

Chapter 1 Download Oracle SQL Developer and 11g

If you are using the PC in SOC, you do not need to download Oracle SQL Developer and 11g and you can skip this part. If you are trying to practice SQL in your own PC, you can follow the steps below.

Download Oracle SQL Developer

Go to the download website

<http://www.oracle.com/technetwork/developer-tools/sql-developer/downloads/index.html>

Choose "Accept License Agreement".



Oracle SQL Developer 3.2.2 (3.2.20.09.87)
November 1, 2012

You must accept the [Oracle License Agreement](#) for SQL Developer to download this software.

☒ Accept License Agreement | ☐ Decline License Agreement

- [3.2.2 Release Notes](#)
- [3.2.2 Bugs Fixed](#)
- [New Features](#)
- [Documentation](#)

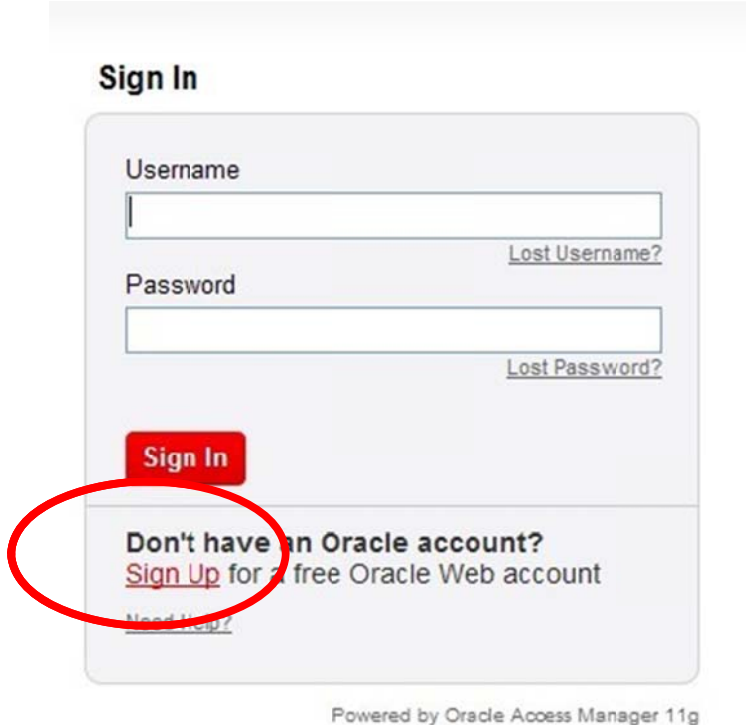
Platform	
Windows 32-bit - zip file <i>includes</i> the JDK1.6.0_35	Download 209 M
Windows 32-bit - Installation Notes	Download 174 M
Windows 64-bit - Installation Notes	Download 174 M
Mac OS X - Installation Notes	Download 173 M
Linux RPM - Installation Notes	Download 173 M
Other Platforms - Installation Notes	Download 174 M

[Download previous releases here](#)

Note that it is required to install JDK first, in order to run Oracle SQL Developer. The version of the JDK is also required. Please choose "Installation Notes" to check the required version of JDK of your PC. If the correct version of JDK is not installed, install it first.

Download the corresponding version of Oracle SQL Developer according to the OS of your PC.

If you are not signed in as a user of Oracle, it will ask you to sign in, as

The image shows a web form titled "Sign In". It contains two input fields: "Username" and "Password". To the right of the "Username" field is a link "[Lost Username?](#)". To the right of the "Password" field is a link "[Lost Password?](#)". Below the input fields is a red button labeled "Sign In". Below the button, the text "Don't have an Oracle account?" is displayed, followed by a link "[Sign Up](#) for a free Oracle Web account". A red circle is drawn around the "Sign Up" link. At the bottom of the form, there is a link "[Need Help?](#)". Below the form, the text "Powered by Oracle Access Manager 11g" is visible.

Sign In

Username [Lost Username?](#)

Password [Lost Password?](#)

Sign In

Don't have an Oracle account?
[Sign Up](#) for a free Oracle Web account
[Need Help?](#)

Powered by Oracle Access Manager 11g

If you are not a registered user, you have to sign up first, by click on "Sign Up". Finish the sign-up process and you become a user of Oracle. Then you sign in and the downloading should be automatically started.

Unzip the downloaded zip file into a folder. You can find "sqldeveloper.exe" in the folder and double click it. For the first time you try to run it, it will ask for the java path. You have to browse the path of "java.exe" in your PC. Typically you may find it in

C:\Program Files\Java\jdk1.6.XXX\jre\bin

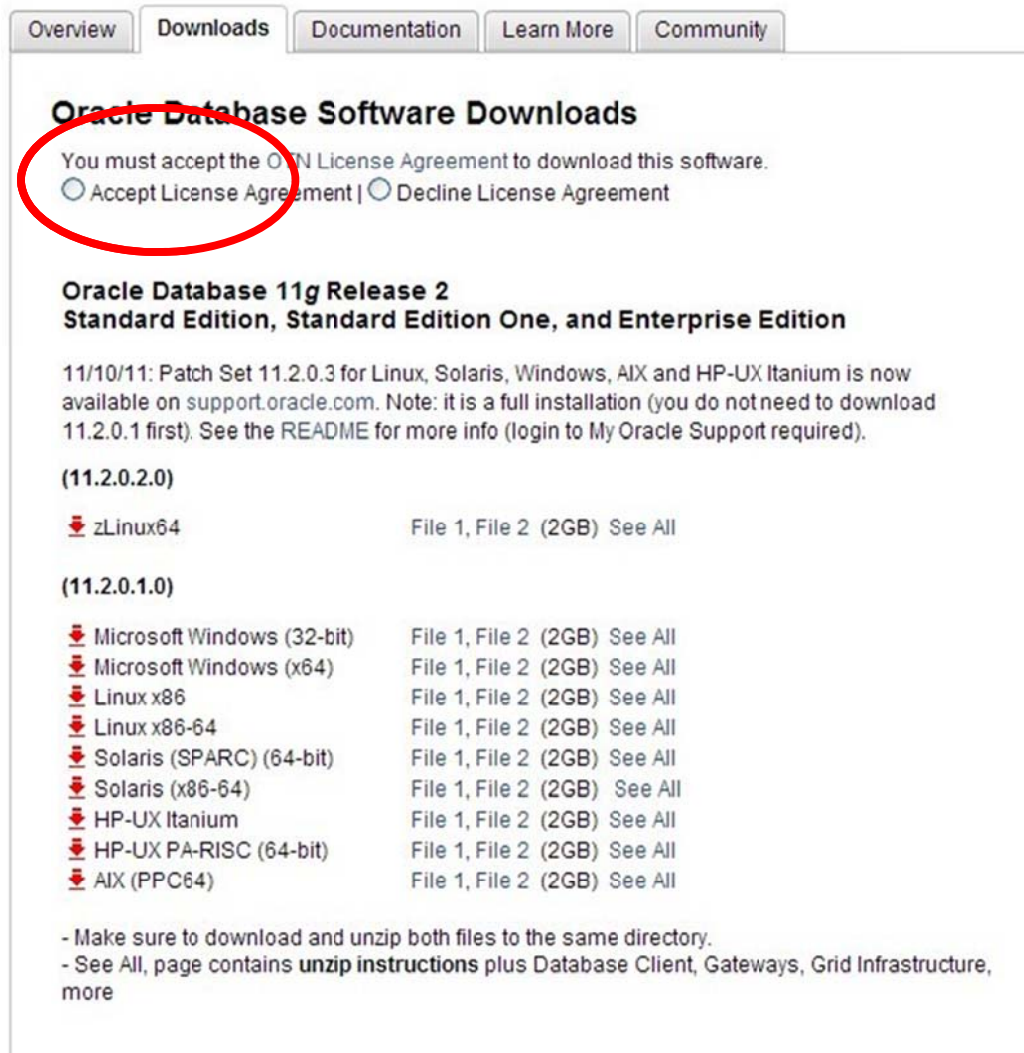
Now you can use Oracle SQL Developer. We will show you how to use it in Chapter 2.

Download and install Oracle 11g

Go to the download website

<http://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html>

Choose "Accept License Agreement".



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Oracle Database Software Downloads

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Oracle Database 11g Release 2 Standard Edition, Standard Edition One, and Enterprise Edition

11/10/11: Patch Set 11.2.0.3 for Linux, Solaris, Windows, AIX and HP-UX Itanium is now available on support.oracle.com. Note: it is a full installation (you do not need to download 11.2.0.1 first). See the README for more info (login to My Oracle Support required).

(11.2.0.2.0)

zLinux64	File 1, File 2 (2GB) See All
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(11.2.0.1.0)

Microsoft Windows (32-bit)	File 1, File 2 (2GB) See All
Microsoft Windows (x64)	File 1, File 2 (2GB) See All
Linux x86	File 1, File 2 (2GB) See All
Linux x86-64	File 1, File 2 (2GB) See All
Solaris (SPARC) (64-bit)	File 1, File 2 (2GB) See All
Solaris (x86-64)	File 1, File 2 (2GB) See All
HP-UX Itanium	File 1, File 2 (2GB) See All
HP-UX PA-RISC (64-bit)	File 1, File 2 (2GB) See All
AIX (PPC64)	File 1, File 2 (2GB) See All

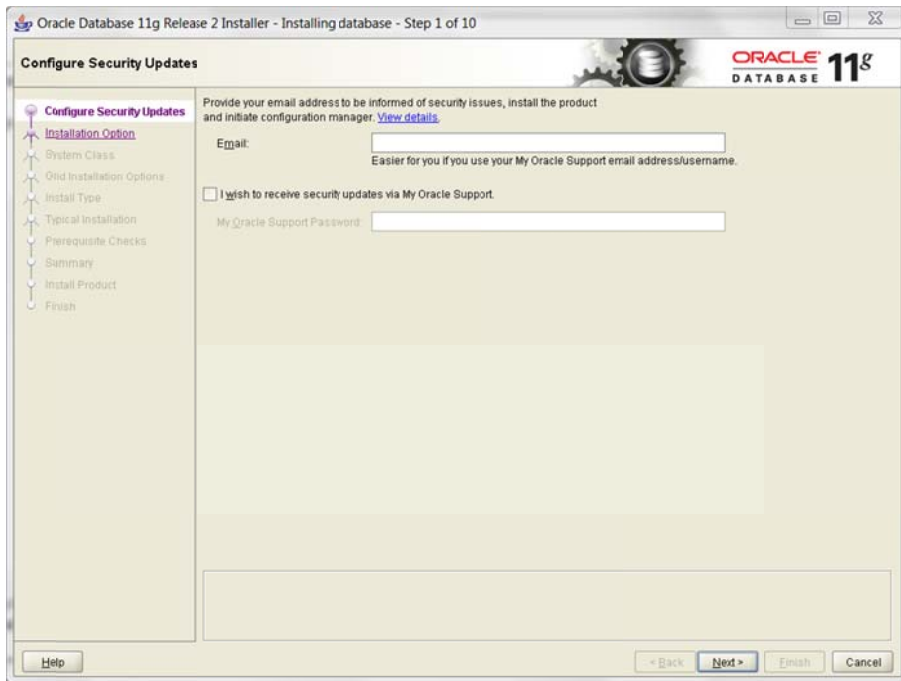
- Make sure to download and unzip both files to the same directory.
- See All, page contains **unzip instructions** plus Database Client, Gateways, Grid Infrastructure, more

Download the corresponding version of Oracle SQL Developer according to the OS of your PC.

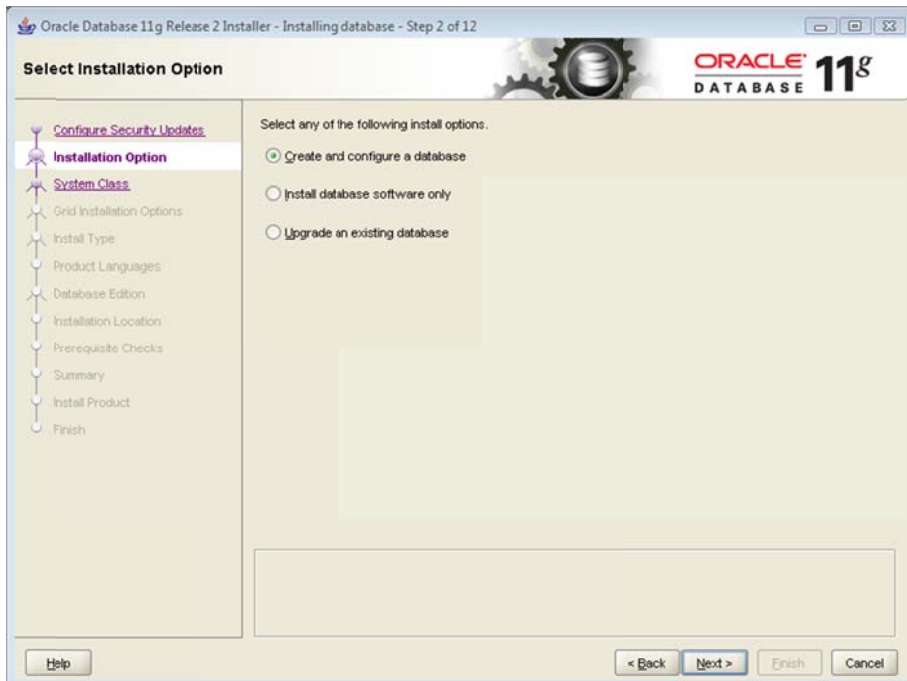
It may also ask you to sign in, and you can follow the same process before if you did not sign up.

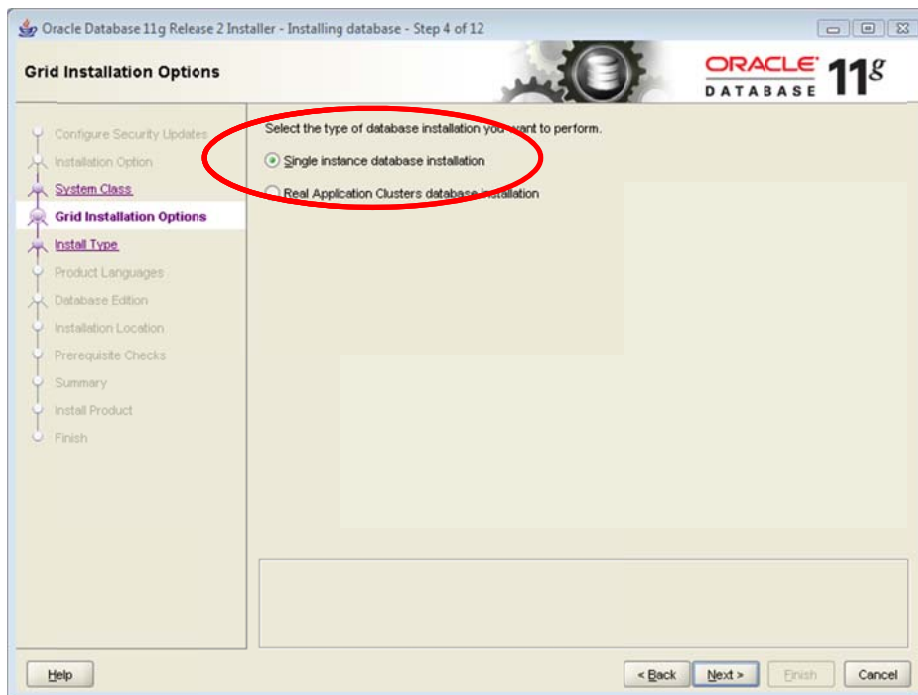
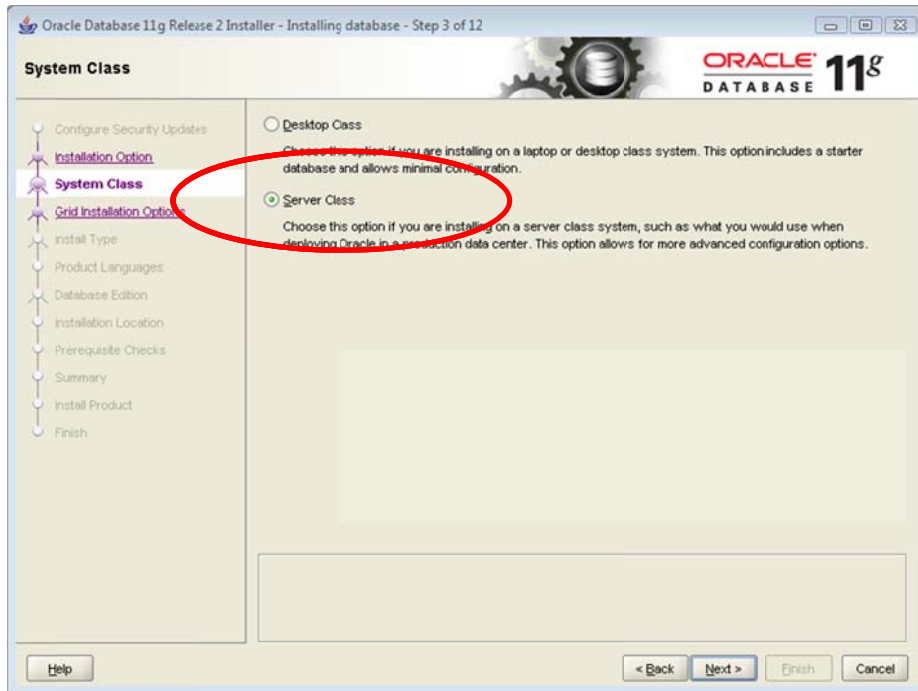
Unzip the two downloaded files into a same folder, e.g. D:\Oracle-setup. The contents unzipped from the two files constitute an entire setup folder (D:\Oracle-setup\database).

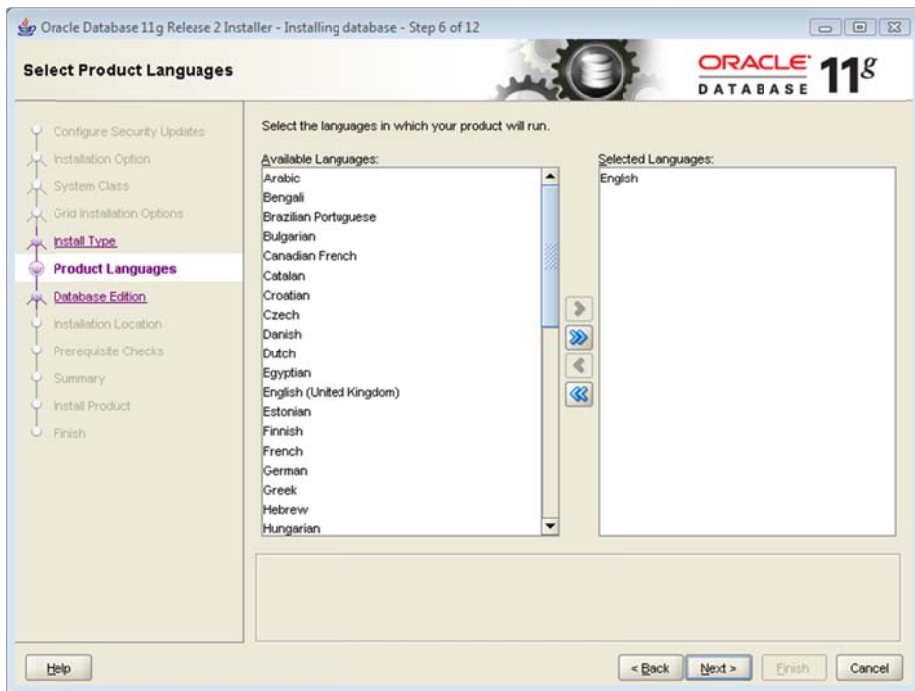
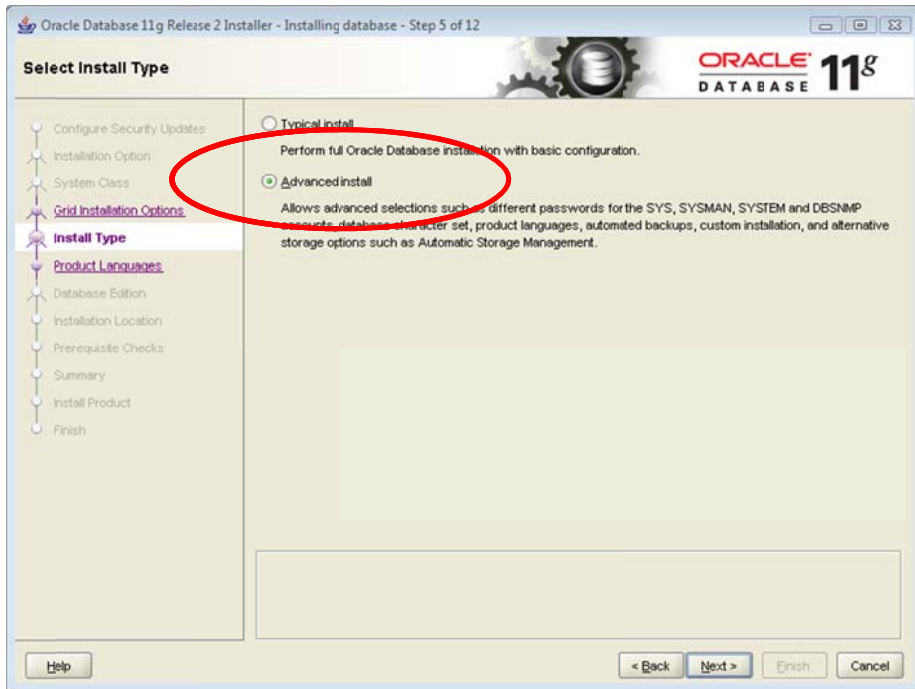
Launch the setup program “setup.exe” located inside the above setup folder. To install Oracle 11g, please follow the steps below.

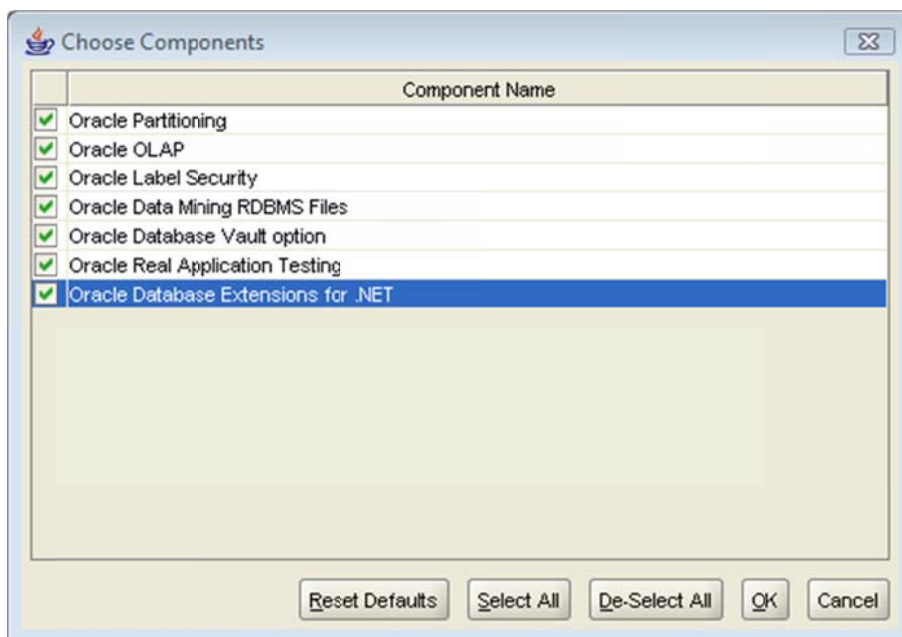
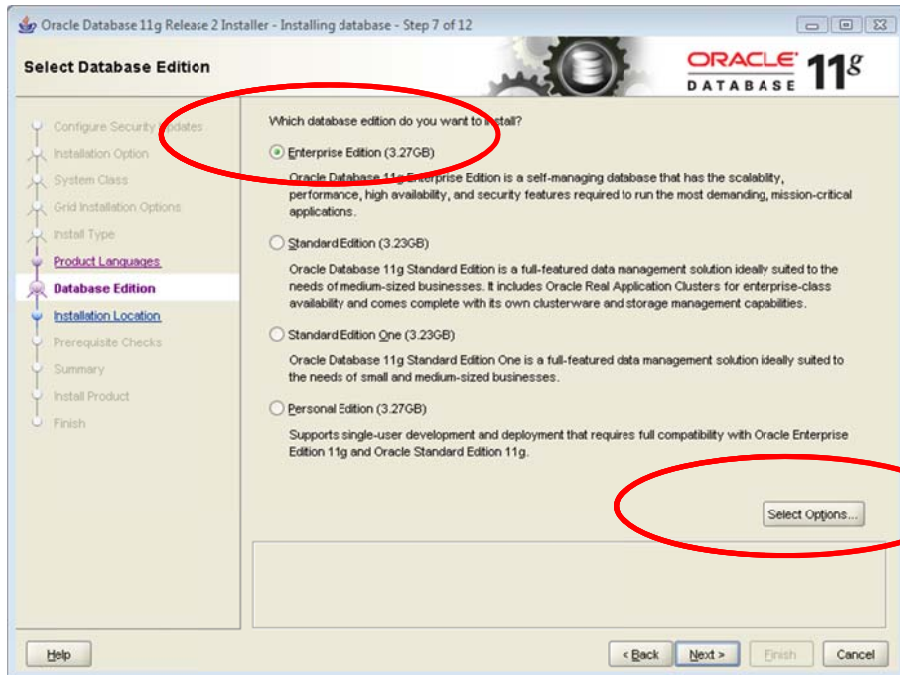


You can skip to input any email if you do not want to.









Oracle Database 11g Release 2 Installer - Installing database - Step 15 of 19

Specify Schema Passwords

The starter database contains pre-loaded schemas, most of which have passwords that are expired and locked at the end of installation. After installation is complete, you must unlock and set new passwords for those accounts you want to use. Schemas used for database management and postinstallation functions are left unlocked, and passwords for these accounts will not expire. Specify the passwords for these accounts.

☐ Use different passwords for these accounts

	Password	Confirm password
SYS		
SYSTEM		
SYSMAN		
DBSNMP		

☒ Use the same password for all accounts

Password: Confirm password:

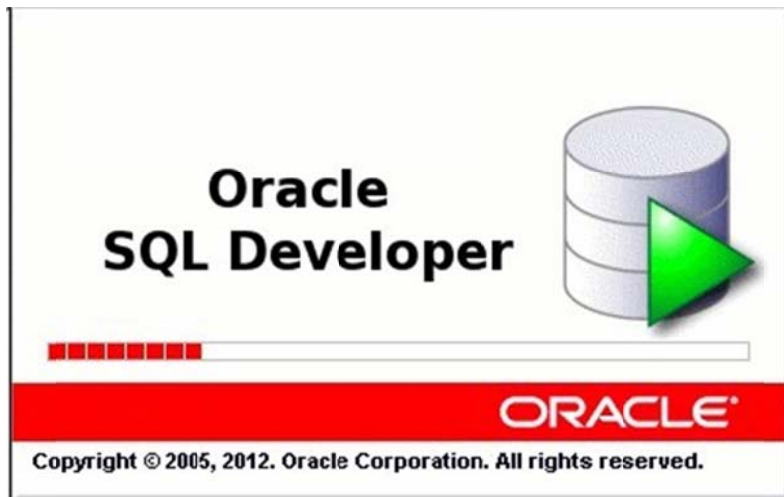
Help < Back Next > Finish Cancel

Set the password for these admin accounts. Do remember the accounts and passwords.

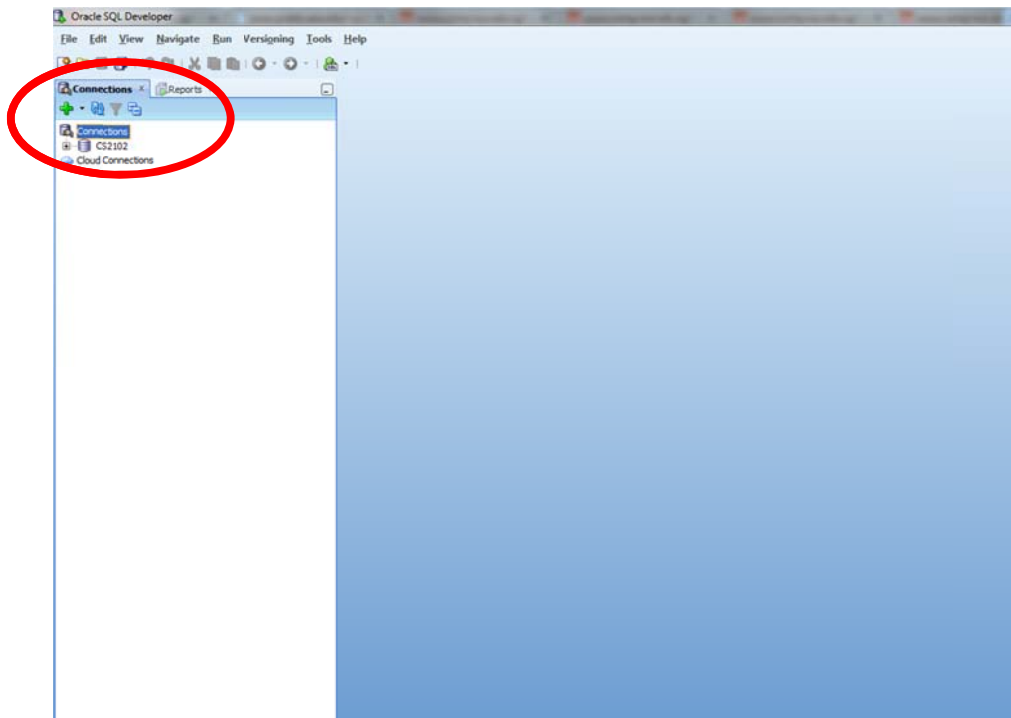
We will show you how to create a database in your own PC and connect to it using Oracle 11g and Oracle SQL Developer in Chapter 4.

Chapter 2 Use Oracle SQL Developer inside SOC, and try to connect to the server in SOC

Double click on “sqldeveloper.exe” and you may need to wait for a few seconds for the application to start.



You will see the following window



Right click on “connection”, and choose “new connection”. You will see

The screenshot shows the 'New Database Connection' dialog box in Oracle SQL Developer. The 'Connection Name' field contains 'cs2102'. The 'Username' field contains 'zengzh' and the 'Password' field is masked with dots. There is an unchecked checkbox for 'Save Password'. The 'Oracle' tab is selected, and the 'Access' section is visible. In the 'Access' section, 'Connection Type' is set to 'Basic' and 'Role' is set to 'default'. The 'Hostname' field contains 'sid3.comp.nus.edu.sg' and the 'Port' field contains '1521'. Under the 'Service' section, the 'SID' radio button is unselected, and the 'Service name' radio button is selected with the value 'sid3.comp.nus.edu.sg'. At the bottom, there are checkboxes for 'OS Authentication', 'Kerberos Authentication', and 'Proxy Connection', all of which are unchecked. The 'Test' and 'Connect' buttons at the bottom are circled in red.

For the “connection name”, you can give any name you want.

For the “username” and “password”, fulfill the information that the Database administrator has sent to you by email.

For the “hostname” and “service name”, fulfill “sid3.comp.nus.edu.sg”.

After entering the information, choose “test”. If it poses the information “state: success”, then click on “connect”.

Chapter 3 Use Oracle SQL Developer outside SOC, and try to connect to the server in SOC

If you are out of SoC, you need to use SoC-VPN to access the server in SoC.

Download the SoC-VPN

Go the website:

<https://docs.comp.nus.edu.sg/node/2454>

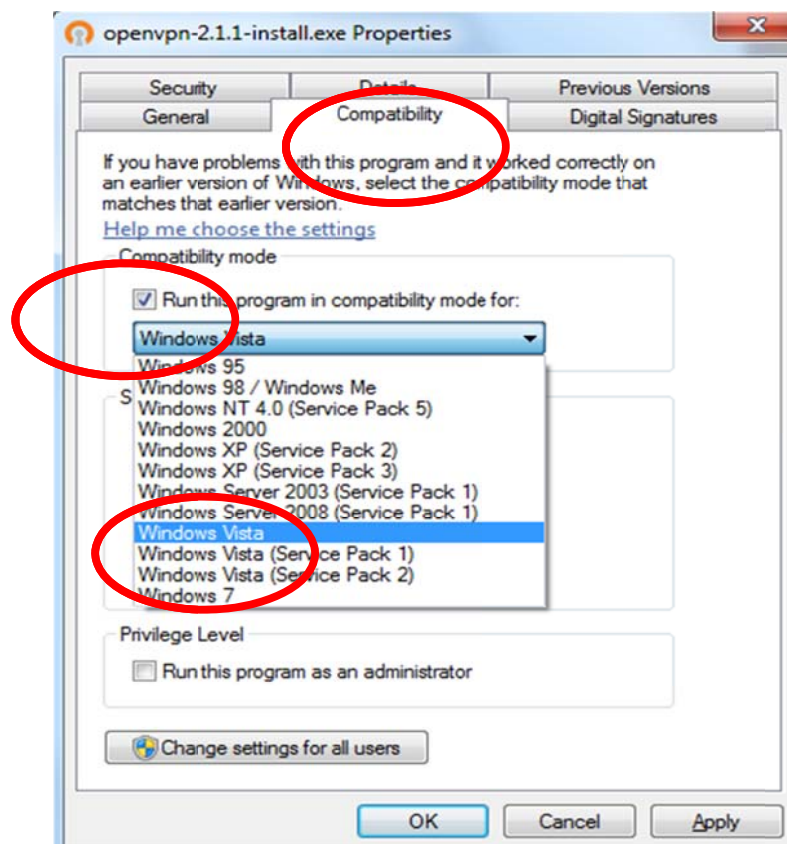
Step1.

Download the OpenVPN Windows Installer

from <http://download.comp.nus.edu.sg/download/openvpn-2.1.1-install.exe> and save it onto your desktop.

Step2.

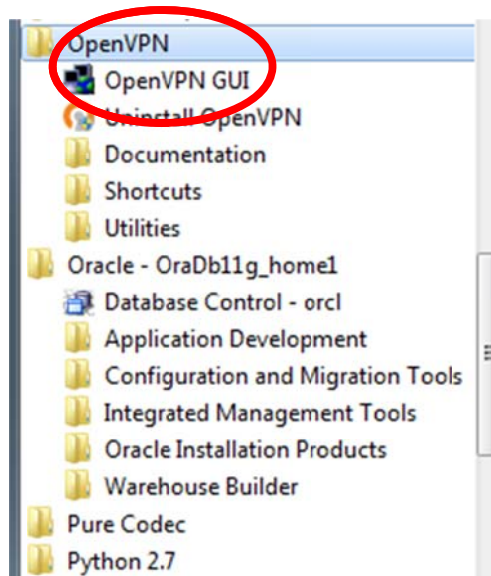
For Windows 7 only: Right-click on the saved OpenVPN Windows Installer file (e.g. openvpn-2.1.1-install), select Properties, click on Compatibility tab, then:



- a. Check “Run this program in compatibility mode for”, then select Windows Vista.
- b. Click OK.

Step3.

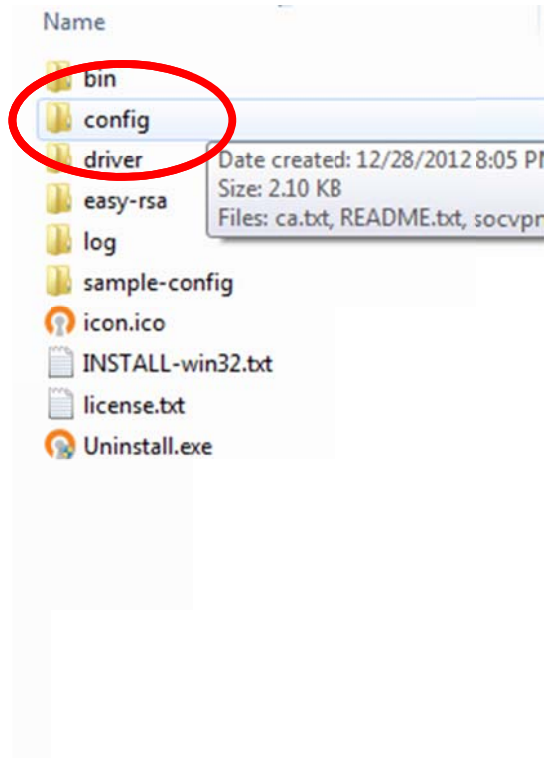
Run the OpenVPN Windows Installer and follow through to complete the installation of OpenVPN. When OpenVPN installation is completed, an OpenVPN folder and an OpenVPN GUI connection shortcut will appear in your Start Menu Programs folder and in your desktop.



Step4.

Configure OpenVPN with SoC-VPN connection profiles:

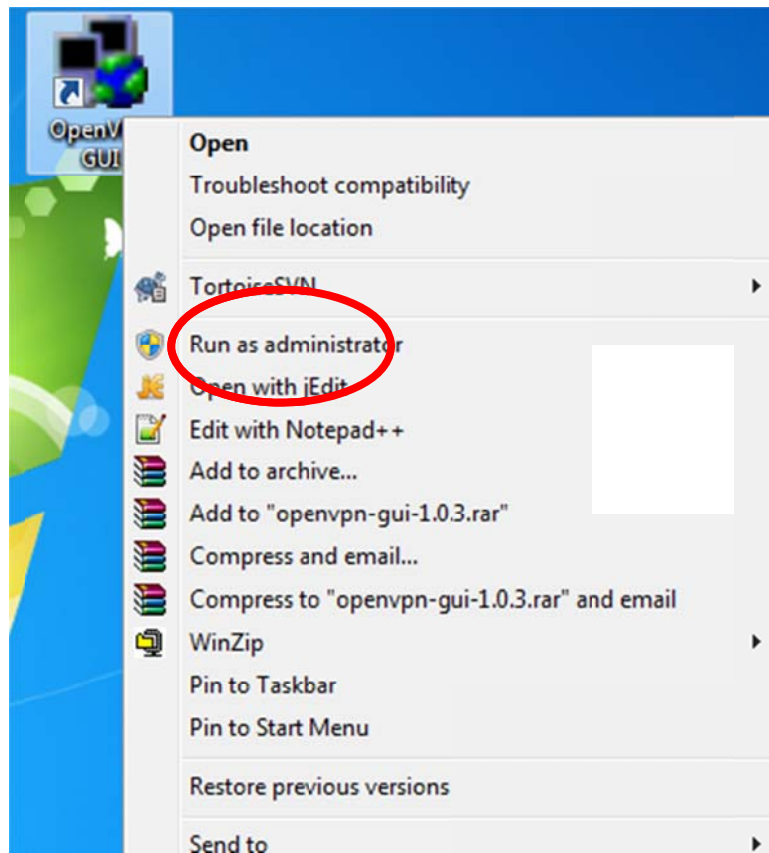
- a. Download the SoC-VPN configuration file: <http://download.comp.nus.edu.sg/download/socvpn.ovpn>
- b. Download the certificate file: <http://download.comp.nus.edu.sg/download/ca.txt>
- c. Save the downloaded files **socvpn.ovpn** and **ca.txt** into the OpenVPN configuration folder `\your installation path\OpenVPN\config\`.



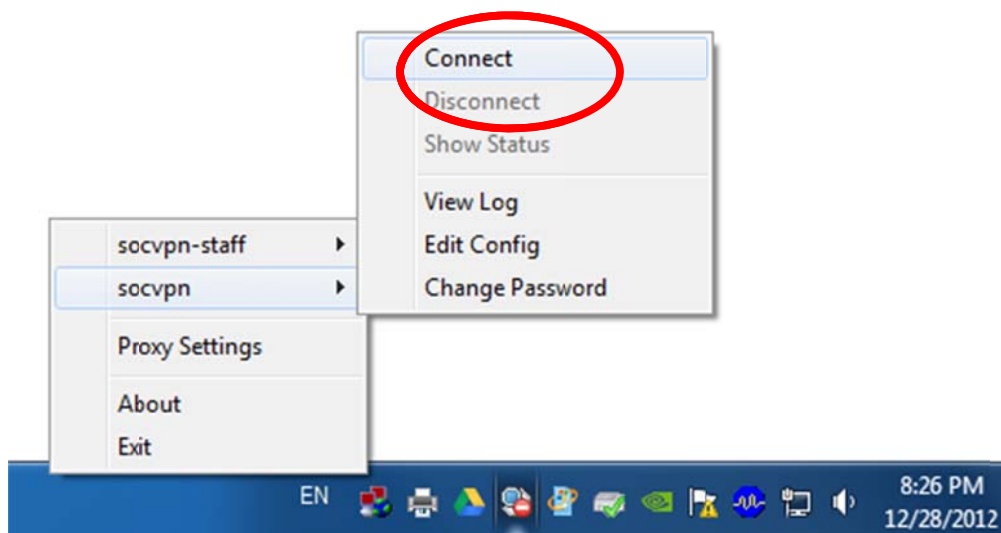
Connect to SoC-VPN:

Step1. Start the OpenVPN GUI:

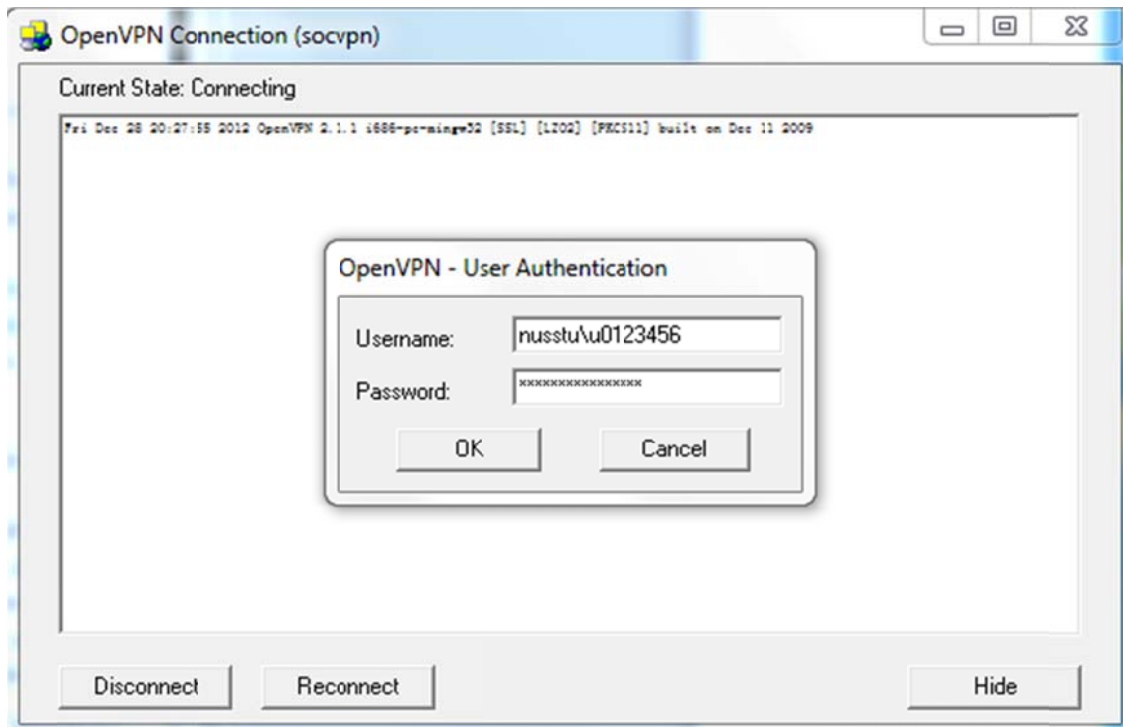
- a. For Windows Vista and Windows 7: Right click the OpenVPN GUI shortcut in your desktop and select "Run as Administrator" to run the program or go to Start → All Programs → OpenVPN GUI, right click and select "Run as Administrator" to run the program.
- b. For Windows XP: Double-click the OpenVPN GUI shortcut or go to start → All Programs → OpenVPN → click OpenVPN GUI to run the program.



Step2. Right-click on the OpenVPN icon in Notification area (systray), click Connect.



Step3. Type in your NUSNET userid
(e.g. nusstu\u0123456 or nusstf\comuser) and password in the authentication window.



Step4. When the VPN connection has been established, your browser will launch and load a webpage with the message "Welcome to SoC-VPN". You are now securely connected to SoC-VPN.

**NUS**
National University
of Singapore

| NOC Home

Site Navigation
NOC Home
User Account
My Computers
Documentation
Security
Fault Mgmt
Miscellaneous

Ticket Tracker
Registrar
Network Ops
Loan System
Facility Mgmt
Finance
Archives

Other links
MySoC.Net
SOC Homepage
MySoC Intranet
Student Intranet
Staff Intranet
NUS Homepage
About NOC Web

Welcome to SoC-VPN

Date/Time: 2012-12-28 20:30:33 Connecting From: 172.18.180.22 Session-ID: L1204457

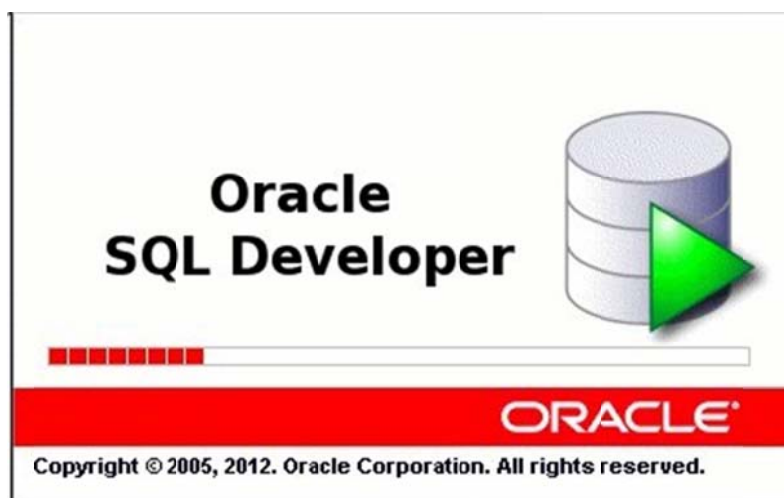
Your network access is now secured by SoC-VPN.

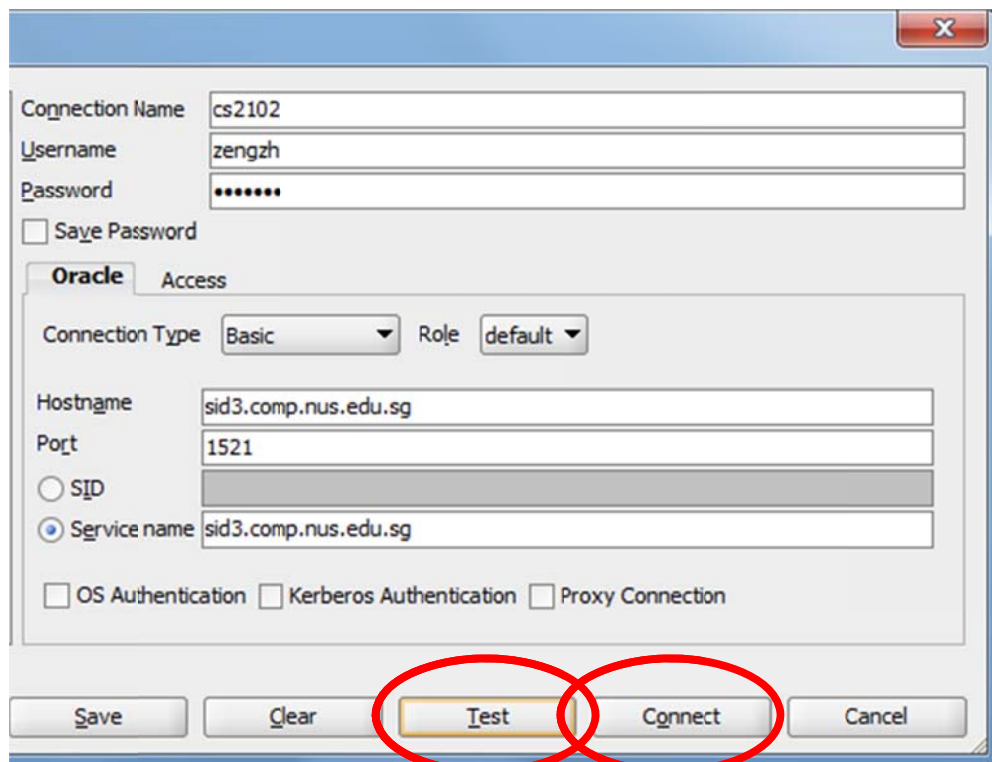
- Goto MySoC.Net (automatic sign-on)
- Goto MySoC Intranet (automatic sign-on)

NOC News: You can now receive NOC News (<https://noc.comp.nus.edu.sg/news>) vi

Connect to the server.

Now you can connect to the server in SoC as you are in SoC





A screenshot of the Oracle SQL Developer connection dialog window. The window has a title bar with a close button (X). The main area contains several input fields and checkboxes. At the bottom, there are five buttons: Save, Clear, Test, Connect, and Cancel. The 'Test' and 'Connect' buttons are circled in red.

Connection Name: cs2102

Username: zengzh

Password:

☐ Save Password

Oracle Access

Connection Type: Basic Role: default

Hostname: sid3.comp.nus.edu.sg

Port: 1521

☐ SID

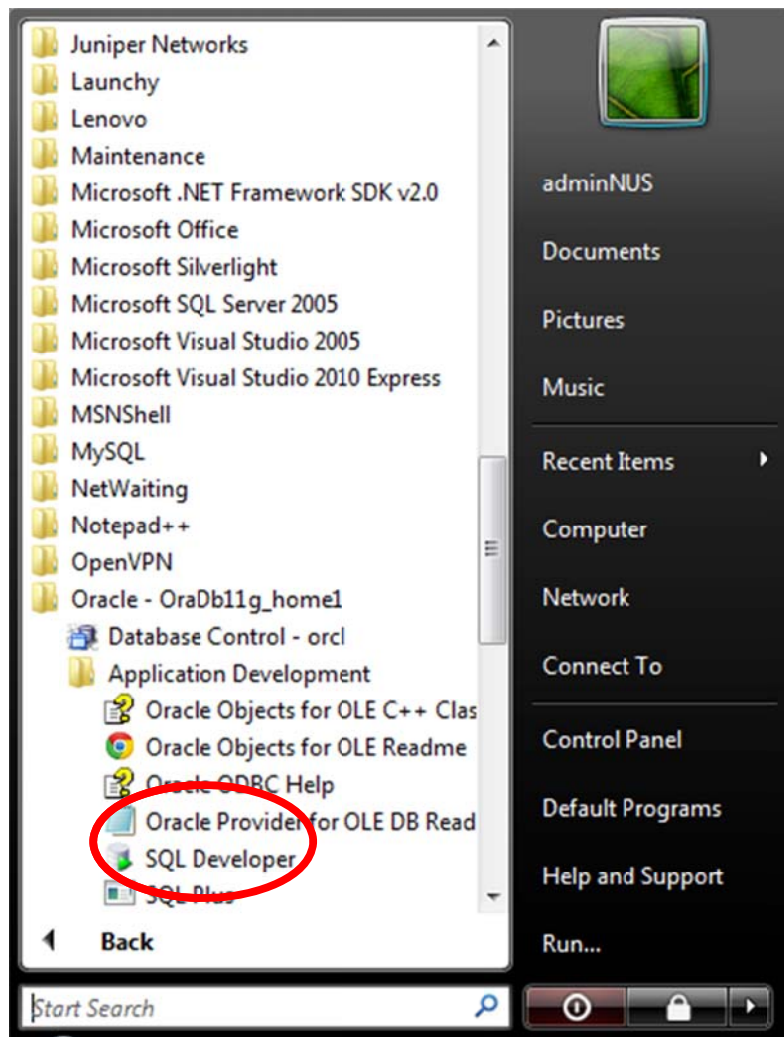
☒ Service name: sid3.comp.nus.edu.sg

☐ OS Authentication ☐ Kerberos Authentication ☐ Proxy Connection

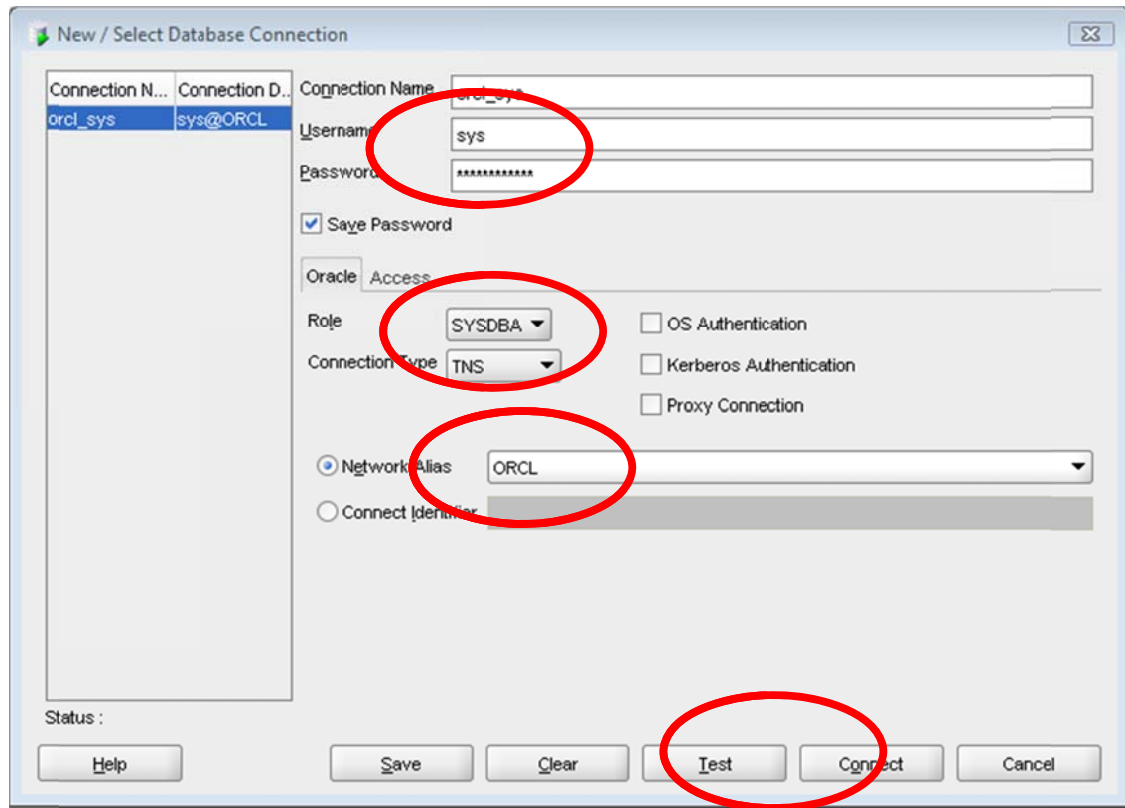
Save Clear **Test** **Connect** Cancel

Chapter 4 Use Oracle 11g to create database in your own computer

After installing Oracle 11g, Oracle SQL Developer is also included.



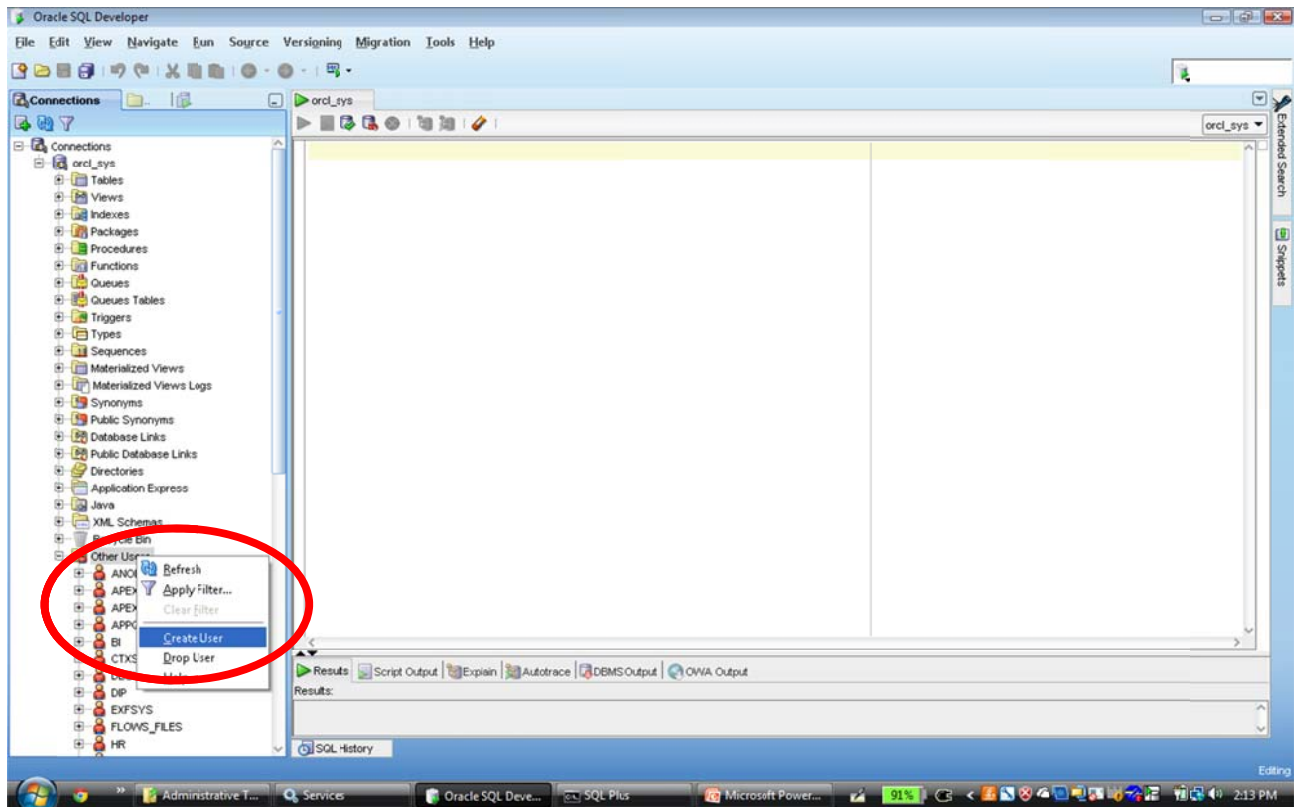
Run SQL Developer. Log in as a system administrator.



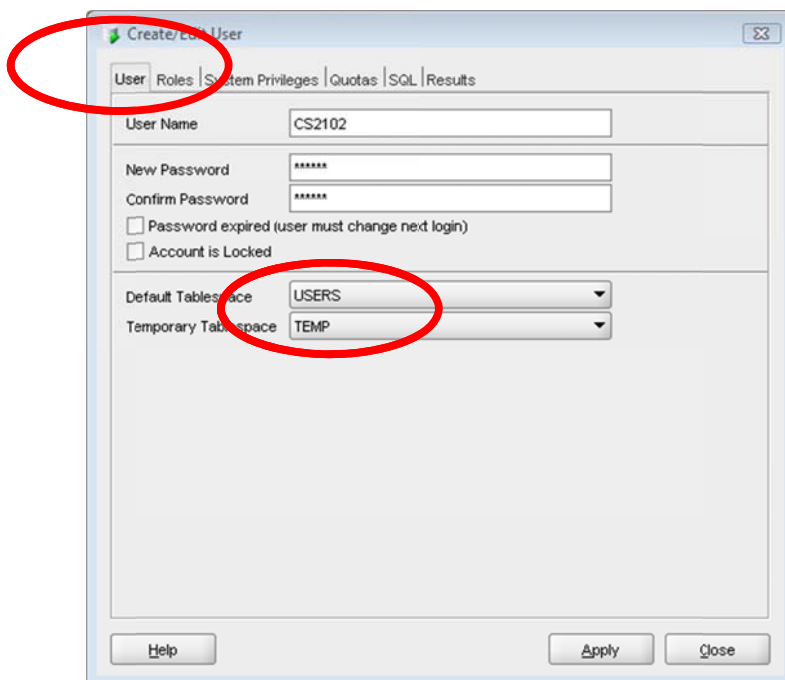
Do note that the "username" is "sys"; the password is the one you set during the installation; choose the "Role" as SYSDBA.

Click "Test" first, and then click "connect", as you did in the lab.

After logging in as an administrator, you can create a normal user.



Chose the tab “User”, and fulfill the user name and password. Choose “Default Tablespace” as “USERS” and choose the “Temporary Tablespace” as “TEMP”.



Choose the tab "Roles". Click "Granted" and "Default" for "CONNECT" and "RESOURCE".

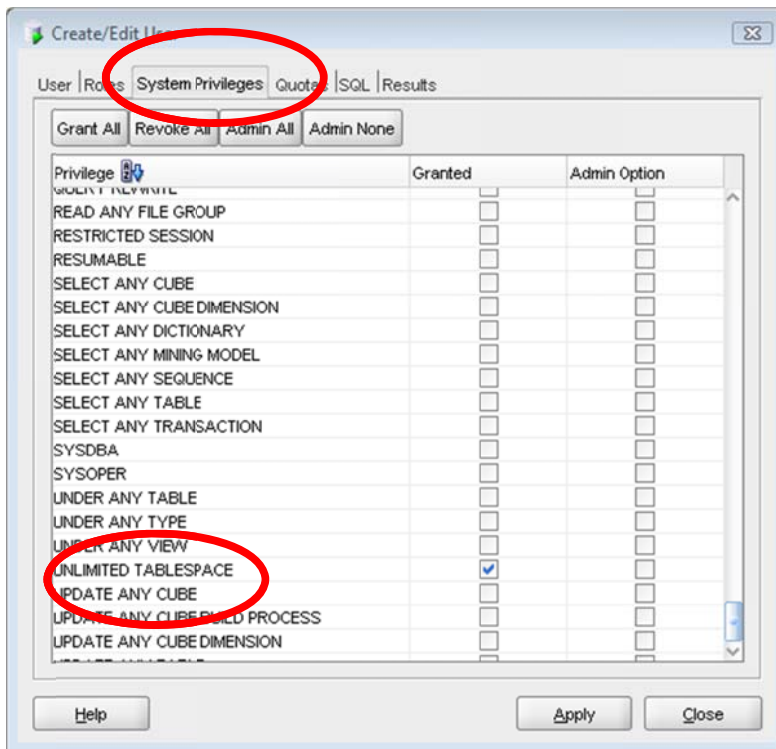
The screenshot shows the 'Create/Edit User' dialog box with the 'Roles' tab selected. The 'Roles' tab is circled in red. Below the tab, there are buttons for 'Grant All', 'Revoke All', 'Admin All', 'Admin None', 'Default All', and 'Default None'. A table lists various roles with columns for 'Role Name', 'Granted', 'Admin', and 'Default'. The 'CONNECT' role is highlighted, and its 'Granted' and 'Default' checkboxes are checked and circled in red.

Role Name	Granted	Admin	Default
ACCESS_LOCATIONS_DBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADM_PARALLEL_EXECUTE_TASK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APEX_ADMINISTRATOR_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AQ_ADMINISTRATOR_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AQ_USER_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AUTHENTICATEDUSER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CSW_USER_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CTXAPP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CWM_USER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATAPUMP_EXP_FULL_DATABASE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DATAPUMP_IMP_FULL_DATABASE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DBFS_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DELETE_CATALOG_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EJBCLIENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMP_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EXECUTE_CATALOG_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EXP_FULL_DATABASE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GATHER_SYSTEM_STATISTICS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

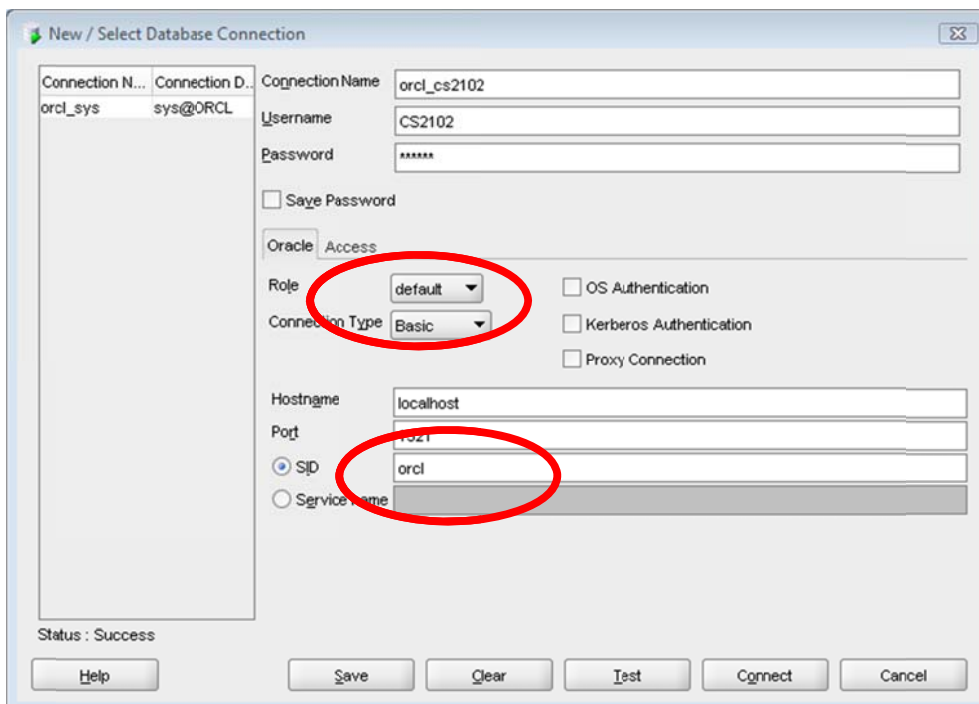
The screenshot shows the 'Create/Edit User' dialog box with the 'Roles' tab selected. The 'Roles' tab is circled in red. Below the tab, there are buttons for 'Grant All', 'Revoke All', 'Admin All', 'Admin None', 'Default All', and 'Default None'. A table lists various roles with columns for 'Role Name', 'Granted', 'Admin', and 'Default'. The 'RESOURCE' role is highlighted, and its 'Granted' and 'Default' checkboxes are checked and circled in red.

Role Name	Granted	Admin	Default
WOWM_USER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OEM_ADVISOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OEM_MONITOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OLAPI_TRACE_USER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OLAP_DBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OLAP_USER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OLAP_XS_ADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ORDADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OWB\$CLIENT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OWB_DESIGNCENTER_VIEW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OWB_USER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RECOVERY_CATALOG_OWNER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RESOURCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SCHEDULER_ADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SELECT_CATALOG_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPATIAL_CSW_ADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPATIAL_WFS_ADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WFS_USER_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WM_ADMIN_ROLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XDBADMIN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choose the tab “System Privileges”, click “Granted” for “UNLIMITED TABLESPACE”.



Then you can log in as the new user you created. Do note that select “Role” as “default” and the value of SID should be “orcl”.



Chapter 5 Sample Problems and solutions of using SOC VPN provided by the students

Sample 1.

Problem:

The operating system is WINDOWS 8.

And the error message shows that

"openvpn Options error: --route-up ****"

Solution:

Deleted the last line of the setting file which is :

route-up "start <https://noc.comp.nus.edu.sg/netlogon>"

Source provider: Wu Long (a student taking CS2102 in Sem II, AY2012-2013)

**Chapter 6 Sample Problems and solutions of
installing and starting-up Oracle 11g provided by
the students**