



## **PDA ASSIGNMENT 01**

**Install MS SQL Server 2012 (2008 R2) on Windows  
platform**  
**&**  
**Install Oracle 11g R2 on UNIX Platform**

**IT12125562**

**L.A.V. De Silva**

**WE - IT**

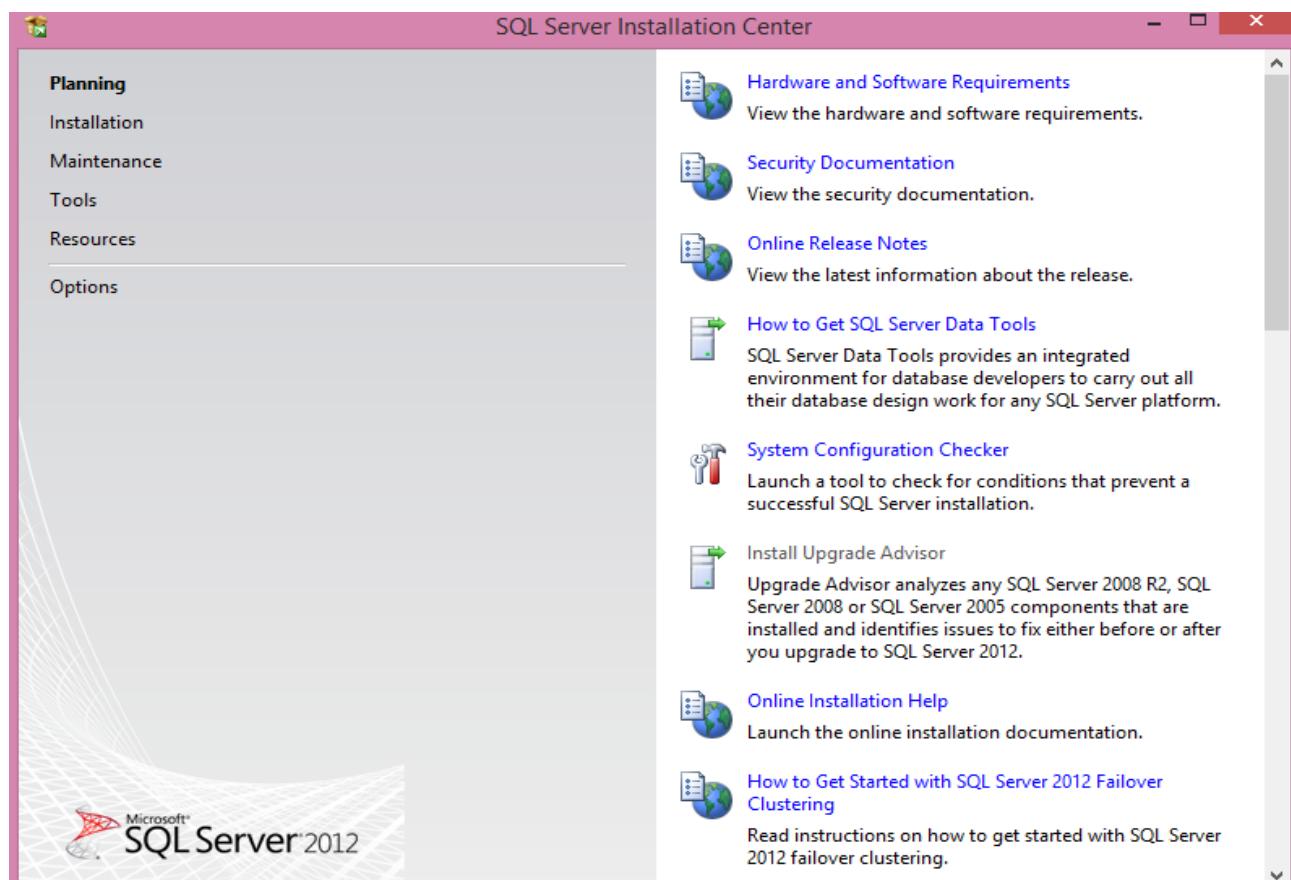
## 1) MS SQL SERVER INSTALLATION

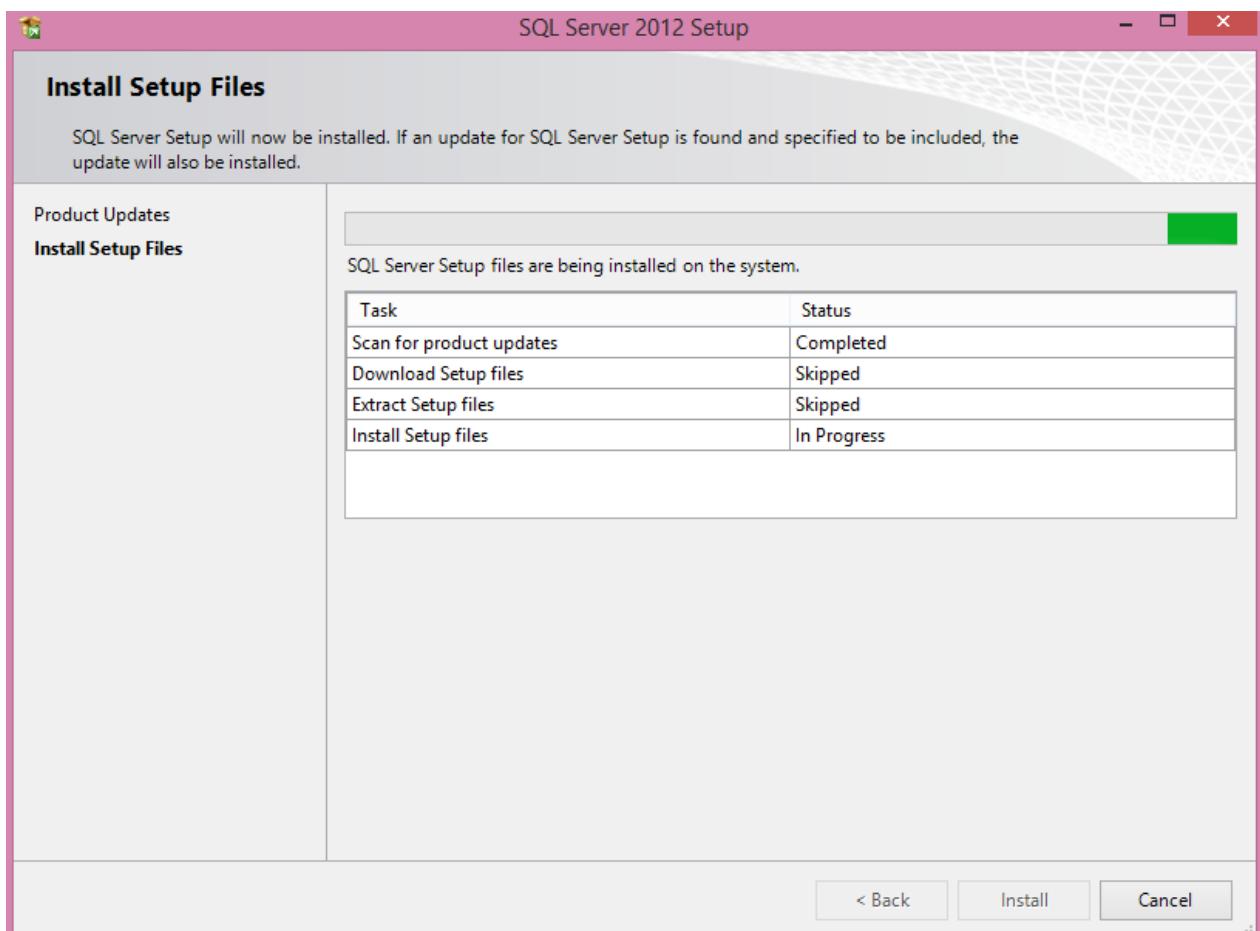
### a) Pre Requirements and Configurations.

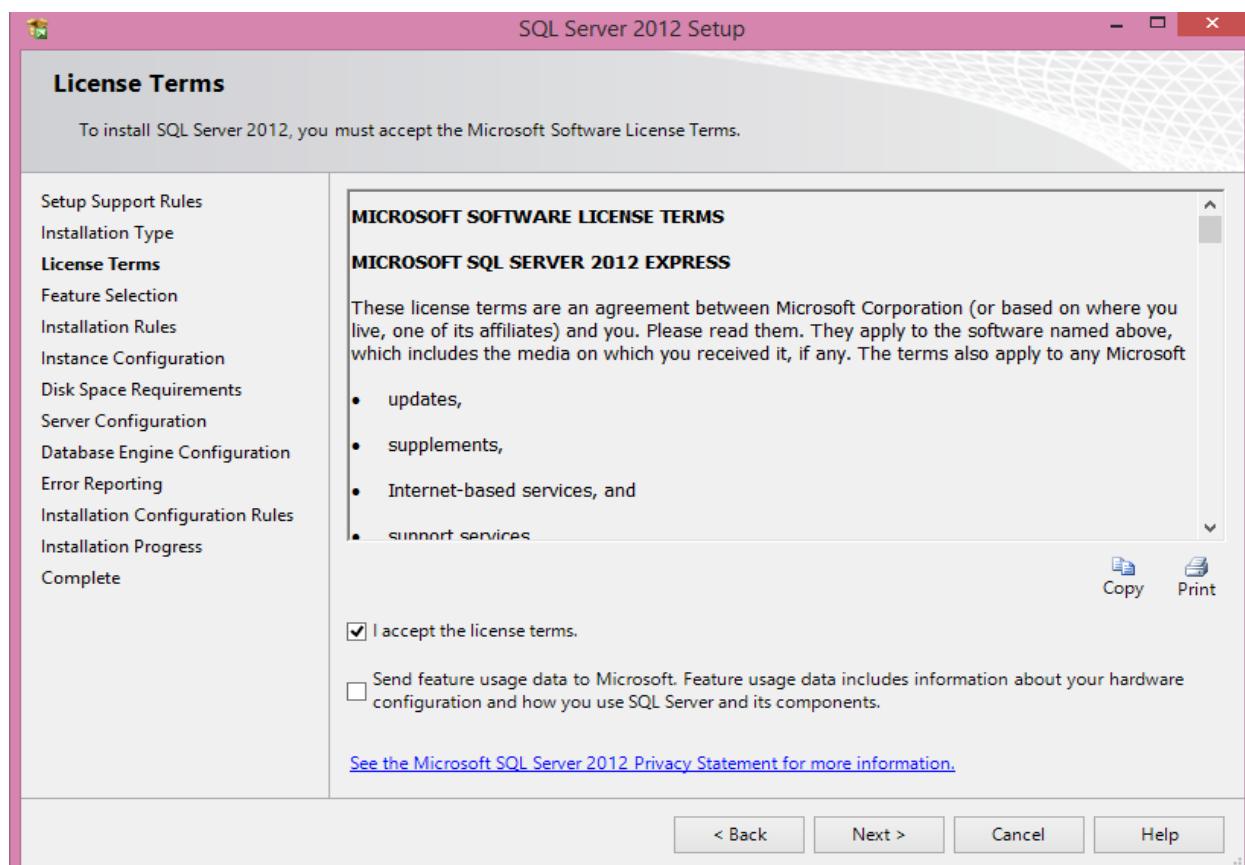
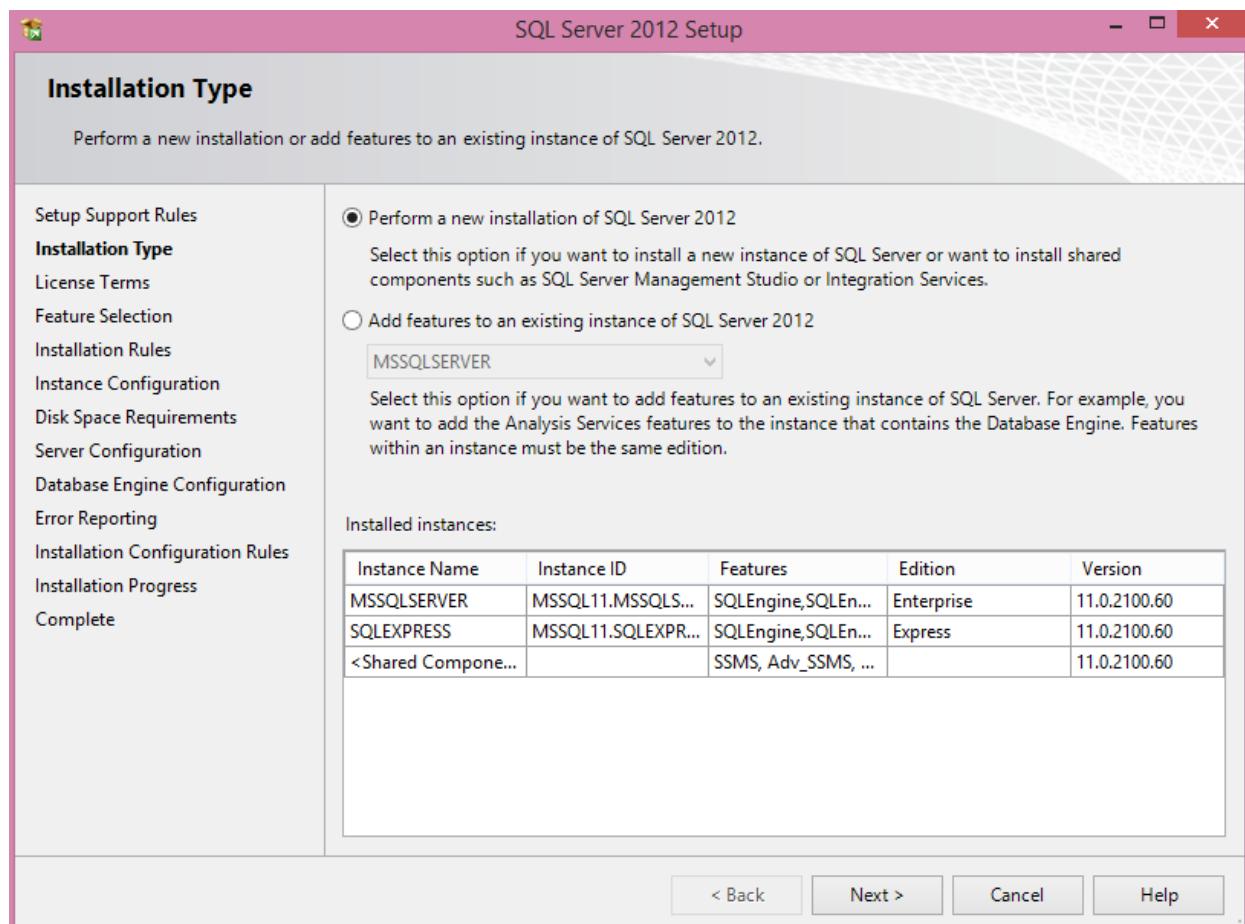
Ref: (<http://msdn.microsoft.com/en-us/library/ms143506.aspx>)

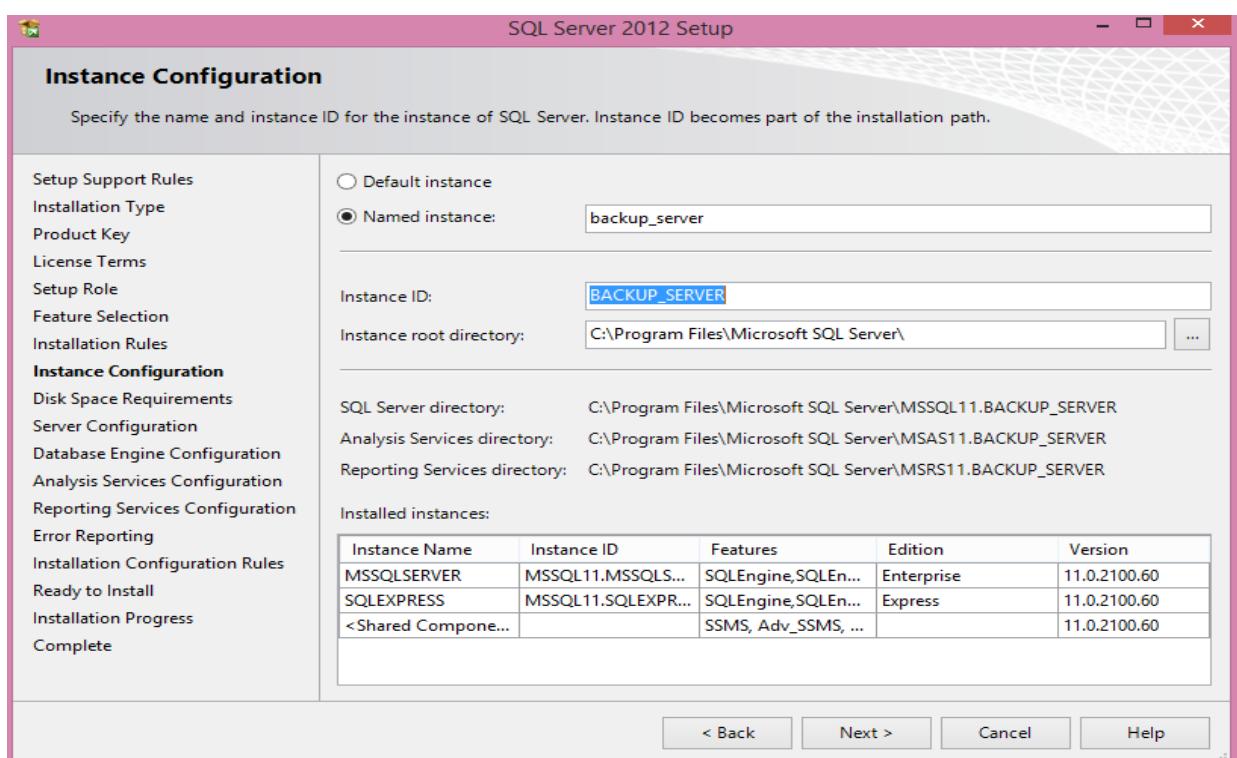
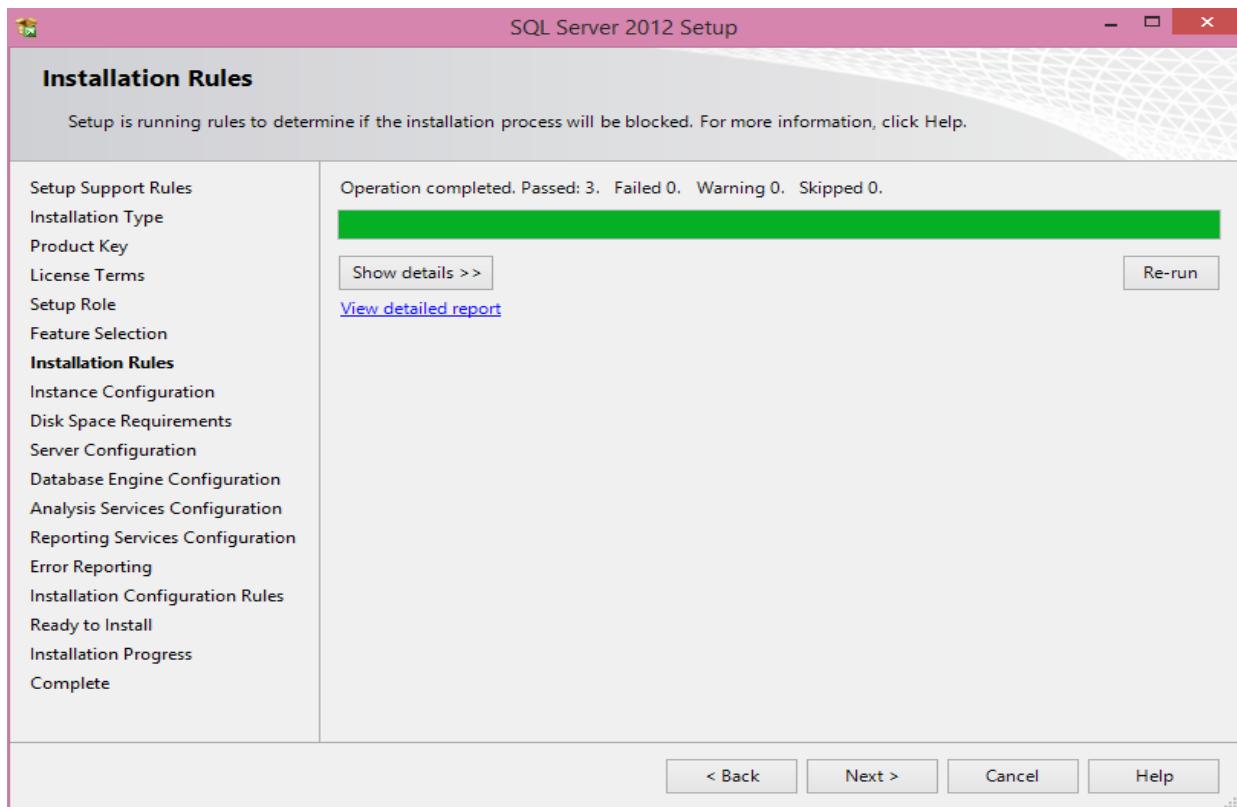
- Framework Requirements
  - .NET Framework 4 Multi targeting pack
  - SQL Server Native Client
  - SQL Server Setup support files
- Software Requirements
  - Microsoft Windows Installer 4.5 or a later version
- Network Software Requirements
  - Shared memory
  - Named Pipes
  - TCP/IP
  - VIA
- Display Requirements
  - VGA or higher resolution: at least 1,024x768 pixel resolution.

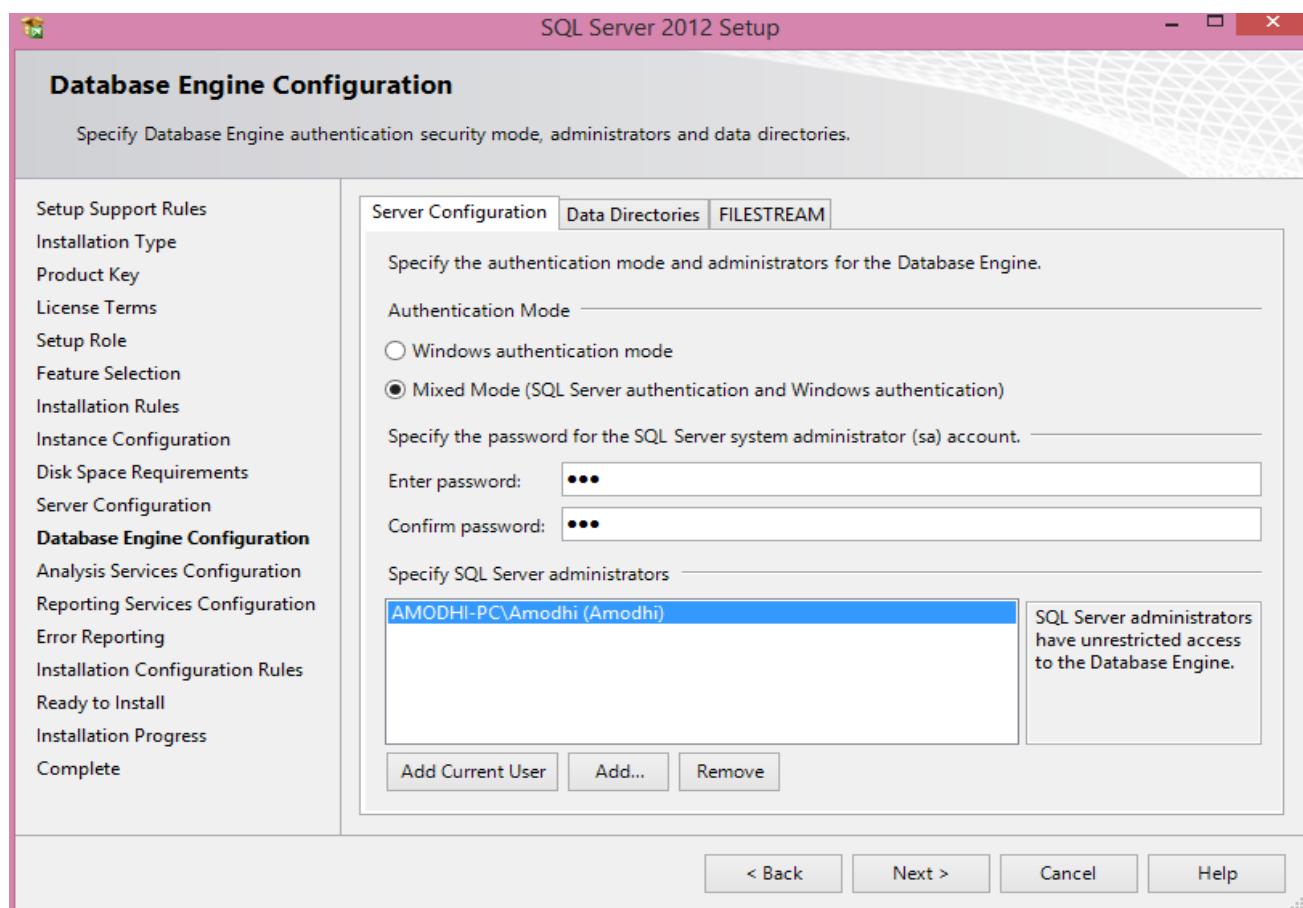
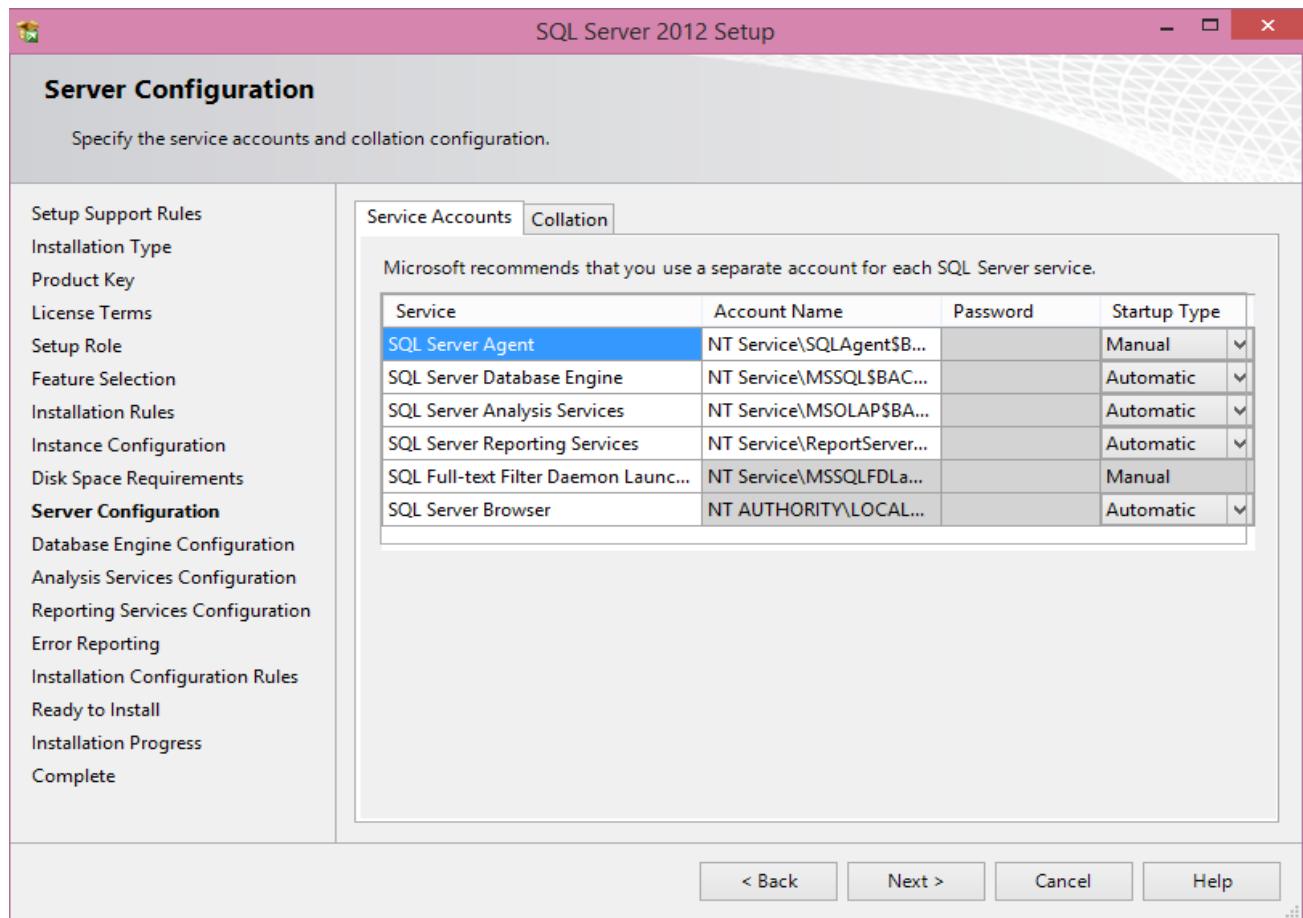
### b) MS SQL SERVER Installation

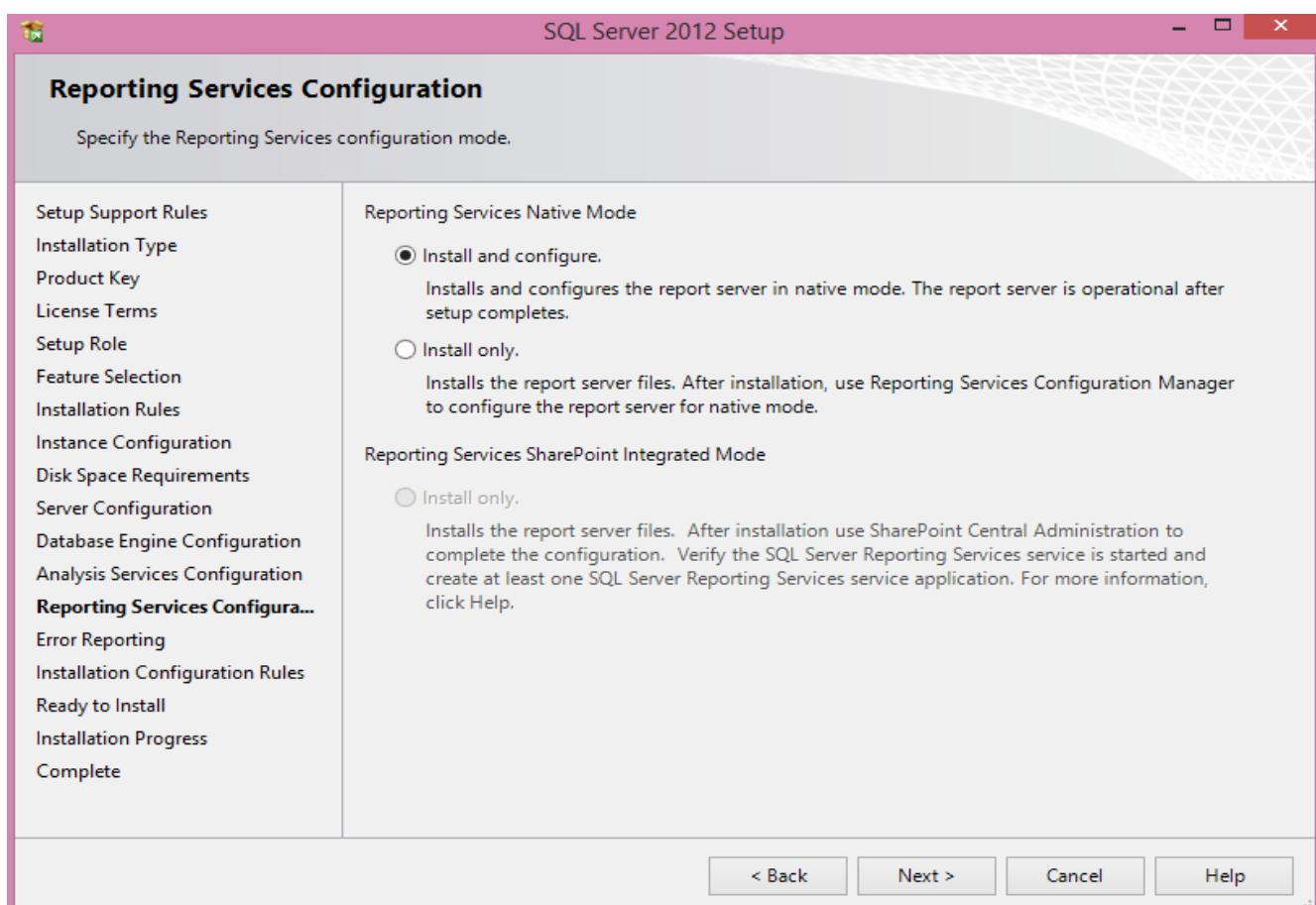
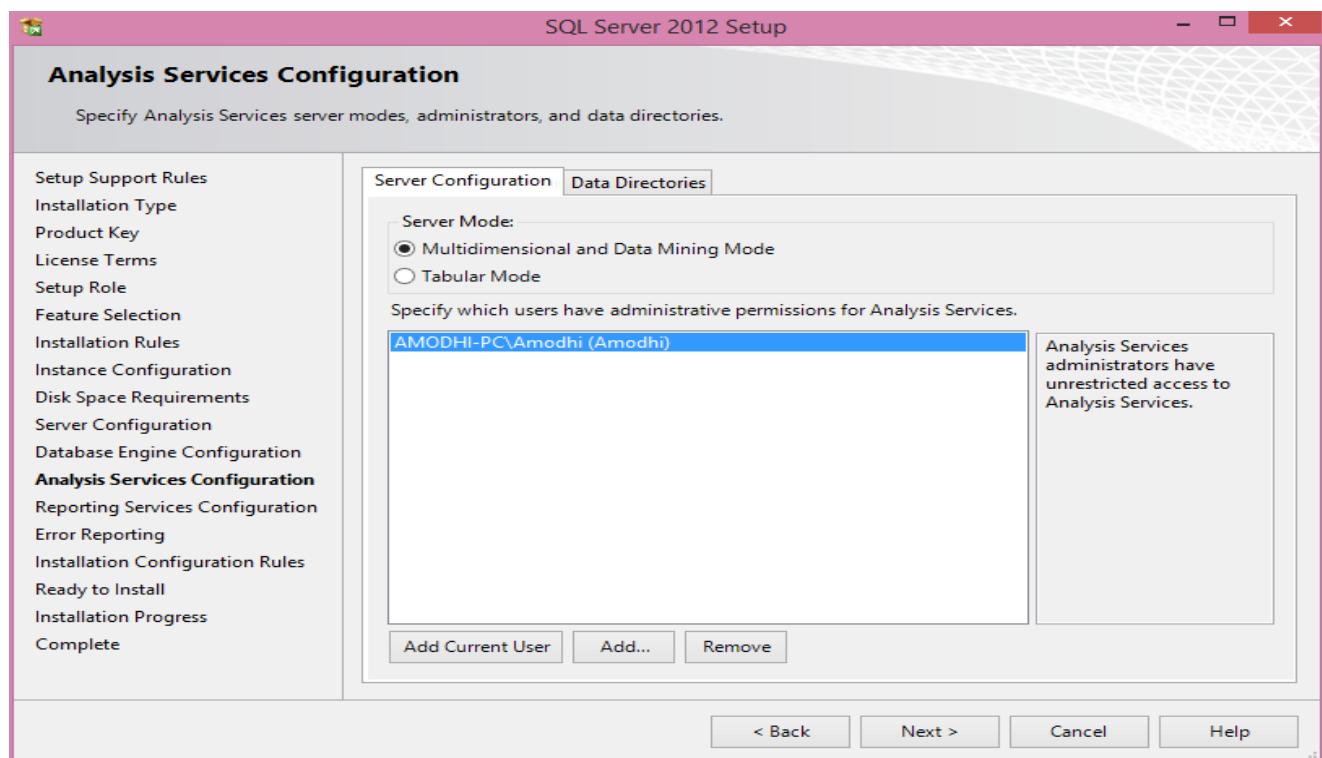


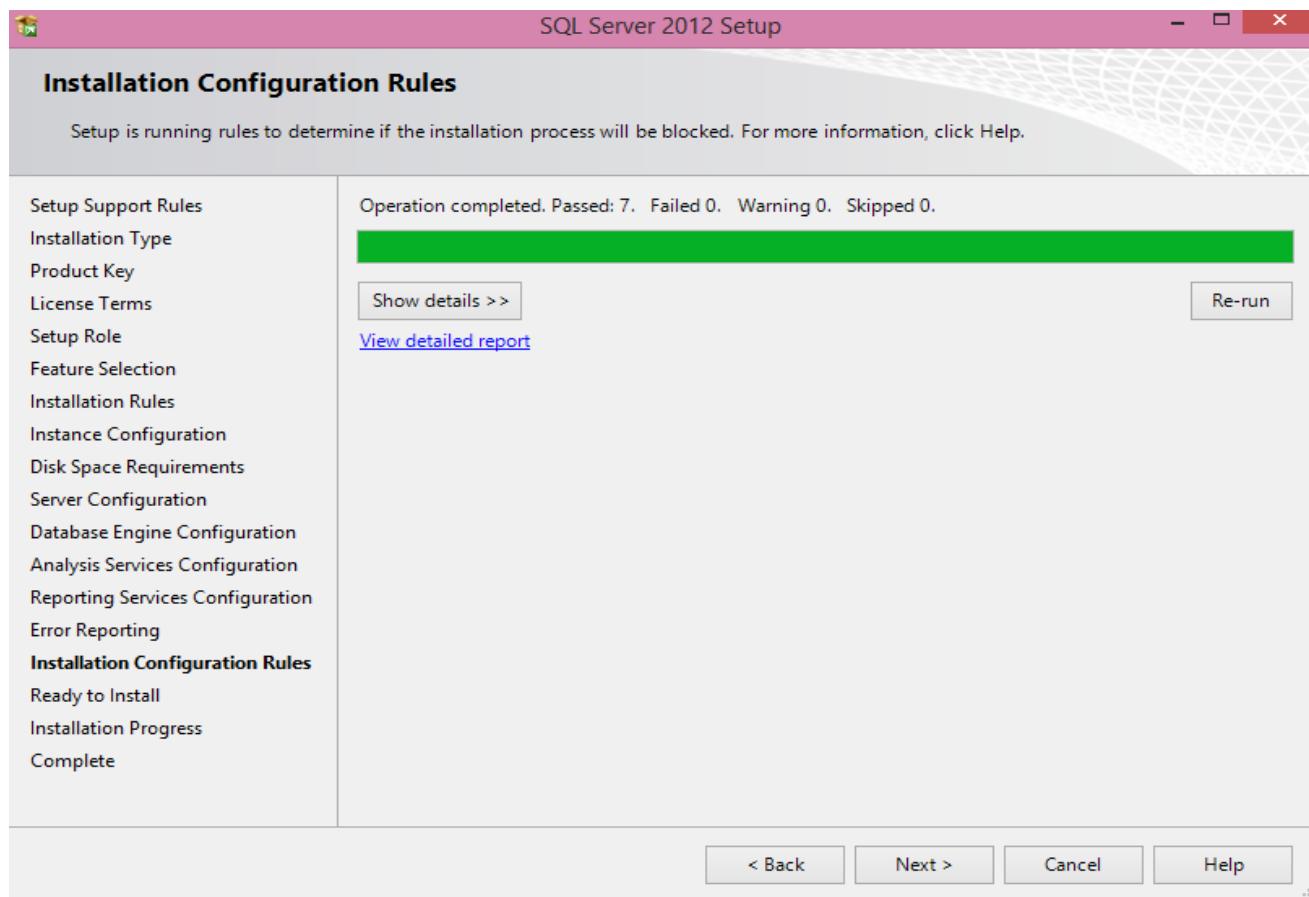
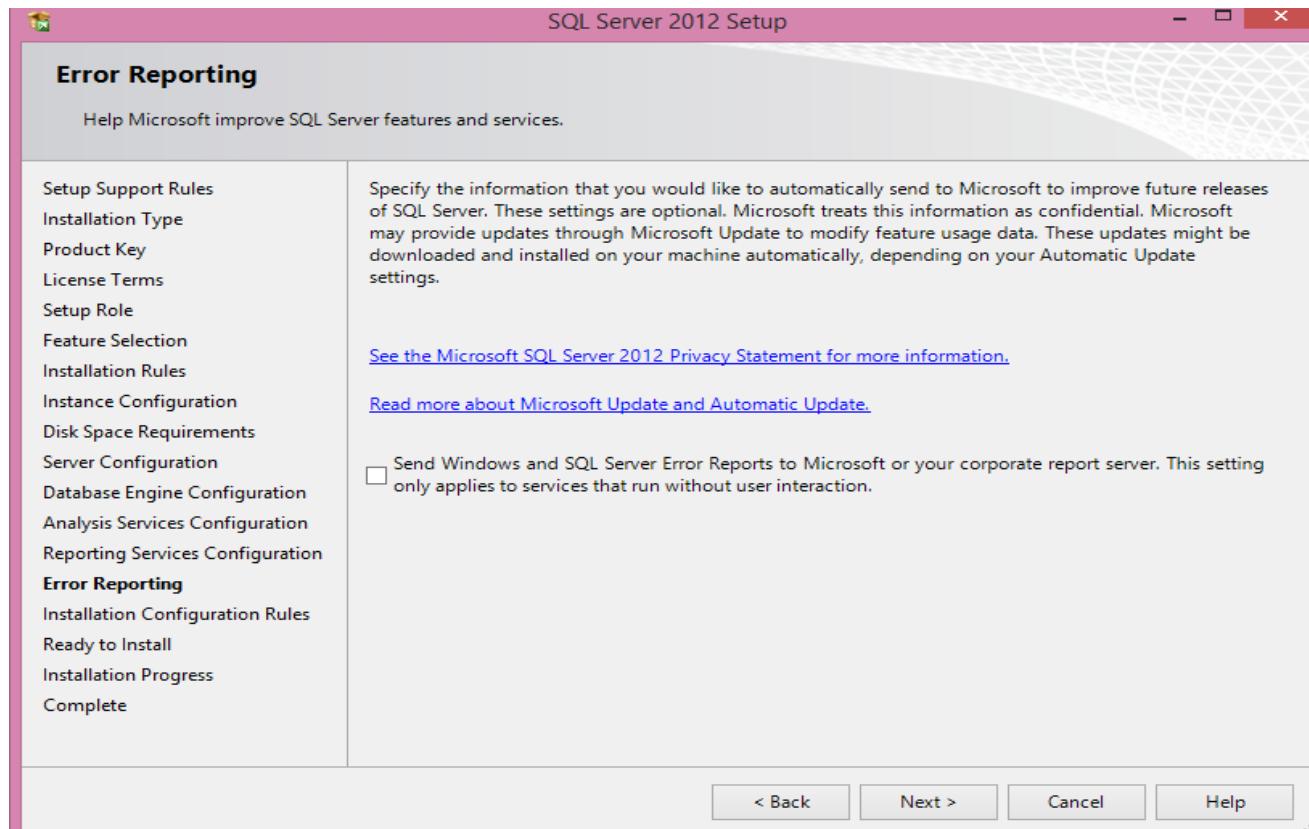


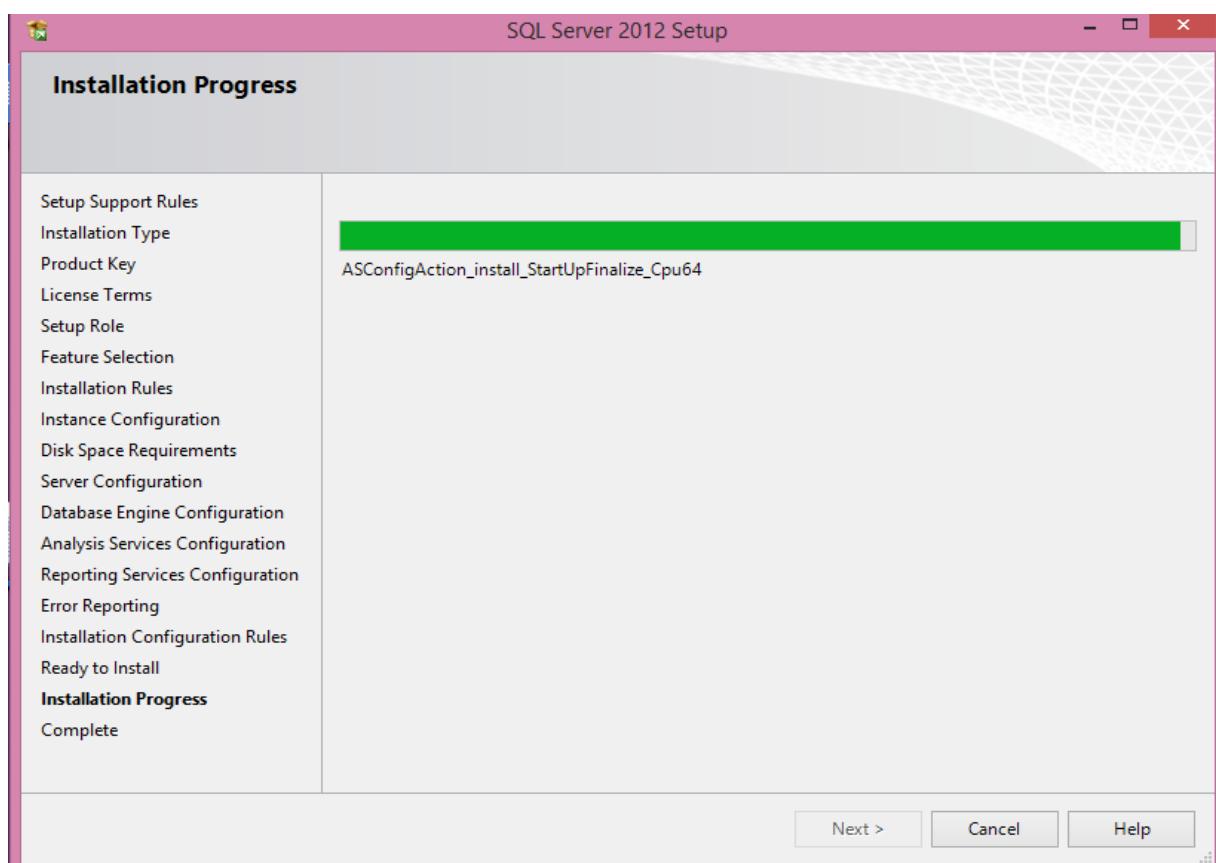
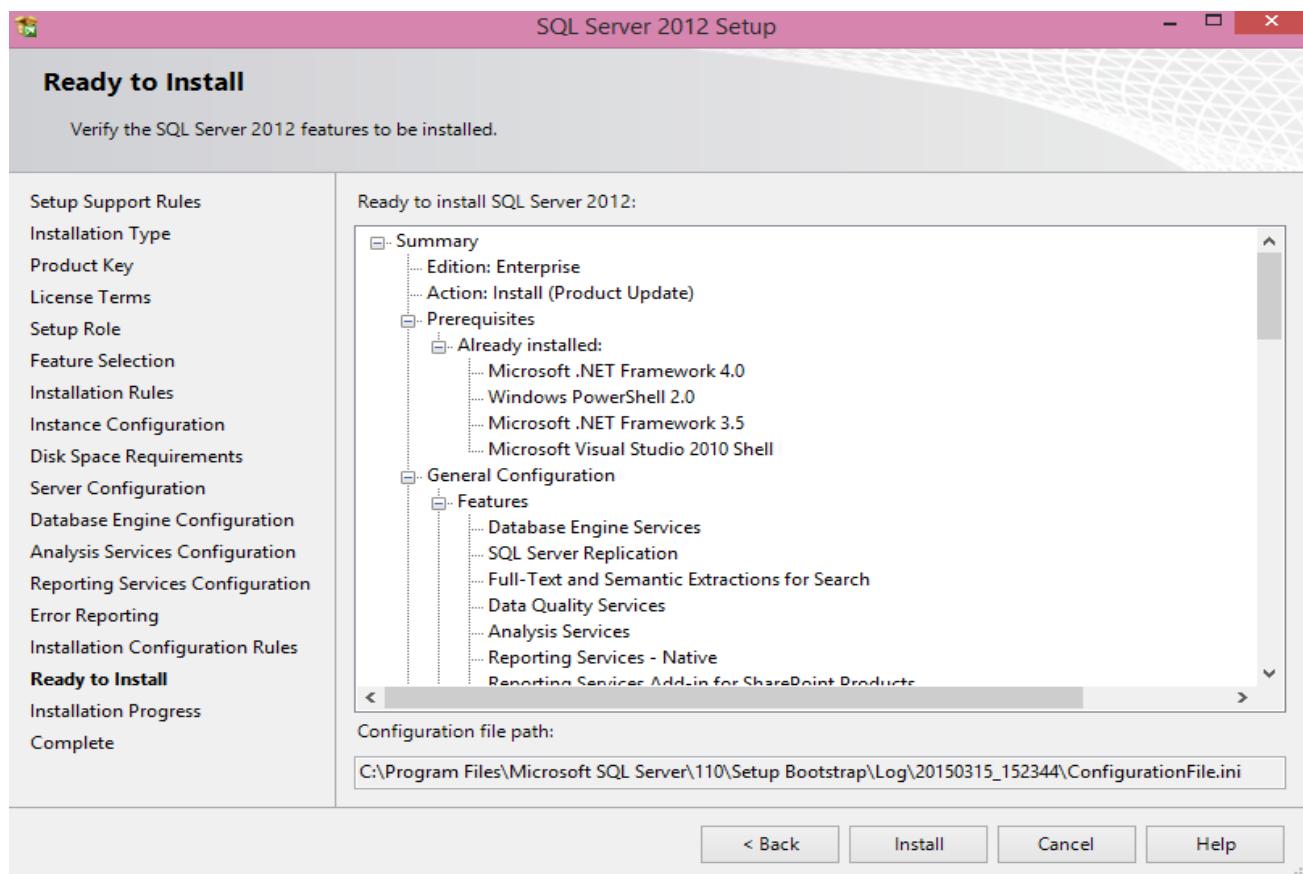


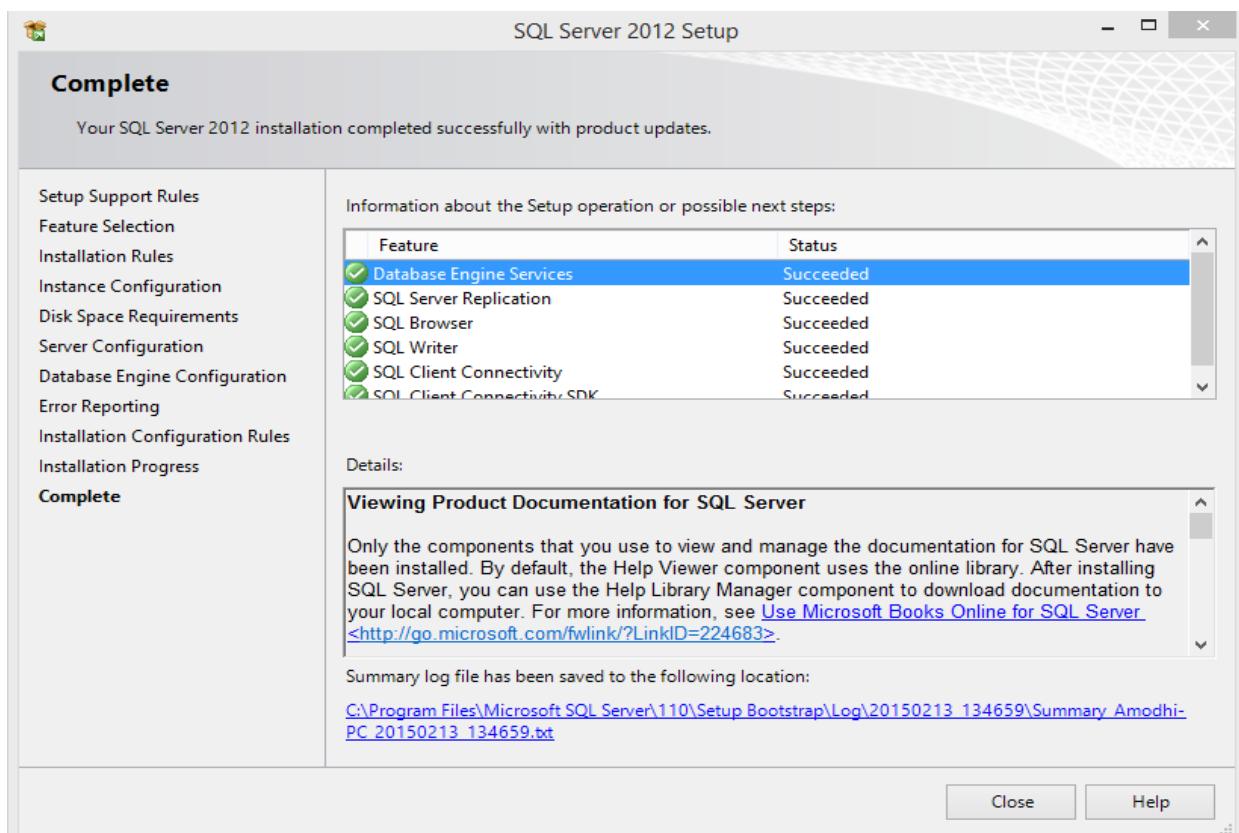












### c) Post-Installation Configurations

- Startup and Shutdown Server Using a Script

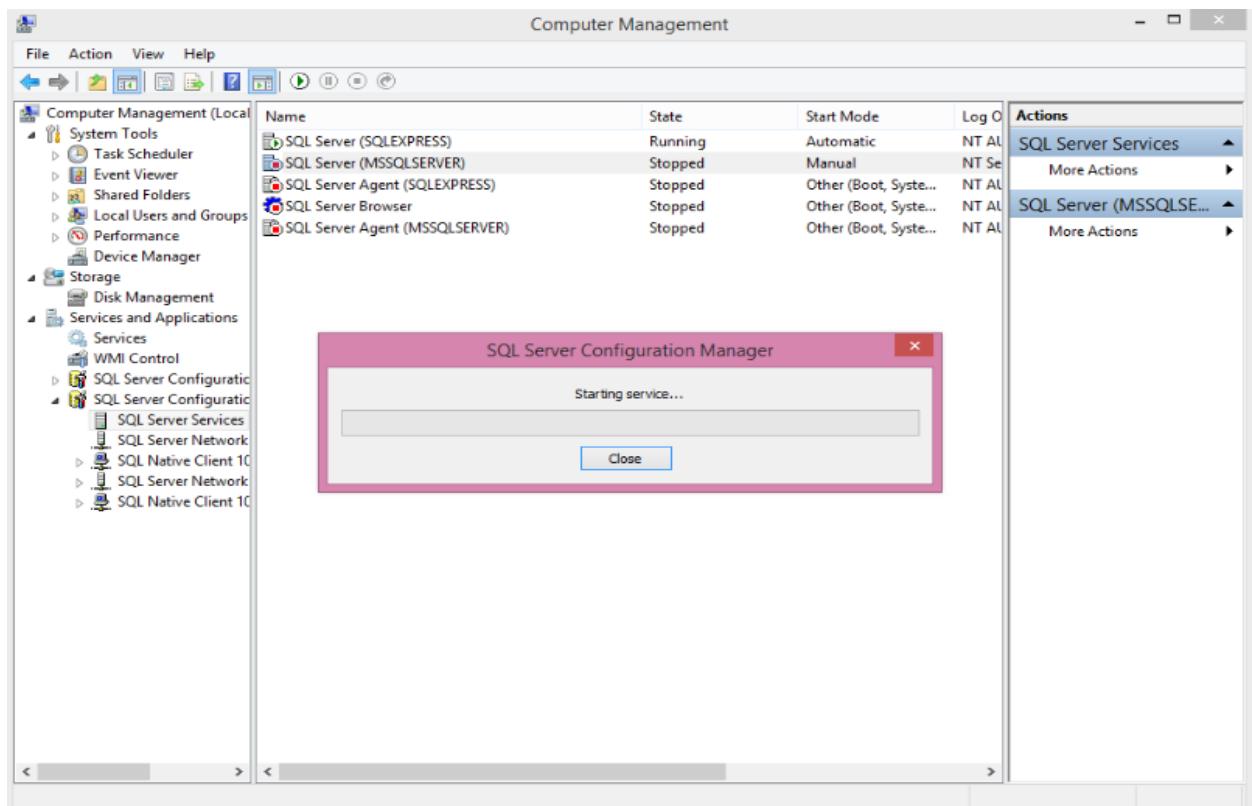
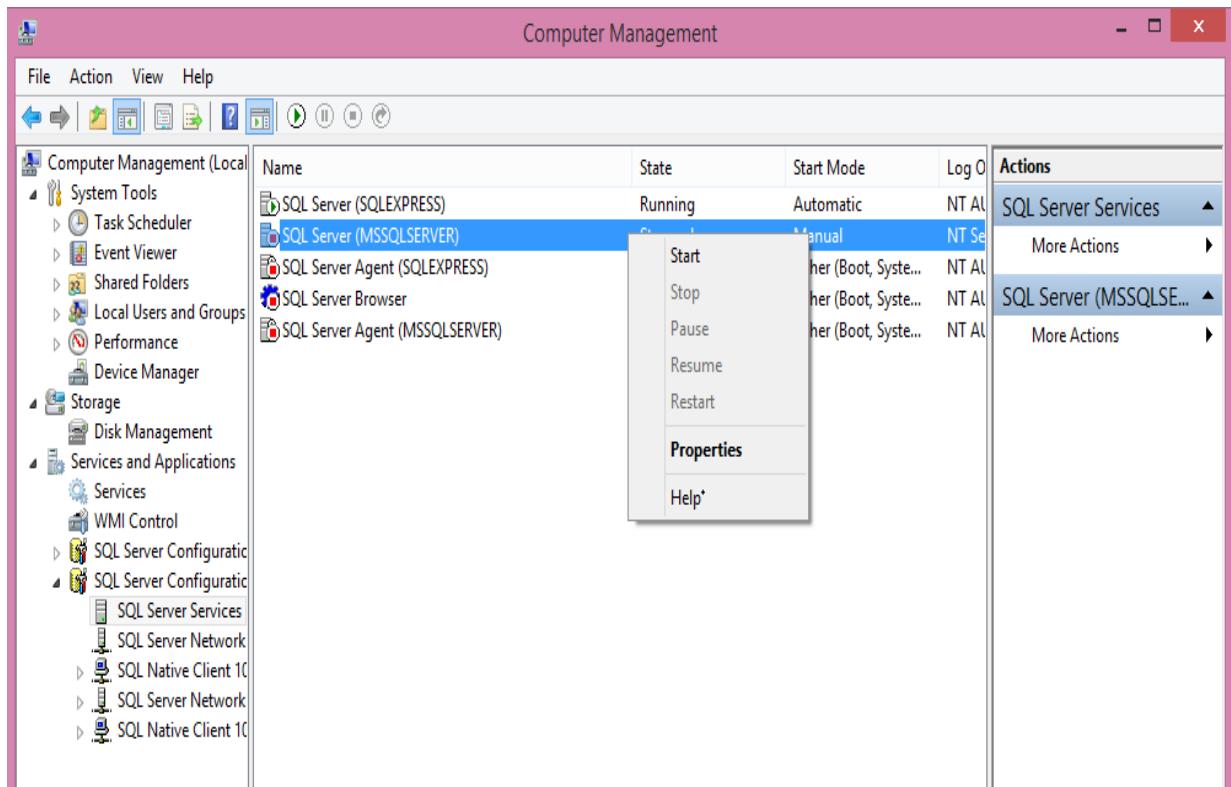
```
Administrator: Command Prompt
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

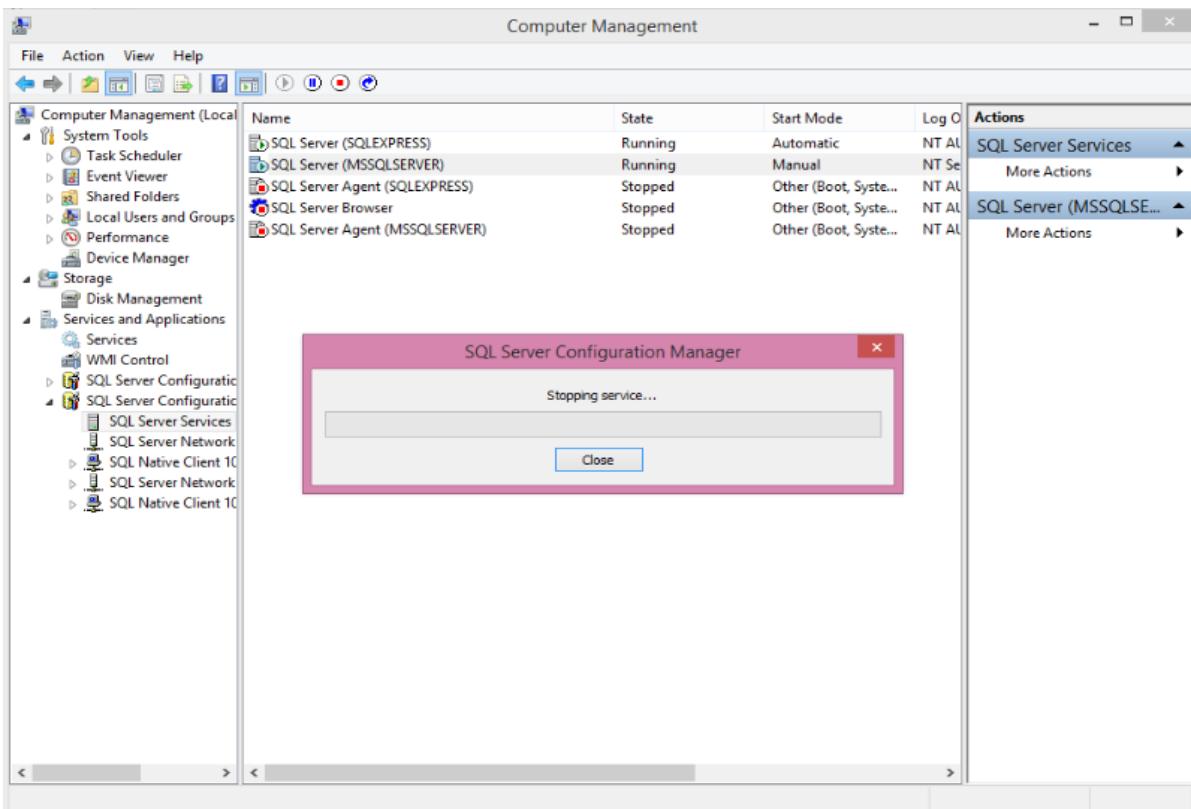
C:\Windows\system32>NET START "SQL SERVER <MSSQLSERUER>"
```

```
Administrator: Command Prompt
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\system32>NET STOP "SQL SERVER <MSSQLSERUER>"
```

➤ Startup and Shutdown Using GUI

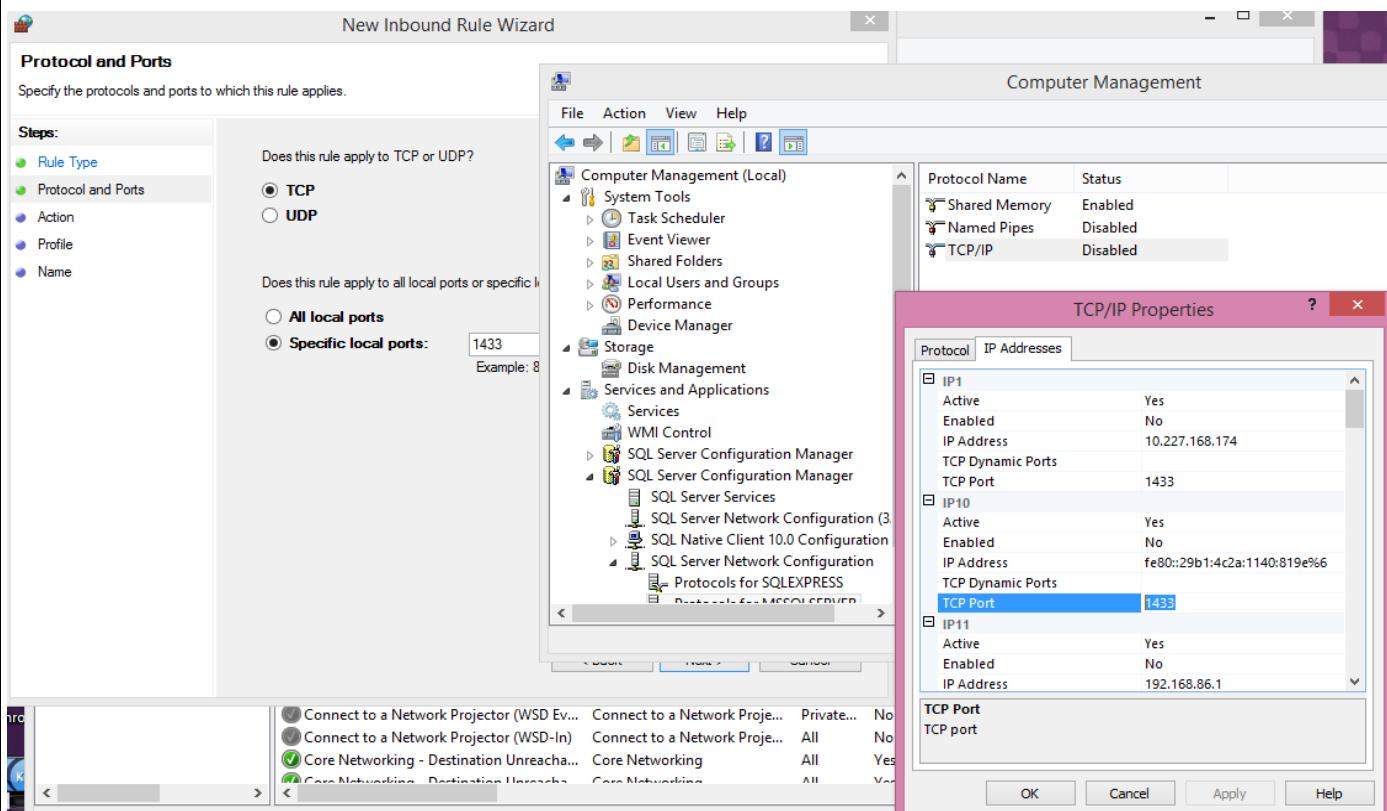
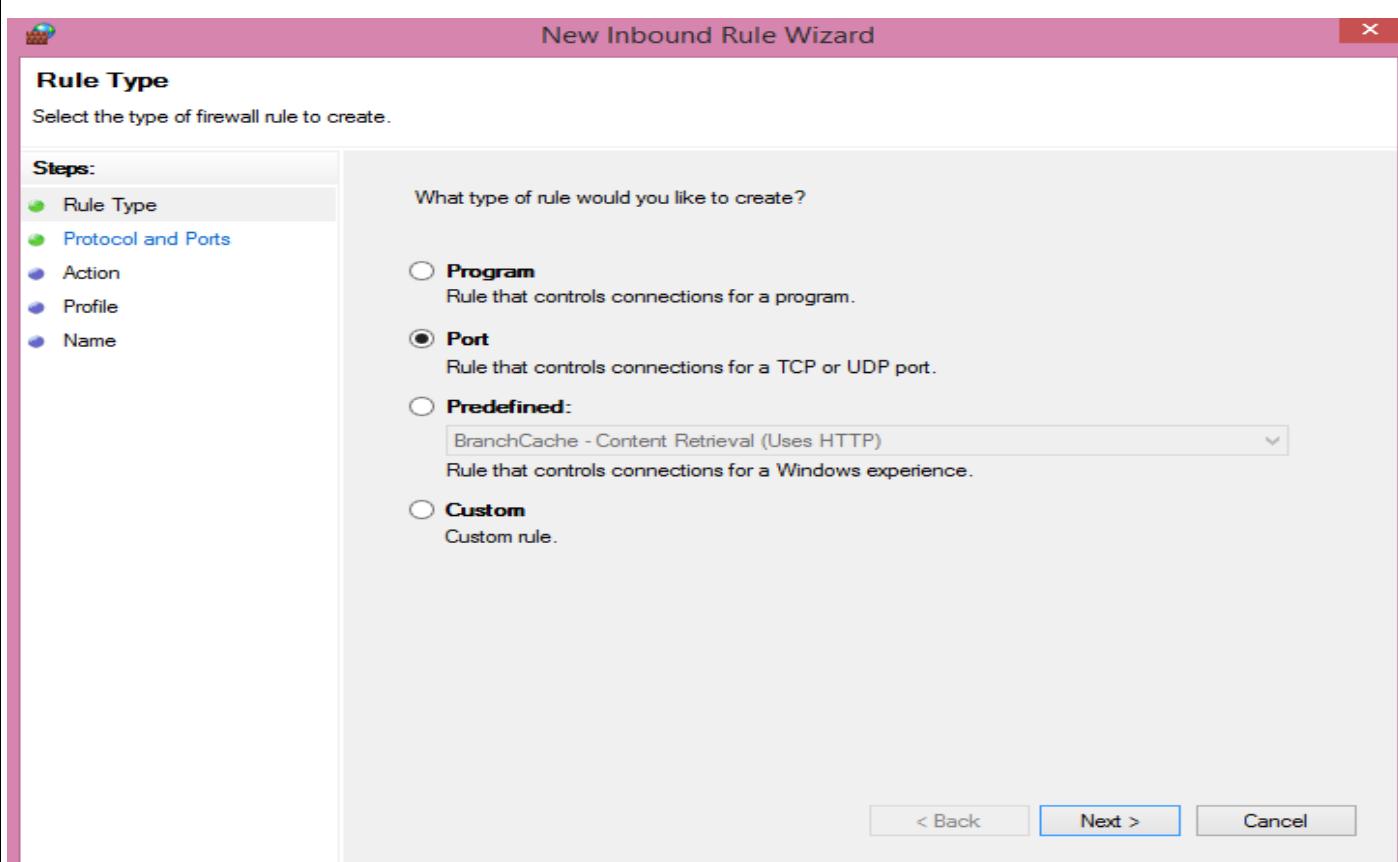


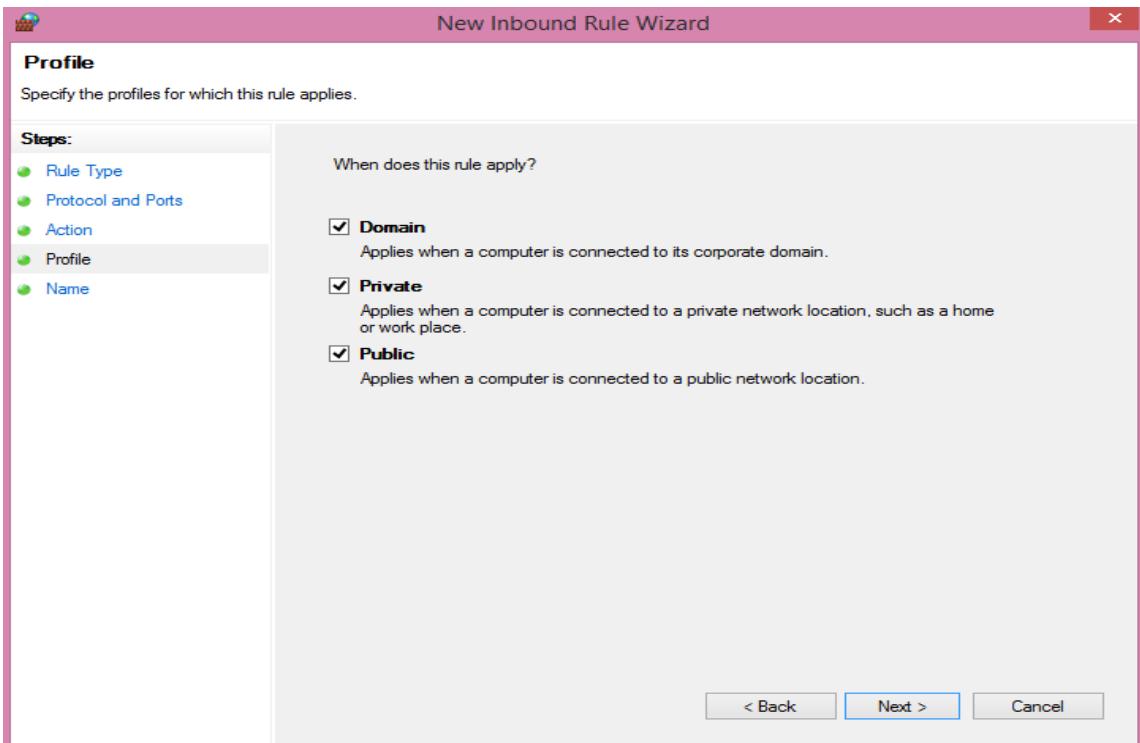
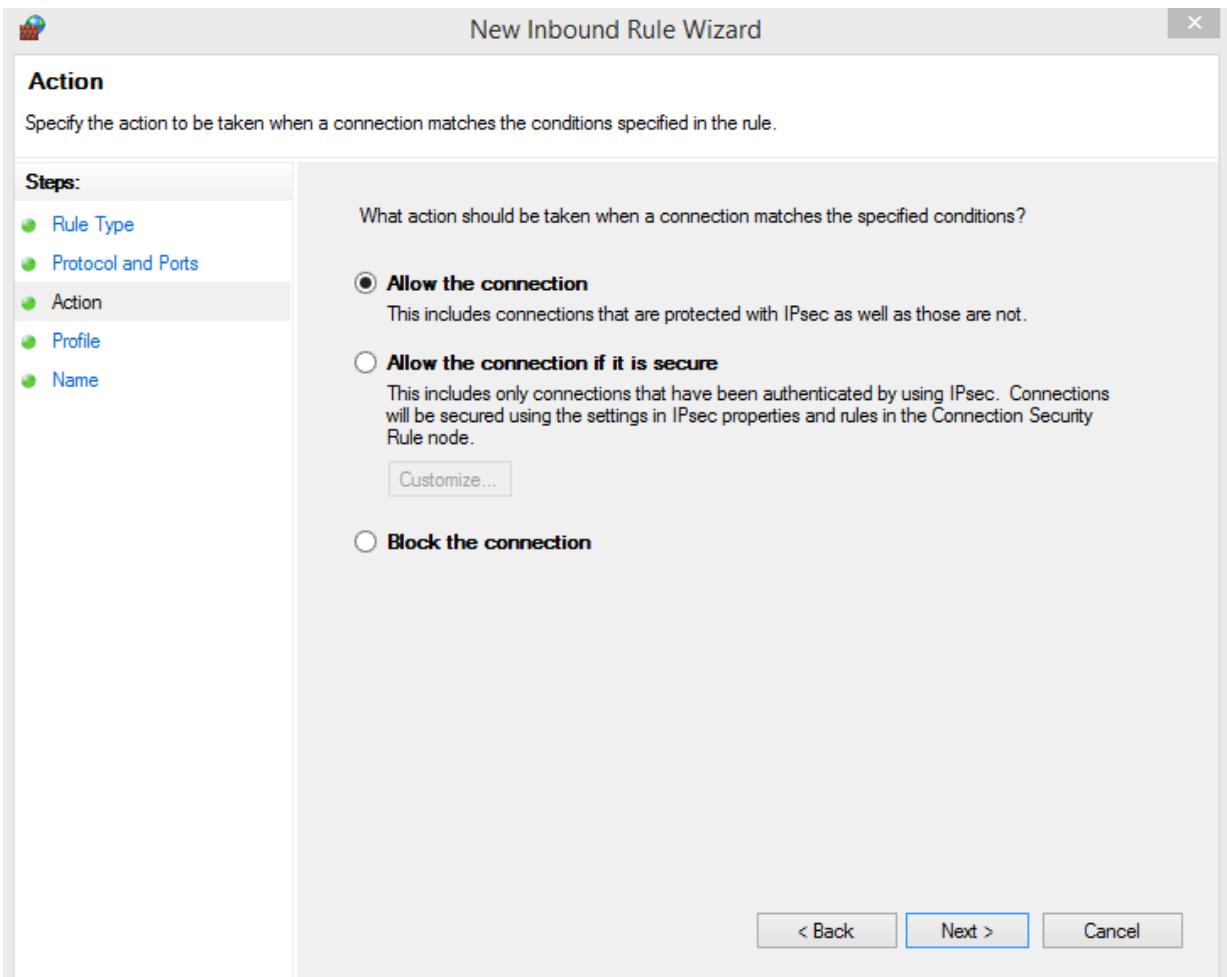


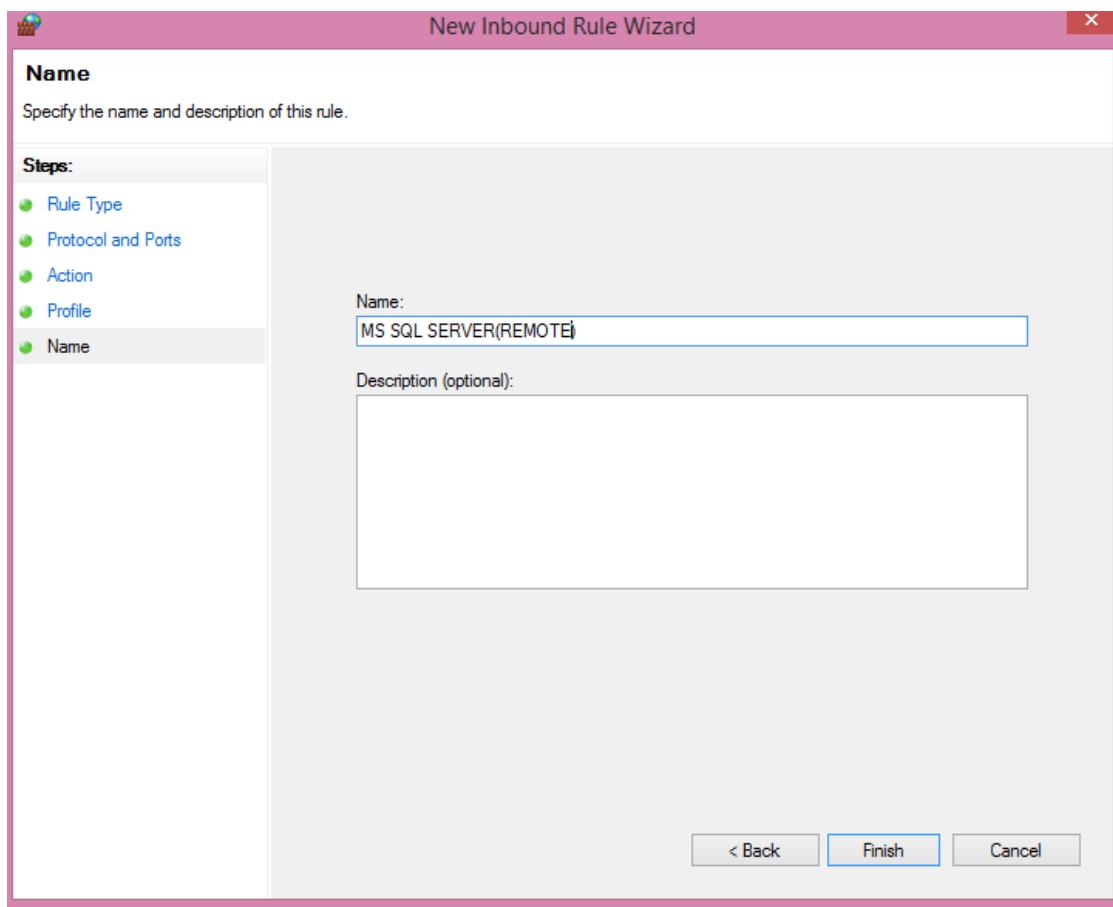
## ➤ Firewall Settings

The screenshot shows the Windows Firewall with Advanced Security interface. The left sidebar has tabs for Inbound Rules, Outbound Rules, Connection Security Rules, and Monitoring. The Inbound Rules tab is selected. The main area displays a table of inbound rules. The columns are Name, Group, Profile, Enabled, and Action. The table lists numerous rules, many of which are checked (indicated by a green checkmark icon). The Action column shows various settings like All, Private, Domain, and No. The right side of the window contains an 'Actions' pane with options like New Rule..., Filter by Profile, Filter by State, Filter by Group, View, Refresh, Export List..., and Help.

Name	Group	Profile	Enabled	Action
μTorrent (TCP-In)		All	Yes	All
μTorrent (UDP-In)		All	Yes	All
Microsoft Office Outlook	Public	Yes	All	All
Microsoft OneNote	Public	Yes	All	All
Microsoft OneNote	Public	Yes	All	All
Microsoft SharePoint Workspace	Public	Yes	All	All
Microsoft SharePoint Workspace	Public	Yes	All	All
Skype	Public	Yes	All	All
Skype	Public	Yes	All	All
VMware Authd Service	Domain	Yes	All	All
VMware Authd Service (private)	Private	Yes	All	All
VMware Workstation Server	Domain	Yes	All	All
VMware Workstation Server (private)	Private	Yes	All	All
VMware Workstation VMX	Public	Yes	All	All
VMware Workstation VMX	Public	Yes	All	All
BranchCache Content Retrieval (HTTP-In)	BranchCache - Content Retr...	All	No	All
BranchCache Hosted Cache Server (HTT...	BranchCache - Hosted Cach...	All	No	All
BranchCache Peer Discovery (WSD-In)	BranchCache - Peer Discove...	All	No	All
CheckPoint.VPN	CheckPoint.VPN	All	Yes	All
Connect to a Network Projector (TCP-In)	Connect to a Network Projec...	Private...	No	All
Connect to a Network Projector (TCP-In)	Connect to a Network Projec...	Domain	No	All
Connect to a Network Projector (WSD Ev...	Connect to a Network Projec...	Domain	No	All
Connect to a Network Projector (WSD Ev...	Connect to a Network Projec...	Private...	No	All
Connect to a Network Projector (WSD Ev...	Connect to a Network Projec...	Domain	No	All
Connect to a Network Projector (WSD Ev...	Connect to a Network Projec...	Private...	No	All
Core Networking - Destination Unreacha...	Core Networking	All	Yes	All
Core Networking - Destination Unreacha...	Core Networking	All	No	All



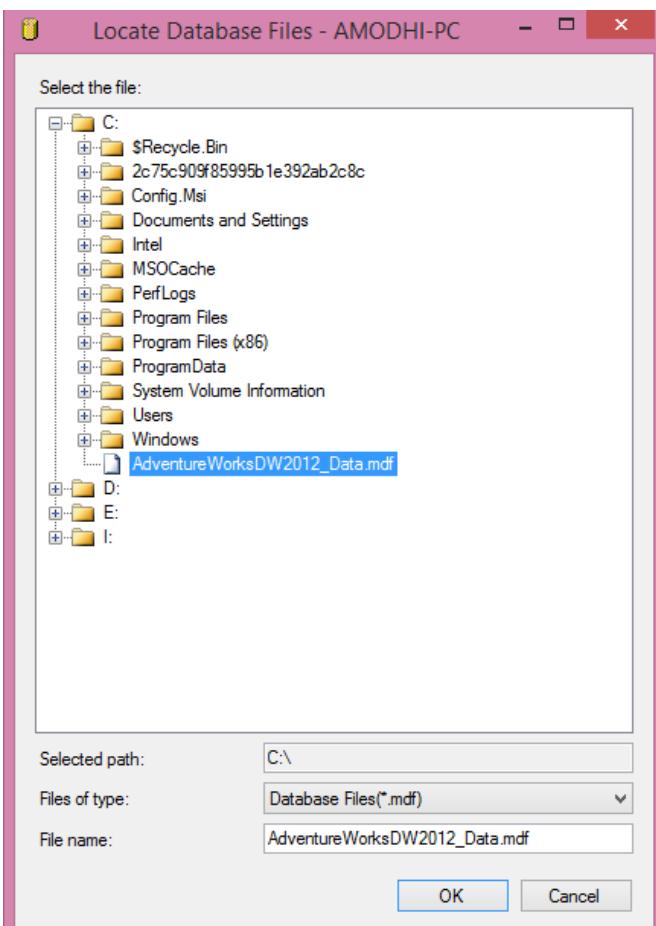
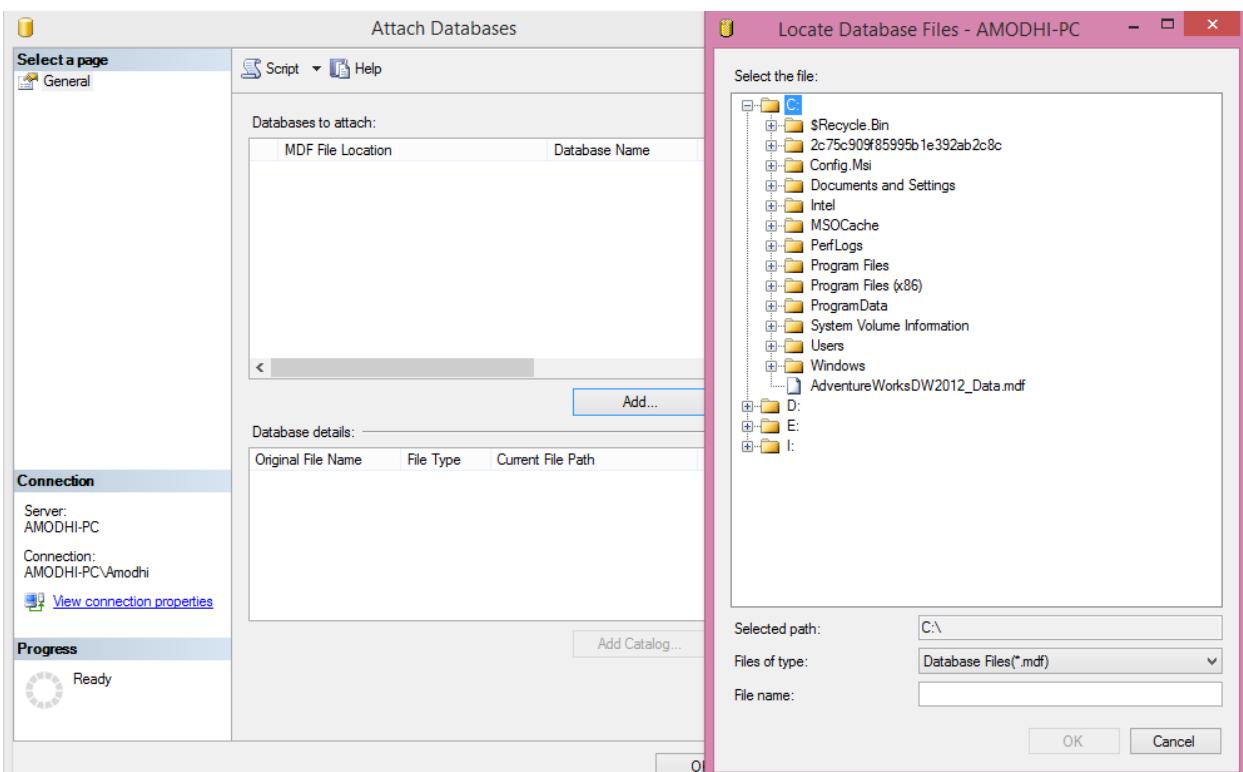




### c) Adventure works Installation

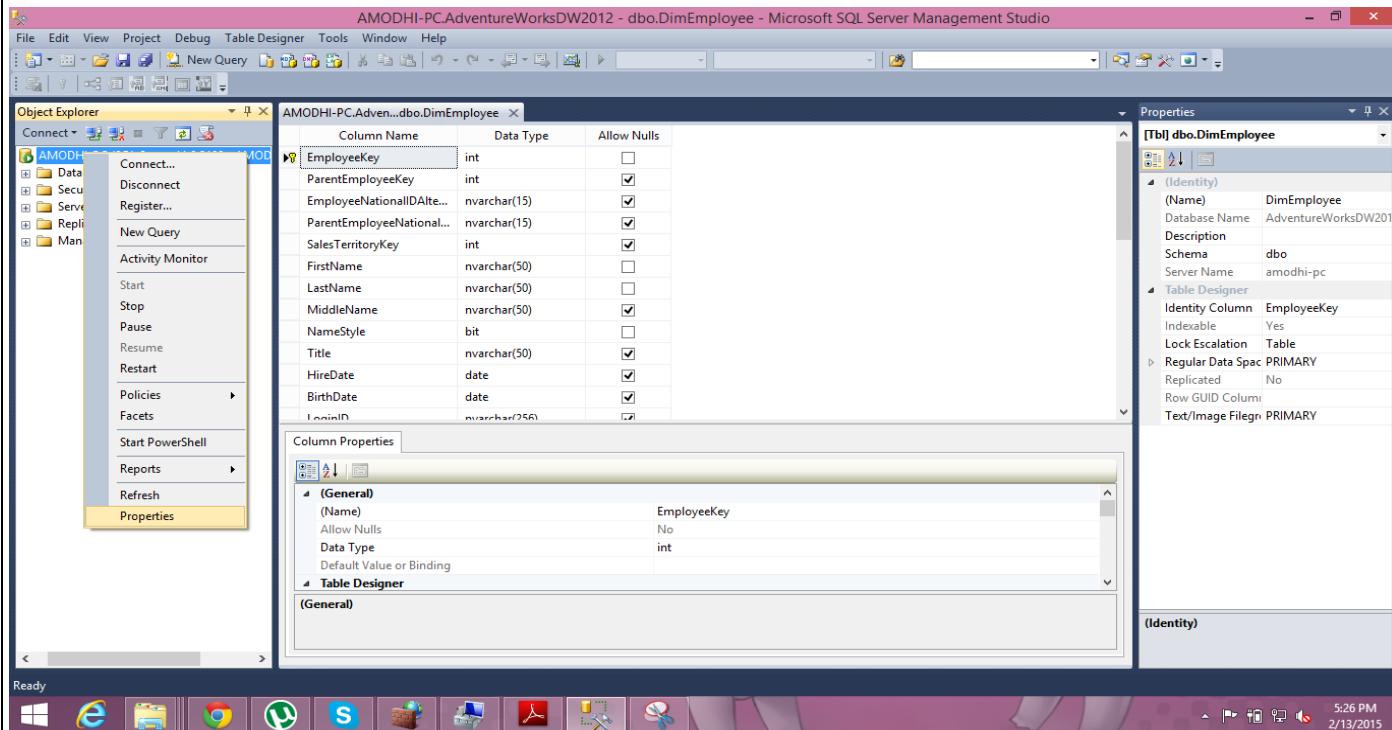
The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The title bar reads "AMODHI-PC.AdventureWorksDW2012 - dbo.DimEmployee - Microsoft SQL Server Management Studio".

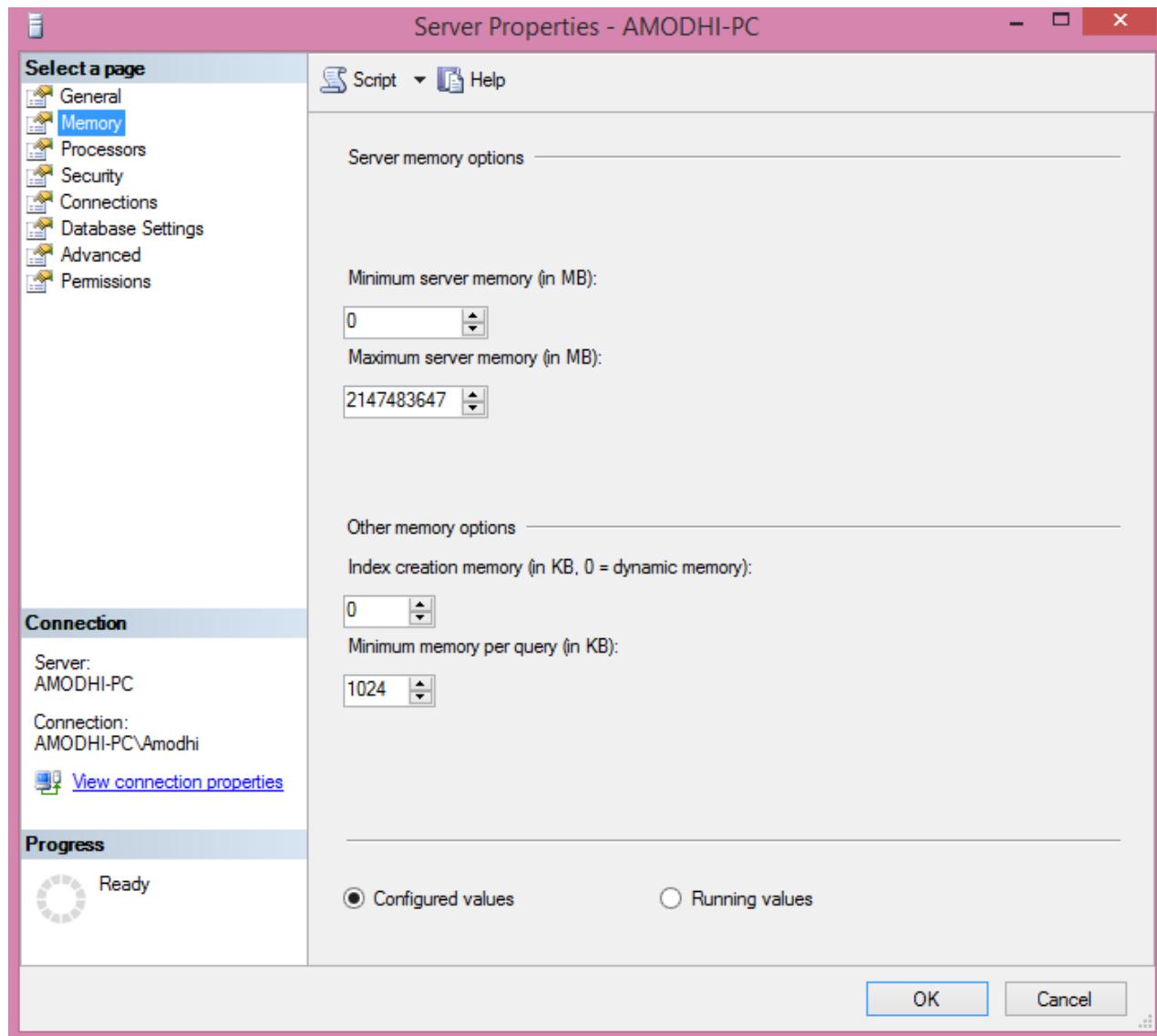
- Object Explorer:** Shows the database structure, including the AdventureworksDW database.
- Table Designer:** Displays the structure of the DimEmployee table with columns: EmployeeKey, EmployeeName, NationalIDNumber, BirthDate, and LoginID.
- Properties:** Shows the properties of the DimEmployee table, including its name (DimEmployee), database (AdventureWorksDW2012), schema (dbo), and server (amodhi-pc). The Identity column is set to EmployeeKey.
- Column Properties:** Provides detailed settings for the EmployeeKey column, such as its data type (int) and whether it allows nulls (No).
- Context Menu:** An open context menu over the table rows includes options like "New Database...", "Attach...", "Restore Database...", "Deploy Data-tier Application...", "Import Data-tier Application...", "Start PowerShell", "Reports", and "Refresh".



## ➤ Configurations

✓ Max Memory

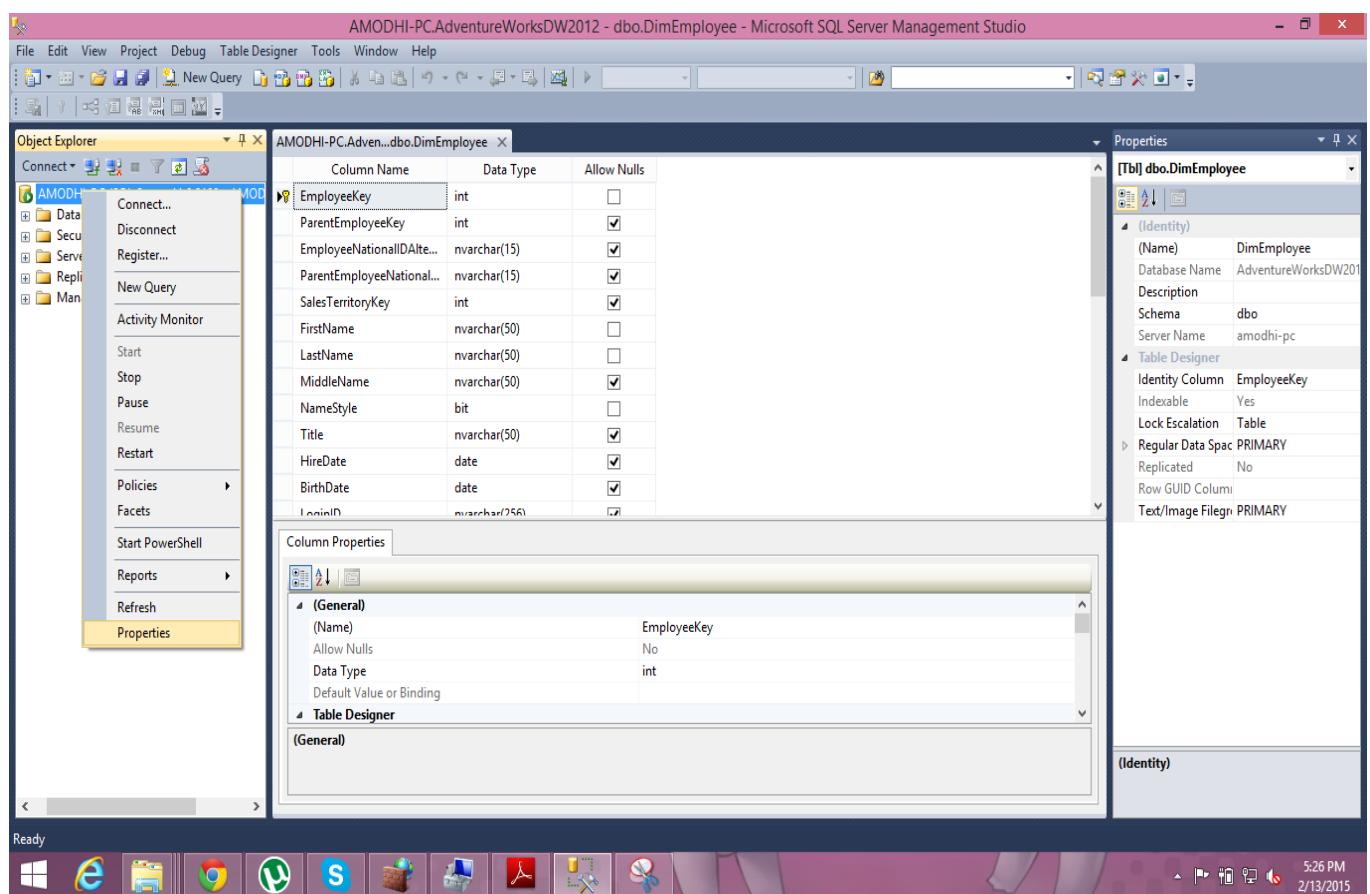




✓ Degree of parallelism (DOP)

SQL Server automatically detects the best degree of parallelism for each instance of a parallel query execution or index data definition language (DDL) operation.

DOP Value	SQL Server Edition
1	SQL Server Express
2	SQL Server Workgroup
4	SQL Server 2008 Web
4	SQL Server Standard
32	SQL Server 2008 Enterprise running on x86 OS



Server Properties - AMODHI-PC

Select a page

- General
- Memory
- Processors
- Security
- Connections
- Database Settings
- Advanced
- Permissions

Script Help

A Z

<b>Containment</b>	
Enable Contained Databases	False
<b>FILESTREAM</b>	
FILESTREAM Access Level	<b>Full access enabled</b>
FILESTREAM Share Name	MSSQLSERVER
<b>Miscellaneous</b>	
Allow Triggers to Fire Others	True
Blocked Process Threshold	0
Cursor Threshold	-1
Default Full-Text Language	1033
Default Language	English
Full-Text Upgrade Option	Rebuild
Max Text Replication Size	65536
Optimize for Ad hoc Workloads	False
Scan for Startup Procs	False
Two Digit Year Cutoff	2049
<b>Network</b>	
Network Packet Size	4096
Remote Login Timeout	10
<b>Parallelism</b>	
Cost Threshold for Parallelism	5
Locks	0

**Allow Triggers to Fire Others**  
Controls whether a trigger can perform an action that initiates another trigger. When cleared, triggers cannot be fired by another trigger.

Configured values     Running values

OK Cancel

- ✓ Default Database Configuration.
- Simple Recovery Model

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "AMODHI-PC.AdventureWorksDW2012 - dbo.DimEmployee - Microsoft SQL Server Management Studio". The Object Explorer pane on the left shows the database structure, including the AdventureWorksDW2012 database. The central pane displays the "DimEmployee" table design, showing columns like EmployeeKey, ParentEmployeeKey, EmployeeNationalIDAlte..., and so on. The Properties pane on the right shows the table's properties, including its name (DimEmployee), database (AdventureWorksDW2012), and recovery model (Simple). The status bar at the bottom indicates the user is online.

The screenshot shows the "Database Properties - AdventureWorksDW2012" dialog box. The left sidebar lists options like General, Files, Filegroups, Options, Change Tracking, Permissions, and Extended Properties. The main area contains settings for the database, including Collation (SQL\_Latin1\_General\_CI\_AS), Recovery model (Simple), Compatibility level (SQL Server 2012 (110)), and Containment type (None). Below these are various other options like Auto Shrink, Auto Update Statistics, and Containment settings. At the bottom, there are OK and Cancel buttons.

- Data File Growth

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "DataGrowth.sql - AMODHI-PC.AdventureWorks2012 (sa (58)) - Microsoft SQL Server Management Studio". The Object Explorer on the left shows the database structure, including the AdventureWorks2012 database. The central pane displays the following T-SQL command:

```
alter database[AdventureWorks2012]
    modify file (name=N'AdventureWorks2012_Data', filegrowth=10%);
```

The Messages pane at the bottom right shows the output: "Command(s) completed successfully." A status bar at the bottom indicates "Query executed successfully." and provides connection details: AMODHI-PC (11.0 RTM) | sa (58) | AdventureWorks2012 | 00:00:00 | 0 rows.

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "DataGrowth.sql - AMODHI-PC.AdventureWorks2012 (sa (58)) - Microsoft SQL Server Management Studio". The Object Explorer on the left shows the database structure, including the AdventureWorks2012 database. The central pane displays the following T-SQL script:

```
--change the file growth in to 10% in data file--
alter database[AdventureWorks2012]
    modify file (name=N'AdventureWorks2012_Data', filegrowth=10%);

--change the file growth in to 10% in log file--
alter database[Adventureworks2012]
    modify file (name=N'AdventureWorks2012_Log', filegrowth=10%);
```

The Messages pane at the bottom right shows the output: "Command(s) completed successfully." A status bar at the bottom indicates "Query executed successfully." and provides connection details: AMODHI-PC (11.0 RTM) | sa (58) | AdventureWorks2012 | 00:00:00 | 0 rows.

## 2) Oracle 11g R2 Installation on LINUX Platform

### a) Pre-Installation Requirements and Configurations

#### a. Memory Requirements

- Minimum: 1 GB of RAM
- Recommended: 2 GB of RAM or more
- The following table describes the relationship between installed RAM and the configured swap space recommendation

RAM	SWAP space
Between 1GB and 2GB	1.5 times the size of RAM
Between 2GB and 16GB	Equal to the size of RAM
More than 16 GB	16GB

#### b. Disk Space Requirements

- At least 20 GB of disk space in the /tmp directory

#### c. Software Requirements

- Operating system Requirements (The following or later versions of the operating system are required for Oracle Database 11g Release 2)
  - ✓ Asianux Server 3 SP2
  - ✓ Oracle Linux 4 Update 7
  - ✓ Oracle Linux 5 Update 2 (with Red Hat Compatible Kernel)
  - ✓ Oracle Linux 5 Update 5
  - ✓ Oracle Linux 6
  - ✓ Oracle Linux 6 (with Red Hat Compatible Kernel)
  - ✓ Red Hat Enterprise Linux 4 Update 7
  - ✓ Red Hat Enterprise Linux 5 Update 2
  - ✓ Red Hat Enterprise Linux 5 Update 5 (with the Oracle Unbreakable Enterprise Kernel for Linux)
  - ✓ Red Hat Enterprise Linux 6
  - ✓ Red Hat Enterprise Linux 6 (with the Oracle Unbreakable Enterprise Kernel for Linux)
  - ✓ SUSE Linux Enterprise Server 10 SP2
  - ✓ SUSE Linux Enterprise Server 11
  - ✓ Ubuntu 14.10

- Kernel Requirements(The following are the kernel requirements for Oracle Database 11g Release 2)
  - ✓ On Oracle Linux 4 and Red Hat Enterprise Linux 4
  - ✓ 2.6.9 Or later
  - ✓ On Oracle Linux 5 Update 5
  - ✓ 2.6.32-100.0.19 or later
  - ✓ On Oracle Linux 5 Update 2
  - ✓ 2.6.18 or later (with Red Hat Compatible Kernel)
  - ✓ On Oracle Linux 6
- ✓ 2.6.32-100.28.5.el6.x86\_64 or later
- ✓ On Oracle Linux 6
- ✓ 2.6.32-71.el6.x86\_64 or later (with Red Hat Compatible Kernel)
- ✓ On Red Hat Enterprise Linux 5 Update 5 with the Oracle Unbreakable Enterprise Kernel for Linux
- ✓ 2.6.32 or later
- ✓ On Red Hat Enterprise Linux 6 with the Oracle Unbreakable Enterprise Kernel for Linux
- ✓ 2.6.32-100.28.5.el6.x86\_64 or later
- ✓ On Red Hat Enterprise Linux 6
- ✓ 2.6.32-71.el6.x86\_64 or later
- ✓ On Asianux Server 3, Oracle Linux 5 Update 2, and Red Hat Enterprise Linux 5Update2
- ✓ 2.6.18 or later
- ✓ On SUSE Linux Enterprise Server 10
- ✓ 2.6.16.21 or later
- ✓ On SUSE Linux Enterprise Server 11
- ✓ 2.6.27.19 or later

- Package Requirements

- ✓ binutils-2.20.51.0.2-5.11.el6 (x86\_64)
- ✓ compat-libcap1-1.10-1 (x86\_64)
- ✓ compat-libstdc++-33-3.2.3-69.el6 (x86\_64)
- ✓ compat-libstdc++-33-3.2.3-69.el6.i686
- ✓ gcc-4.4.4-13.el6 (x86\_64)
- ✓ gcc-c++-4.4.4-13.el6 (x86\_64)
- ✓ glibc-2.12-1.7.el6 (i686)
- ✓ glibc-2.12-1.7.el6 (x86\_64)
- ✓ glibc-devel-2.12-1.7.el6 (x86\_64)
- ✓ glibc-devel-2.12-1.7.el6.i686
- ✓ ksh
- ✓ libgcc-4.4.4-13.el6 (i686)
- ✓ libgcc-4.4.4-13.el6 (x86\_64)
- ✓ libstdc++-4.4.4-13.el6 (x86\_64)
- ✓ libstdc++-4.4.4-13.el6.i686
- ✓ libstdc++-devel-4.4.4-13.el6 (x86\_64)
- ✓ libstdc++-devel-4.4.4-13.el6.i686

- ✓ libaio-0.3.107-10.el6 (x86\_64)
- ✓ libaio-0.3.107-10.el6.i686
- ✓ libaio-devel-0.3.107-10.el6 (x86\_64)
- ✓ libaio-devel-0.3.107-10.el6.i686
- ✓ make-3.81-19.el6
- ✓ sysstat-9.0.4-11.el6 (x86\_64)

b) Background Configuration

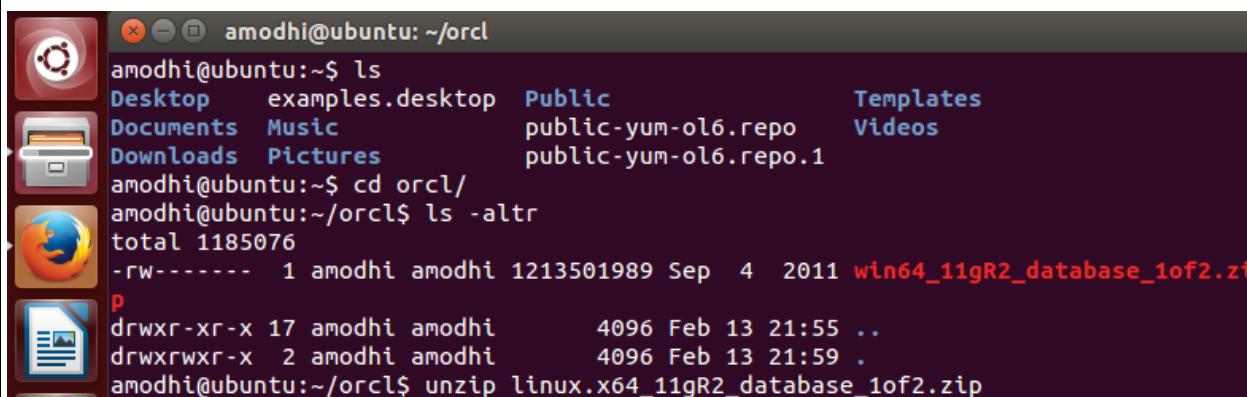


```
amodhi@ubuntu:~$ sudo wget http://public-yum.orcale.com/public-yum-ol6.repo
[sudo] password for amodhi:
--2015-02-13 21:21:53-- http://public-yum.orcale.com/public-yum-ol6.repo
Resolving public-yum.orcale.com (public-yum.orcale.com)... 141.8.224.25
Connecting to public-yum.orcale.com (public-yum.orcale.com)|141.8.224.25|:80...
connected.
HTTP request sent, awaiting response... 200 OK
Length: 15253 (15K) [text/html]
Saving to: 'public-yum-ol6.repo.1'

100%[=====] 15,253      --.-K/s   in 0.1s

2015-02-13 21:21:55 (136 KB/s) - 'public-yum-ol6.repo.1' saved [15253/15253]
amodhi@ubuntu:~$
```

c) Installation



```
amodhi@ubuntu:~/orcl
amodhi@ubuntu:~$ ls
Desktop  examples.desktop  Public          Templates
Documents  Music          public-yum-ol6.repo  Videos
Downloads  Pictures       public-yum-ol6.repo.1
amodhi@ubuntu:~$ cd orcl/
amodhi@ubuntu:~/orcl$ ls -altr
total 1185076
-rw-----  1 amodhi amodhi 1213501989 Sep  4  2011 win64_11gR2_database_1of2.zip
P
drwxr-xr-x 17 amodhi amodhi     4096 Feb 13 21:55 ..
drwxrwxr-x  2 amodhi amodhi     4096 Feb 13 21:59 .
amodhi@ubuntu:~/orcl$ unzip linux.x64_11gR2_database_1of2.zip
```

```
amodhi@ubuntu: ~/orcl
inflating: database/stage/Queries/RunningProcessQuery/11.2.0.1.0/1/RunningPro
cessesQuery.jar
inflating: database/stage/Queries/SIDQueries/1.2.7/1/SidQueries.jar
inflating: database/stage/Queries/SpawnQueries/1.1.4/1/SpawnQueries.jar
inflating: database/stage/Queries/textFileQueries/2.1.0.4.0/1/textFileQueries.
jar
inflating: database/stage/Queries/unixQueries/10.1.0.2.0/1/unixQueries.jar
inflating: database/stage/Queries/UtilQueries/11.2.0.1.0/1/UtilQueries.jar
inflating: database/stage/Queries/w32RegQueries/10.2.0.1.0/1/w32RegQueryLib.ja
r
inflating: database/stage/Queries/WindowsGeneralQueries/10.2.0.1.0/1/WindowsGe
neralQueries.jar
inflating: database/stage/Queries/WinSetAclQuery/1.0.7/1/WinSetAclQuery.jar
inflating: database/stage/Queries/XMLFileQueries/2.1.0.4.2/1/XMLFileQueries.ja
r
inflating: database/stage/shiphomedinfo.properties
inflating: database/stage/shiphomedproperties.xml
inflating: database/stage/sizes/oracle.server11.2.0.1.0Custom.sizes.properties
inflating: database/stage/sizes/oracle.server11.2.0.1.0EE.sizes.properties
inflating: database/stage/sizes/oracle.server11.2.0.1.0PE.sizes.properties
inflating: database/stage/sizes/oracle.server11.2.0.1.0SE.sizes.properties
inflating: database/welcome.html
amodhi@ubuntu:~/orcl$
```

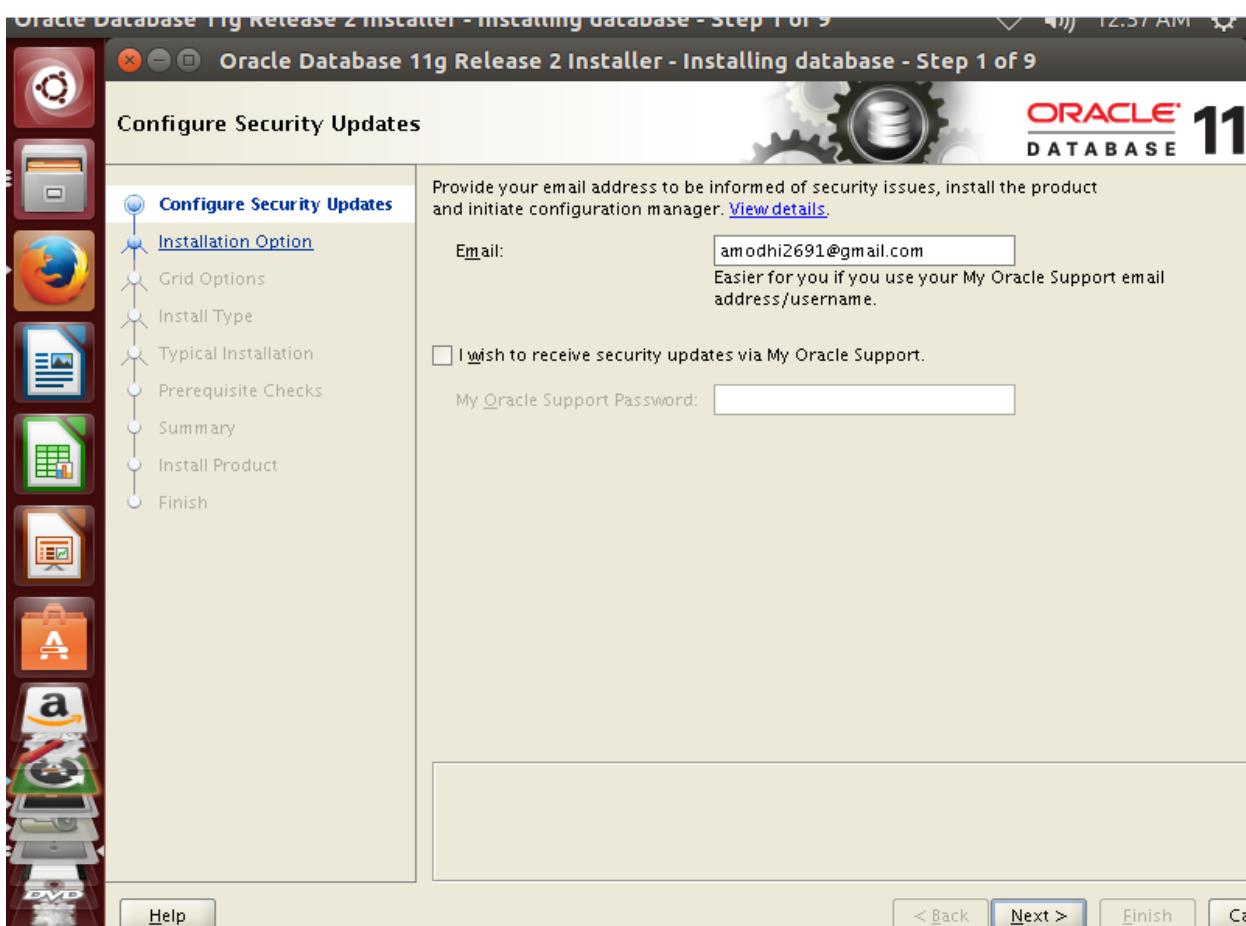
```
amodhi@ubuntu: ~/orcl
amodhi@ubuntu:~/orcl$ unzip win64_11gR2_deinstall.zip
```

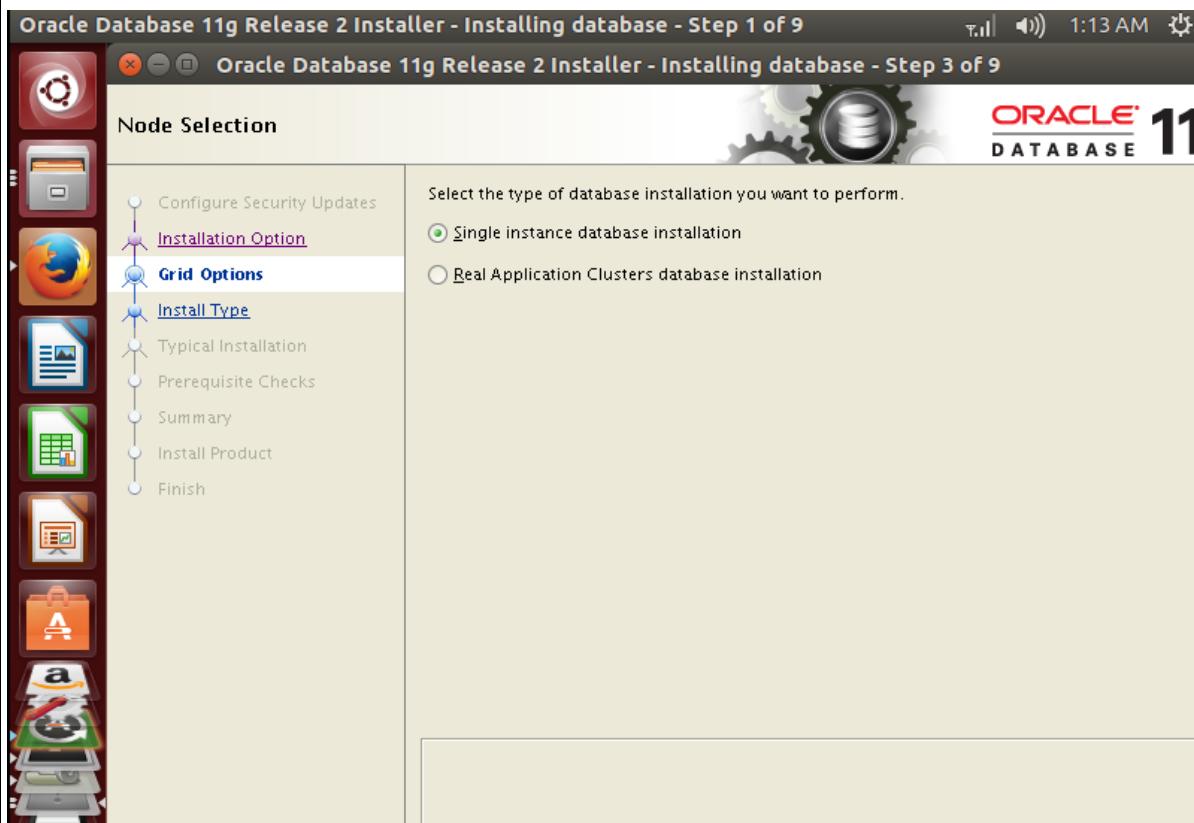
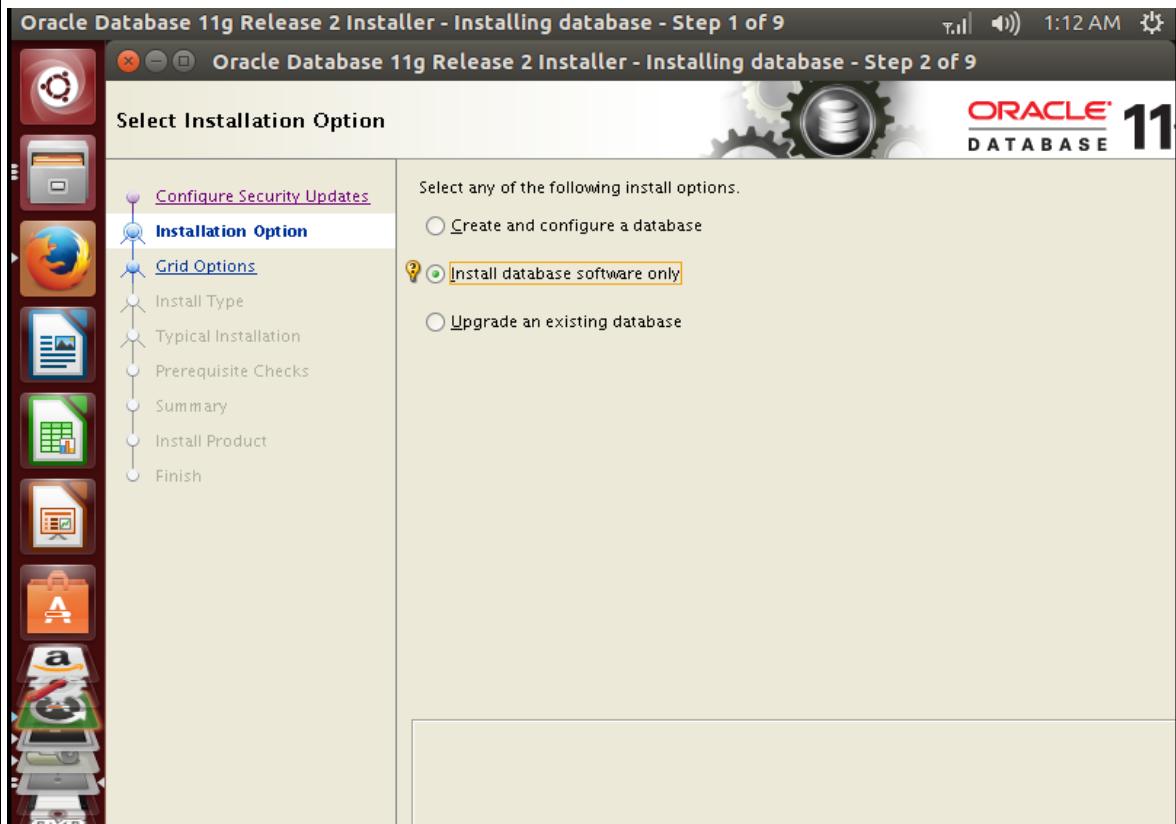
```
amodhi@ubuntu: ~/orcl
inflating: deinstall/perl/site/lib/auto/Win32/ChangeNotify/ChangeNotify.exp
inflating: deinstall/perl/site/lib/auto/Win32/ChangeNotify/ChangeNotify.lib
inflating: deinstall/perl/site/lib/auto/Win32/ChangeNotify/ChangeNotify.pdb
creating: deinstall/perl/site/lib/auto/Win32/Clipboard/
extracting: deinstall/perl/site/lib/auto/Win32/Clipboard/Clipboard.bs
inflating: deinstall/perl/site/lib/auto/Win32/Clipboard/Clipboard.dll
inflating: deinstall/perl/site/lib/auto/Win32/Clipboard/Clipboard.exp
inflating: deinstall/perl/site/lib/auto/Win32/Clipboard/Clipboard.lib
inflating: deinstall/perl/site/lib/auto/Win32/Clipboard/Clipboard.pdb
creating: deinstall/perl/site/lib/auto/Win32/Console/
extracting: deinstall/perl/site/lib/auto/Win32/Console/Console.bs
inflating: deinstall/perl/site/lib/auto/Win32/Console/Console.dll
inflating: deinstall/perl/site/lib/auto/Win32/Console/Console.exp
inflating: deinstall/perl/site/lib/auto/Win32/Console/Console.lib
inflating: deinstall/perl/site/lib/auto/Win32/Console/Console.pdb
creating: deinstall/perl/site/lib/auto/Win32/Event/
extracting: deinstall/perl/site/lib/auto/Win32/Event/Event.bs
inflating: deinstall/perl/site/lib/auto/Win32/Event/Event.dll
inflating: deinstall/perl/site/lib/auto/Win32/Event/Event.exp
inflating: deinstall/perl/site/lib/auto/Win32/Event/Event.lib
inflating: deinstall/perl/site/lib/auto/Win32/Event/Event.pdb
creating: deinstall/perl/site/lib/auto/Win32/EventLog/
extracting: deinstall/perl/site/lib/auto/Win32/EventLog/EventLog.bs
inflating: deinstall/perl/site/lib/auto/Win32/EventLog/EventLog.dll
```

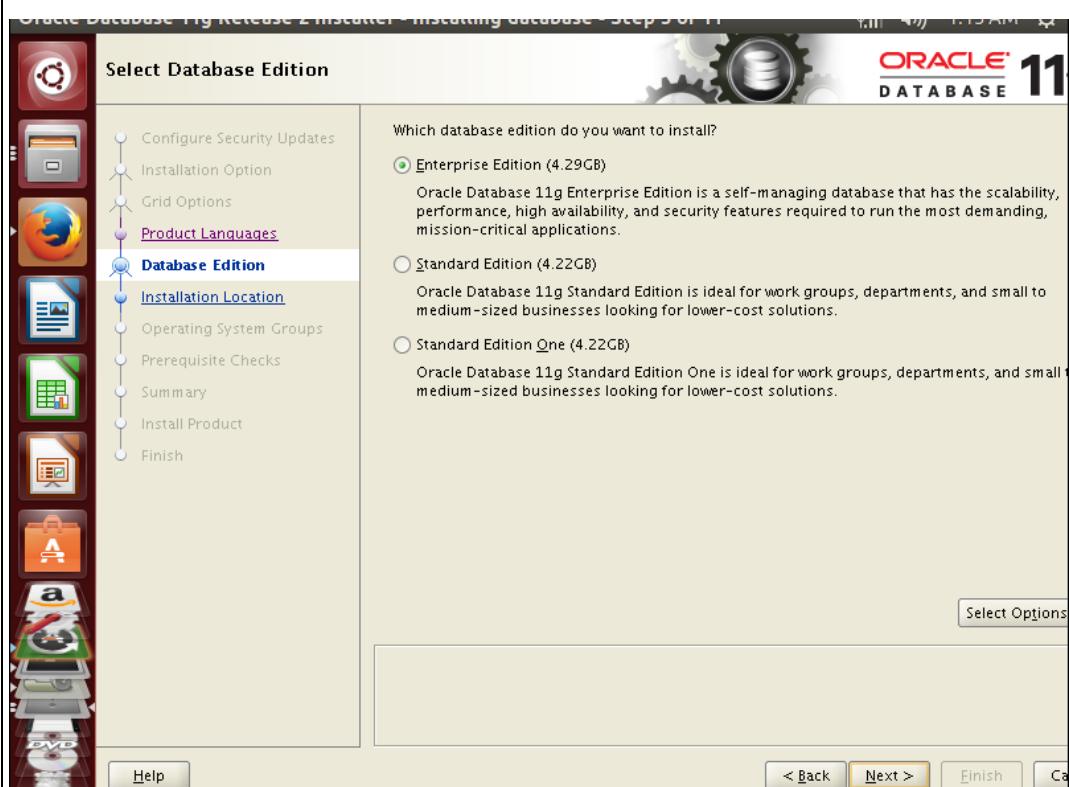
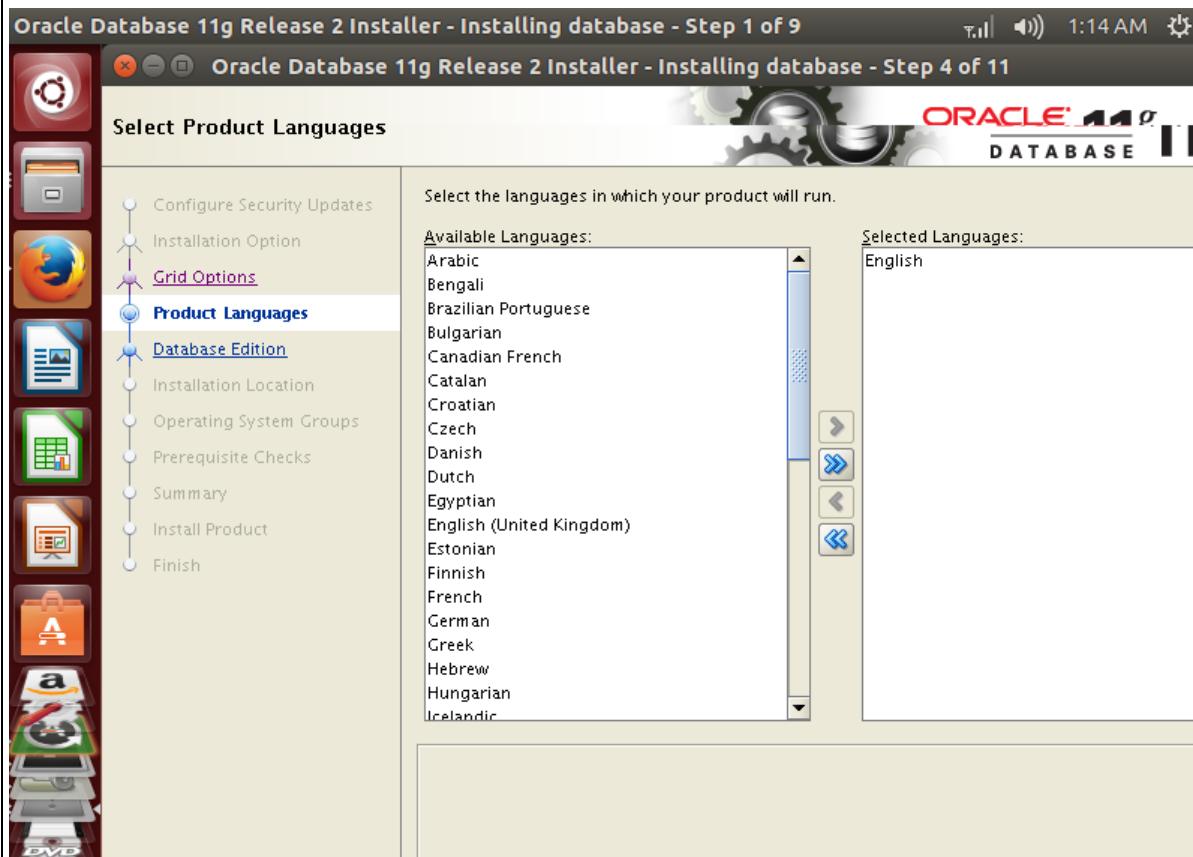
Terminal

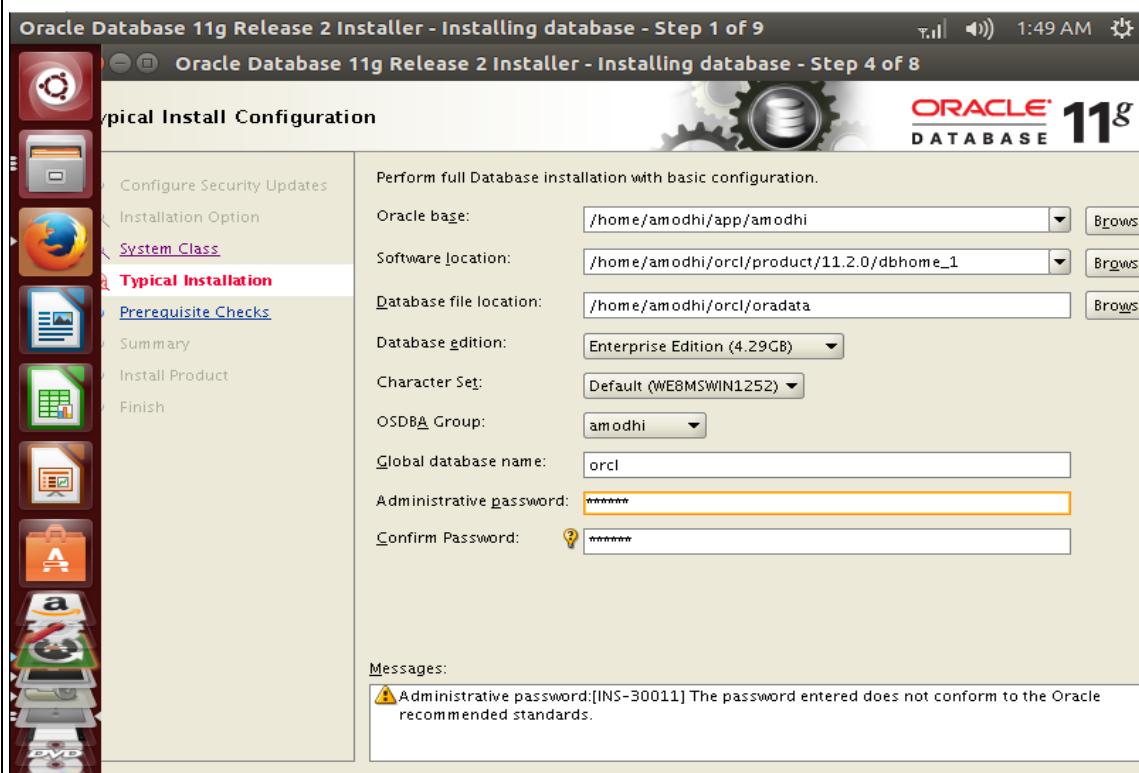
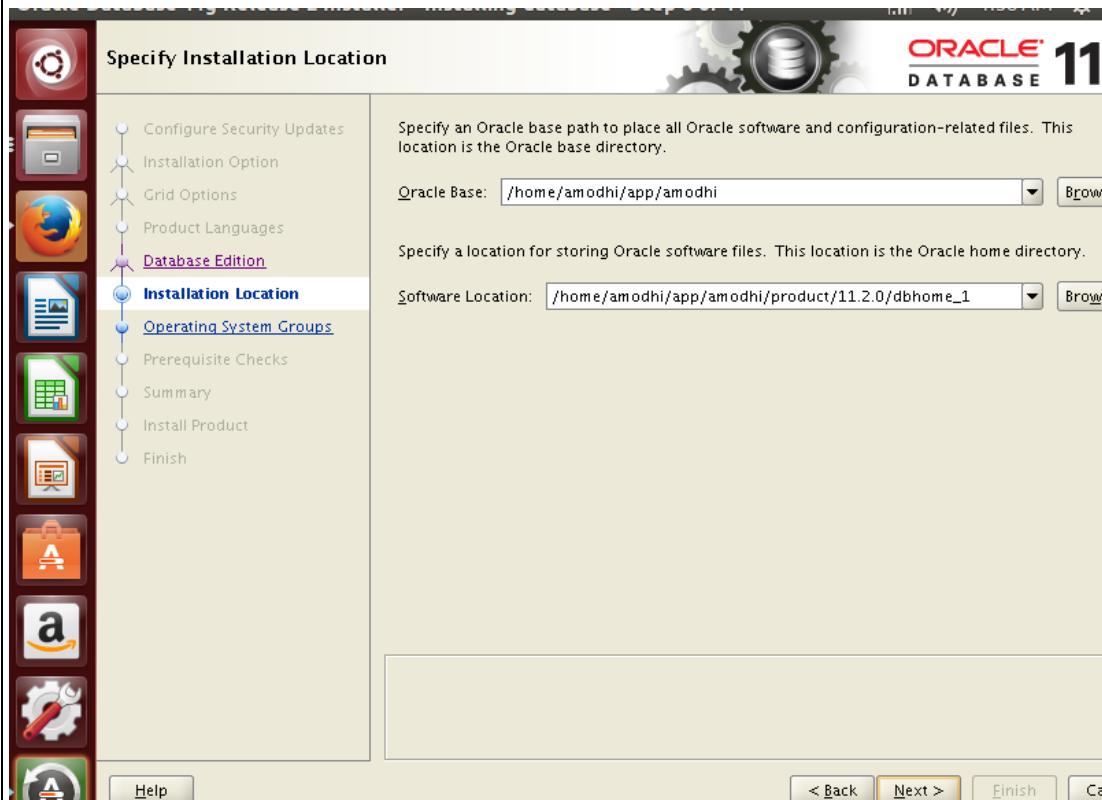
```
amodhi@ubuntu:~ amodhi@ubuntu:~/orcl$ cd  
amodhi@ubuntu:~$ ./runInstaller
```

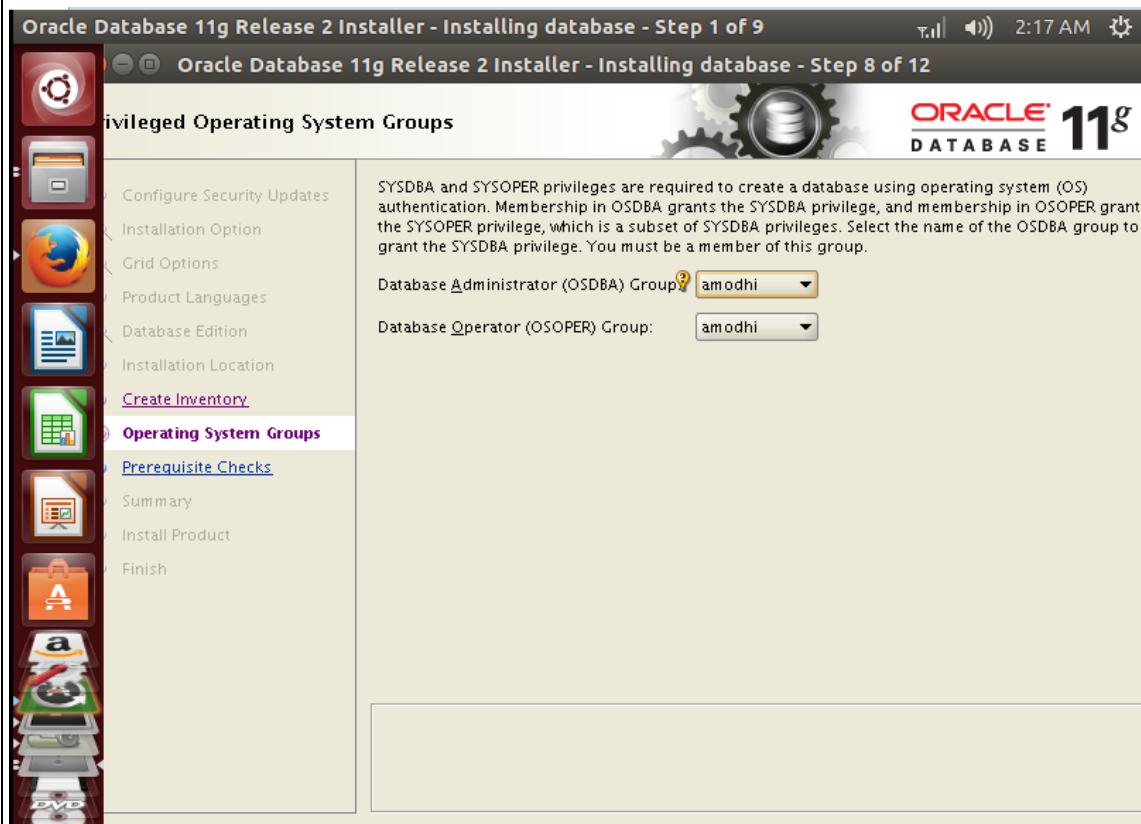
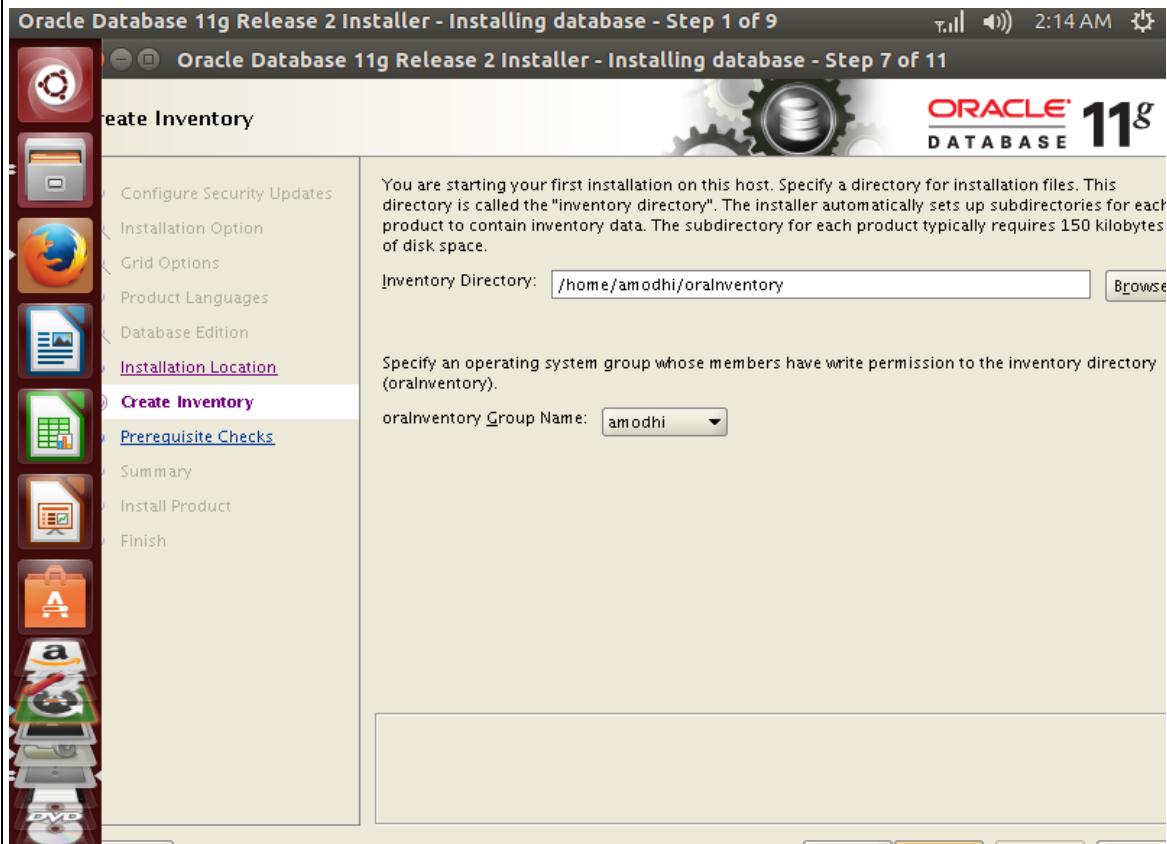
```
amodhi@ubuntu:~/orcl/database/install$ ./runInstaller  
bash: ./runInstaller: No such file or directory  
amodhi@ubuntu:~/orcl/database/install$ cd ..  
amodhi@ubuntu:~/orcl/database$ ./runInstaller  
Starting Oracle Universal Installer...  
  
Checking Temp space: must be greater than 120 MB. Actual 3964 MB Passed  
Checking swap space: must be greater than 150 MB. Actual 715 MB Passed  
Checking monitor: must be configured to display at least 256 colors. Actual 1  
6777216 Passed  
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2015-02-13_11  
-50-02PM. Please wait ...amodhi@ubuntu:~/orcl/database$
```

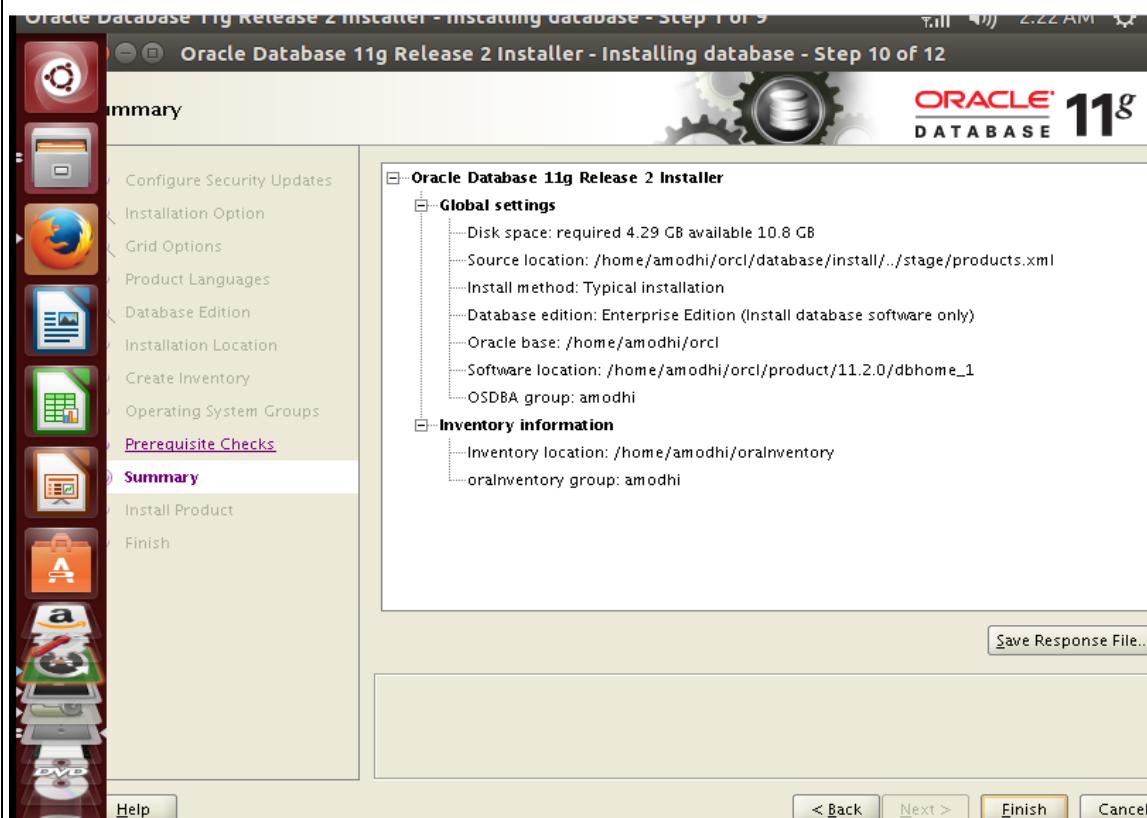
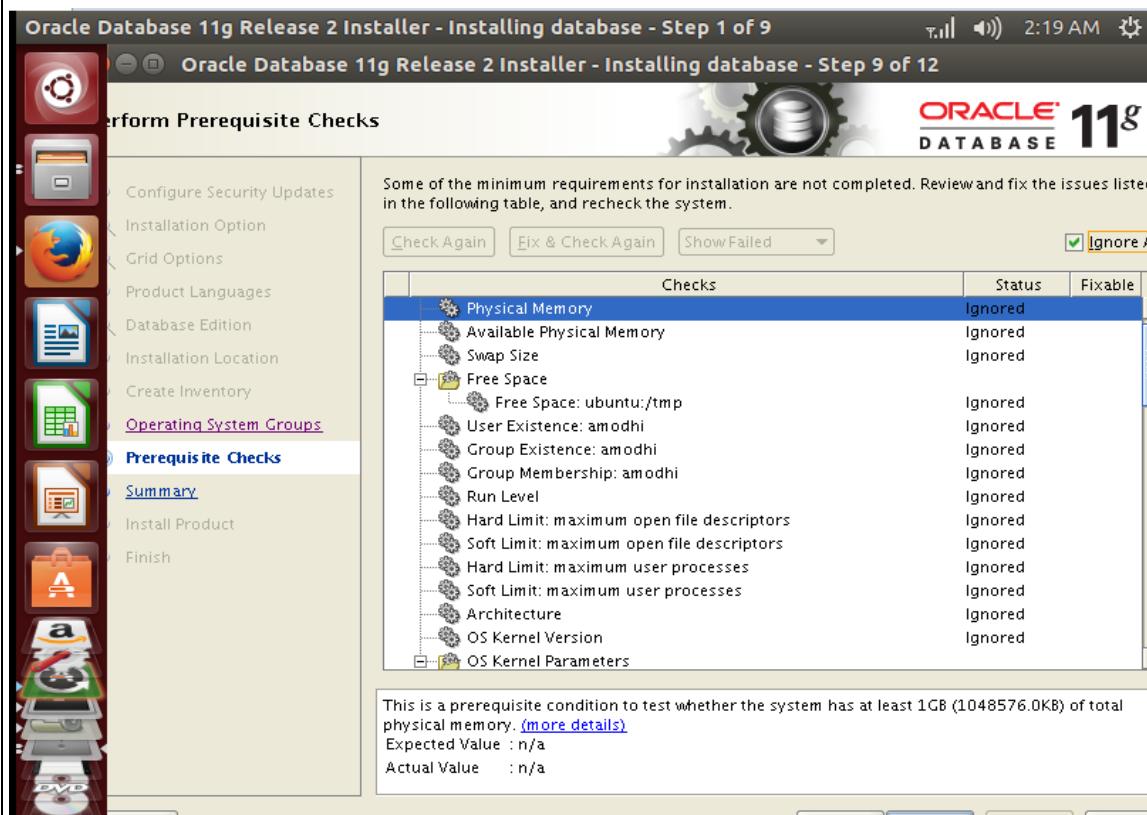


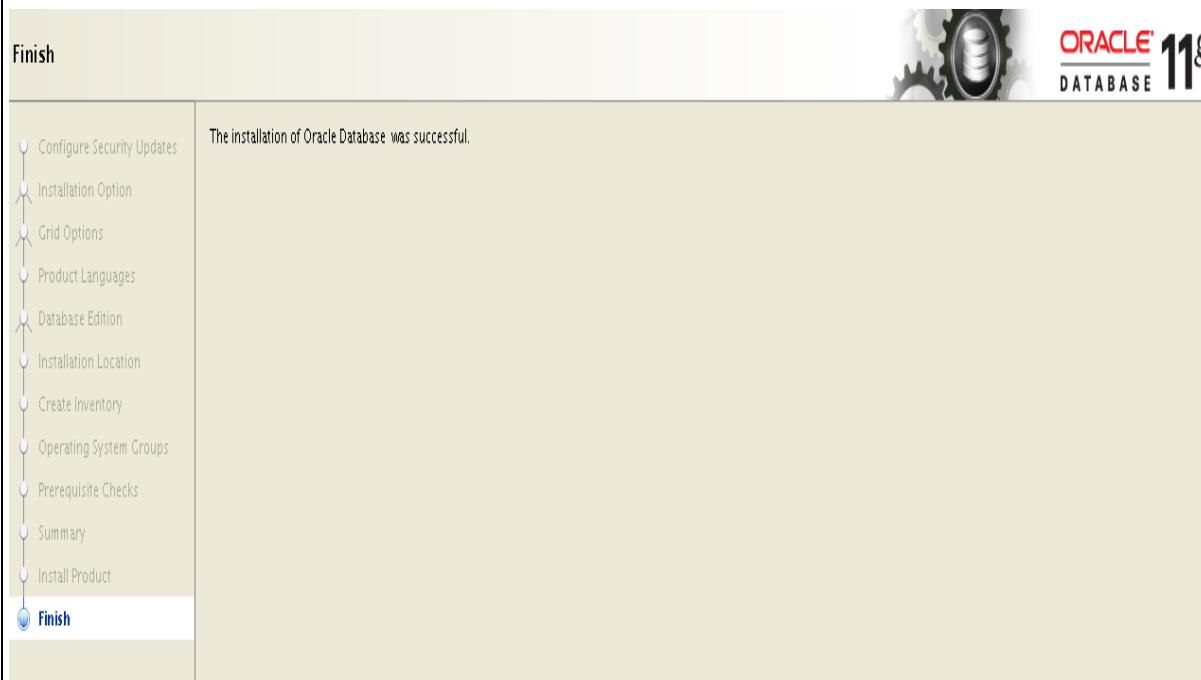
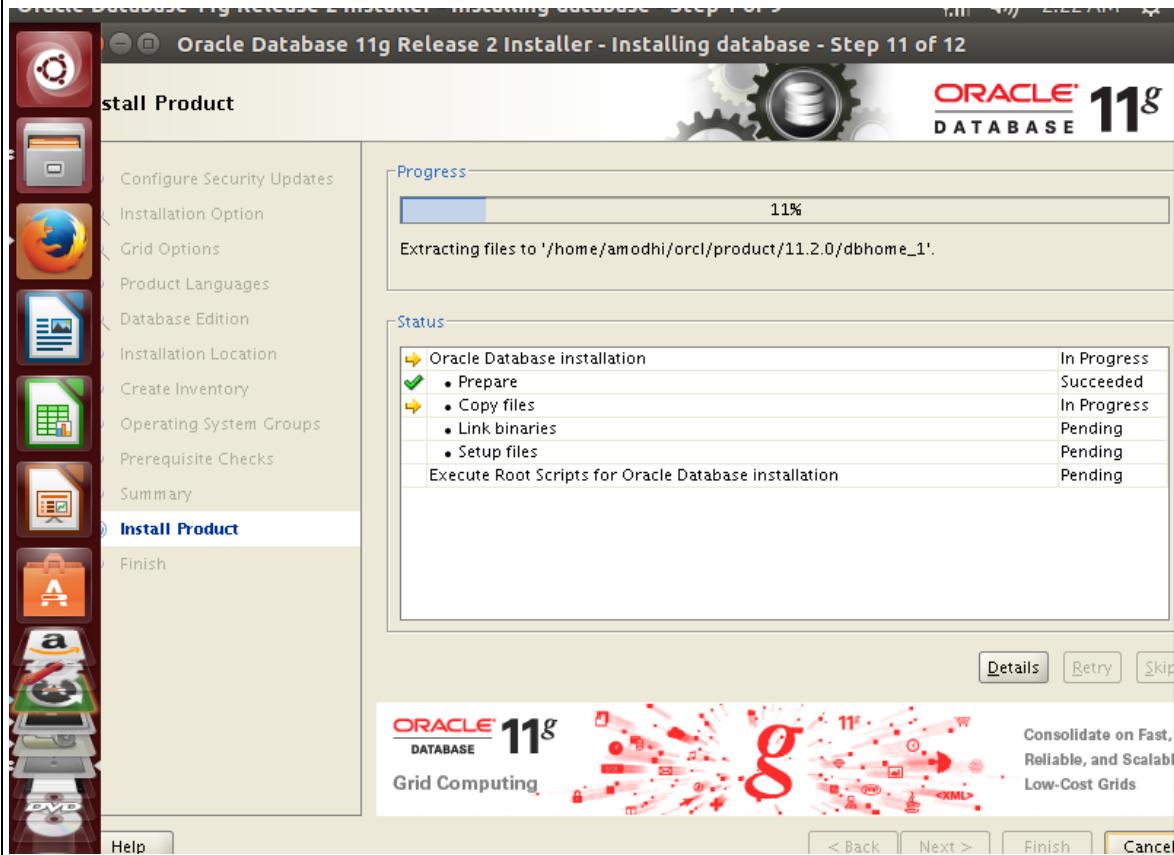












d) Post Installation Configurations

- Startup the database server

```
oracle@ubuntu: ~
oracle@ubuntu:~$ sqlplus

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 7 22:56:49 2
015

Copyright (c) 1982, 2009, Oracle. All rights reserved.

Enter user-name: amodhi as sysdba
Enter password:
Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area  626327552 bytes
Fixed Size                  2215944 bytes
Variable Size                192942072 bytes
Database Buffers            427819008 bytes
Redo Buffers                 3350528 bytes
Database mounted.
Database opened.
SQL> 
```

- Shutdown the database server

```
oracle@ubuntu: ~
015

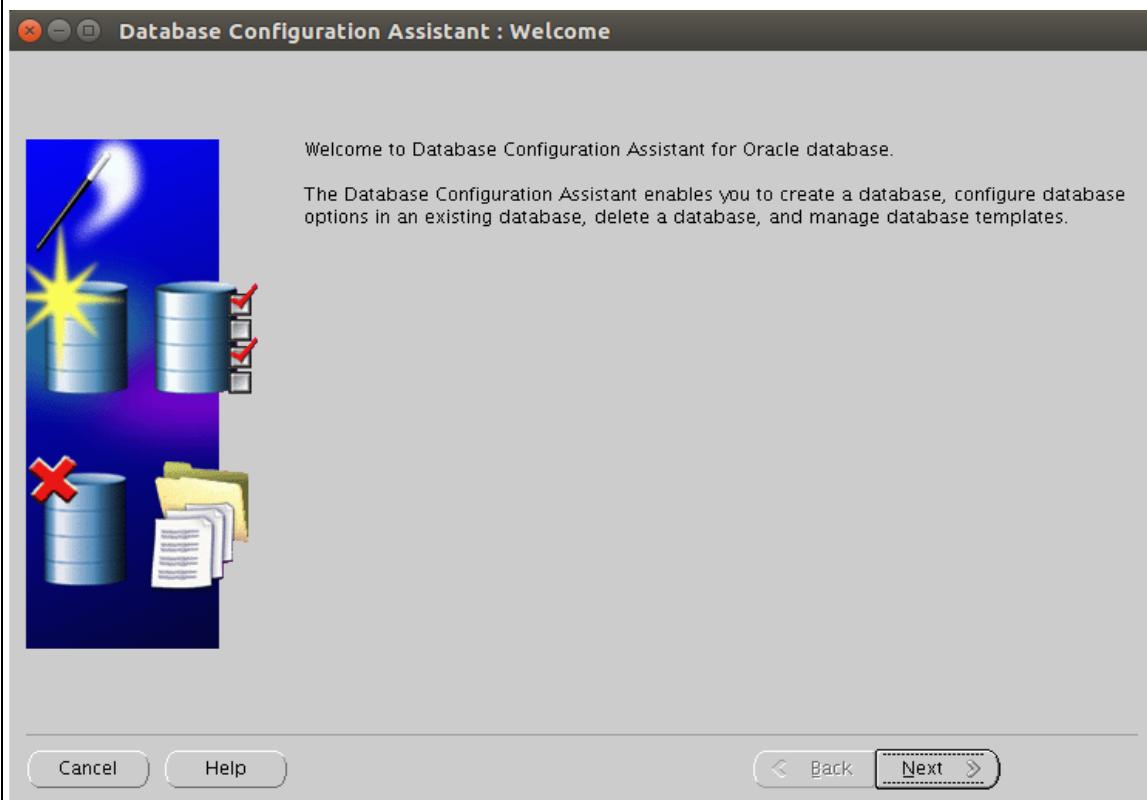
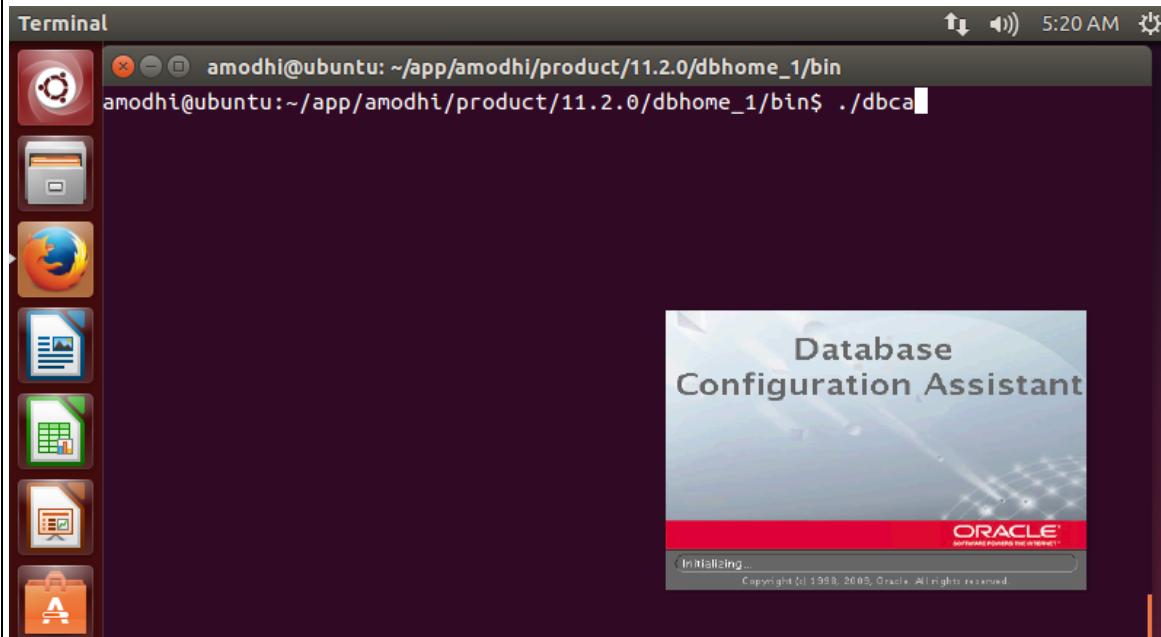
Copyright (c) 1982, 2009, Oracle. All rights reserved.

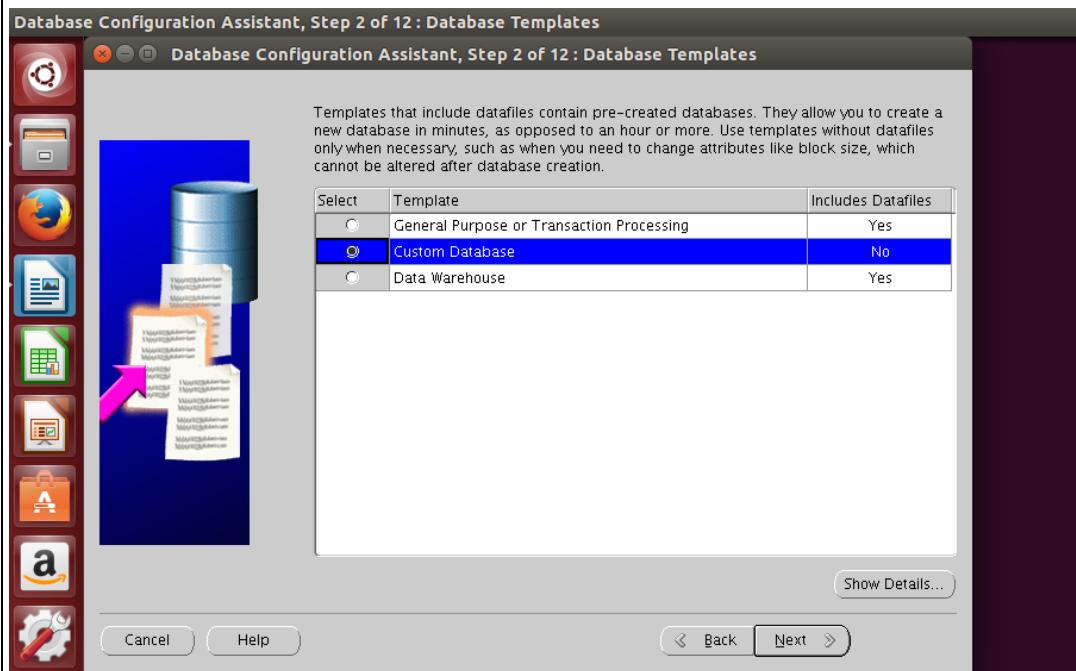
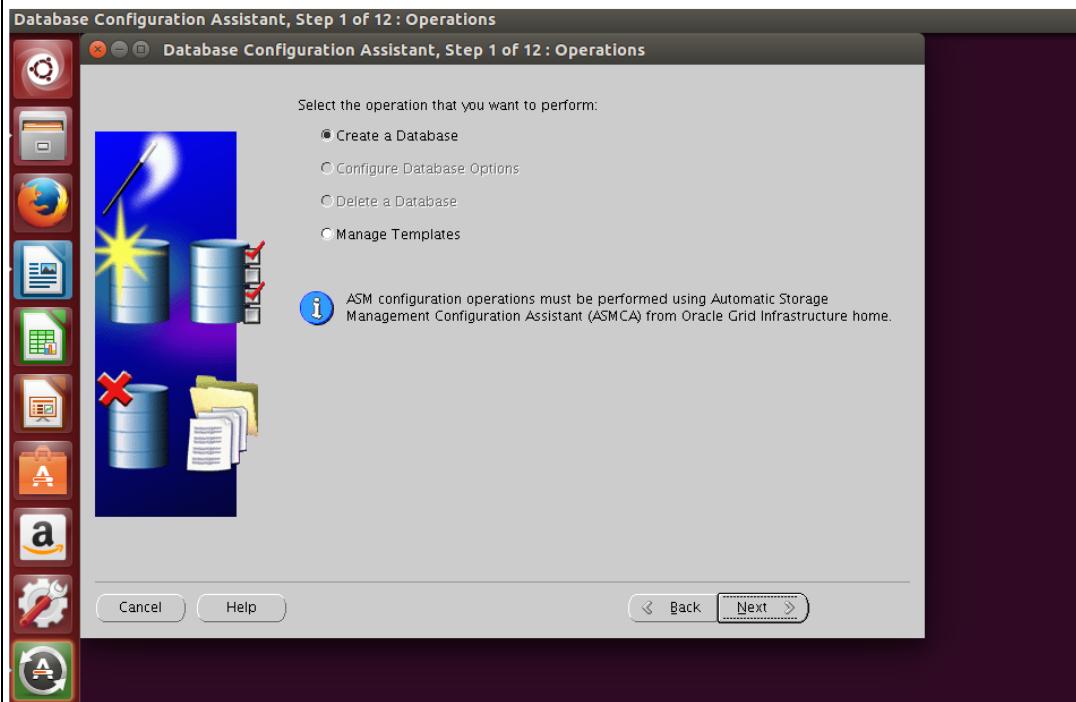
Enter user-name: amodhi as sysdba
Enter password:
Connected to an idle instance.

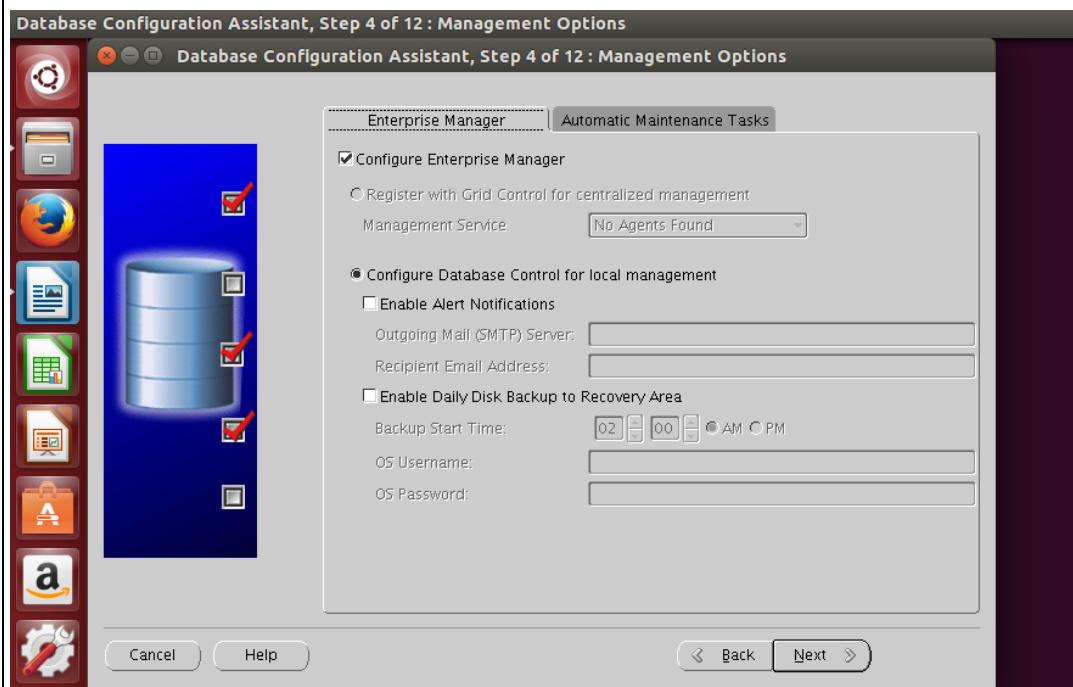
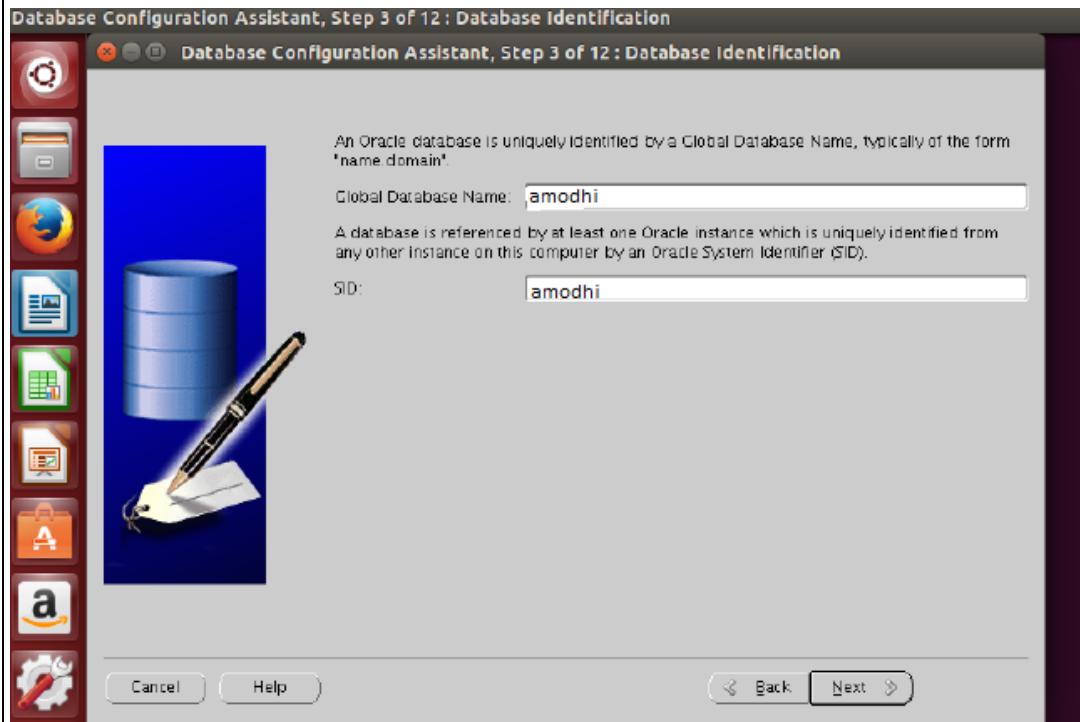
SQL> startup
ORACLE instance started.

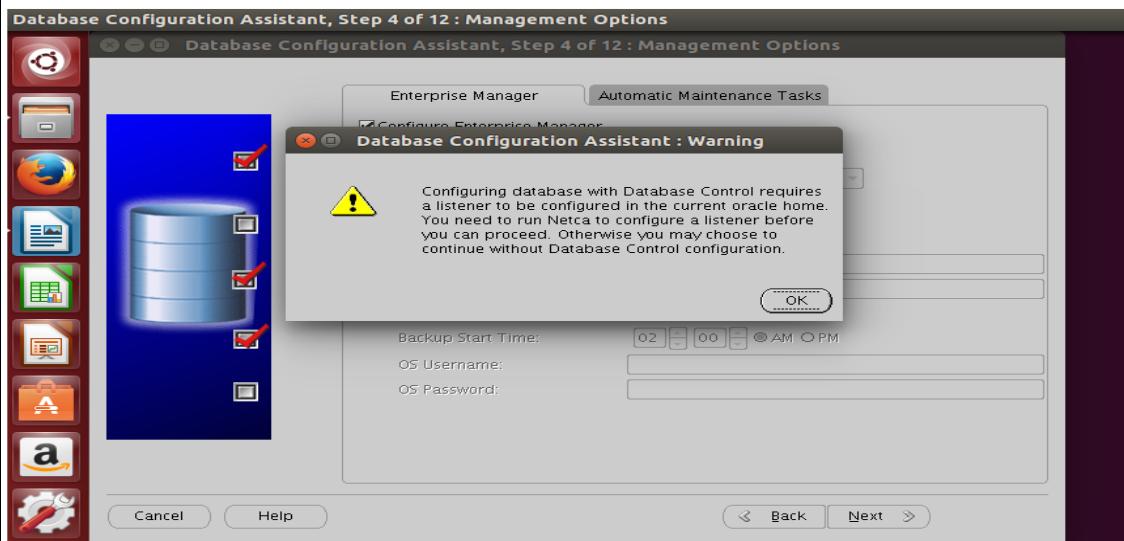
Total System Global Area  626327552 bytes
Fixed Size                  2215944 bytes
Variable Size                192942072 bytes
Database Buffers            427819008 bytes
Redo Buffers                 3350528 bytes
Database mounted.
Database opened.
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> 
```

e) Client Server Configuration







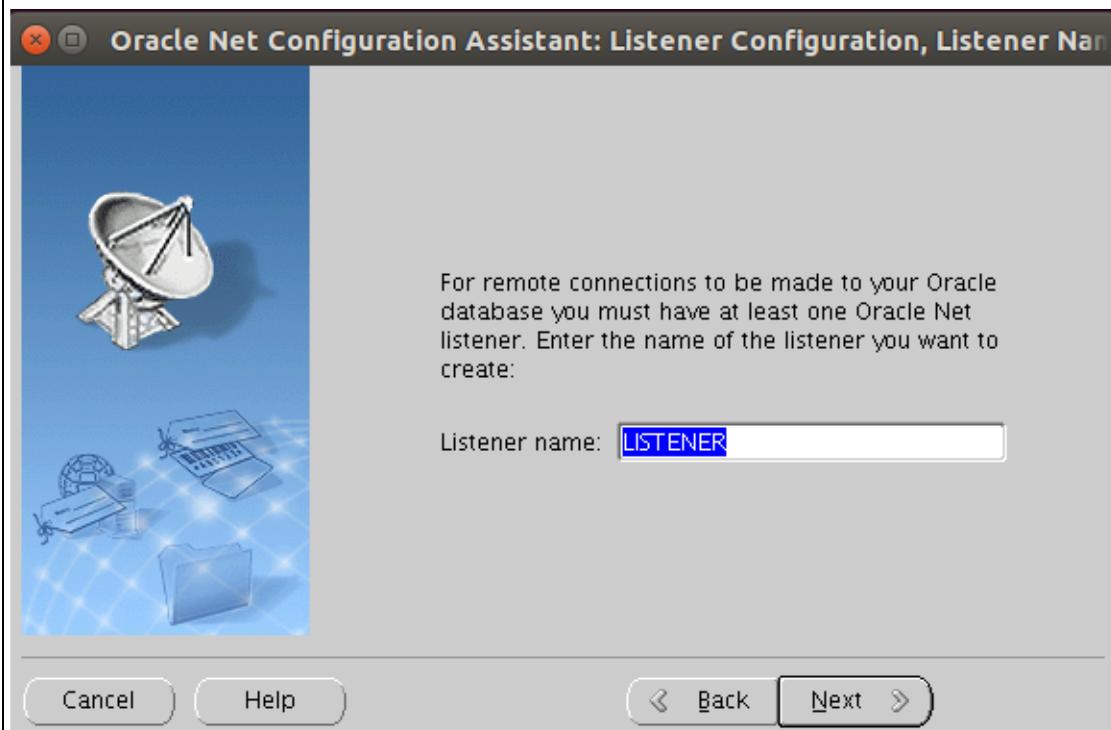
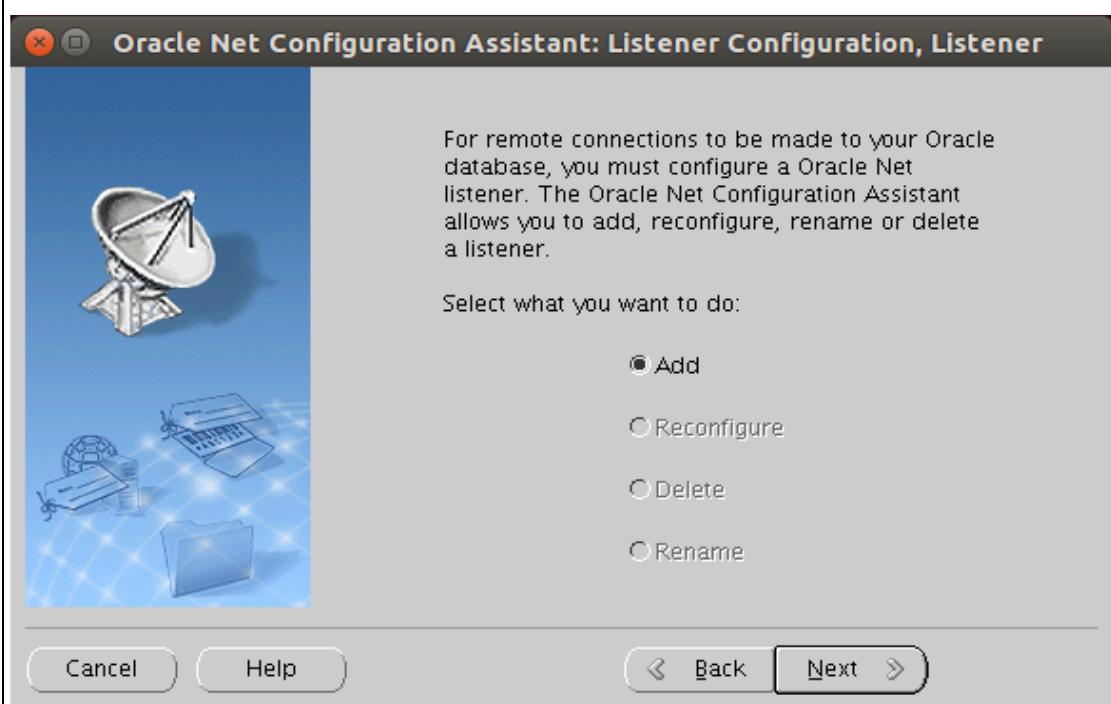


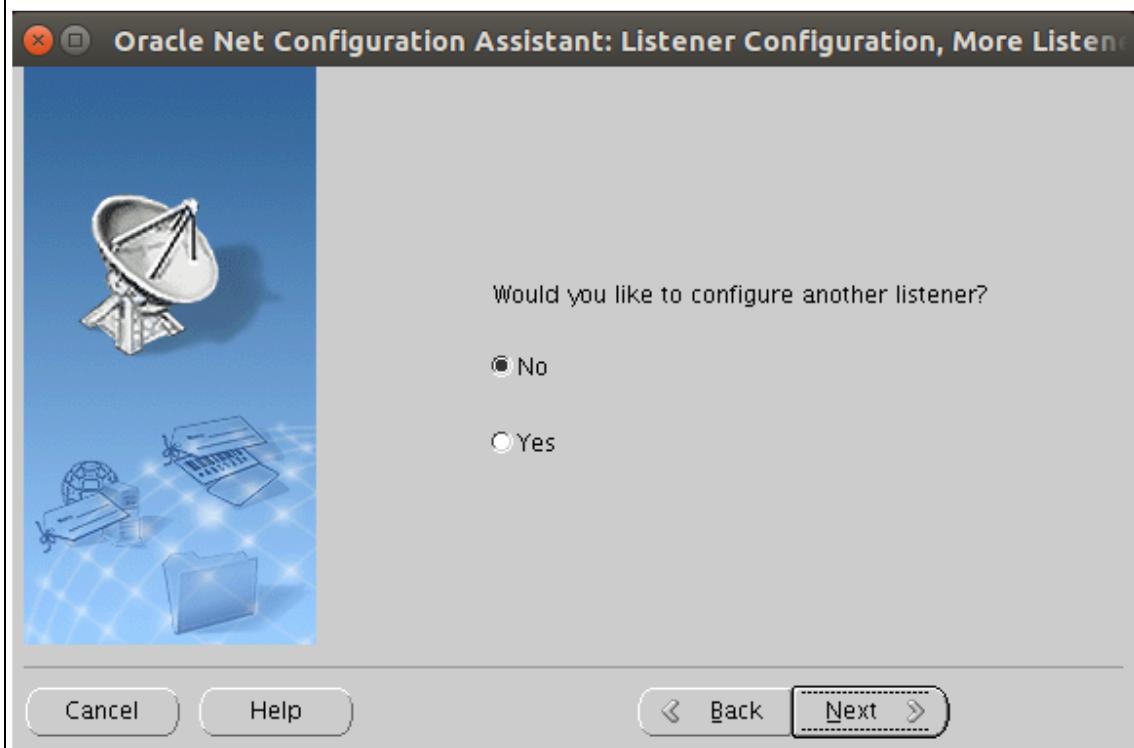
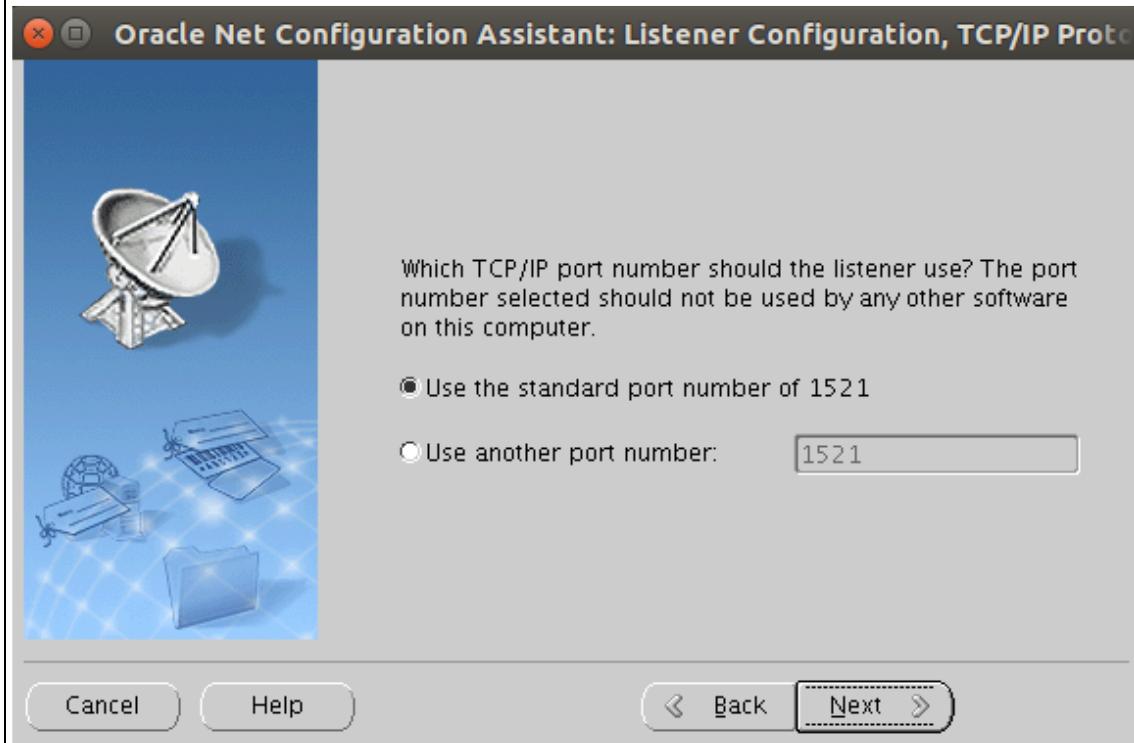
- Listener Configuration

```
oracle@ubuntu:/u01/app/oracle/product/11.2.0/dbhome_1/bin$ cat net
netca          netca_deinst.sh  netmgr
oracle@ubuntu:/u01/app/oracle/product/11.2.0/dbhome_1/bin$ ./netca
```

Oracle Net Services Configuration:









```
Oracle Net Services Configuration:  
Configuring Listener:LISTENER  
Listener configuration complete.  
Oracle Net Listener Startup:  
  Running Listener Control:  
    /u01/app/oracle/product/11.2.0/dbhome_1/bin/lsnrctl start LISTENER  
  Listener Control complete.  
  Listener started successfully.
```

