Practice 1: Preparing the Practice Environment

Practice Overview

This practice guides you to prepare the environment that you will use in the course practices. The practices in the course were designed using virtual machines. You will build two Linux-based virtual machines. One of them will be the main machine that you will use in most of the course practices and the other machine will be used only in a few practices.

Note: this practice assumes that you have the knowledge to perform the basic tasks on Oracle VirtualBox.

Practice Environment Requirements

Following are the requirements to prepare the practice environment:

Item	Type	Description
PC machine	hardware	A PC with Windows 7, 8 or 10 64-bit installed on it to host the virtual machines. Following are the required specifications: Memory: 16 GB Storage free space: 100 GB
Oracle VirtualBox, release 5.1.x	software	Software to create virtual machines (called virtual appliances)
WinSCP	software	A utility to copy the files to and from an Oracle VBox appliance
Putty	software	A program which provides a command line prompt to connect to a Linux server from Windows

Practice Environment Architecture

Item	Value
hostname of the first machine:	srv1
hostname of machine:	srv2
DHCP enabled?	Yes
Memory on each machine:	4 GB
HDD on each machine:	70 GB

Practice Environment Preparation Procedure

A. Install the Software on the Hosting PC

1. Install all the software mentioned in the list above in your PC.

B. Create an Oracle Linux 64-bit VirtualBox appliance

In the following steps, you will create an Oracle VirtualBox appliance.

2. Create a Linux-based VirtualBox appliance with the specifications as shown in the table below. Alternatively, you can download my copy of the appliance from my website at this link (3.3 GB).

   This is an Oracle VirtualBox appliance which has a fresh installation of Oracle Linux 6.7 installed on it.

   If you have not created a VirtualBox appliance before, the procedure to create it from scratch is documented here, or can be watched at YouTube here.

Item	Value
Hostname	`srv1`
Memory	4 GB
Operating system	Linux 6.7

C. Create a second Oracle Linux 64-bit VirtualBox appliance

In the following steps, you will create an additional Oracle VirtualBox appliance.

3. Create another Linux-based VirtualBiox appliance with the specifications as shown in the table below.

Item	Value
Hostname	`srv2`
Memory	4 GB
Operating system	Linux 6.7

D. Perform more configuration

In the following steps, you will perform more configuration to get your environment ready for the course.

4. In **both** appliances, configure the `/etc/hosts` file and make sure they can see each other.

```
vi /etc/hosts

127.0.0.1    localhost localhost.localdomain
192.168.1.159 srv1.localdomain srv1
192.168.1.160 srv2.localdomain srv2
```

```
ping srv1
ping srv2
```

5. Connect to each appliance from your hosting PC using PuTTY. Save the two connections in PuTTY.

    Configure the session to the `srv2` to have green font. The idea is to make it easy for you to distinguish between the PuTTY session windows connected to the first server and those which are connected to the second server.

    The following screenshot shows you where to click to change the font color in PuTTY:
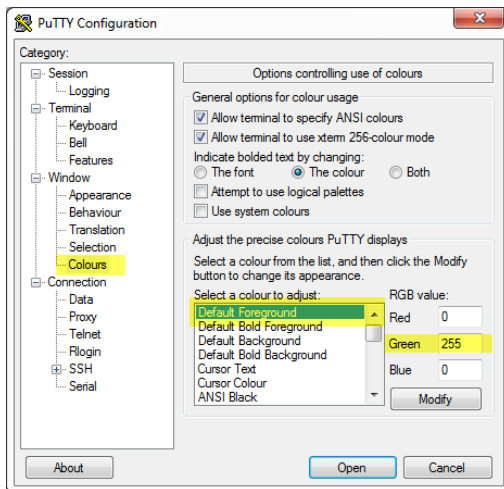
Summary

By end of this practice, you should have two Linux-based Oracle VirtualBox appliances: `srv1` and `srv2`.

`srv1` will be used to install the Oracle 12c release 2 CDB database and `srv2` will be used to install an Oracle non-CDB database.