Oracle MOOC: SQL Fundamentals

Session 1

Getting Started Guide

Homework assignments are given at the end of each lesson. Although they are not mandatory, it's suggested to complete the homework to gain a better understanding of the concepts taught in each video. In order to attempt the homework assignments, the first requirement is to have access to an Oracle Database.

You can gain access to an Oracle Database in *any* of the following ways:

- Download and install a pre-built developer virtual machine (VM) available in OTN
- Get a subscription to Oracle Database Exadata Express Cloud Service or Oracle Database Cloud Service
- Access Oracle Live SQL @ https://livesql.oracle.com/
- Download and install Oracle Database locally

As per your convenience, you are free to choose between any of the above options to access the Oracle Database. However, this document provides instructions to access the Oracle Database through the pre-built developer VM.

Download and Install Pre-built Developer VM

Requirements

To be able to download and install the pre-built developer VM successfully, make sure your system meets the below requirements:

1. At least 2GB RAM. Default VM is 1G RAM, for better performance increase.

2. At least 15GB of free space (Note: virtualization works best with contiguous space so it is a good idea if on Windows to run a defrag program, and make sure you are using NTFS for your file system to handle large files on Windows.)

3. 2GHz Processor (a lesser processor will be acceptable but slower)

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4. Mozilla Firefox 2.0 or higher, Internet Explorer 7 or higher, Safari 3.0 and higher or Google Chrome 1.0 or higher

5. Adobe Acrobat reader

6. Admin privileges on your virtual machine box

Setup

1. Access Oracle Technology Network Developer Day VM at http://www.oracle.com/technetwork/database/enterprise-edition/databaseappdev-vm-161299.html

2. Under the **Setup** section, select **Accept License Agreement**

3. Download and install Oracle VM VirtualBox on your host system (if not installed on your system already

   Hint: Click the download link provided for your platform, under Oracle VM VirtualBox Base Packages

4. Click Oracle DB Developer VM to download the file

Start Oracle Virtual Box Manager and Import the Appliance

1. Launch the Oracle Virtual Box Manager
2. Select **File > Import Appliance**
3. In the Appliance to Import page, select **DeveloperDaysVM2017-06-13_01.ova** appliance file, and click **Next**
4. On the Appliance Settings page, make sure the location of the 2 virtual disks is on the drive with sufficient disk space, and click **Import**
5. The Software License Agreement dialog displays. Click **Agree**
6. After the import, the **DeveloperDaysVM2017-06-13_01 virtual machine** is ready to be powered on
7. Double-click **Oracle DB Developer VM** to launch it

Connect to the database as SYS

1. Start Oracle SQL Developer.

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2. Create a New Oracle SQL Developer Database Connection
   a. In the Connections navigator, right-click **Connections** and select **New Connection** from the context menu.
   b. The **New / Select Database Connection** dialog box appears
   c. Enter the following details for the new connection:
      i. Connection Name: *setup_mooc*
      ii. Username: *SYS*
      iii. Password: *oracle*
      iv. Role: **SYSDBA**
      v. Hostname: *localhost*
      vi. Port: *1521*
      vii. Service Name: *orcl*

   Ensure that you select the **Save Password** check-box.

   d. Click **Test** to test the new connection
   e. If the Status shows Success, click **Connect** to make the connection
   f. Once the connection is made, a SQL worksheet opens up automatically

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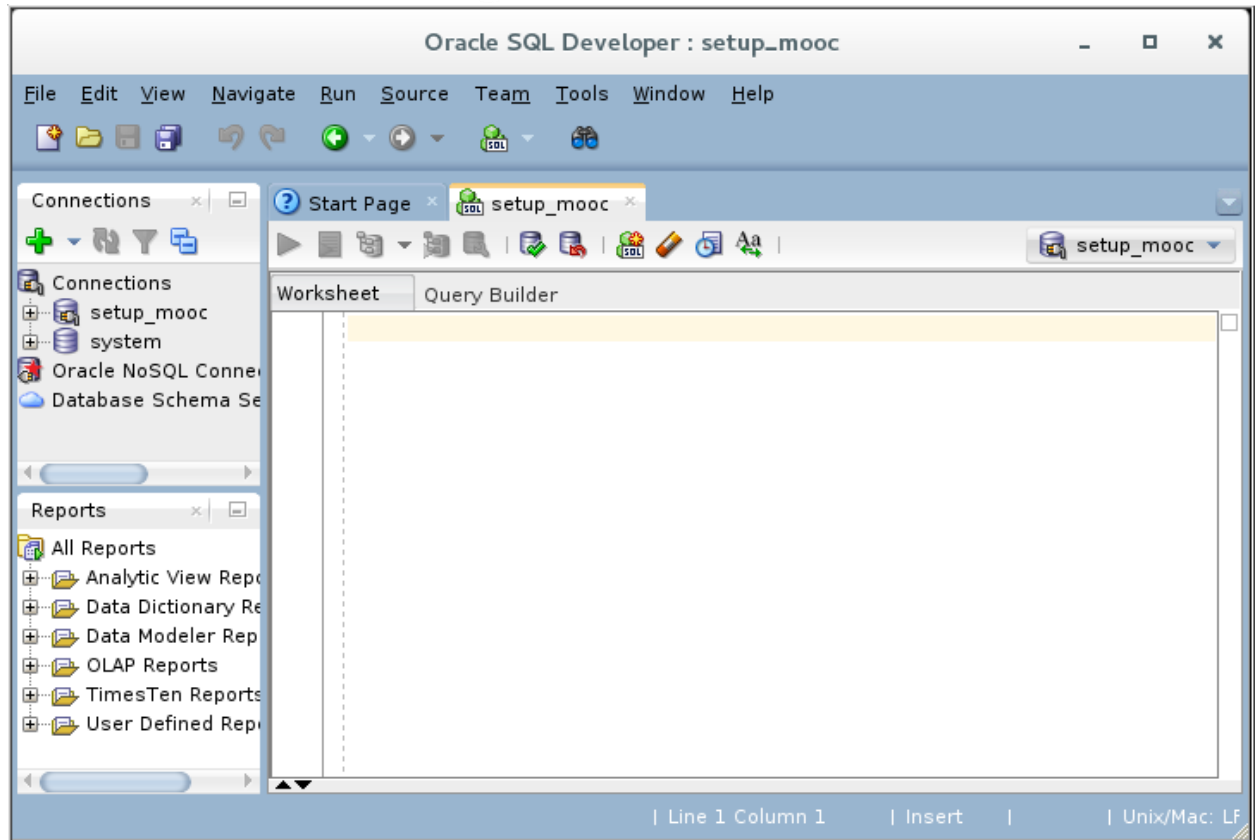
Run the setup scripts to create the HR schema

Once your database connection is made, follow these steps to install the schema and database objects for the course.

1. Download the `labs.zip` file and expand it. You will find the following folders:
    a. `setup_files:` This folder contains all the script files required to setup your HR schema tables required for the demos and homework.
    b. `code_ex:` This folder contains all the script files that we have used in our demos in the videos.
    c. `lab_scripts:` This folder contains scripts that you will need while doing your homework.

      d. `cleanup_scripts`: This folder also contains scripts that you will need while doing your homework.

2. Navigate to `labs/setup_files` folder.
3. Locate `setup.sql` file and run it from the SQL Developer Worksheet.
4. You can test the `(ora1/ora21/ora22/ora23)` account and verify the HR schema as follows:

```
SELECT COUNT(*) FROM employees;

Expected result: 20 rows

SELECT count(*) FROM tab;

Expected result: 9 rows

SELECT count(*) FROM departments;

Expected result: 8 rows
```

Review User Accounts

As a best practice, it is suggested that you don't use the SYS connection to execute code examples or homework. Alternatively, you can use **any one** of the below user accounts to create a new connection for practicing homework:

USERNAME	PASSWORD
ora1	ora1
ora21	ora21
ora22	ora22
ora23	ora23

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If you are interested to try the code examples demonstrated in the videos, use the **teach_a** account:

> **Username**: `teach_a`
> **Password**: `teach_a`

Demo Scripts

- The scripts used in the videos are available in the `labs/code_ex` folder.
- The naming convention of the script files are as follows:
  `code_<Lesson number>_<Part number>.sql`
- For example, if you want to access the code examples in **Lesson 2 - Part 3** video, open the file named `code_02_03.sql.`

Congratulations! You have successfully completed the setup required to practice the code examples or homework assignments created for this MOOC.