Oracle Database Server 11g Single Instance Installation on OEL5.10

Oracle Database Server 11g Single Instance Installation on Oracle Enterprise Linux 5.10 using Virtual Box

Oracle Database 11g [11.2.0.4] Installation on Oracle Linux 5.10 – VirtualBox

Required Software

Oracle Linux 5.10	V40139-01.iso
Oracle Database Software	p13390677_112040_Linux-x86-64_1of7.zip p13390677_112040_Linux-x86-64_2of7.zip
Putty	putty.exe
Xming	Xming-6-9-0-31-setup.exe

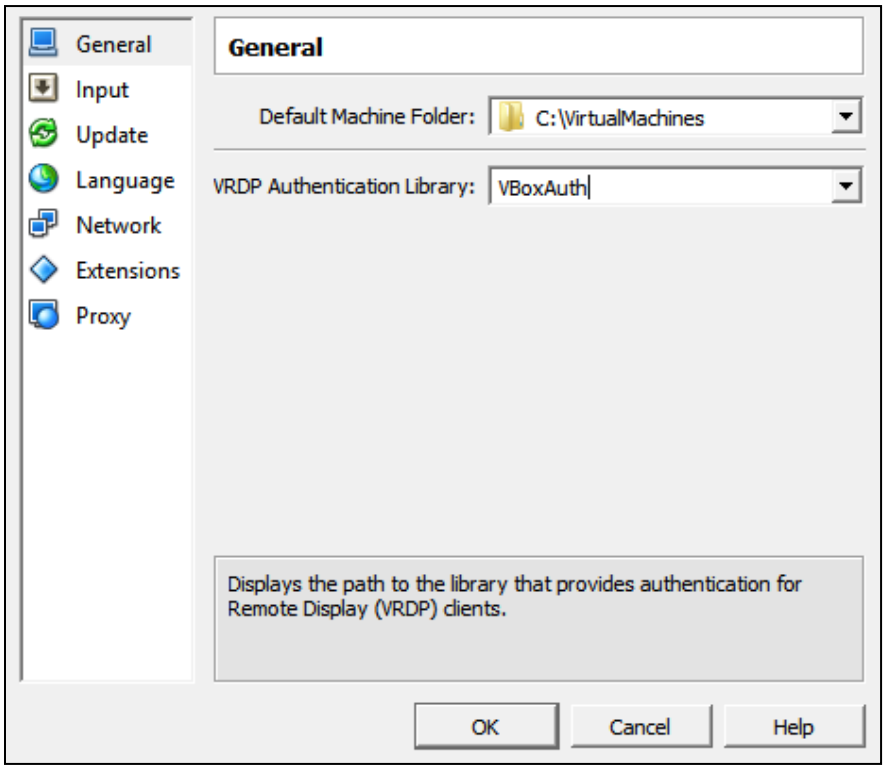
Note: We assume that; VirtualBox, Xming and Putty are already installed on the server, since their installation are straightforward.

Linux Installation

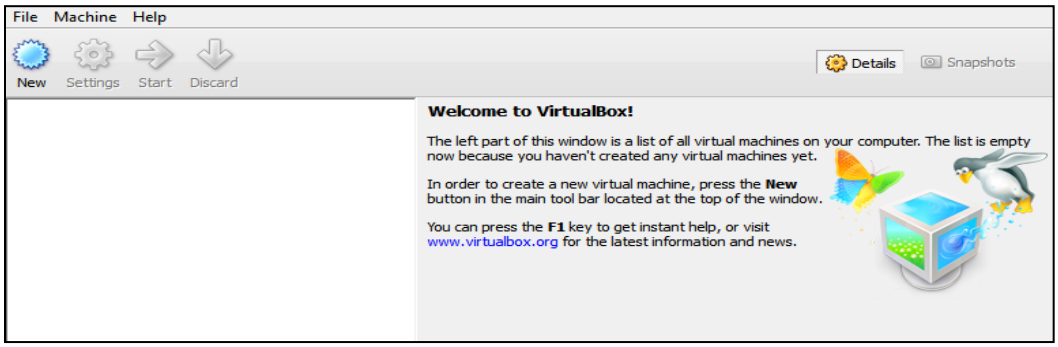
1. Download the Linux iso file and run the VirtualBox

2. If you haven't configured your virtual machine folder, do it now. Click File > Preferences

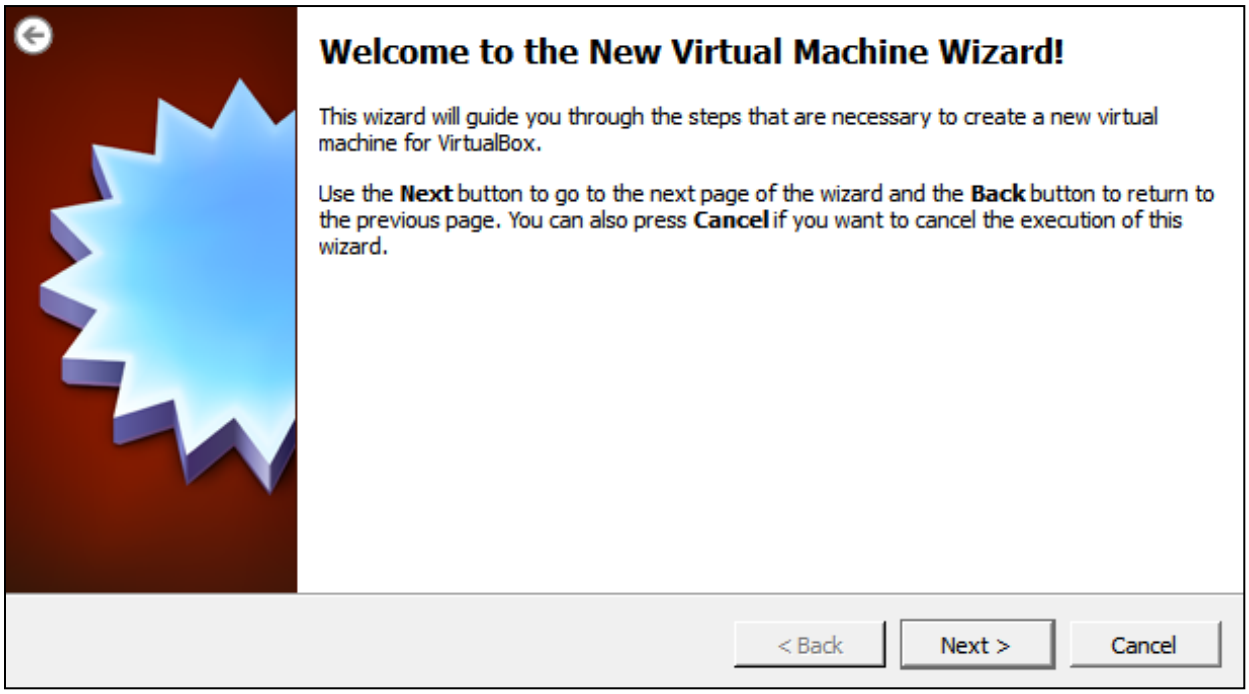
3. Select the folder for the virtual machines and click “OK”



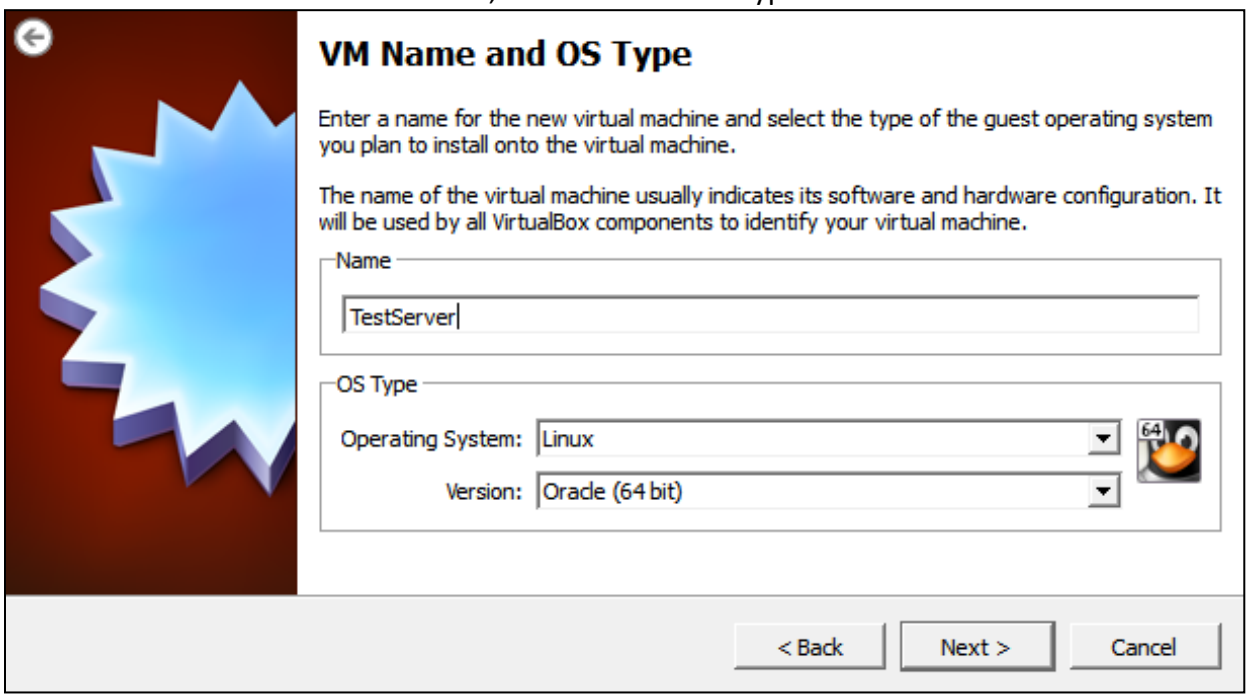
4. Click “New”



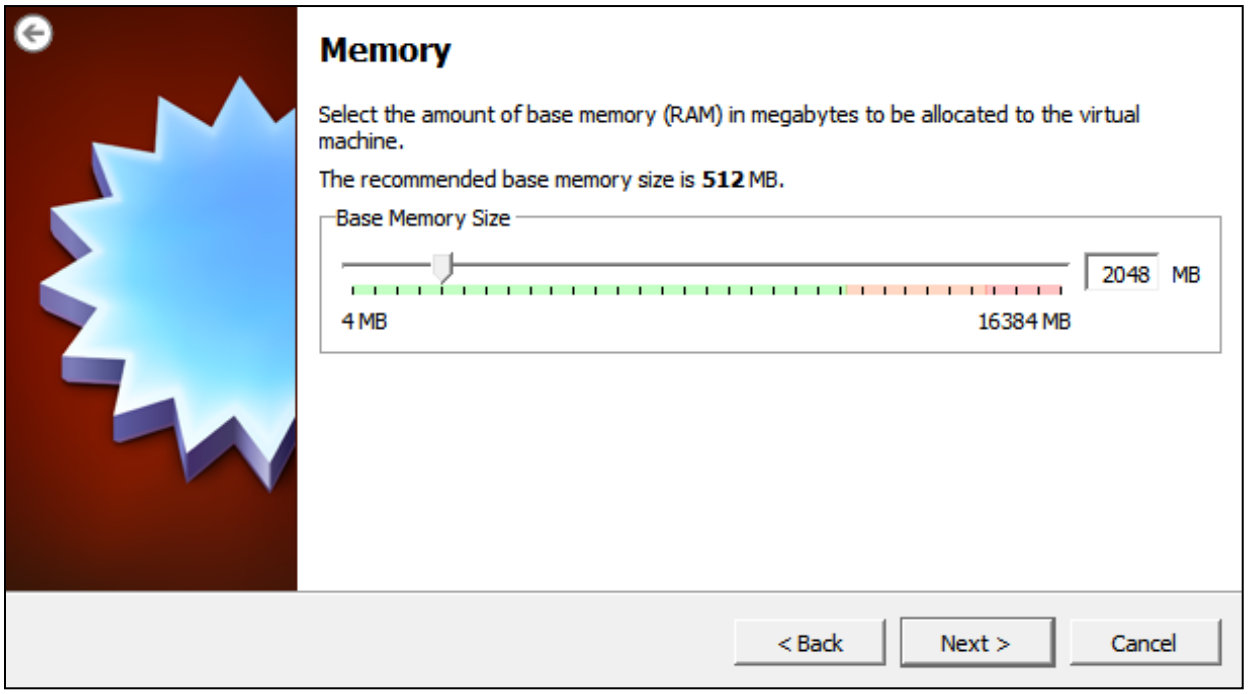
5. Click “Next”



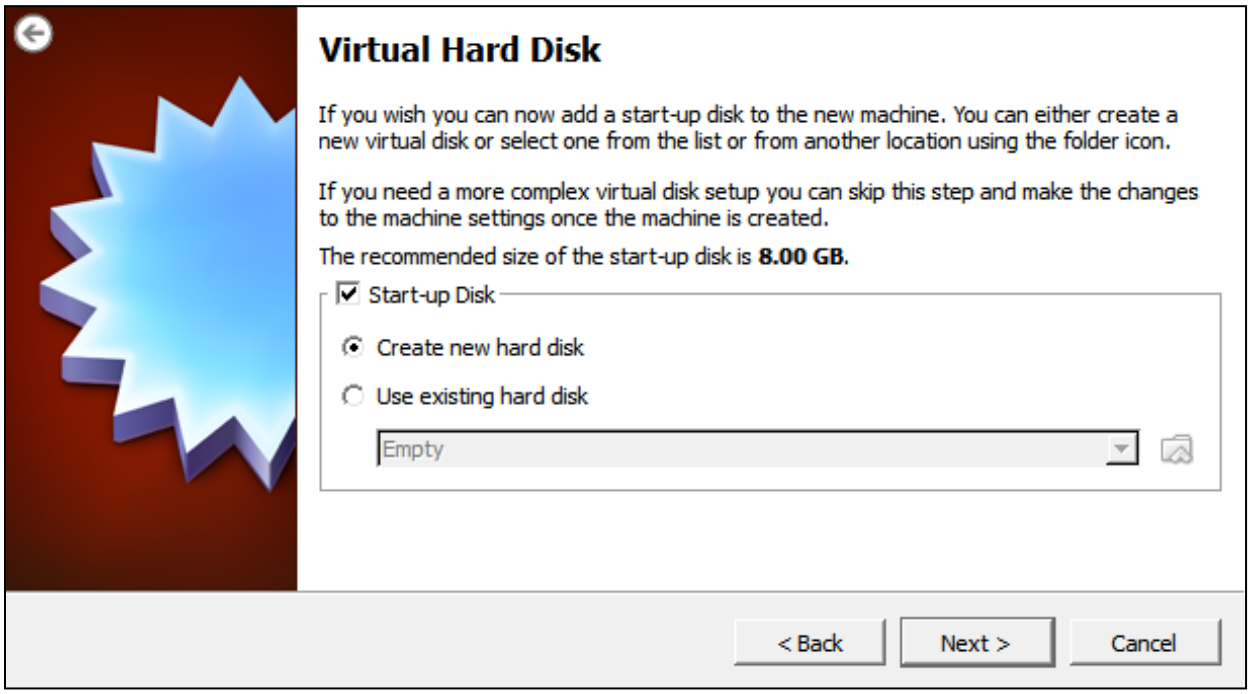
6. Give a name to the virtual machine, and select the OS Type as follows:



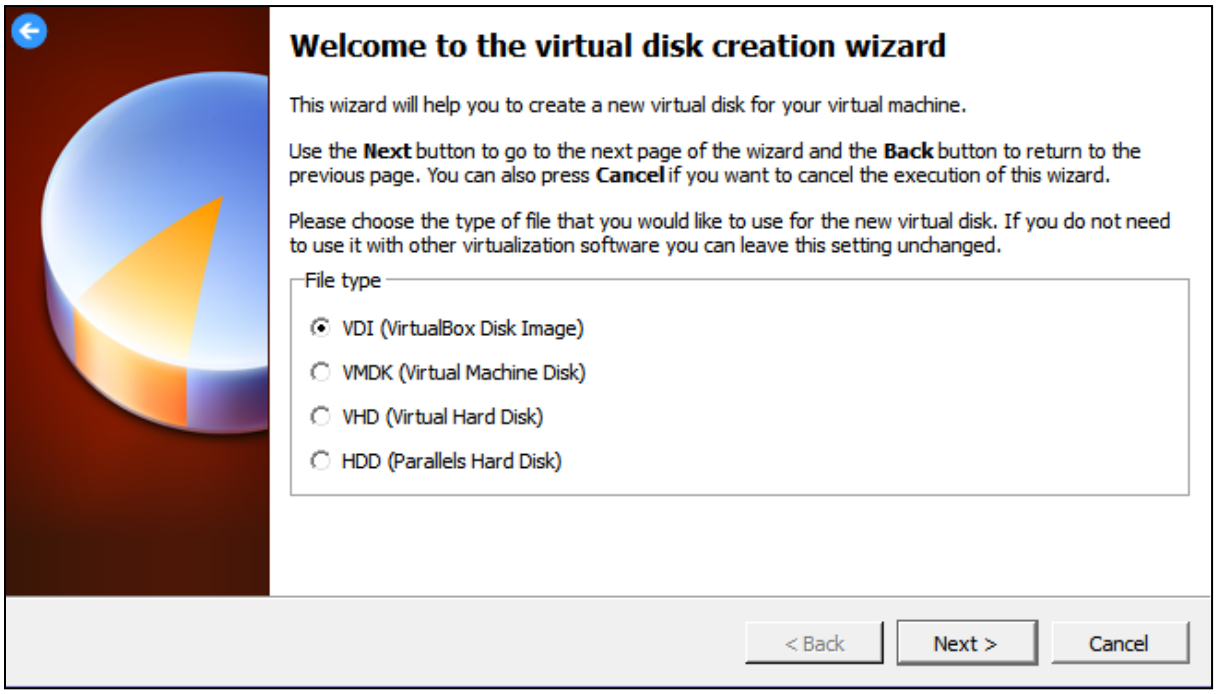
7. Adjust the memory and click “Next” [since this is a test server 2GB is sufficient]



8. Choose “Create new hard disk” and click “Next”

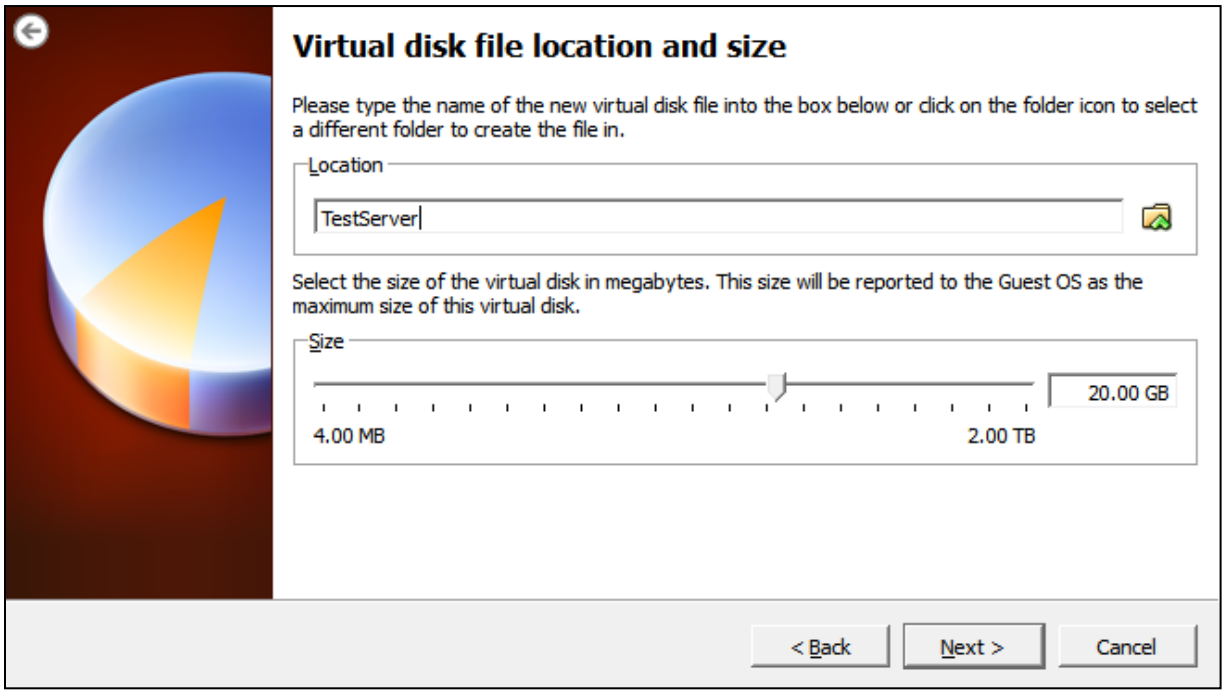


9.Choose “VDI” and click “Next”

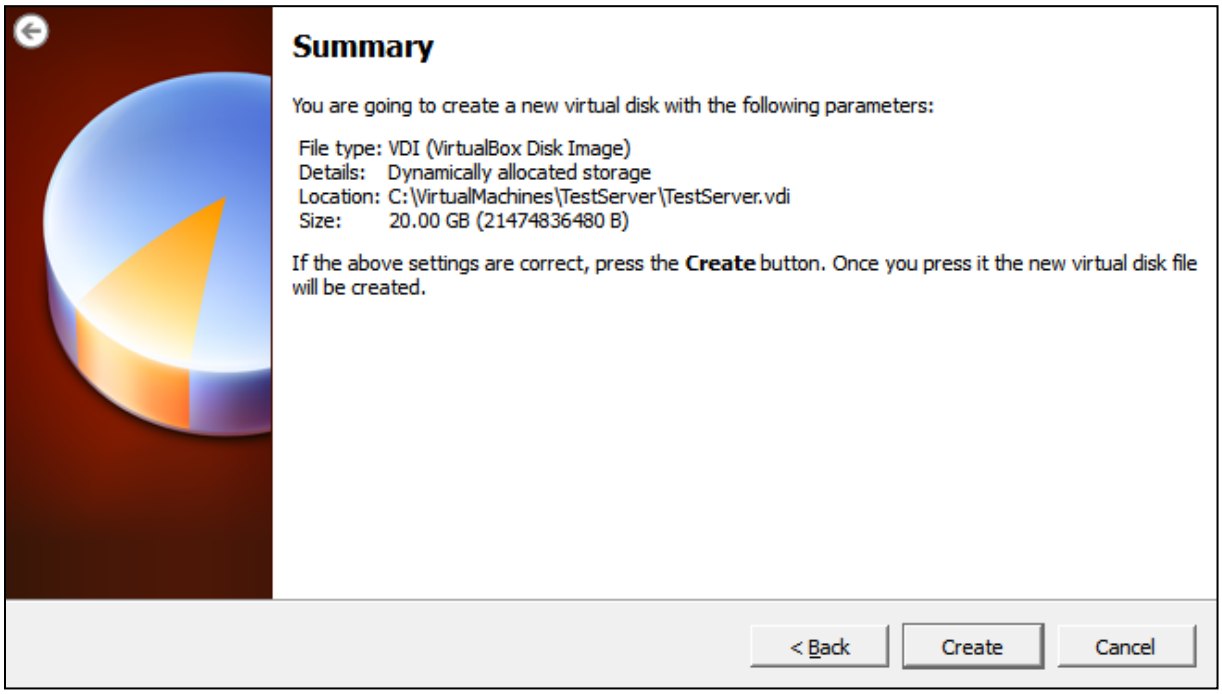


10. Click “Dynamically allocated” not to waste any space on the guest host. (Performance is not what we need here…) Click “Next”

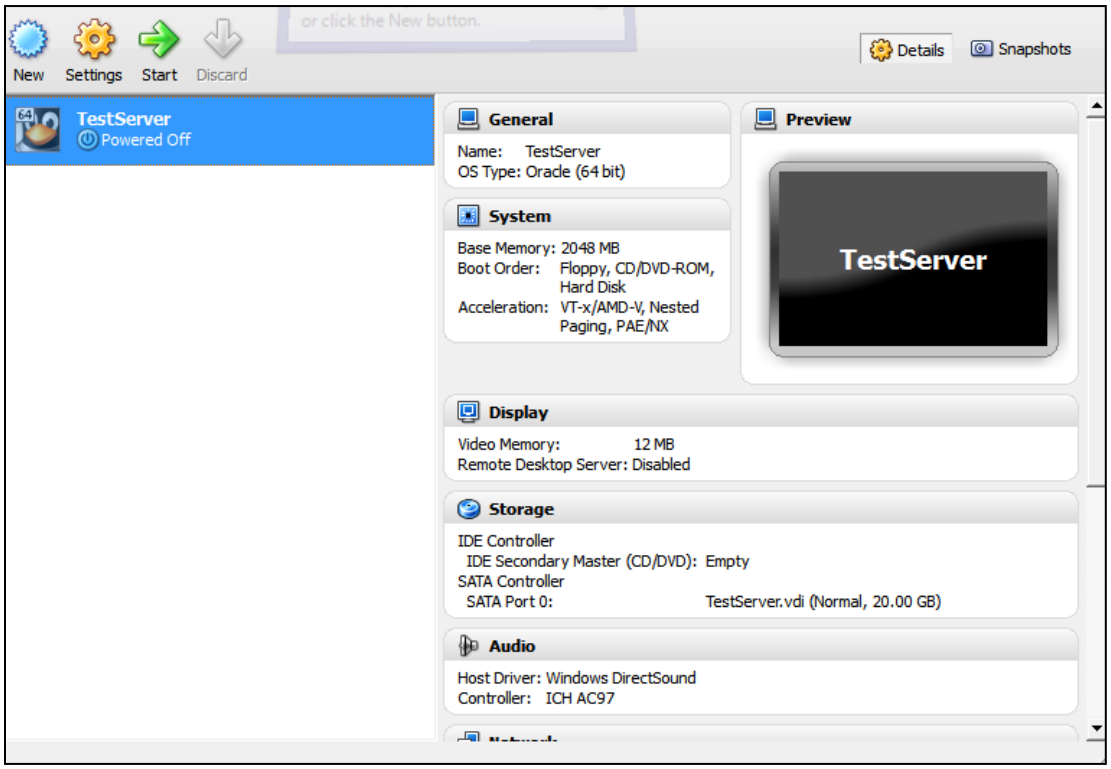
11. Adjust the hdd size and click “Next”



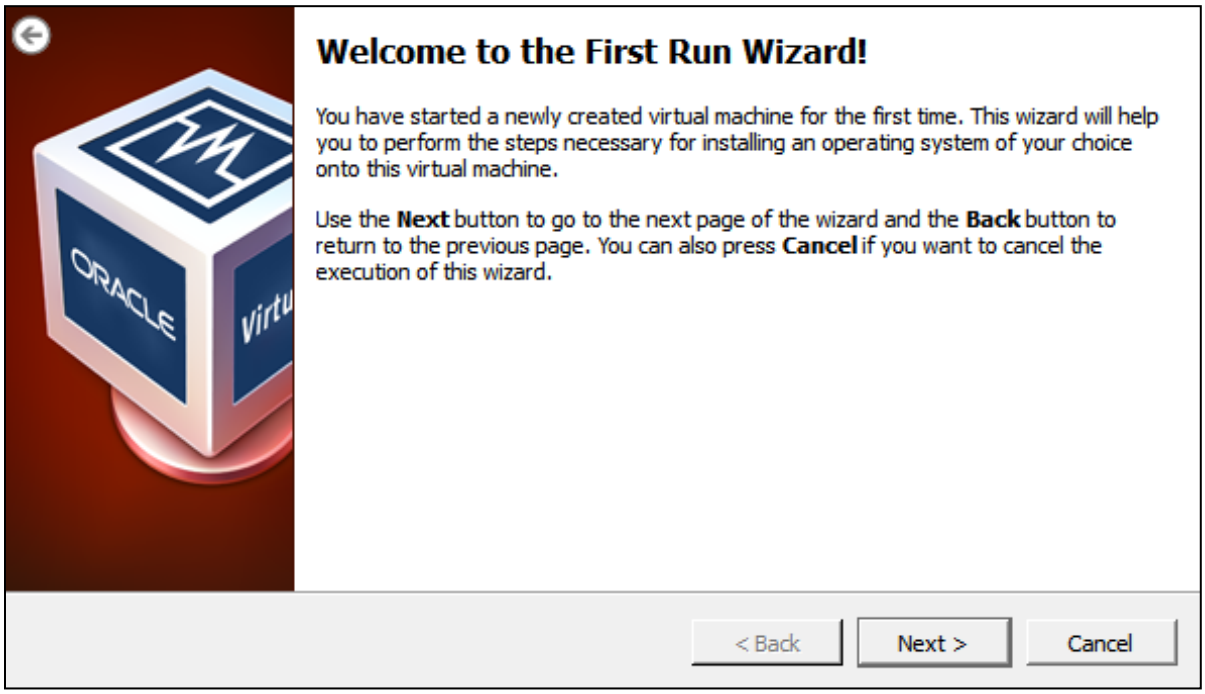
12. Click “Create”



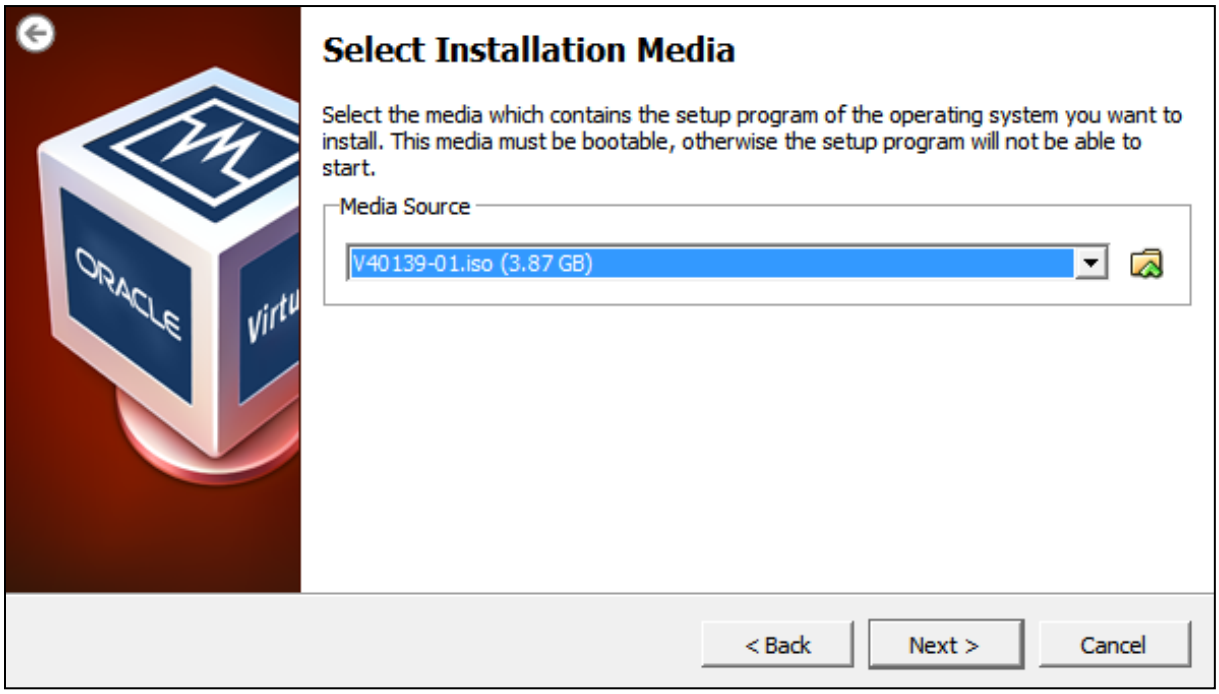
13. Click “Start”



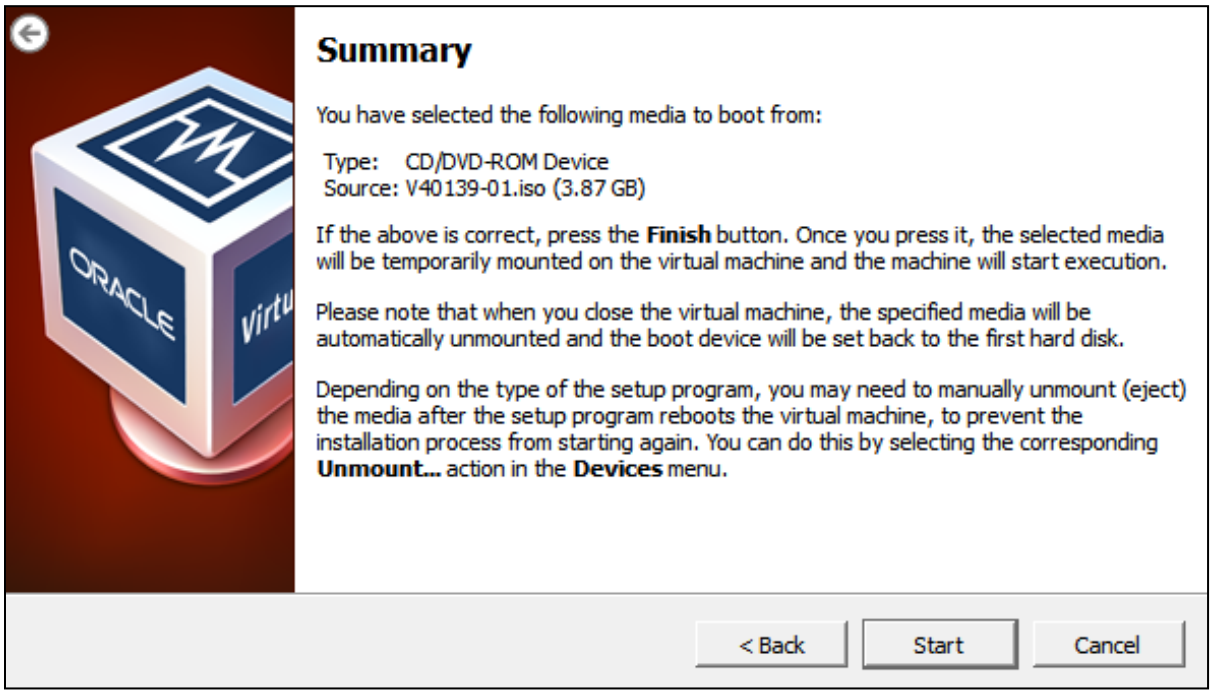
14. Click Next



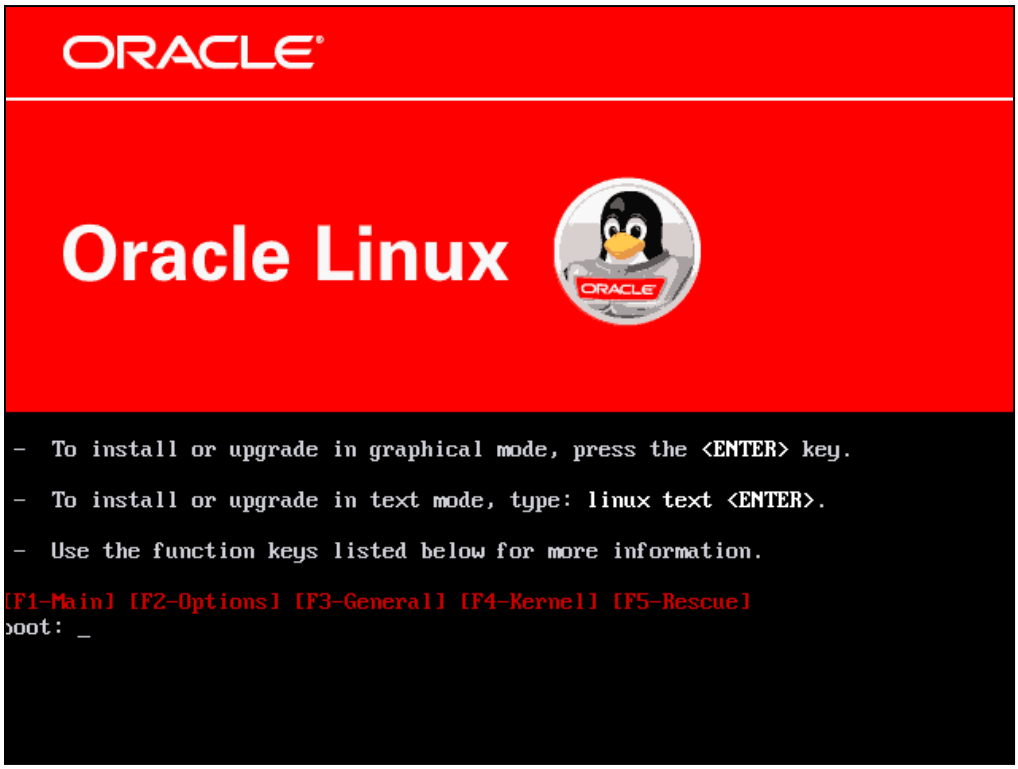
15. Select the media source -> V40139-01.iso and click “Next”



16. Click “Start”

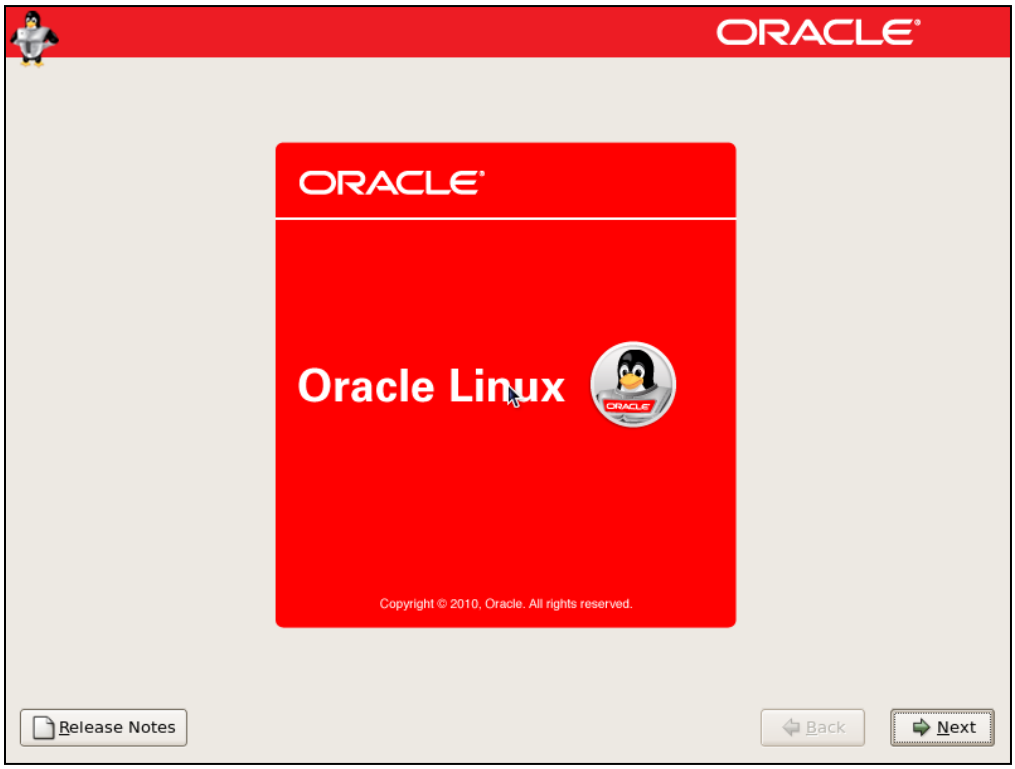


17. Press “Enter”

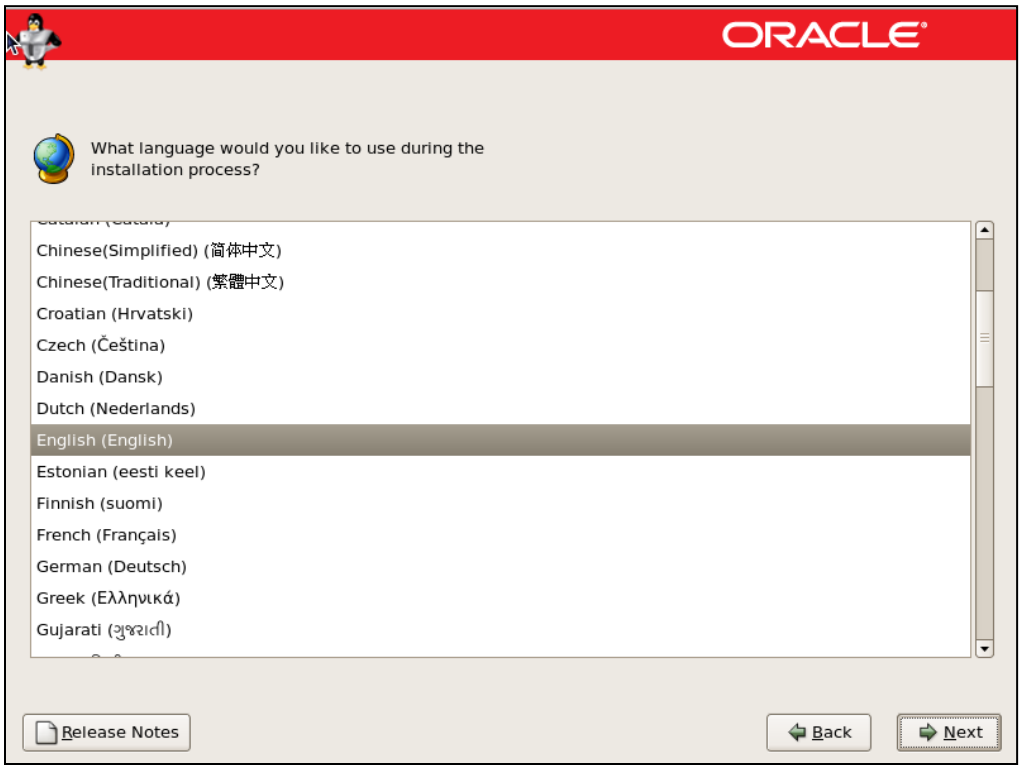


18. Click “Skip”

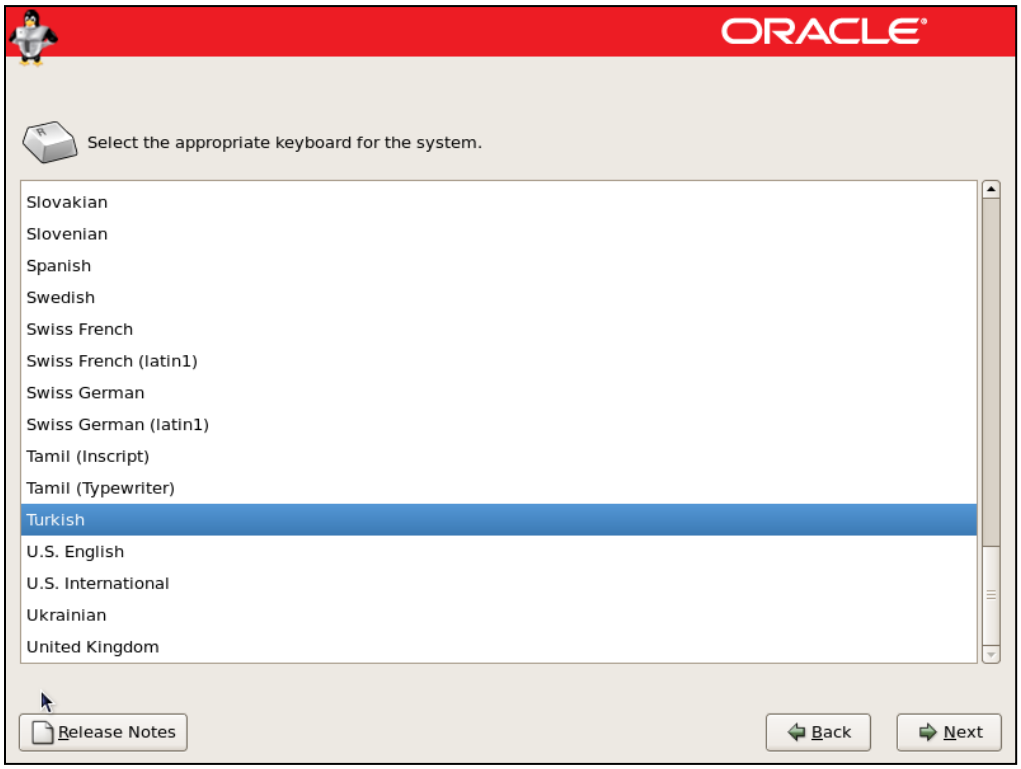
19. Click “Next”



20. Click “Next”

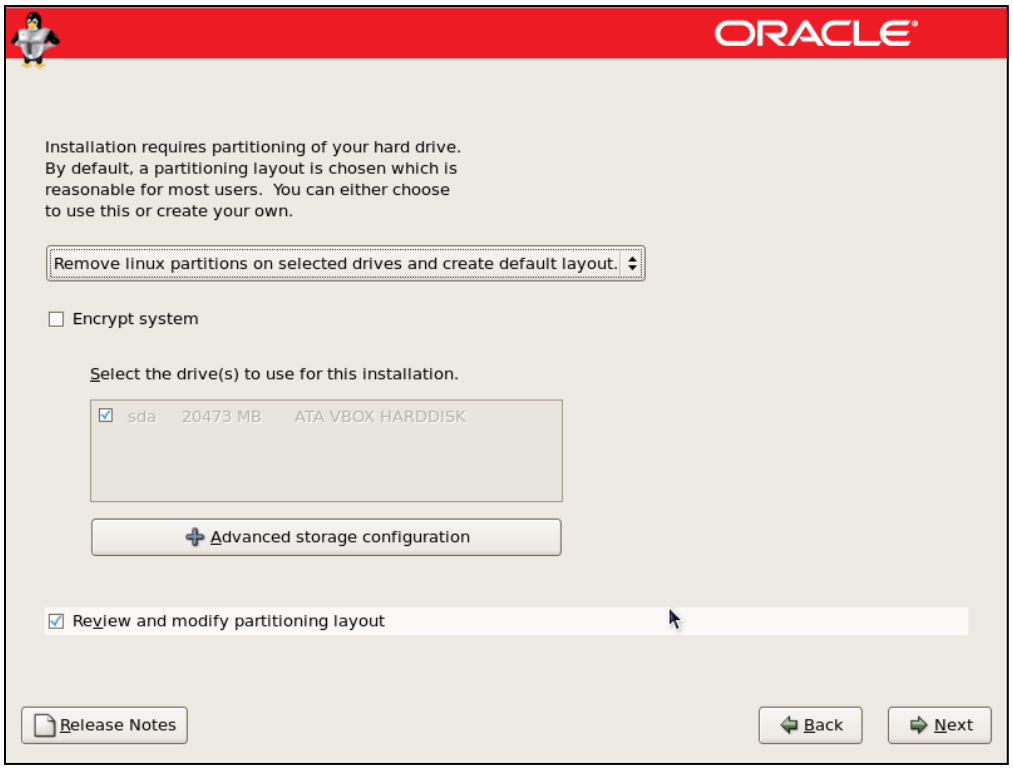


21. Choose appropriate keyboard and click “Next”

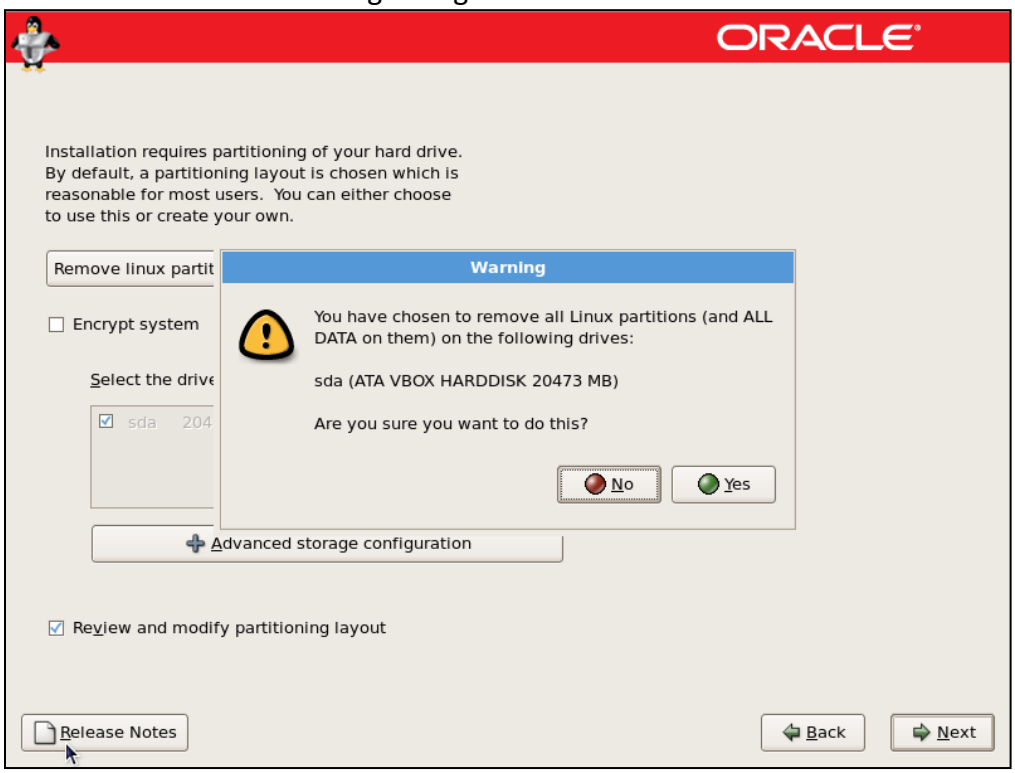


22. Click “Yes” in the warning dialog

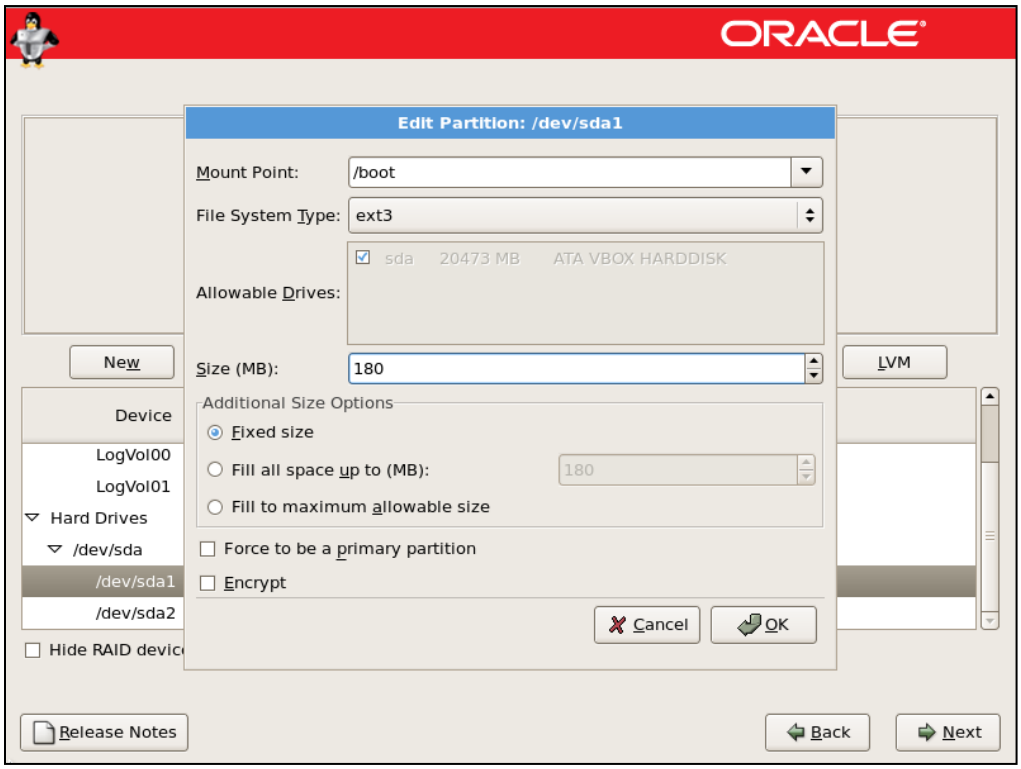
23. Check the "Review and modify partitioning layout" checkbox and click “Next”



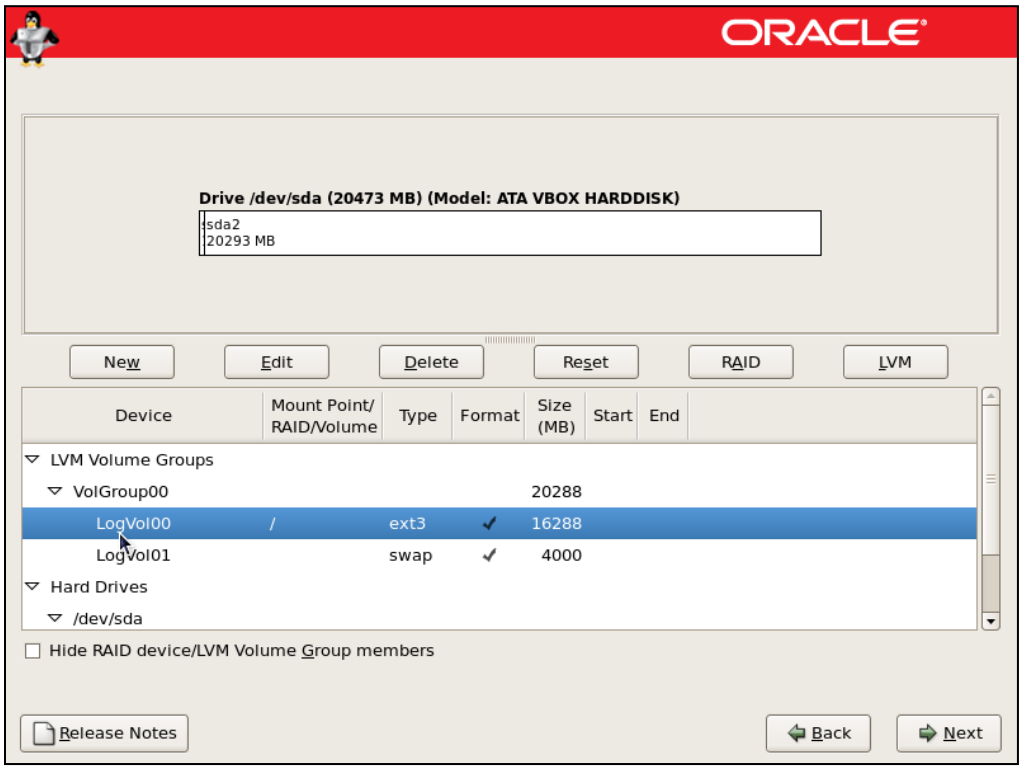
24. Click “Yes” in the warning dialog



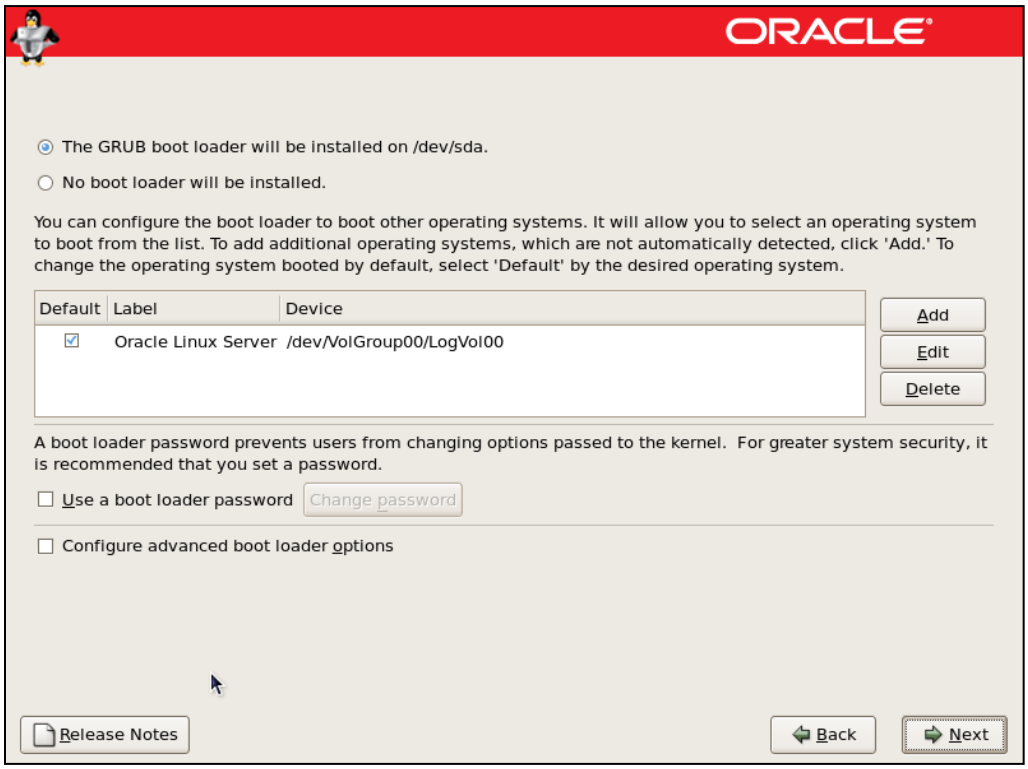
25. Edit the "/boot" partition, setting it to "180M" and "Fixed size", then click the "OK" button



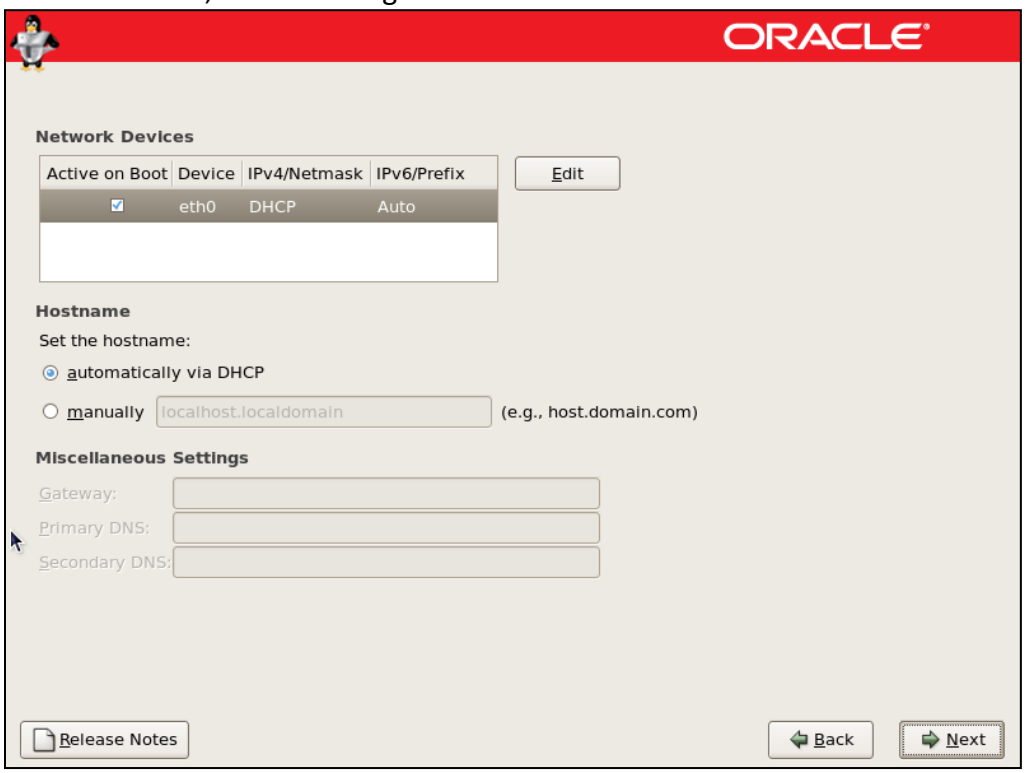
26. Click “Next”



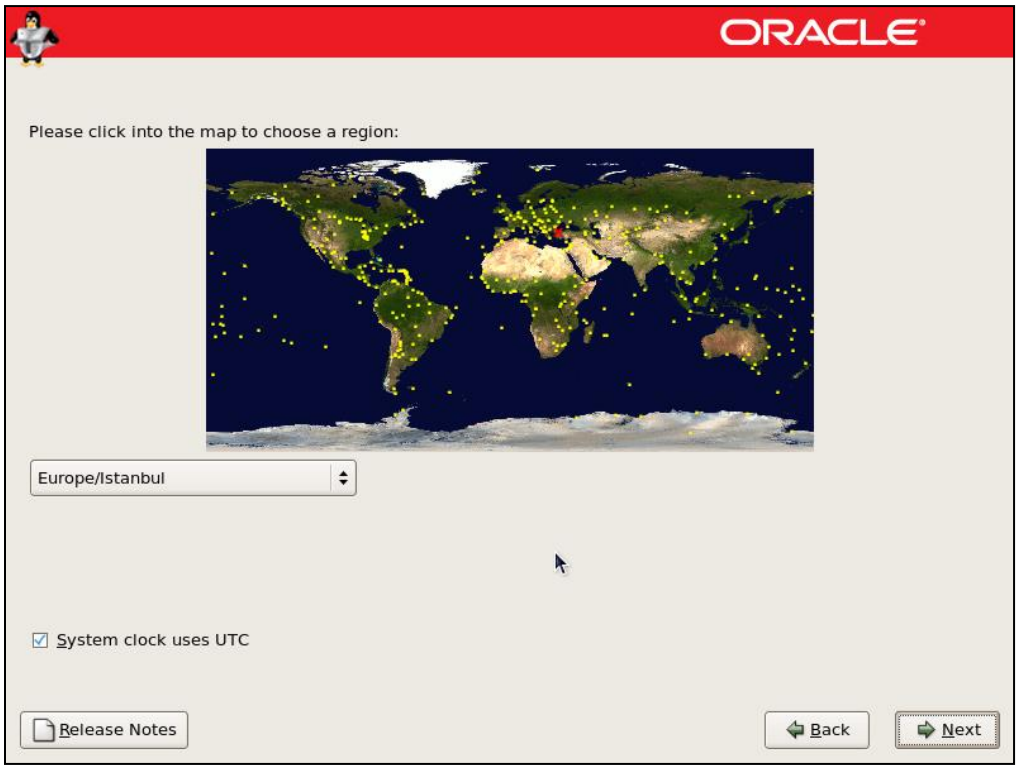
27. Click “Next”



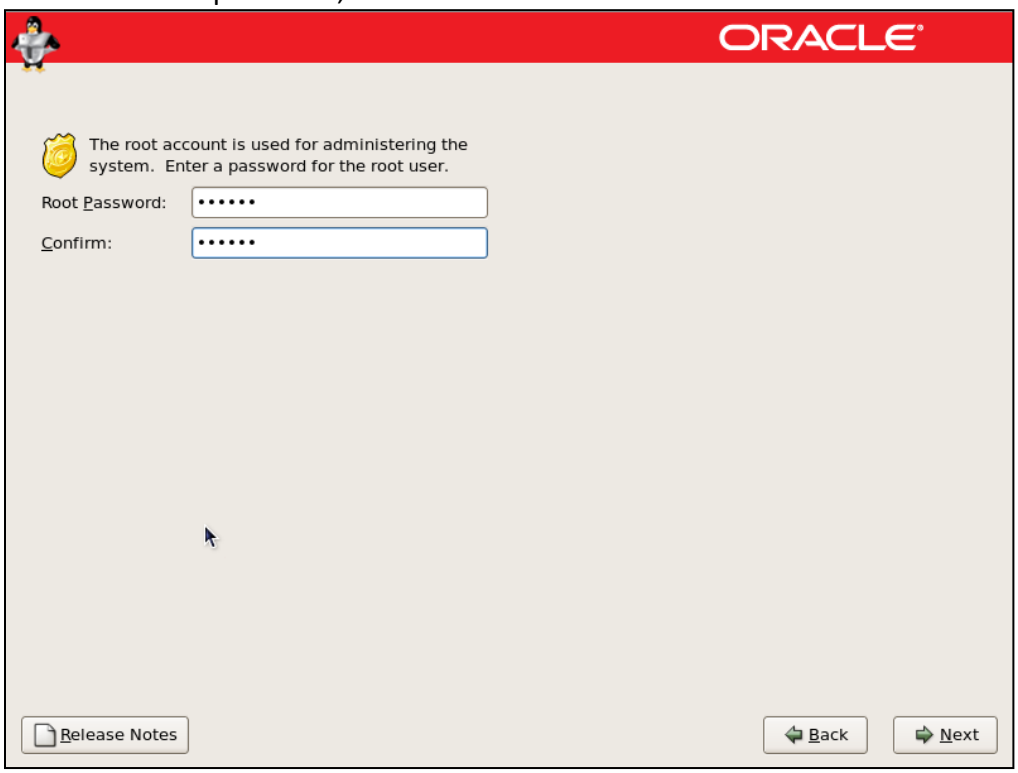
28. Click “Next”, we will configure this later



29. Select your region/city and click “Next”



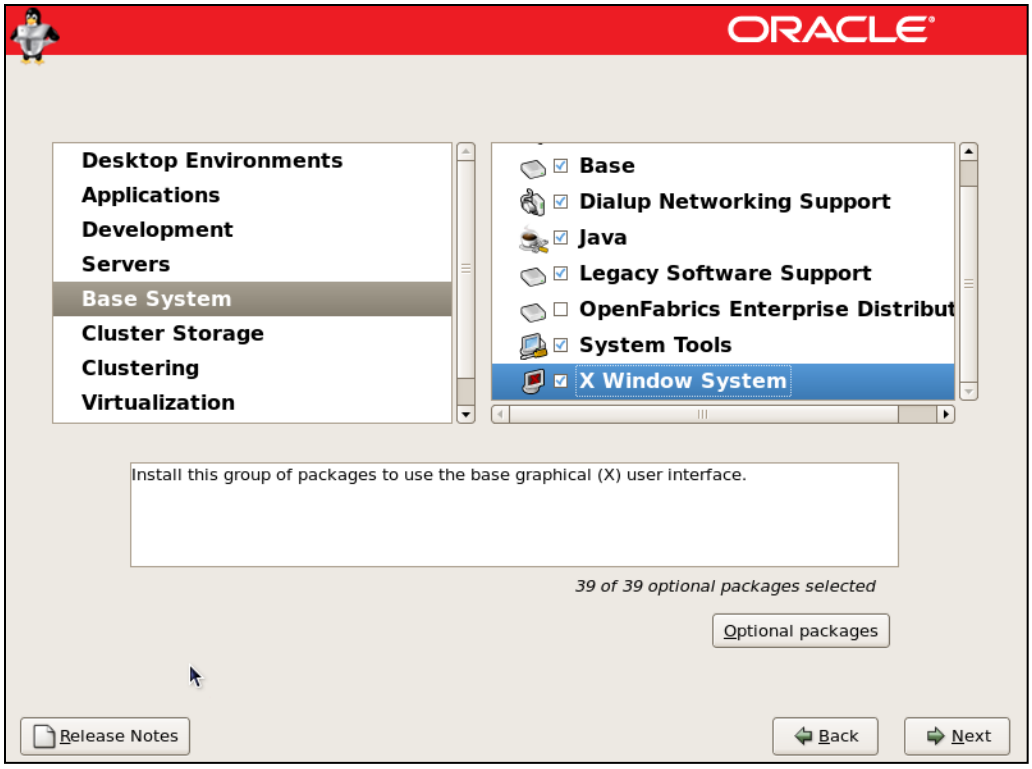
30. Enter a root password, then click "Next"



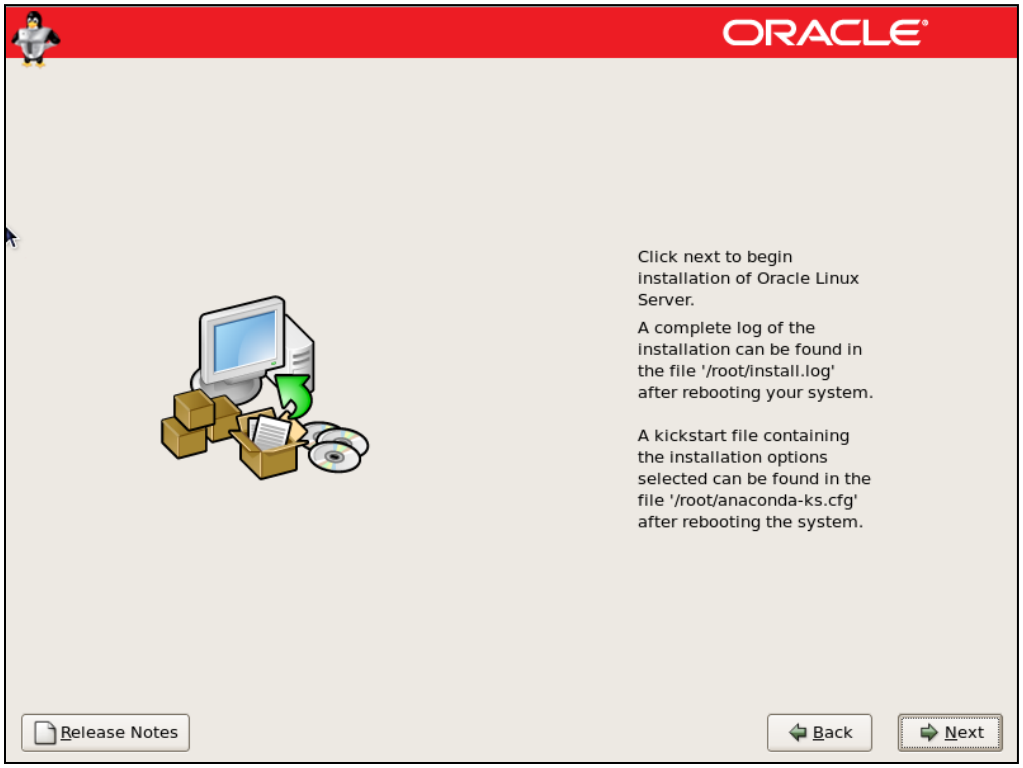
31. Select “Customize now” and click “Next”

32. Enable the following package groups and click “Next”

- Desktop Environments > GNOME Desktop Environment
- Applications > Editors
- Applications > Graphical Internet
- Development > Development Libraries
- Development > Development Tools
- Servers > Server Configuration Tools
- Base System > Administration Tools
- Base System > Base
- Base System > System Tools
- Base System > X Window System

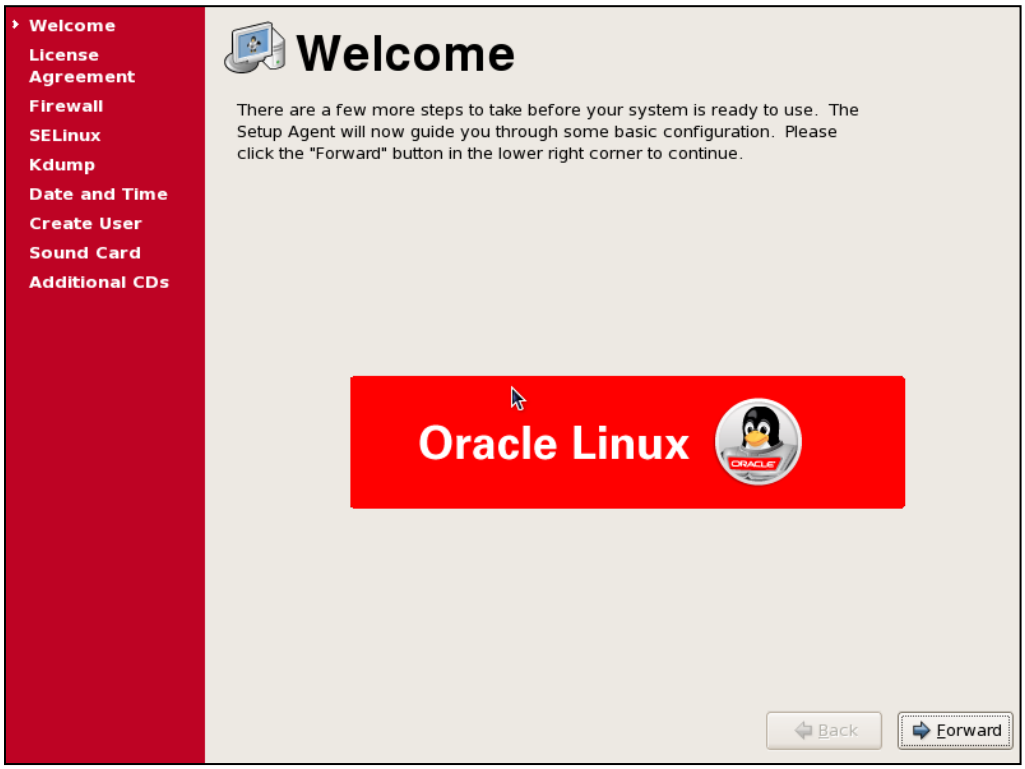


33. Click “Next”

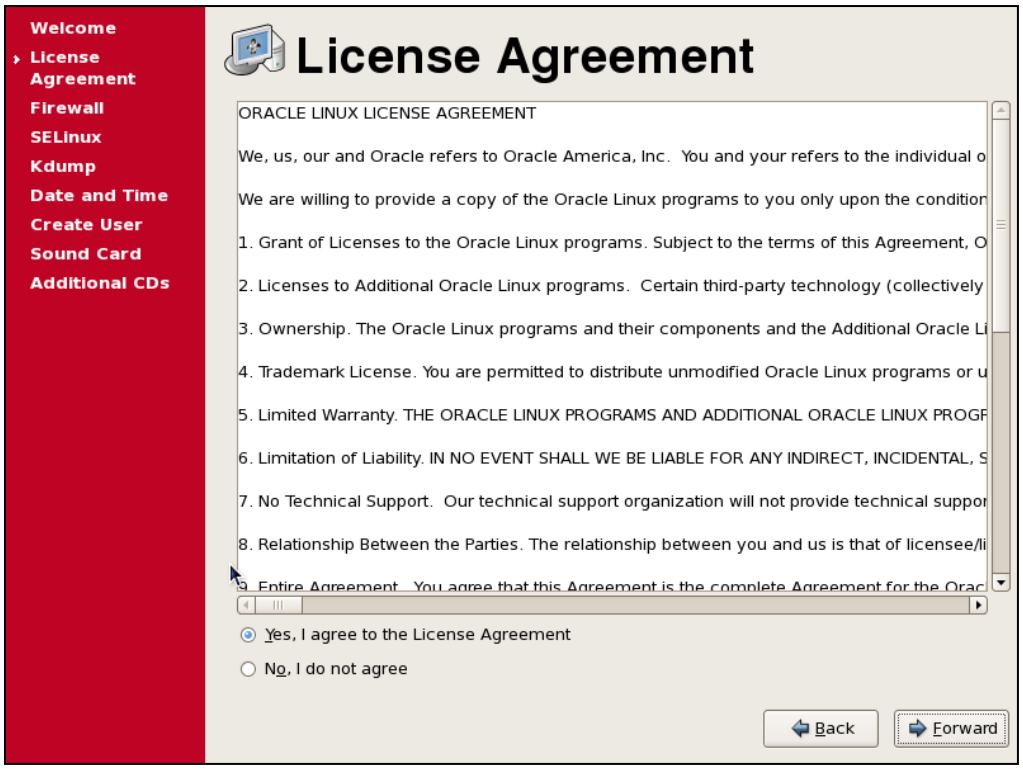


34. Click “Reboot”

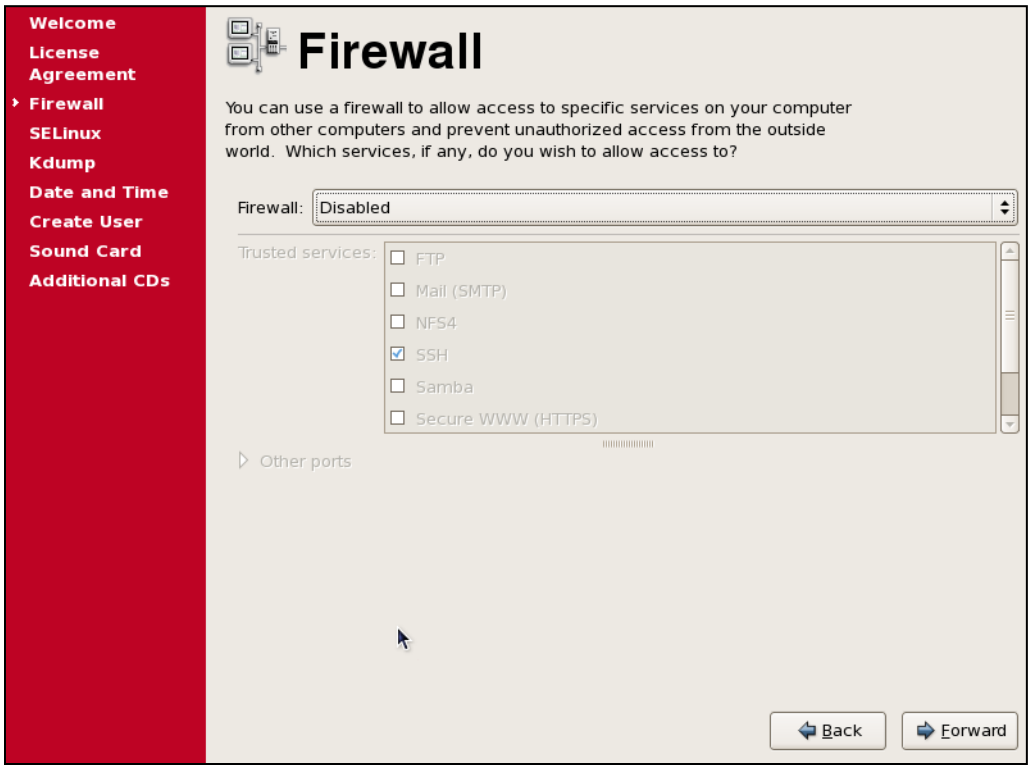
35. Click “Forward”



36. Click “Forward”

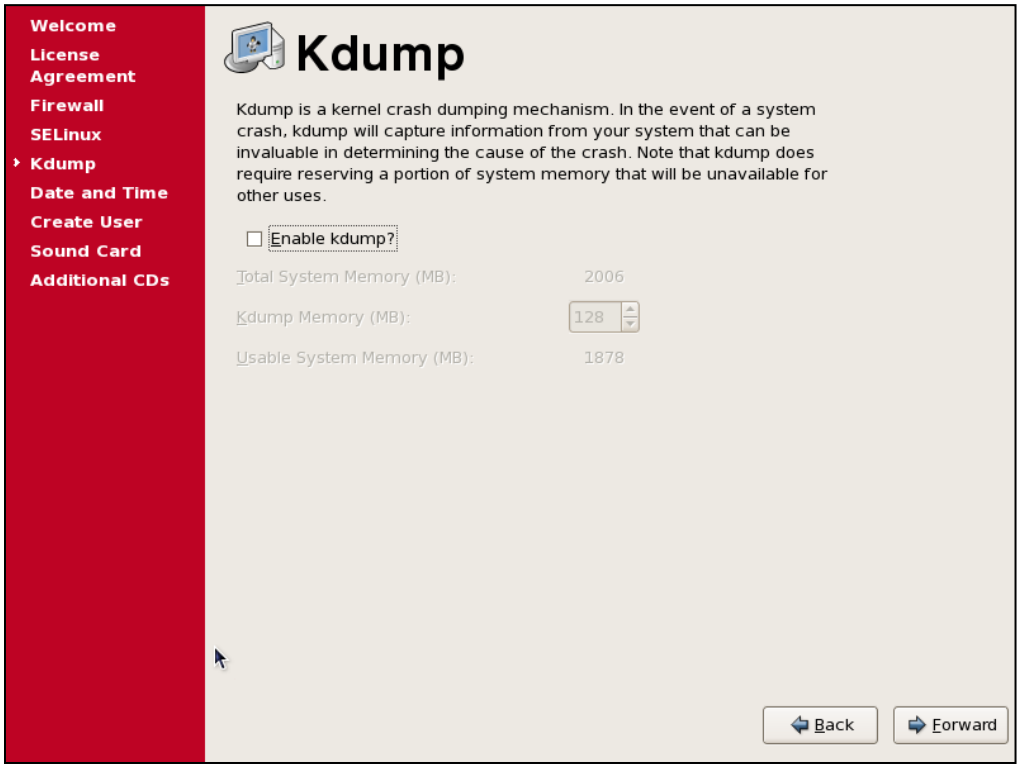


37. Disable firewall and click “Forward”

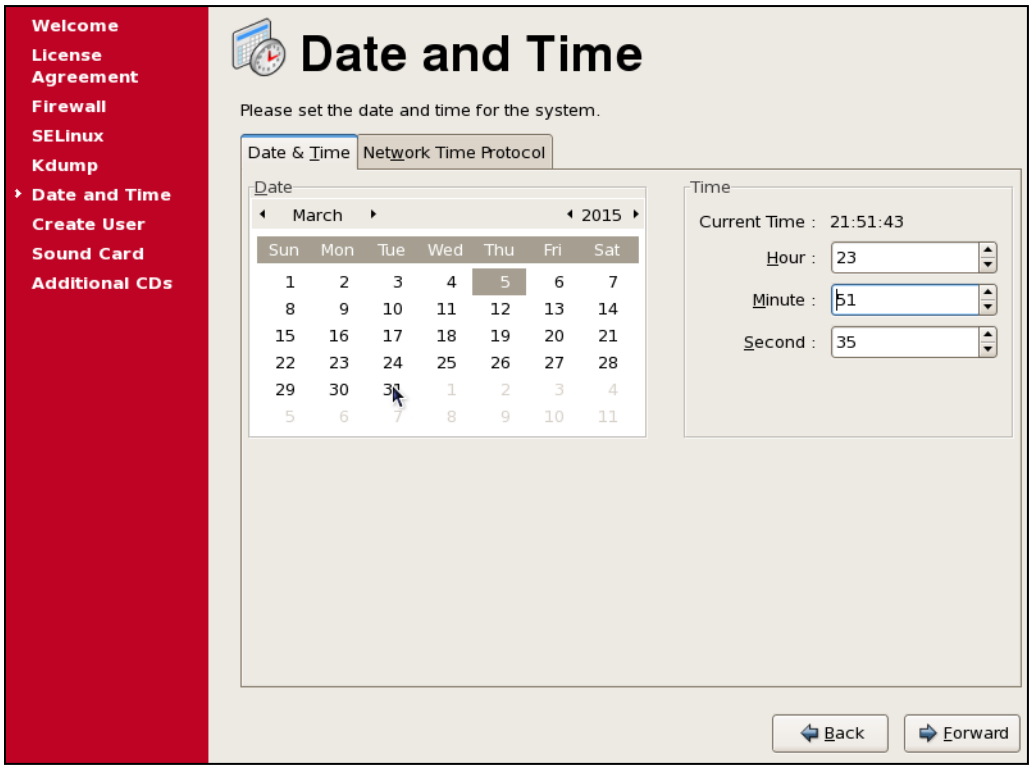


38. Disable “Selinux” and click “Forward”

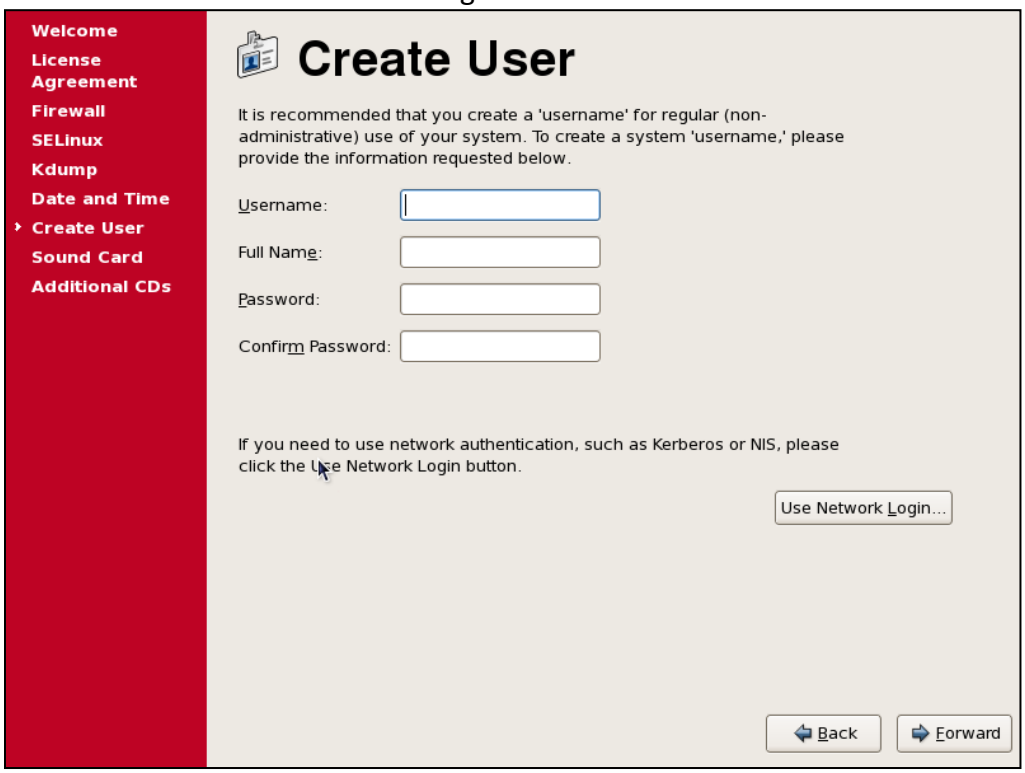
39. Click “Forward”



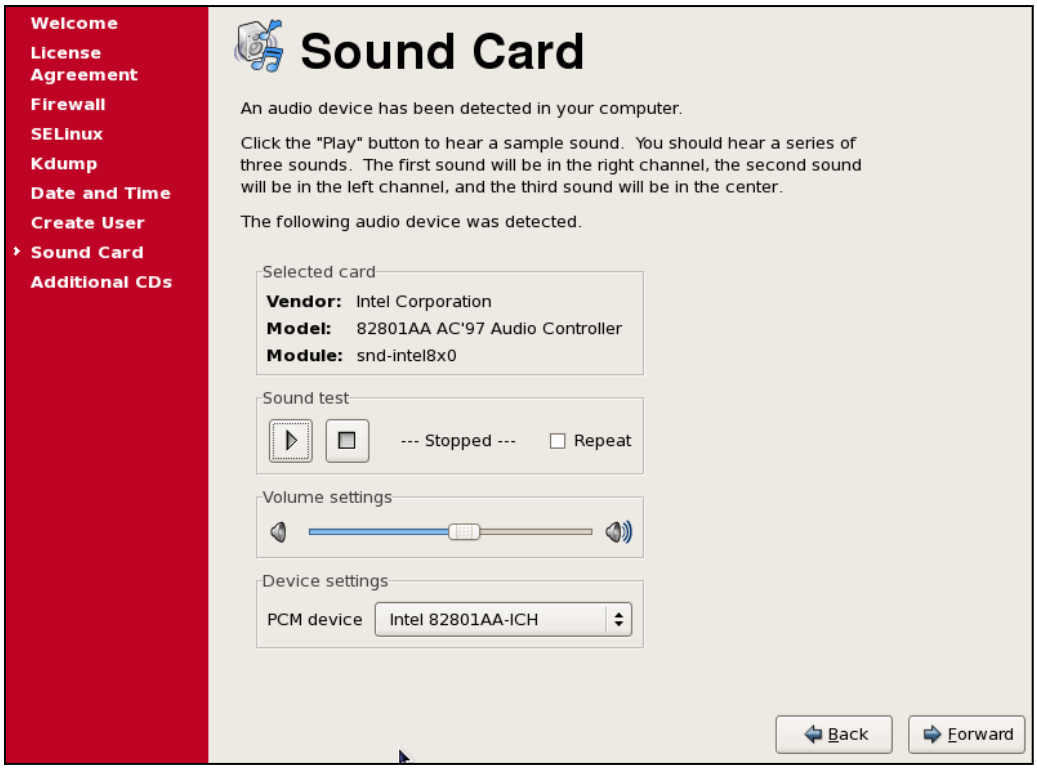
40. Click “Forward”



41. Click “Forward” without creating user



42. Click “Forward”

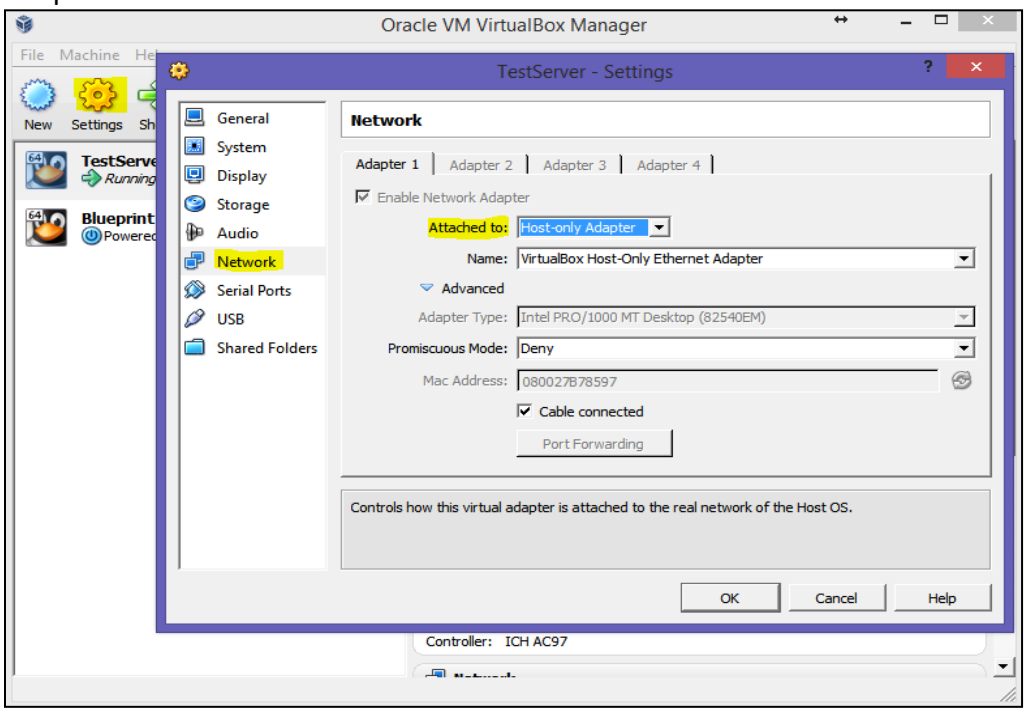


43. Click “Finish”

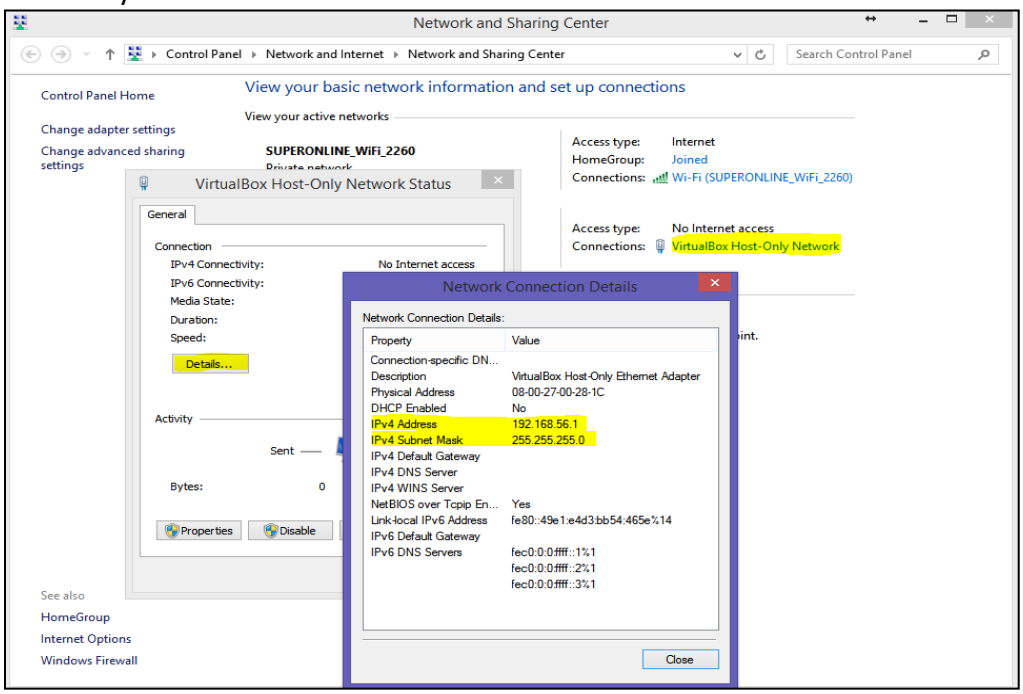
Oracle Database Software Installation

1. Configure the network to be able to use putty

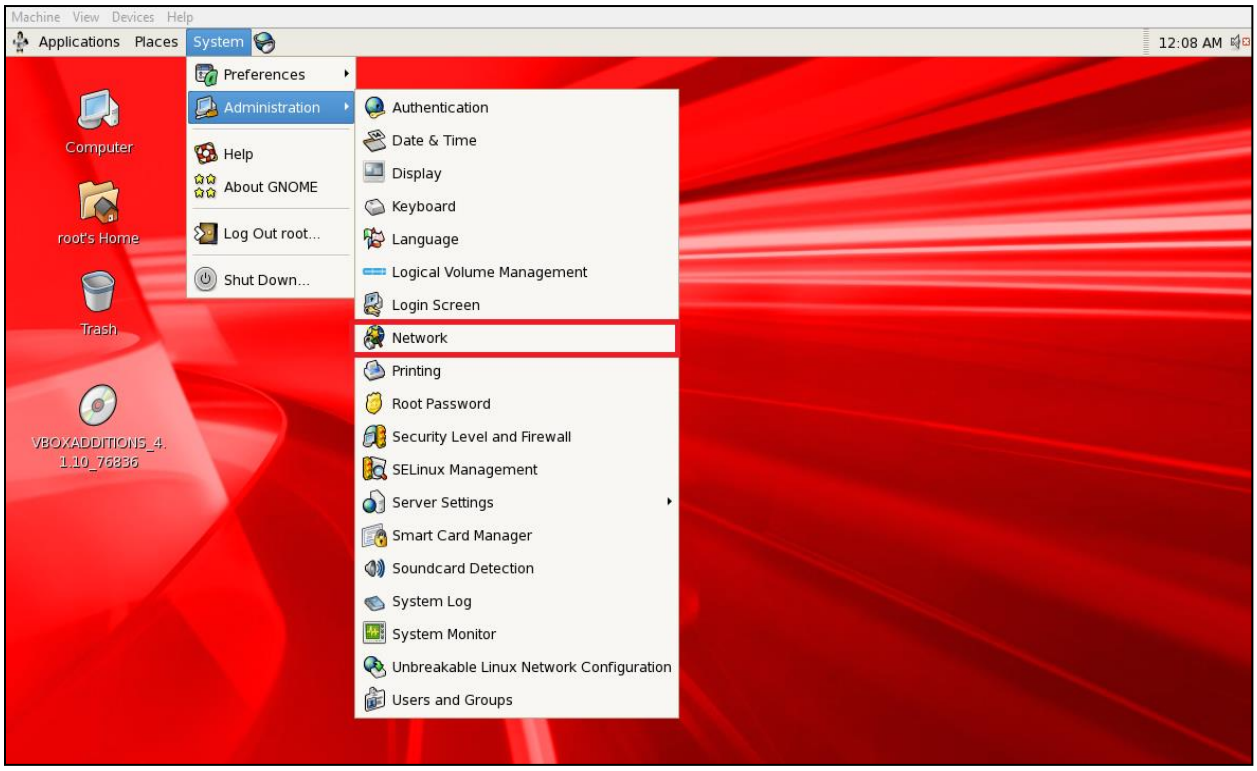
Enter the “Settings” screen of the virtual machine and change the network setting to “Host-only Adapter” as seen below. Click “OK” and reboot the Linux OS



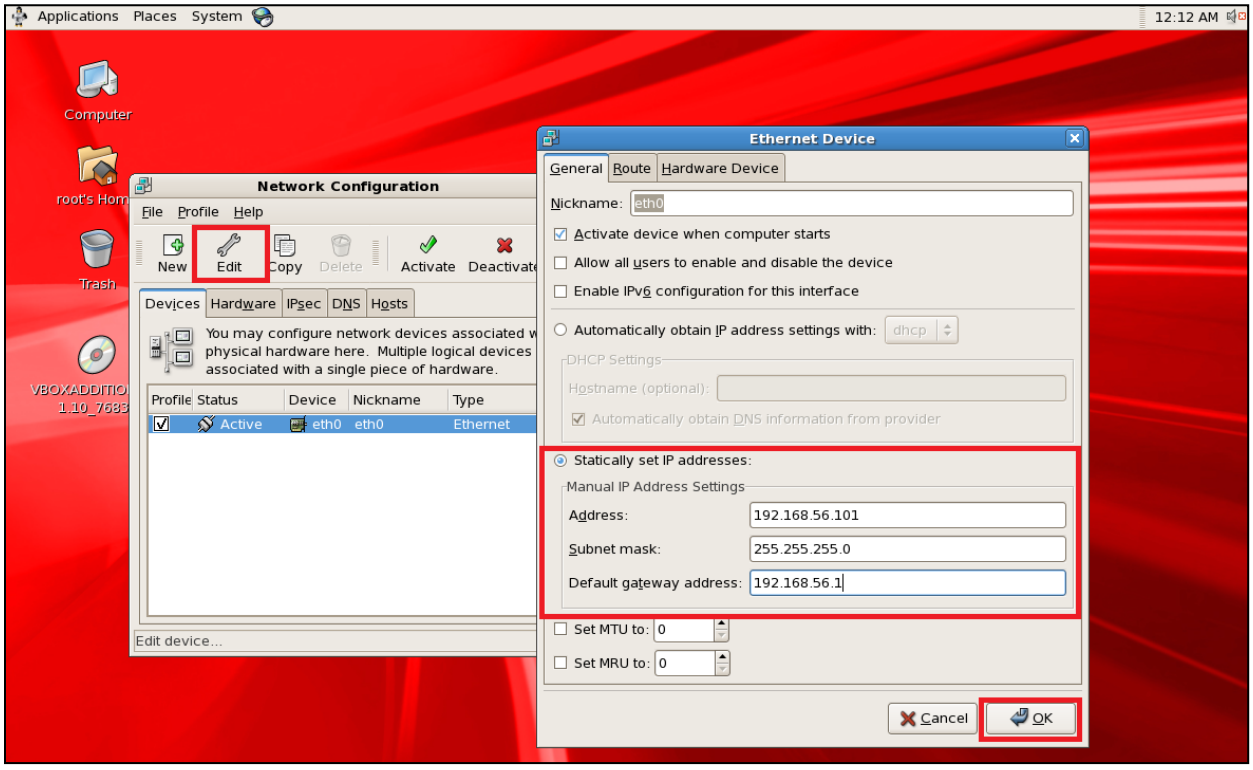
2.Open Network and Sharing Center of the host (Windows) Note down the details of the Virtual Host-Only Network



3. Edit the network settings of the Linux server:



Edit the network config. as shown below by considerig the host gateway that was noted before. Click “OK” and then File > Save



4. Linux Settings

Edit "/etc/sysctl.conf "and add the following lines:

```
fs.suid_dumpable = 1
fs.aio-max-nr = 1048576
fs.file-max = 6815744
kernel.shmall = 2097152
kernel.shmmax = 2076276736
kernel.shmmni = 4096
# semaphores: semmsl, semmns, semopm, semmni
kernel.sem = 250 32000 100 128
net.ipv4.ip_local_port_range = 9000 65500
net.core.rmem_default=262144
net.core.rmem_max=4194304
net.core.wmem_default=262144
net.core.wmem_max=1048586
```

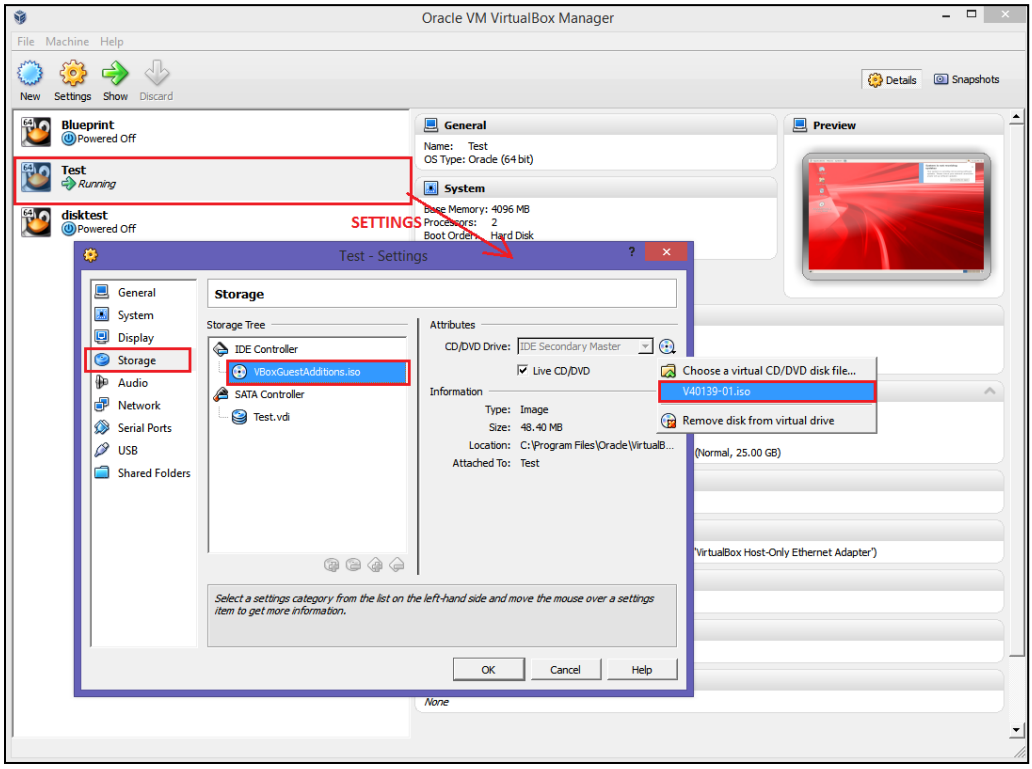
Then issue the following command:

```
/sbin/sysctl -p
```

Edit "/etc/security/limits.conf" and add the following lines:

```
oracle              soft    nproc    2047
oracle              hard    nproc    16384
oracle              soft    nofile   4096
oracle              hard    nofile   65536
oracle              soft    stack    10240
```

Mount the Linux installation iso as a CD-ROM device. If something is already mounted to the CD-ROM, unmount it (eject) first…



Install the following packages:

```
cd /media/OL5.10\ x86_64\ dvd\ 20131002/Server

rpm -Uvh binutils-2.*
rpm -Uvh compat-libstdc++-33*
rpm -Uvh compat-libstdc++-33*.i386.rpm
rpm -Uvh elfutils-libelf*
rpm -Uvh gcc-4.*
rpm -Uvh gcc-c++-4.*
rpm -Uvh glibc-2.*
rpm -Uvh glibc-common-2.*
rpm -Uvh glibc-devel-2.*
rpm -Uvh glibc-headers-2.*
rpm -Uvh ksh*
rpm -Uvh libaio-0.*
rpm -Uvh libaio-devel-0.*
rpm -Uvh libgomp-4.*
rpm -Uvh libgcc-4.*
rpm -Uvh libstdc++-4.*
rpm -Uvh libstdc++-devel-4.*
rpm -Uvh make-3.*
rpm -Uvh sysstat-7.*
rpm -Uvh unixODBC-libs-2.2.11-10.el5.*
rpm -Uvh unixODBC-2.*
rpm -Uvh unixODBC-devel-2.*
rpm -Uvh numactl-devel-*
```

Create oracle groups and user:

```
groupadd oinstall
groupadd dba

useradd -g oinstall -G dba oracle
```

Create paths:

```
mkdir -p /u01/app/oracle/product/11.2.0/dbhome
chown -R oracle:oinstall /u01
chmod -R 775 /u01
```

Edit /etc/hosts

```
127.0.0.1       localhost.localdomain      localhost
::1             localhost6.localdomain6    localhost6
192.168.56.101  testserver                 testserver.taysi.com
```

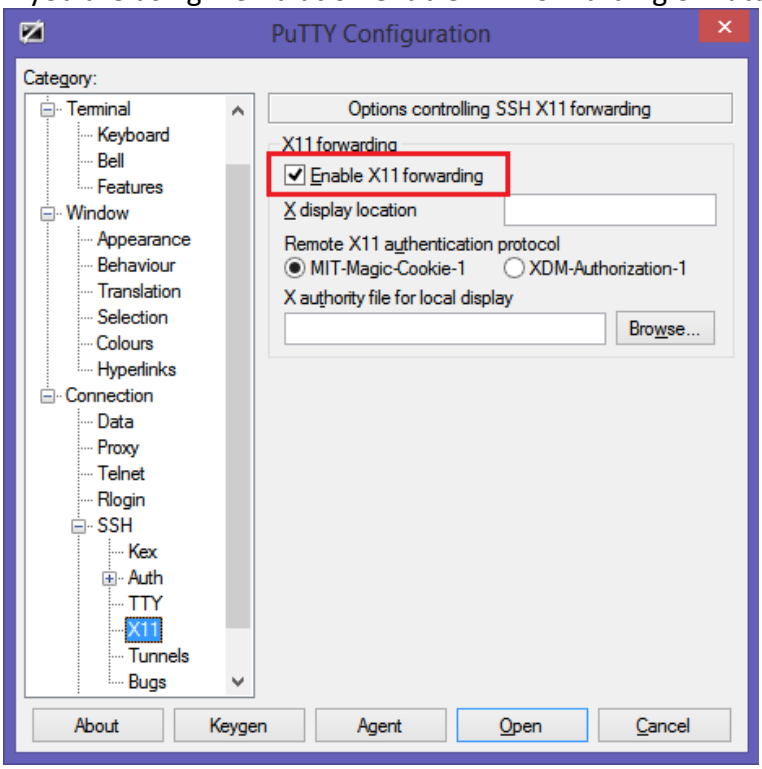
Login as **oracle** user and edit the bash profile: vi .bash_profile -> add the following lines:

```
# Oracle Settings
TMP=/tmp; export TMP
TMPDIR=$TMP; export TMPDIR

ORACLE_HOSTNAME=testserver.taysi.com; export ORACLE_HOSTNAME
ORACLE_UNQNAME=TESTDB; export ORACLE_UNQNAME
ORACLE_BASE=/u01/app/oracle; export ORACLE_BASE
ORACLE_HOME=$ORACLE_BASE/product/11.2.0/dbhome; export ORACLE_HOME
ORACLE_SID=TESTDB; export ORACLE_SID
PATH=/usr/sbin:$PATH; export PATH
PATH=$ORACLE_HOME/bin:$PATH; export PATH

LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH
```

Re-login with the oracle user for the bash_profile to take effect…

Installation

If you are using X emulation enable X11 forwarding of Putty as follows:



Run Xming server and export your display (tt with xclock)

```
export DISPLAY=127.0.0.1:10.0
```

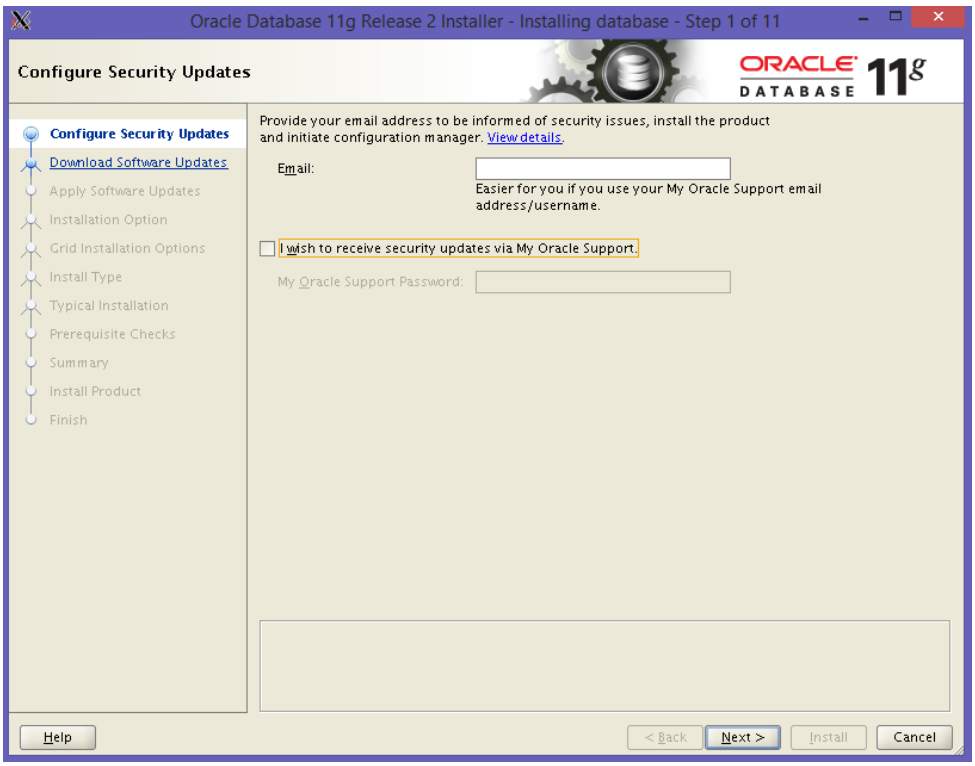
Create a temp setup path and copy the database install files in here and unzip them.

```
mkdir -p /u01/setup
```

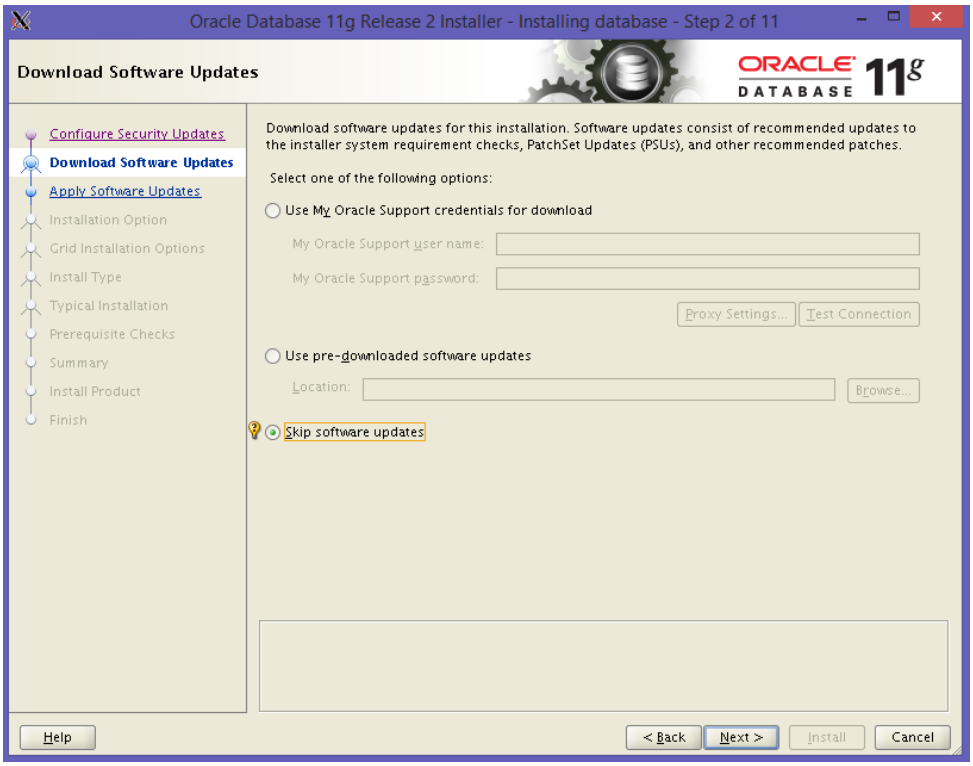
Run the installation:

```
./runInstaller.sh
```

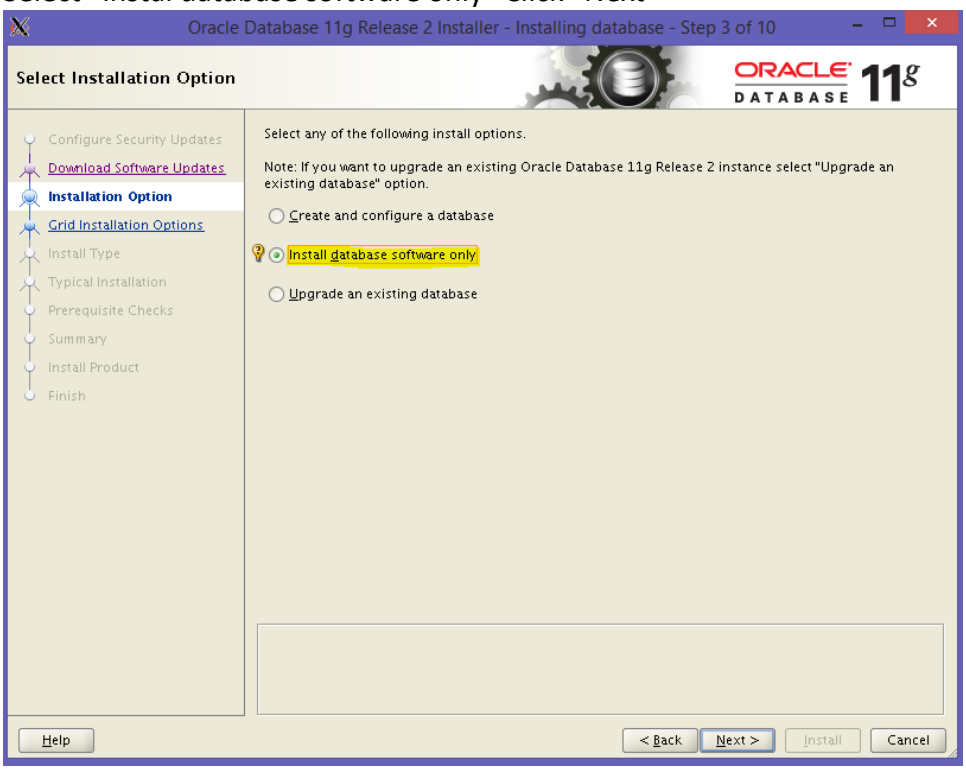
Click “Next”



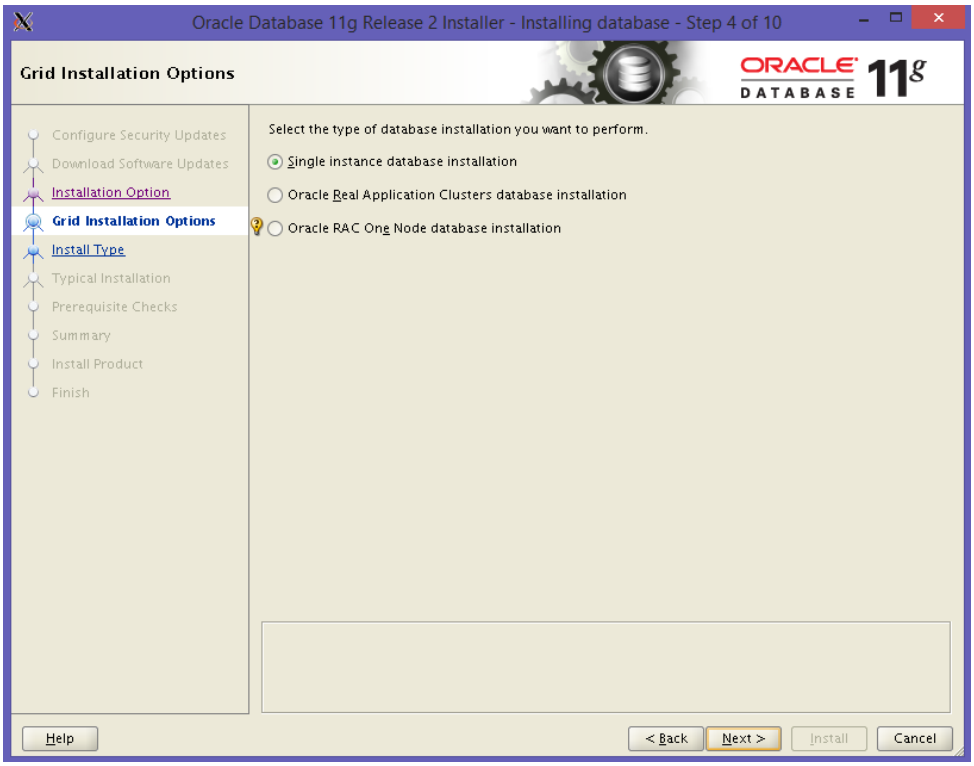
Click “Next”



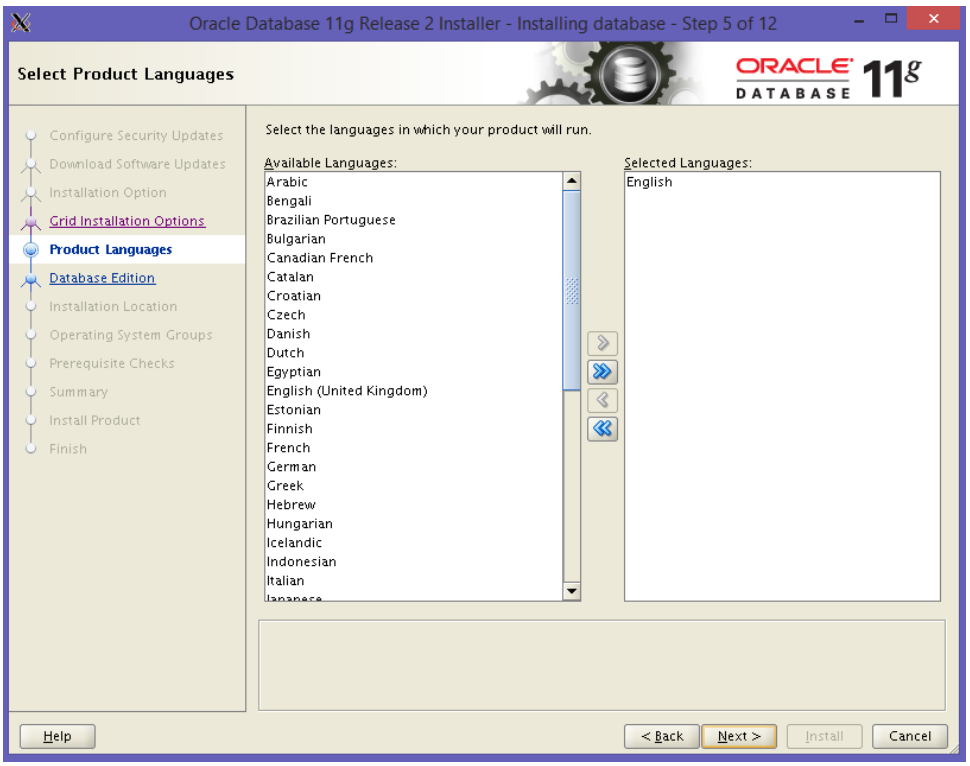
Select “Instal database software only” Click “Next”



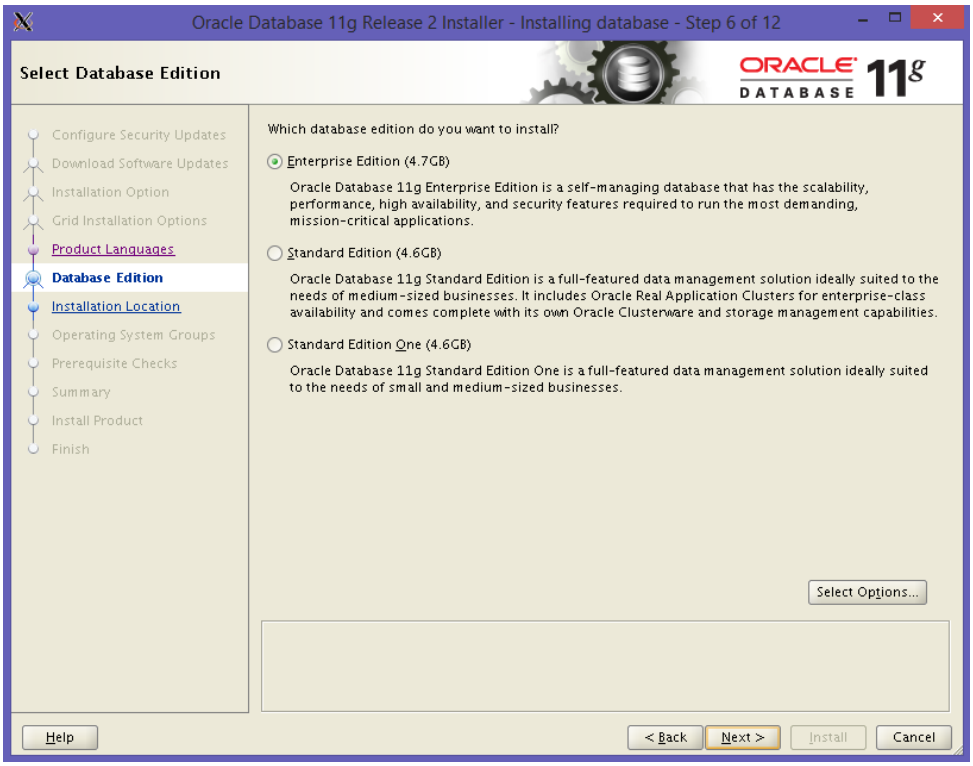
Click “Next”



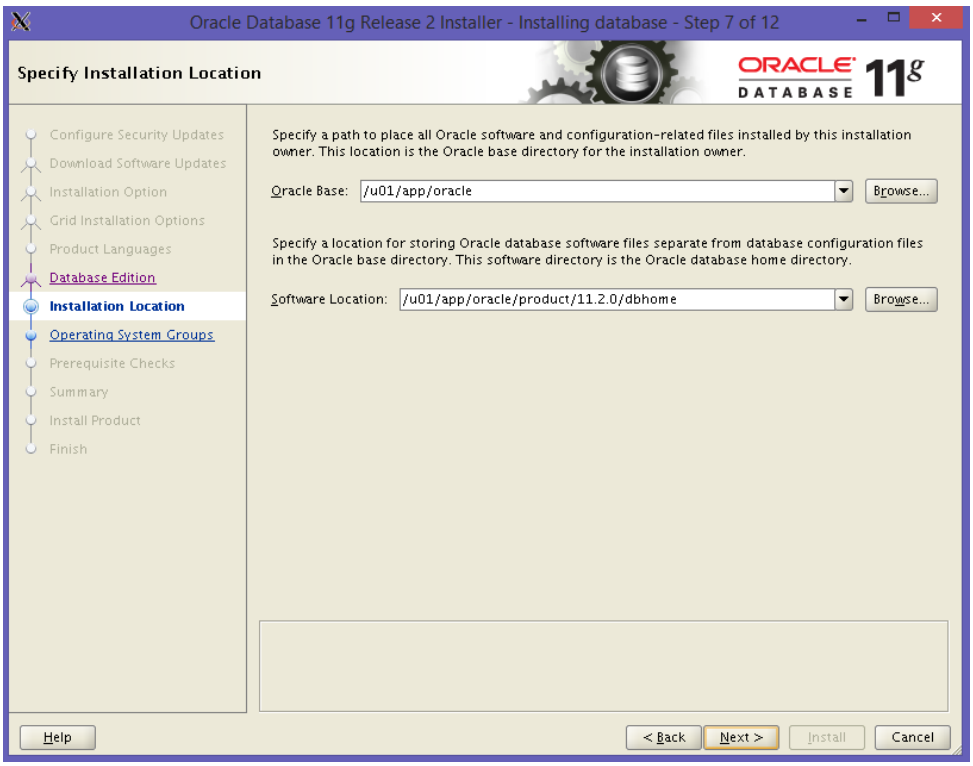
Click “Next”



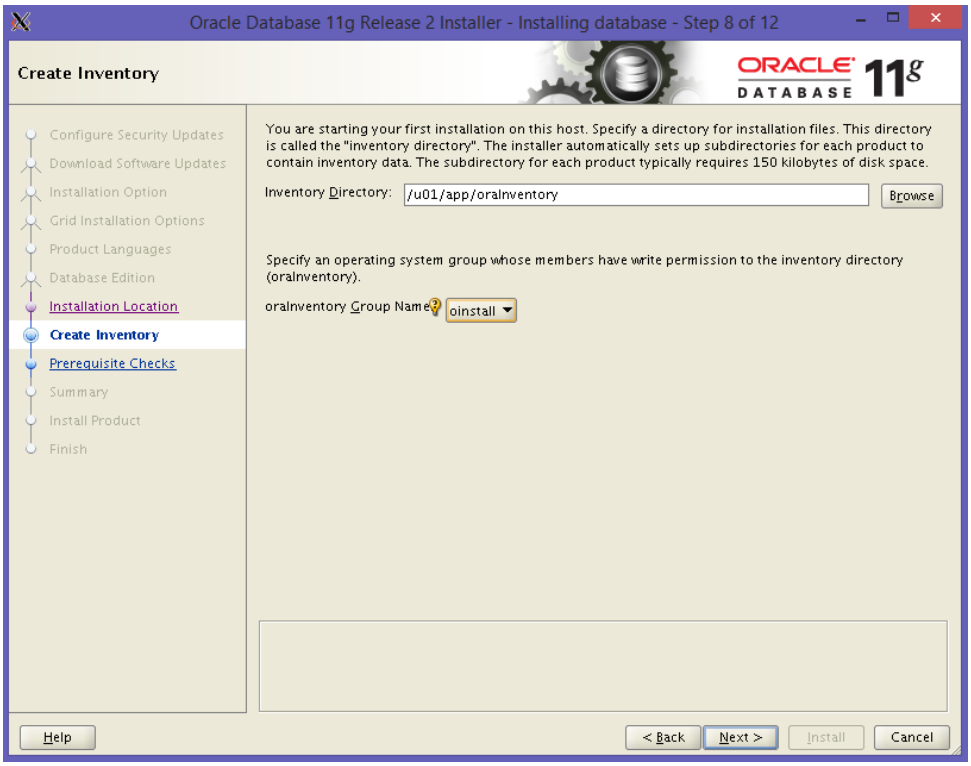
Click “Next”



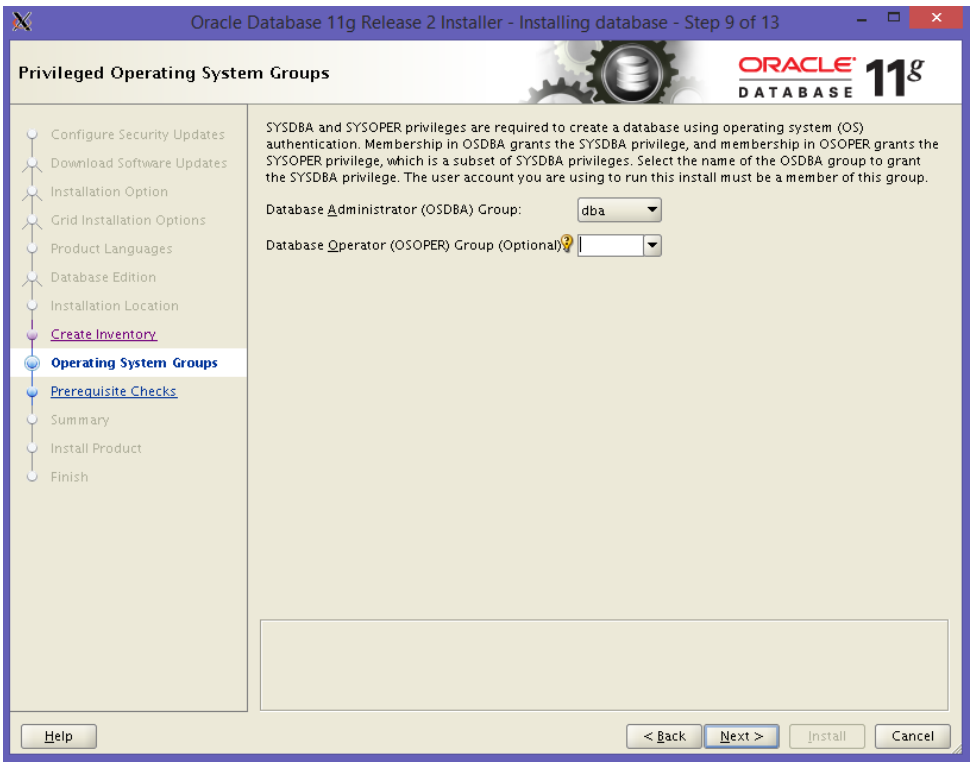
Click “Next”



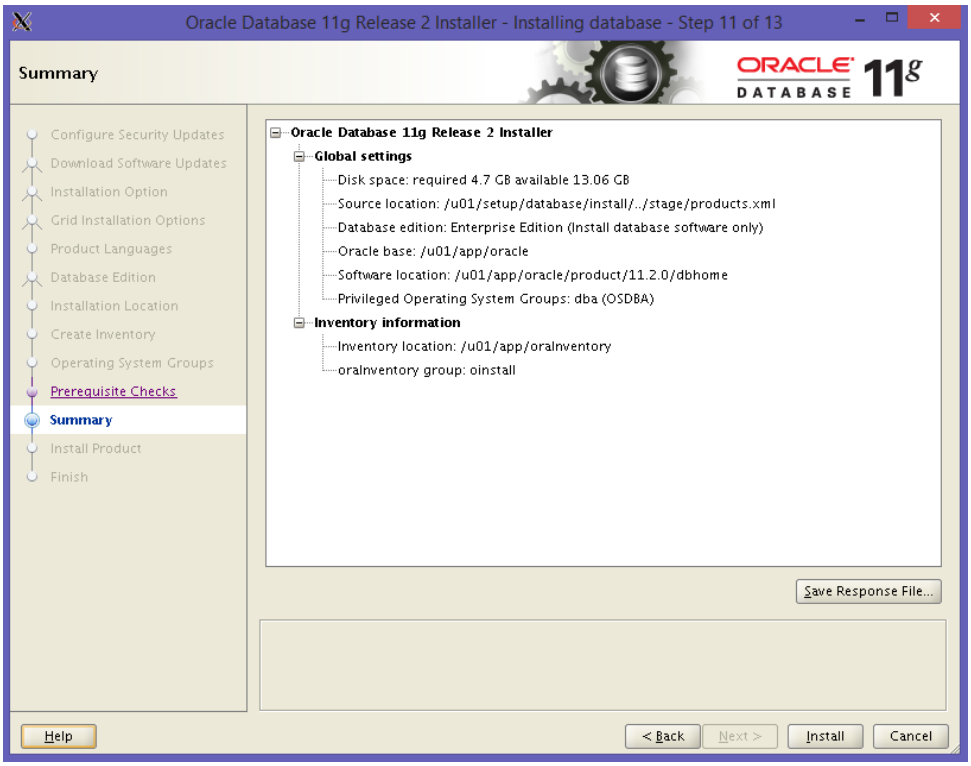
Click “Next”



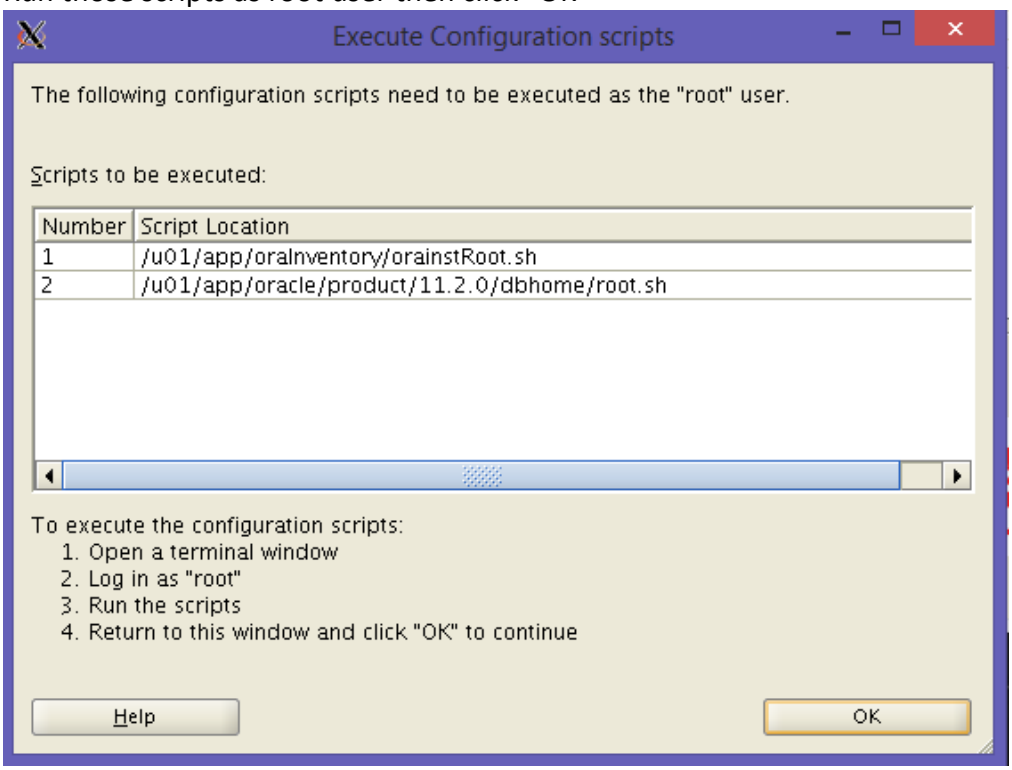
Click “Next”



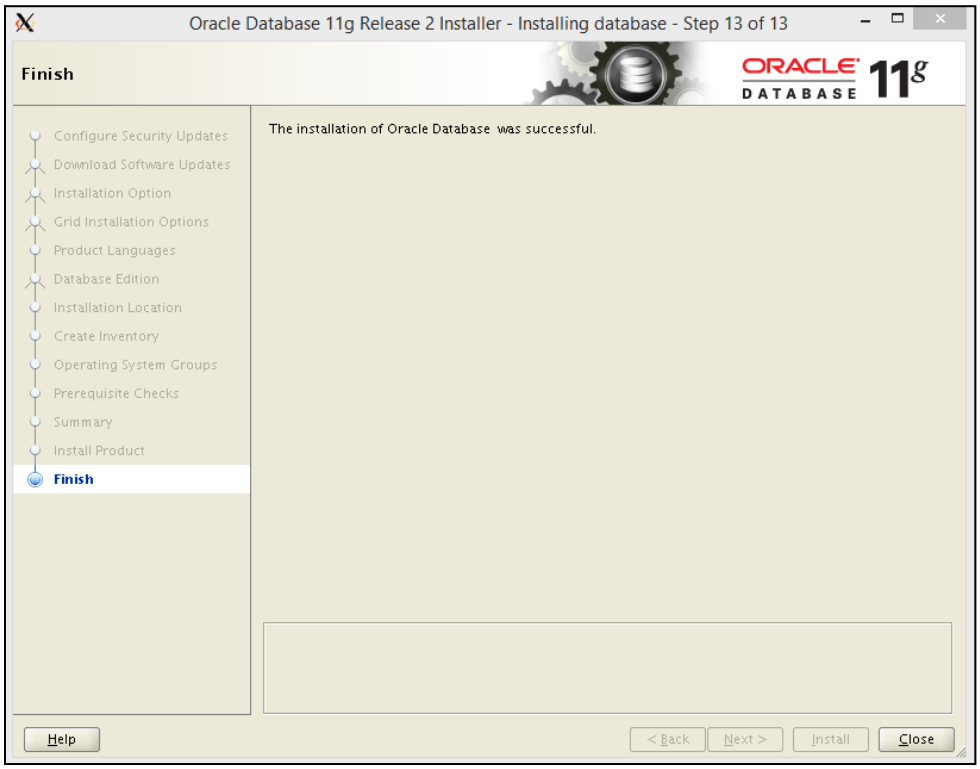
Click “Install”



Run those scripts as root user then click “OK”



Software installation is done.

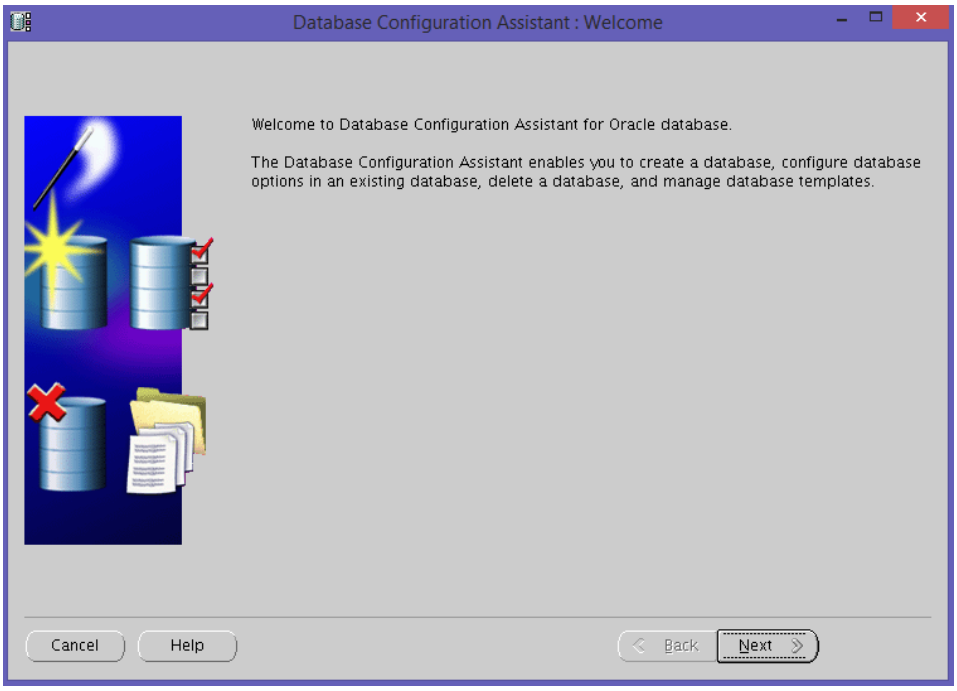


Configure a Database

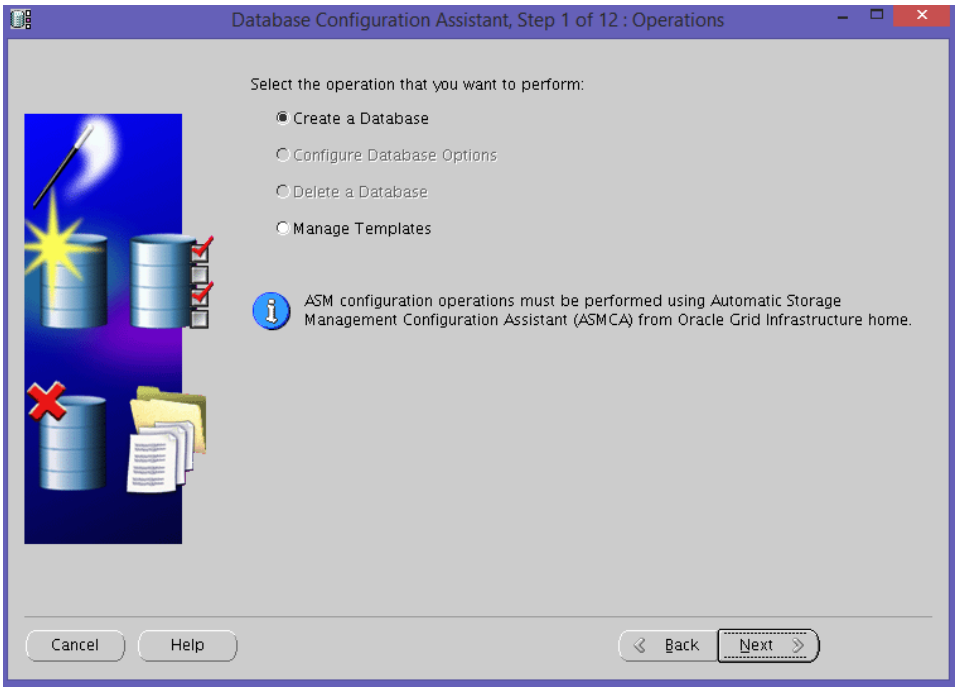
1. Run DBCA with oracle user

```
$> dbca
```

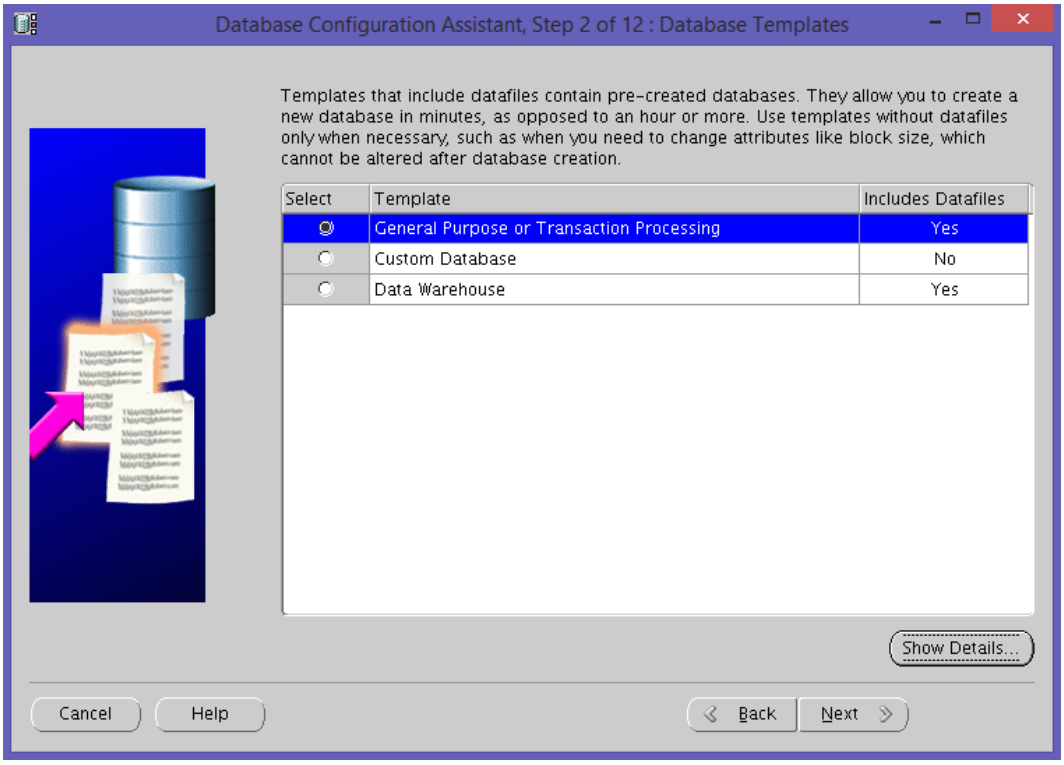
Click Next



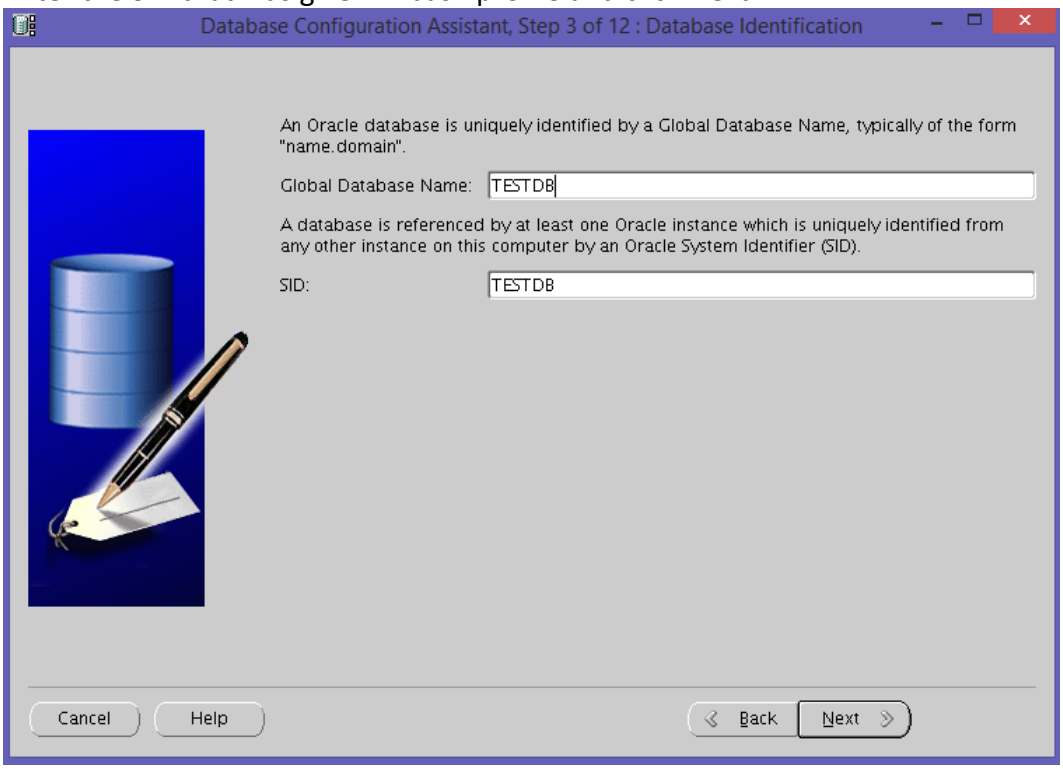
Click Next



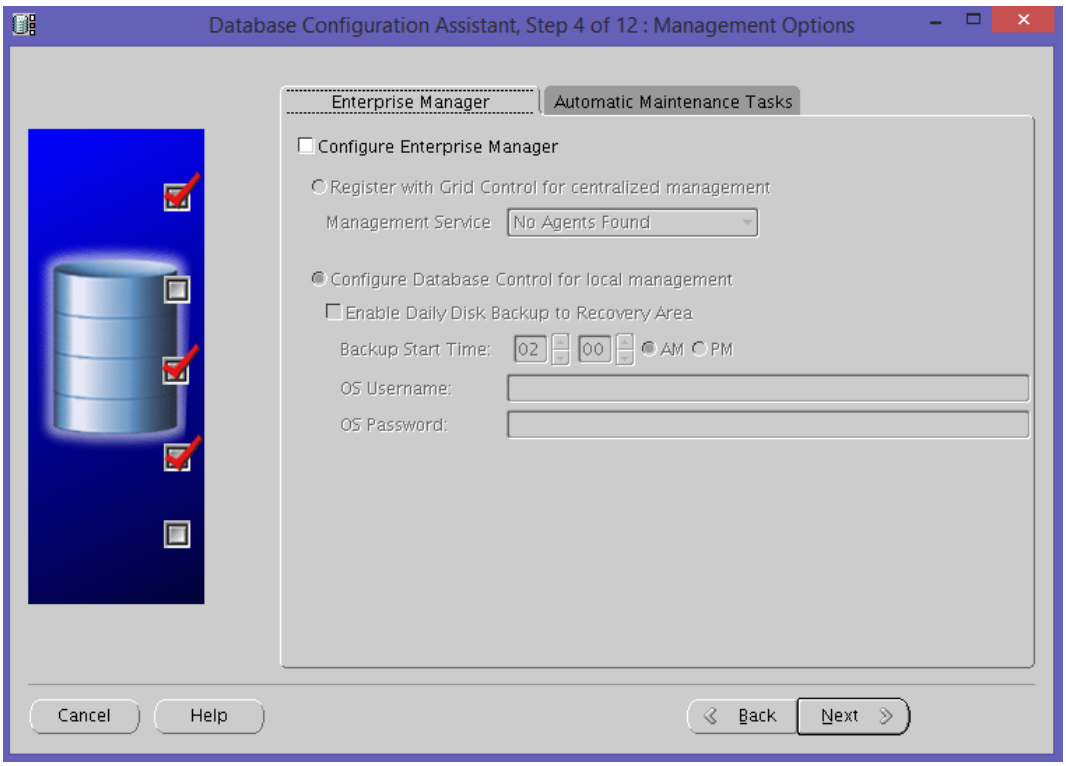
Click Next



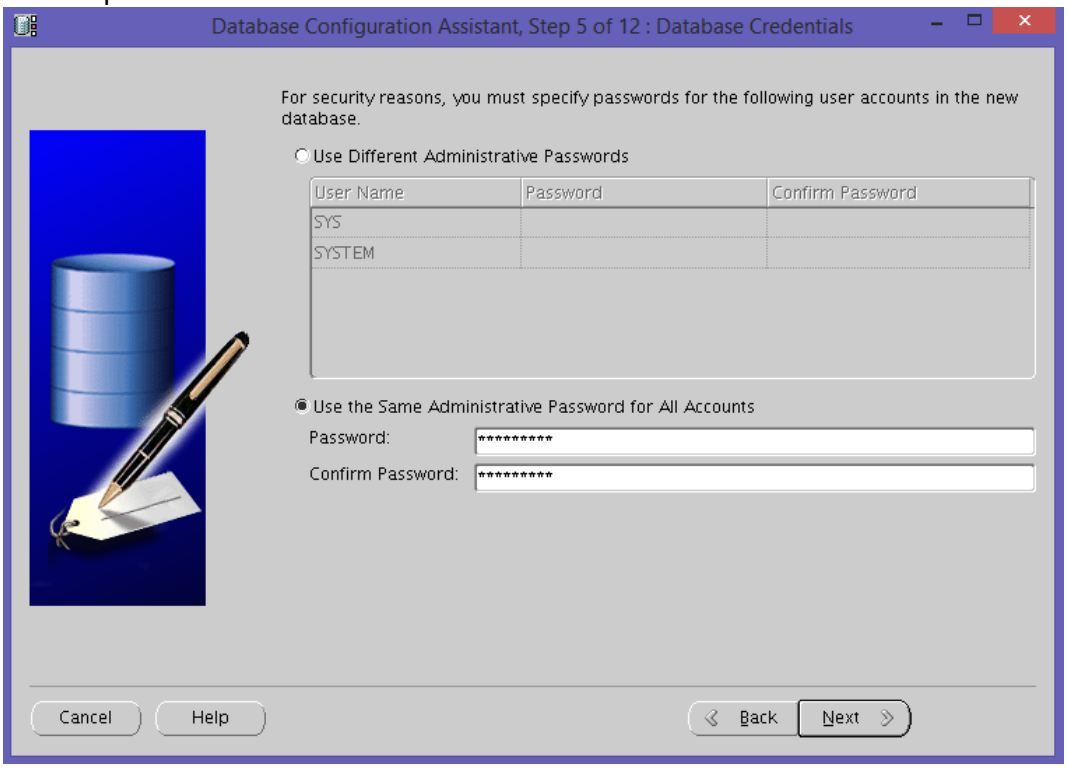
Enter the SID that was given in bash profile and click Next



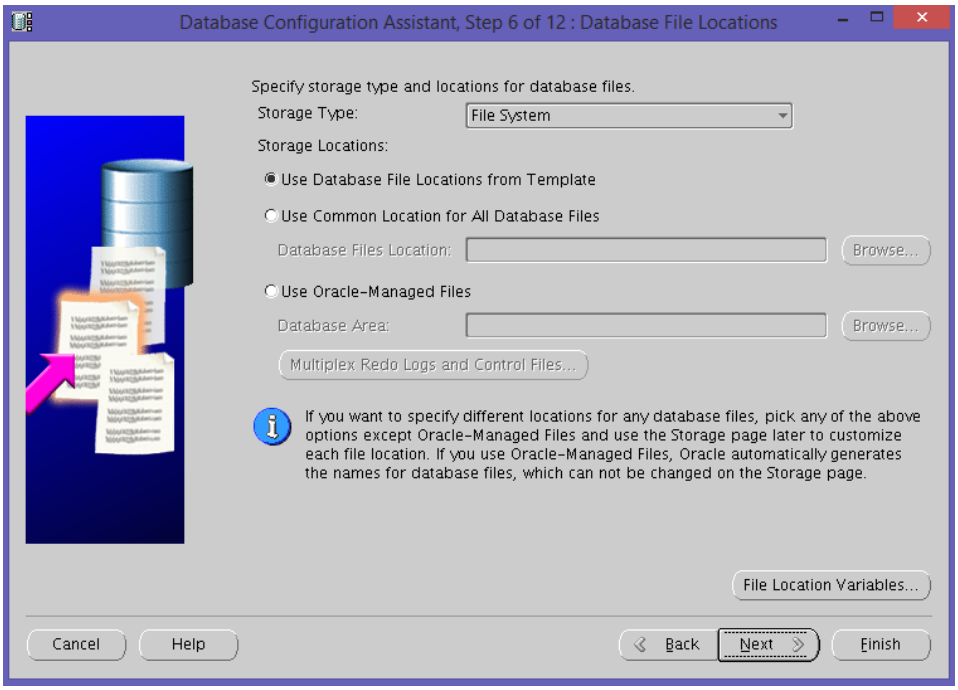
I disable the EM because I use Cloud Control… Click Next



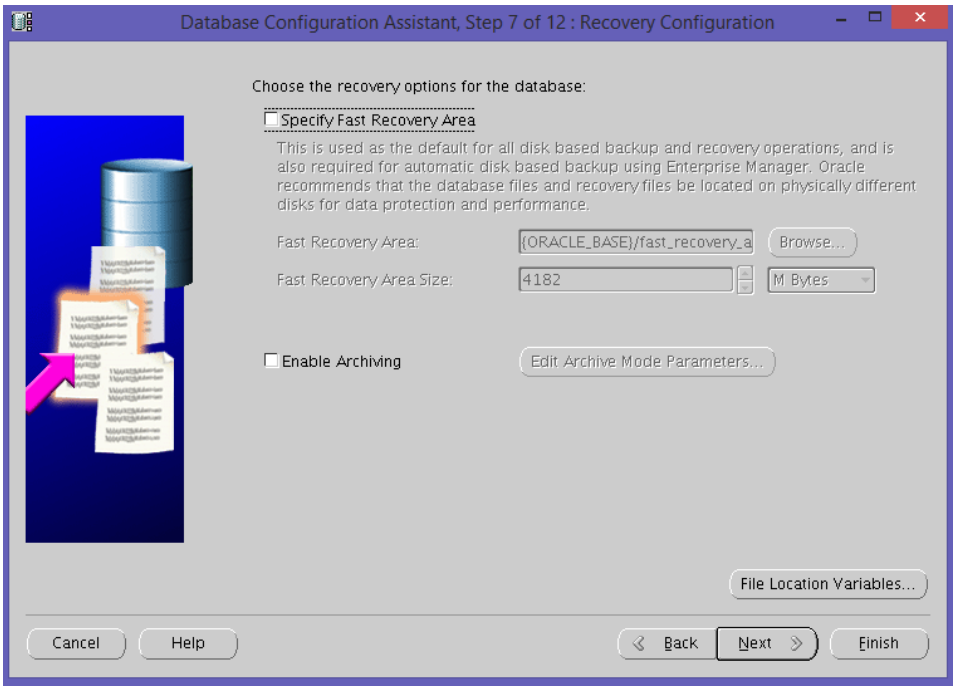
Enter a password and click Next



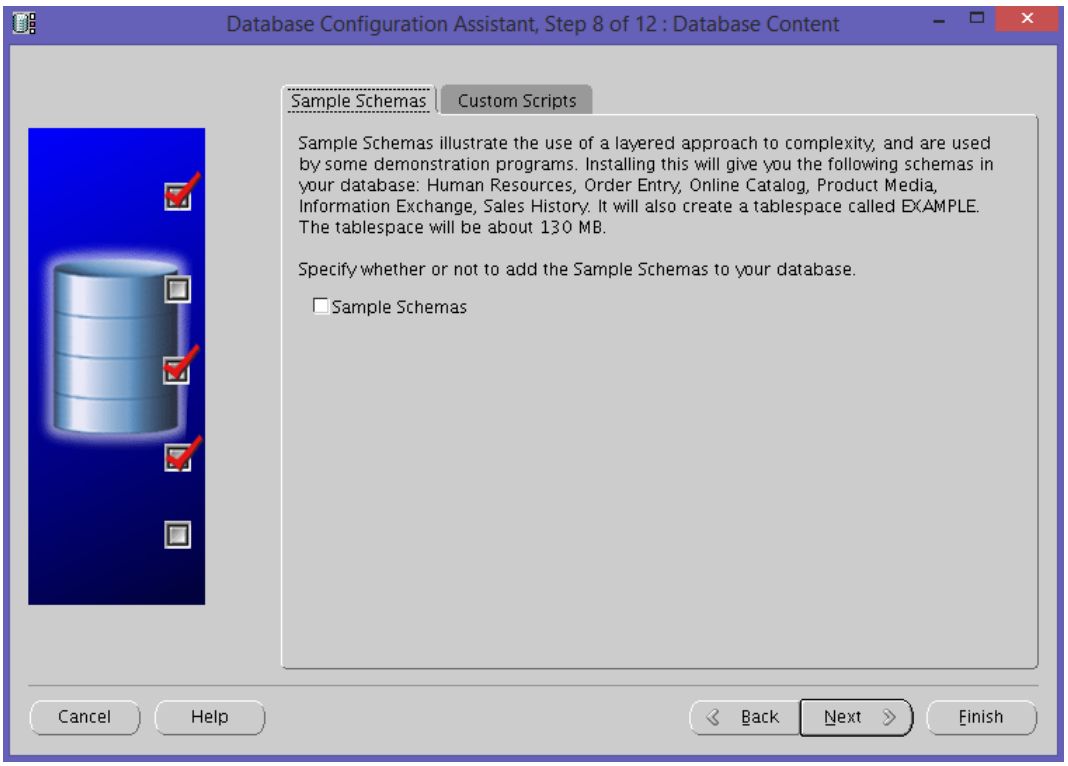
We did not configure grid and ASM so select file system… Multiplexing redo and controlfiles can be done later so skip…
Click Next



I also do not setup FRA, this also can be done later…
Archiving is important but I usually configure those stuff after the installation…
Click Next



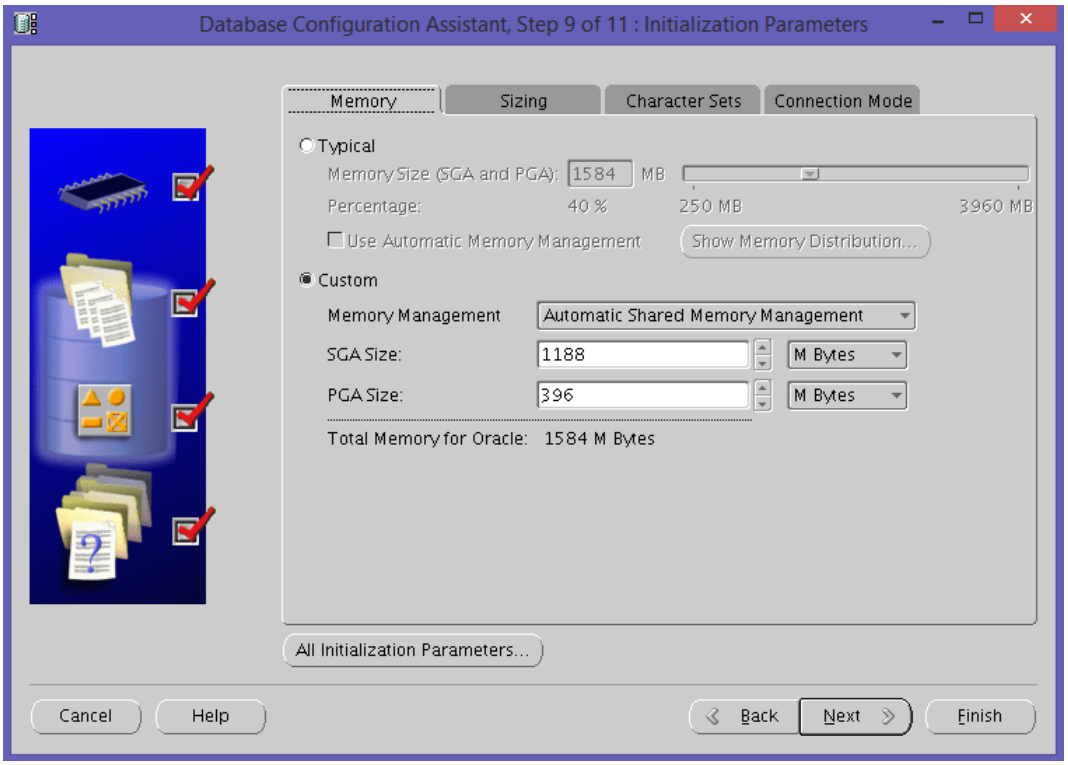
Click Next



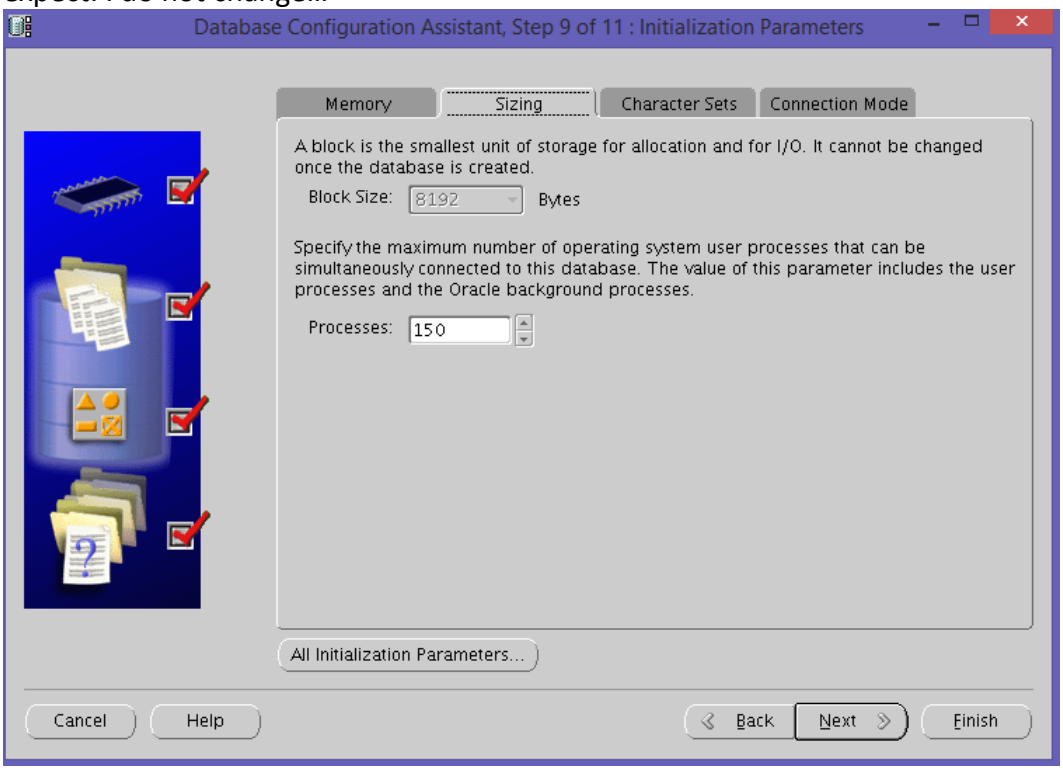
This part is important. Of course this is not an enterprise installation so the values will reflect a typical personal test environment.
Those all can also be changed later, except the character set. It may cause you some trouble, so select it accordingly.

Since we've selected general purpose template, we are not allowed to change the block size, which is also not possible to change later on…

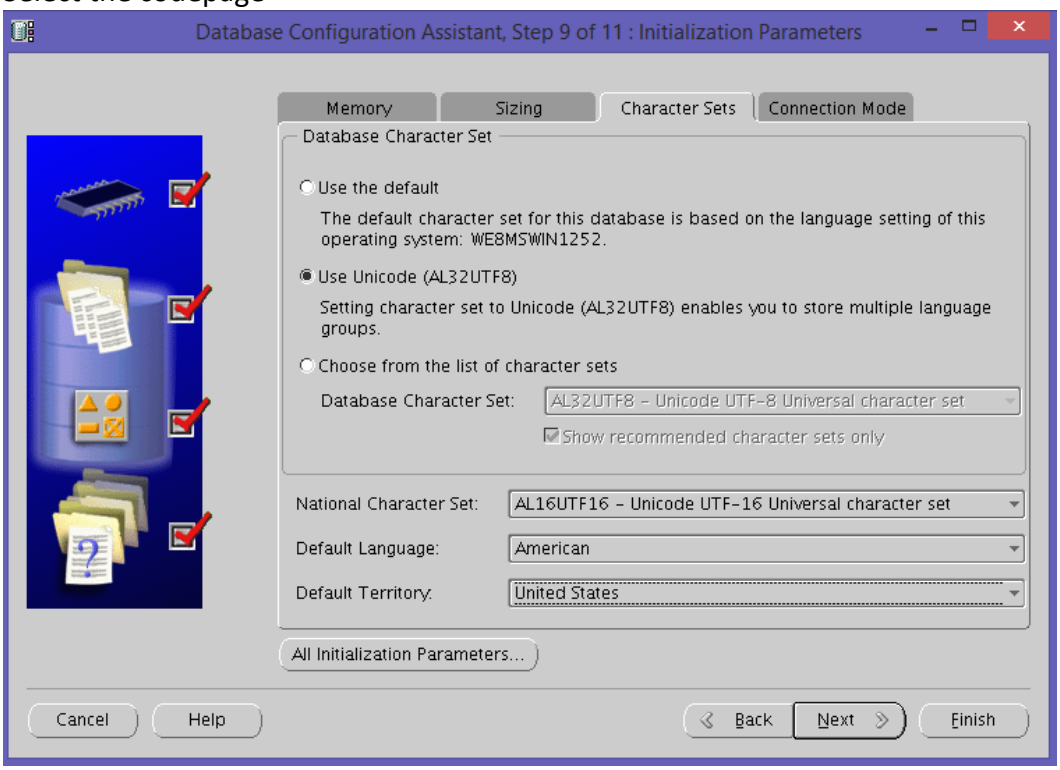
One last thing to note, if you are planning to use HUGE PAGES of the Liinux OS, you should not select Automatic Memory Management (AMM) which is
Incompatible with huge pages… Select ASMM instead as follows:



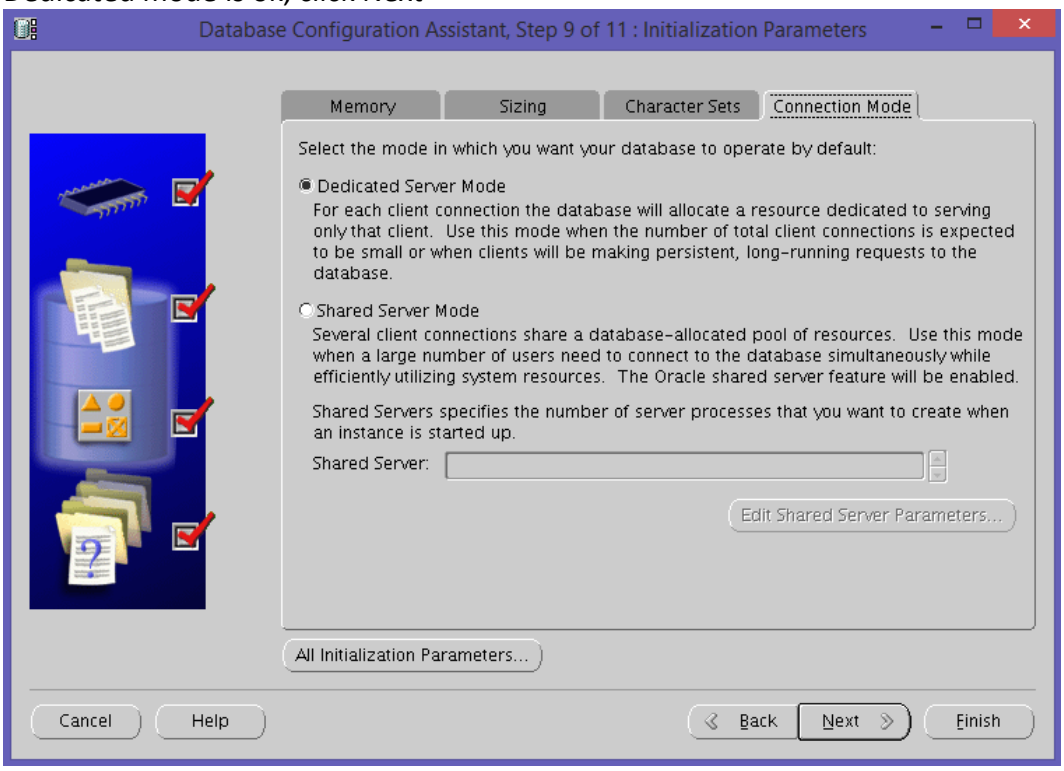
You may also want to change the process count according to your concurrent session count you expect. I do not change…



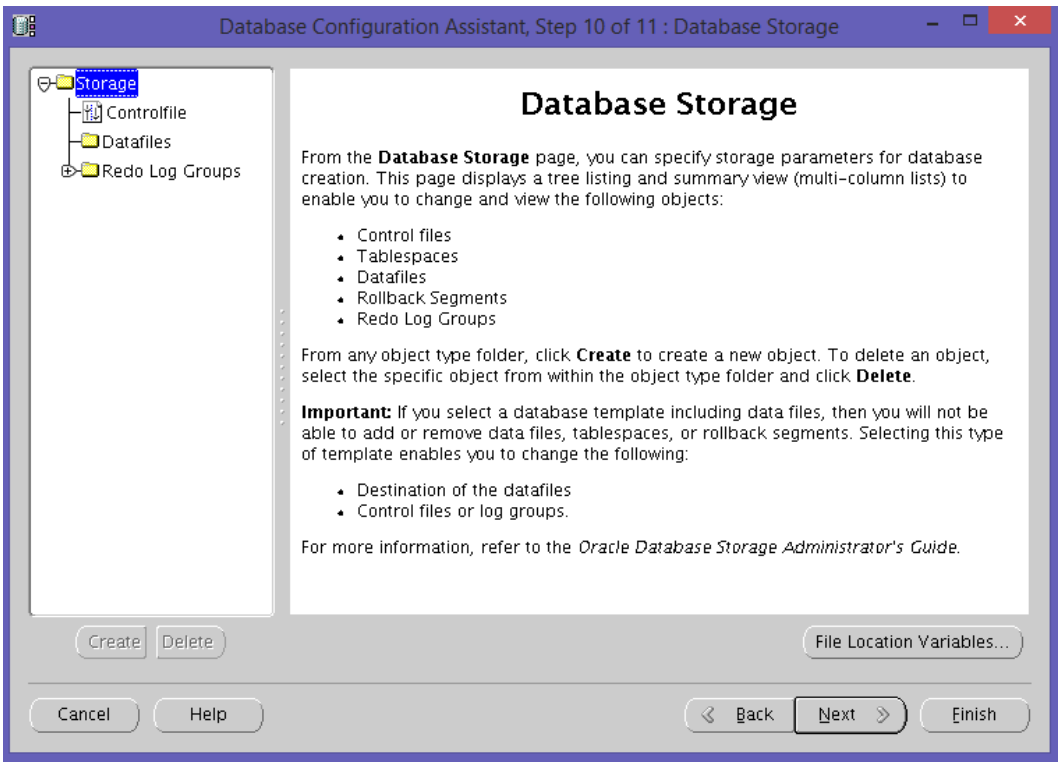
Select the codepage



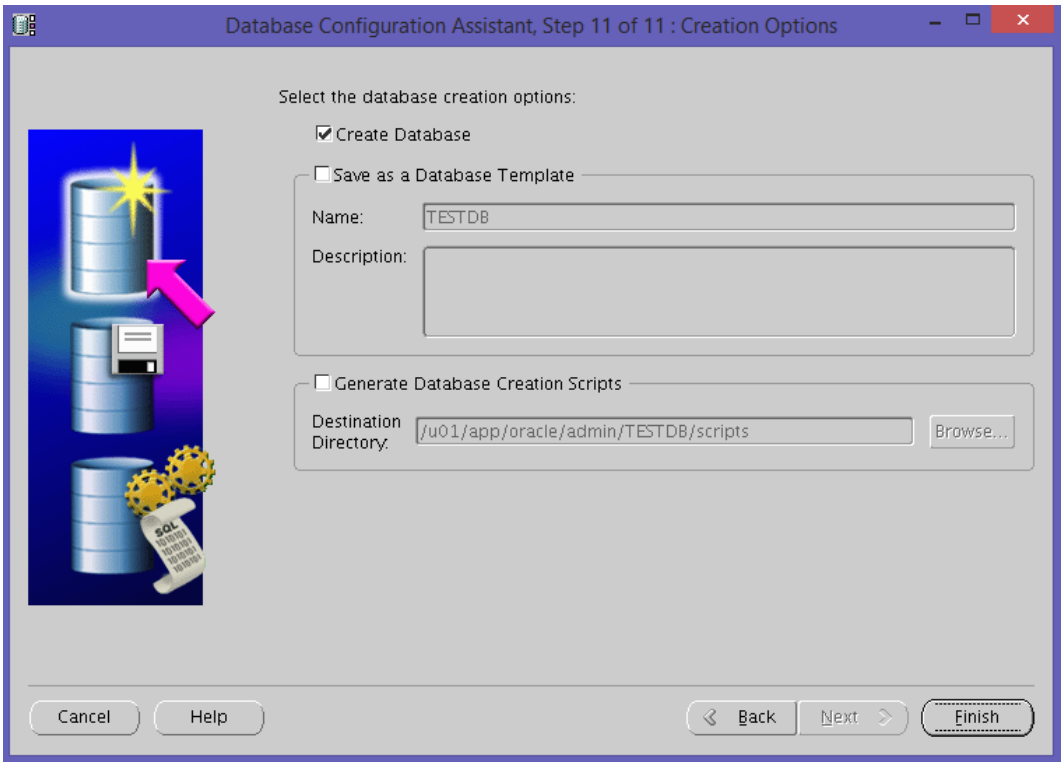
Dedicated mode is ok, click Next



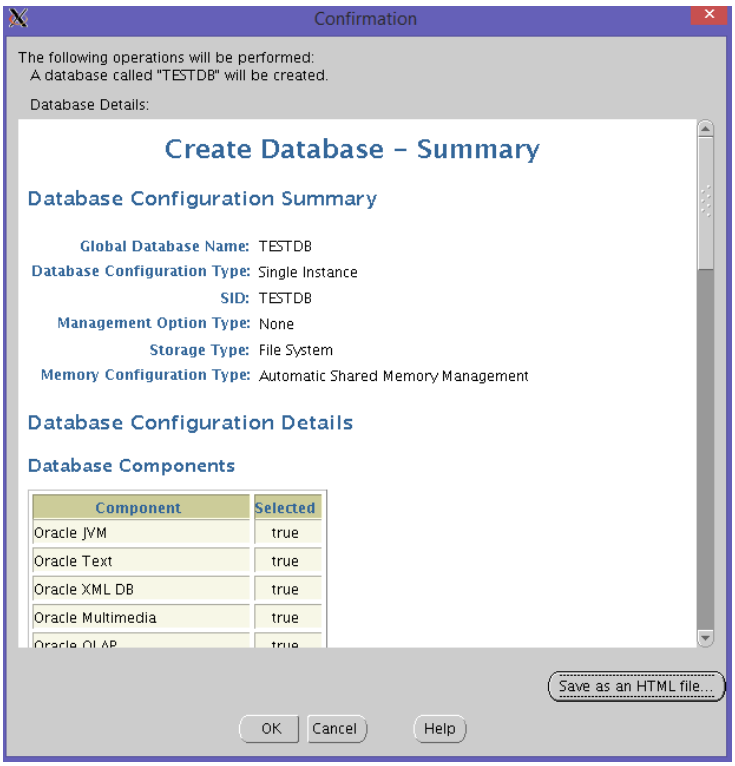
Click Next



Click Finish



Click OK



Installation is DONE…