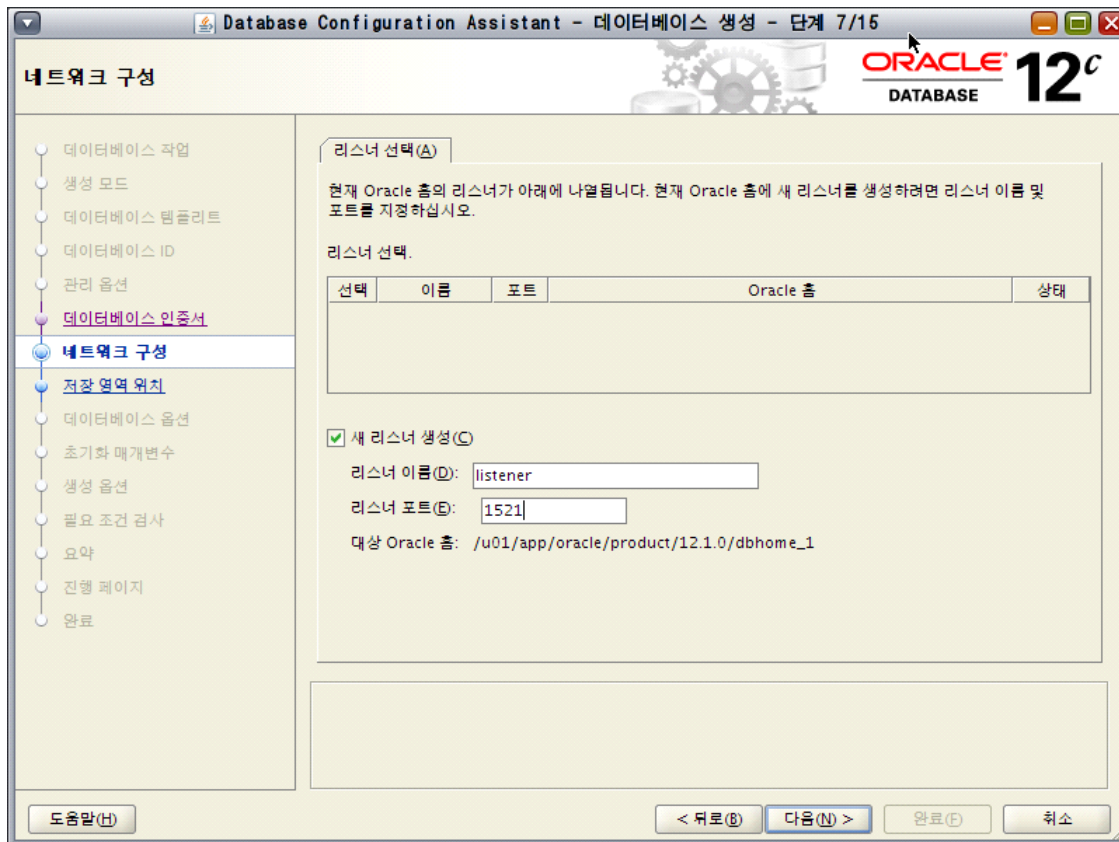
12. DBCA 설치

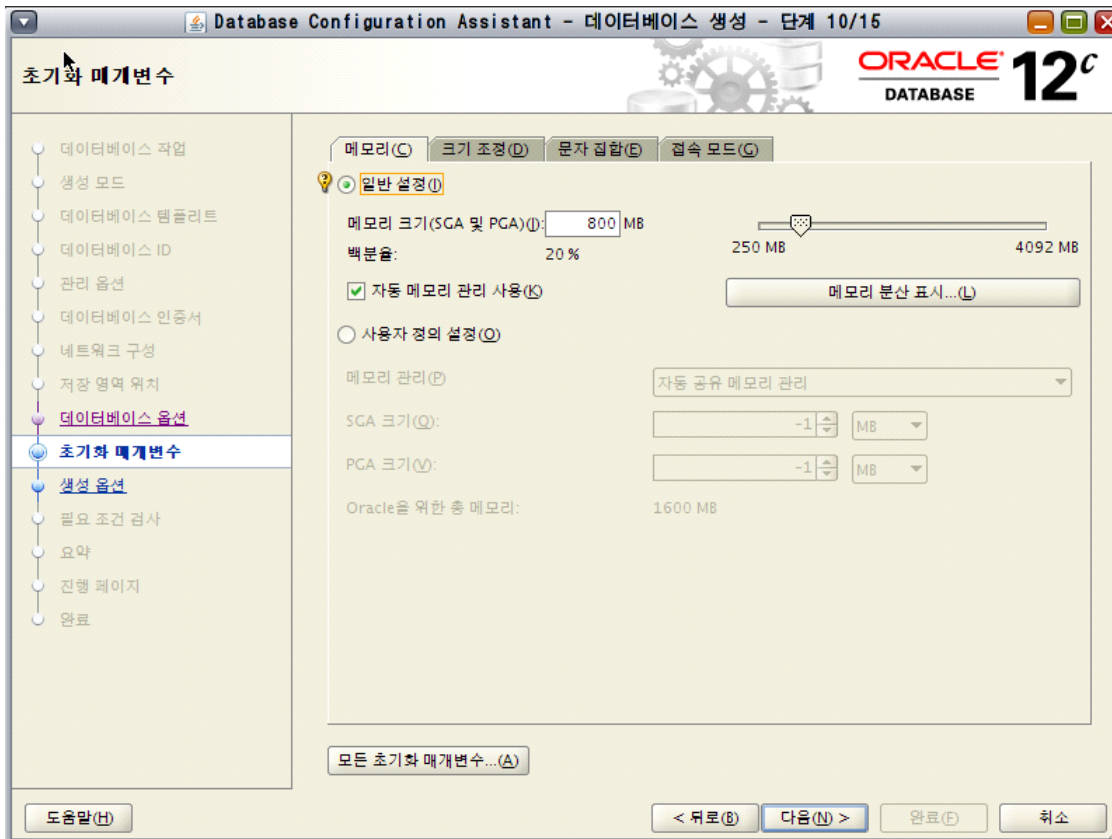




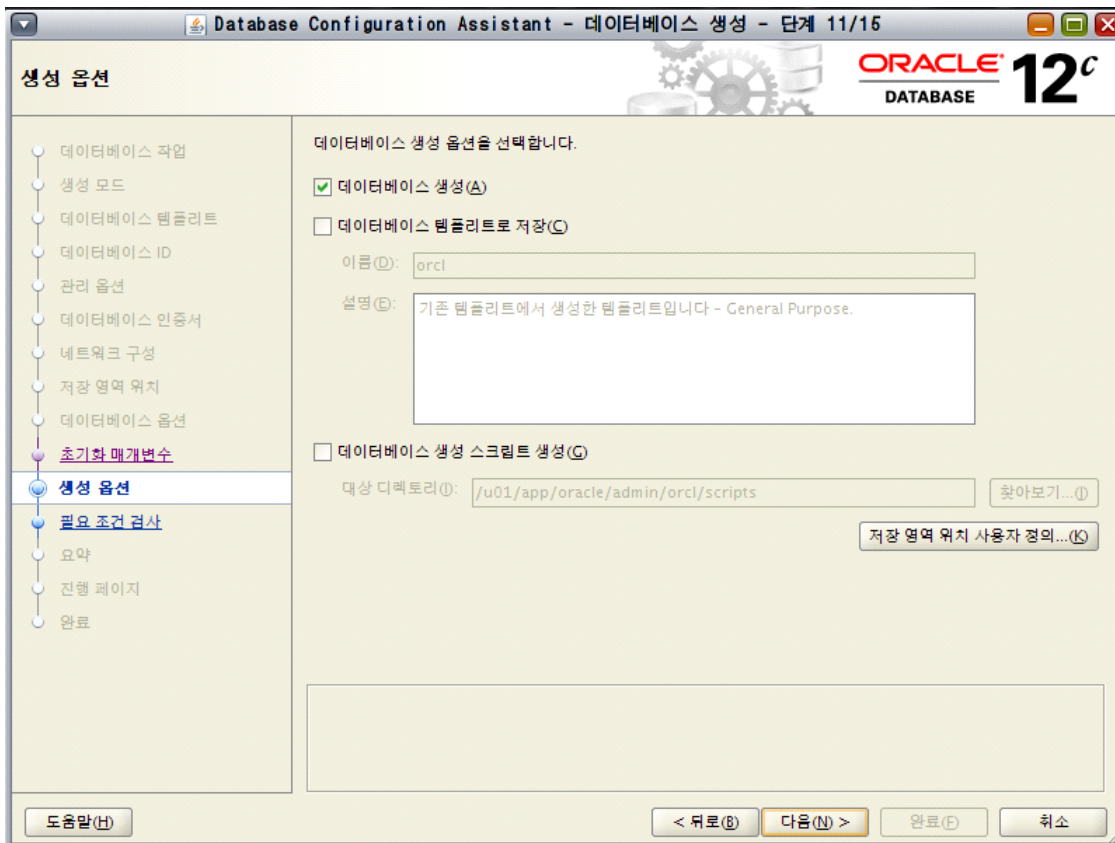


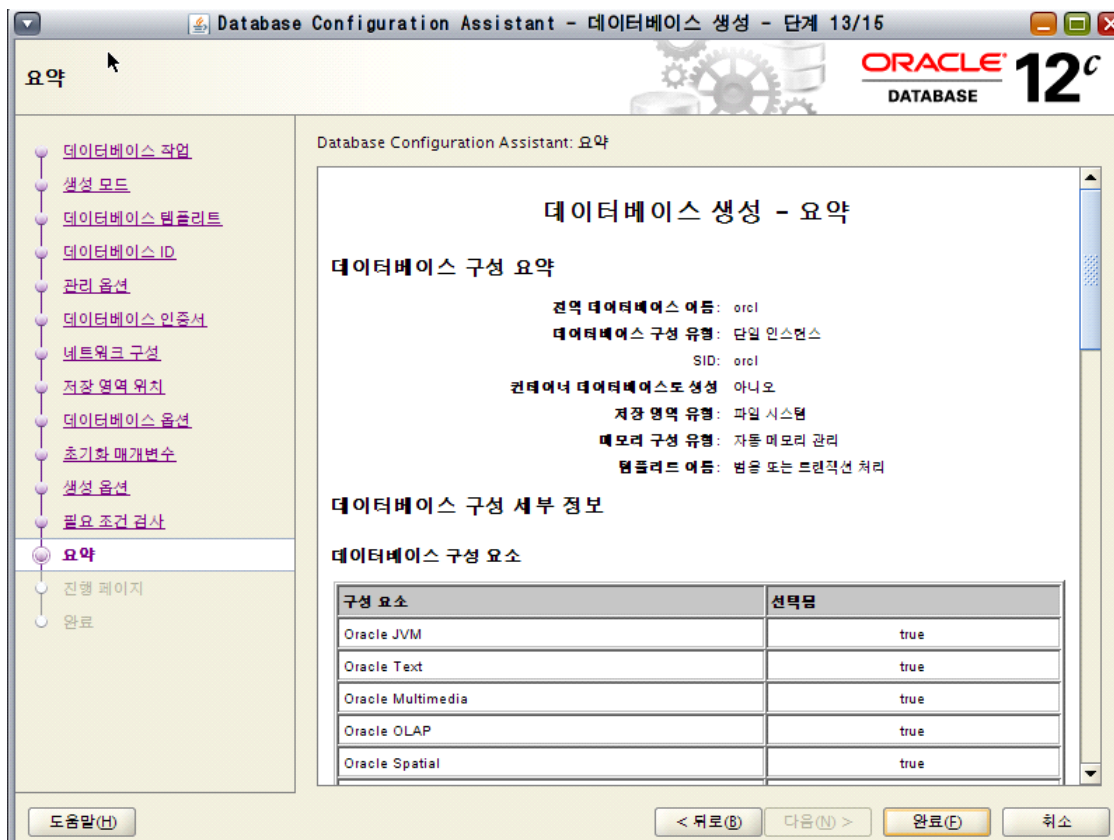
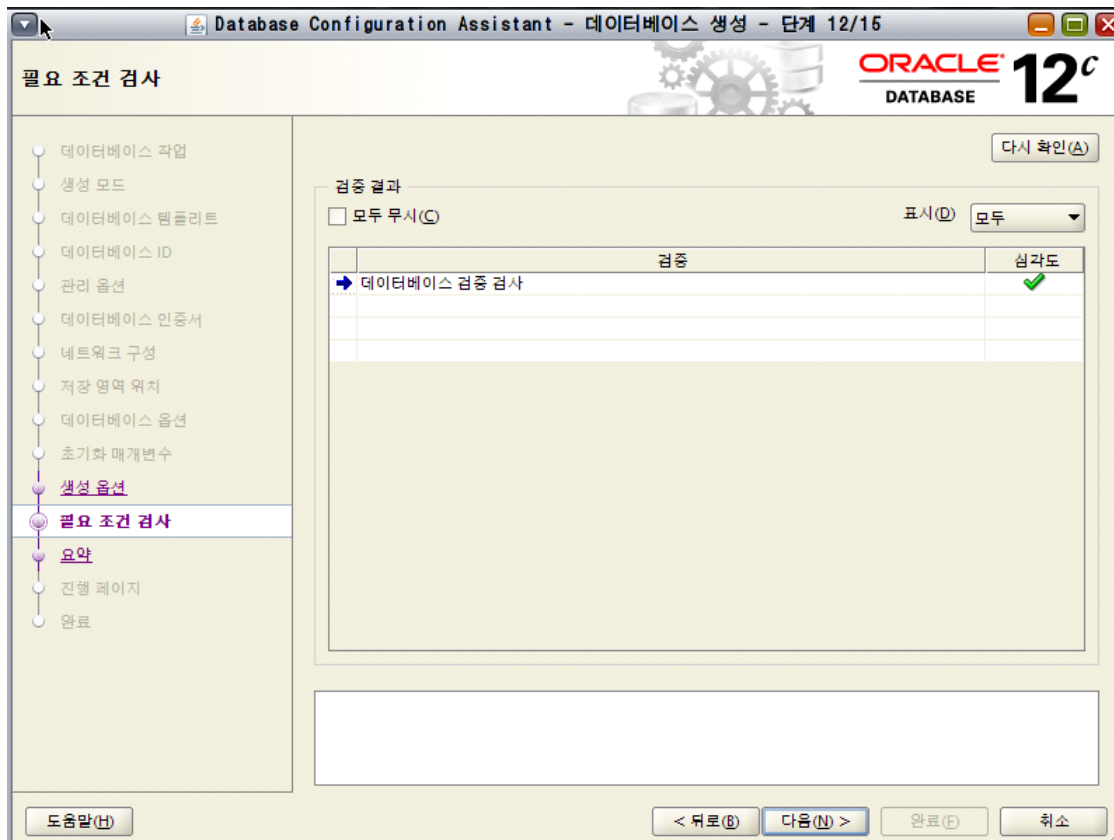


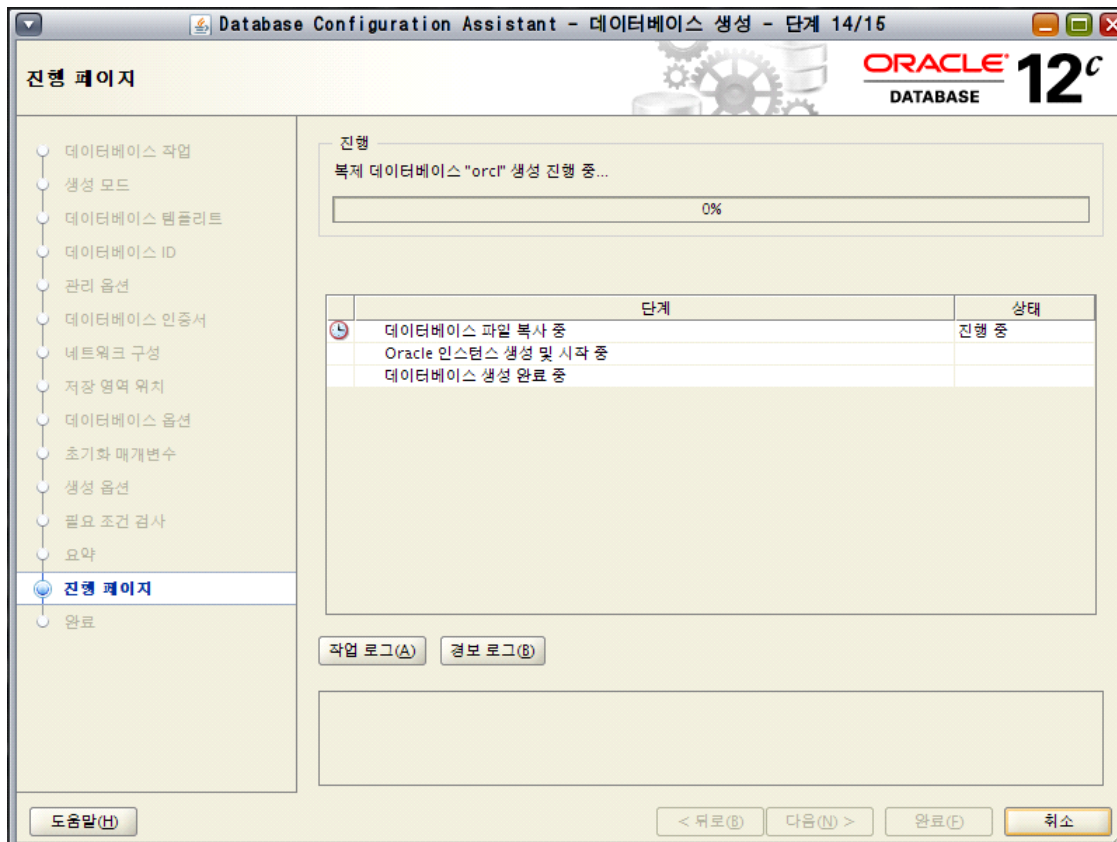












13. 설치 완료

```

bash-4.1$
bash-4.1$ sqlplus / as sysdba

SQL*Plus: Release 12.1.0.2.0 Production on Mon Jun 13 19:11:58 2016

Copyright (c) 1982, 2014, Oracle. All rights reserved.

??? ????:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing opt
ions

SQL> █

```