Connecting to an Oracle RDS using SQL Developer

Overview: In this exercise, you will download and install Oracle SQL Developer and then connect to an RDS instance running on AWS.

Prerequisites: You should have already created an Oracle RDS Instance using your AWS Educate Starter Account.

At a high level, the steps include:

- Create an Oracle Profile if you have not already done so.
- Verify you have a recent version of Java SDK on your workstation
- Download Oracle SQL Developer
- Unzip and install Oracle SQL Developer
- Test the connection with the Oracle RDS on AWS
- Use the Query builder to interact with the Oracle RDS

Note: You are welcome to use another application to connect to the Oracle RDS instance on AWS. Tools such as TOAD, Oracle SQL*PLUS and others exist. However; the Oracle AWS Database must be used for all exercises and labs to receive credit in this course.

You need an Oracle account to download any software from the site. To verify you have one or to create one go to the **login.oracle.com** site and click on account. See figure 1.
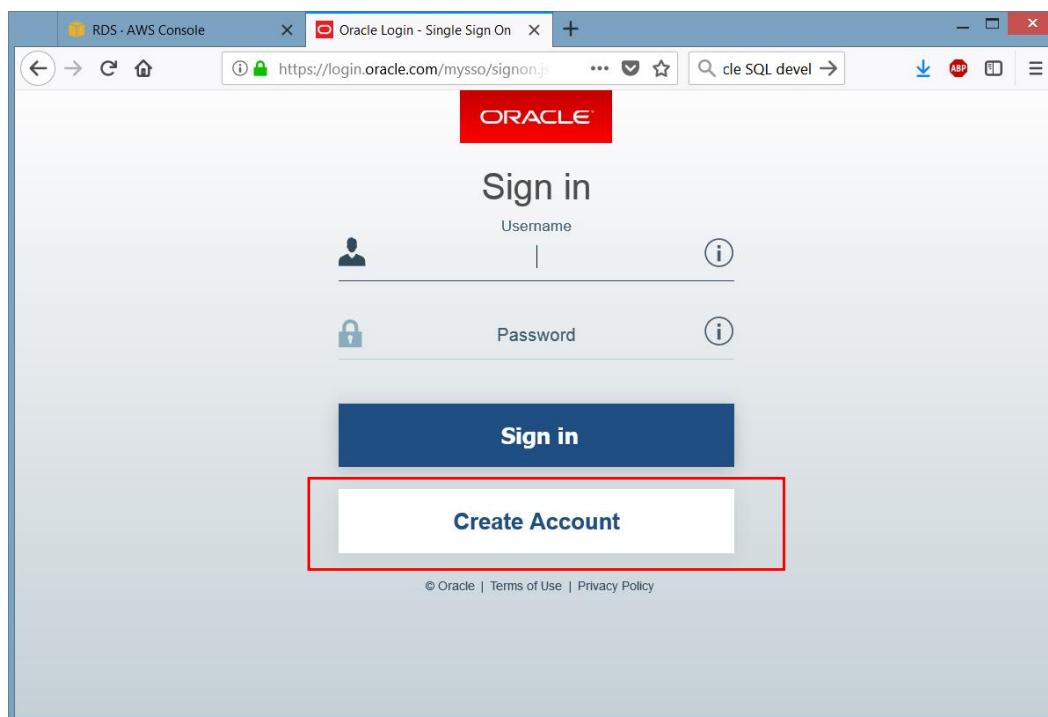

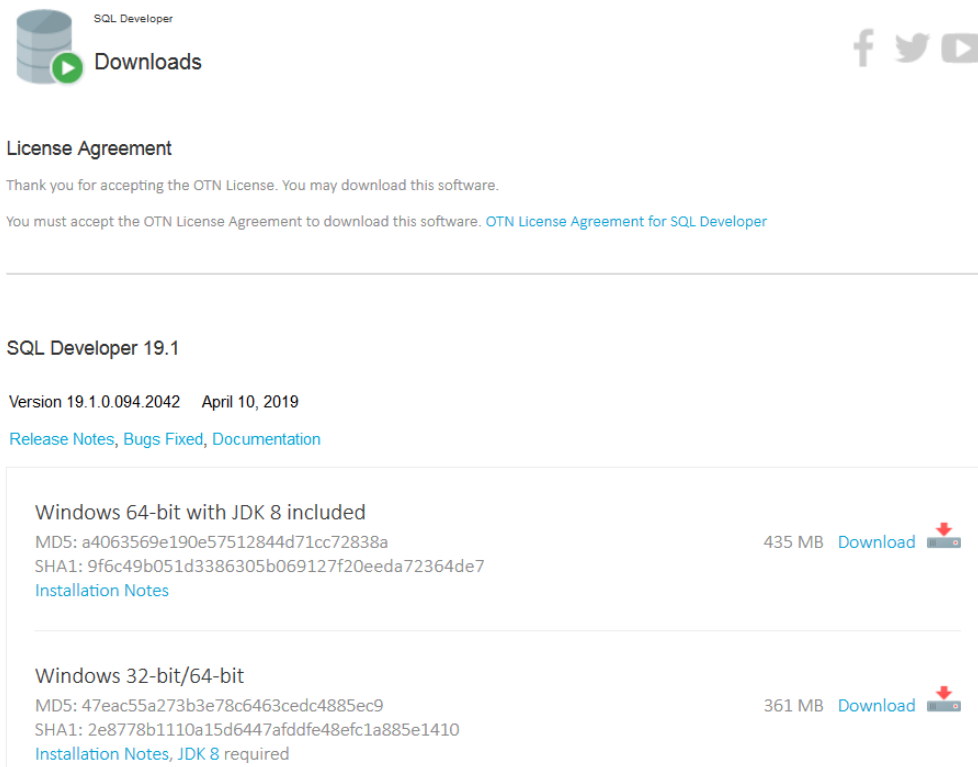*Figure 1 Verifying/Creating an Oracle Login Account*

If you already have an account and forgotten your password, you can apply for a new account and then an email will be sent to you providing the URL to change your password. Remember your Oracle login credentials as you will need these once you start to download the SQL Developer tool.

To download the SQL Developer tool, search for the Oracle URL download and then accept the license to be start the download. Be sure to select the most appropriate version for your operating system and settings.

Note, Oracle updates versions often, so the version may not match the screen shots. Select the most recent version and proceed.

In most cases, you should already have Java installed on your machine. You may need to update it but you should be able to download the version without Java Environment.

Figures 2 and 3 show screen captures for selecting and scrolling down to the proper version to download.

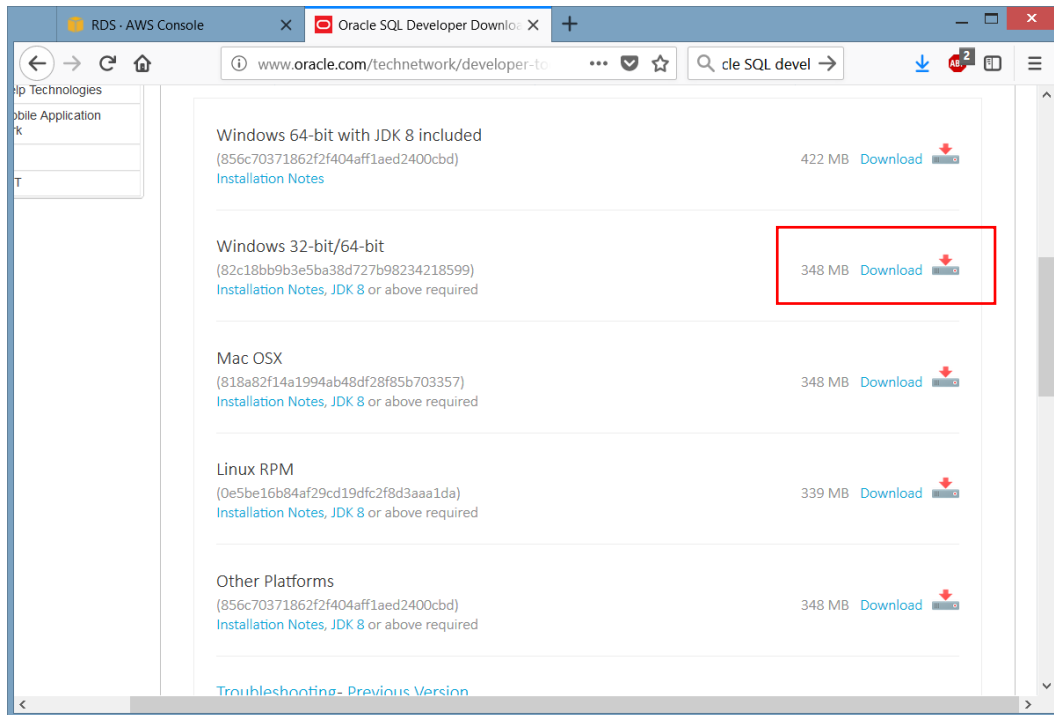*Figure 2 Accept the License Agreement*

Figure 3 Select the Option without Java

You may be prompted to enter your Oracle username and password to continue with the download as shown in figure 4.
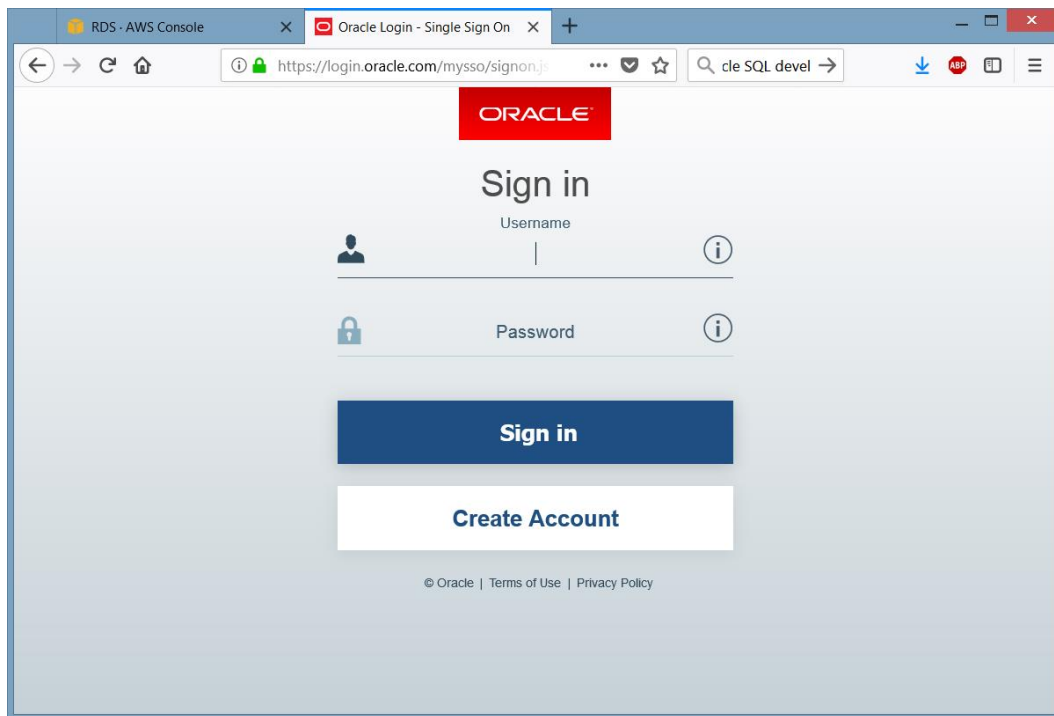

Figure 4 Entering Oracle Credentials As Needed

Depending upon your browser settings, the download prompt will then become available and the file will be saved to your workstation as shown in figure 5.
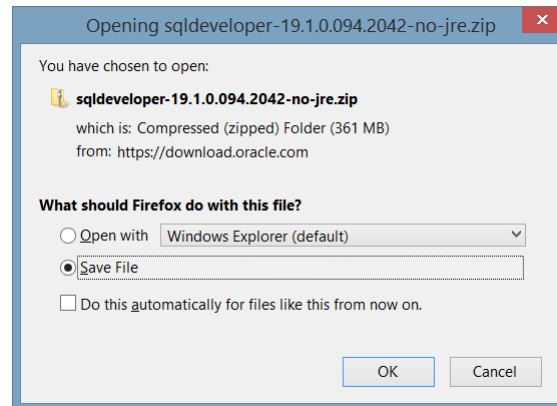

Figure 5 Download the Zip file to your Workstation

After it downloads, go ahead and unzip it to the directory of your choice.

Before installing SQL Developer, check your version of the Java SDK that is installed on your computer to make certain it is recent. Typically, this should be Java 8 (not 9) and be the latest version of Java 8. If not, you should go to Oracle.com and download a more recent version. When you go to install SQL Developer, the application will check the version and warn you if you don't have a version that the tool expects.

After unzipping, navigate to the folder with the sqldeveloper.exe and double-click it as shown in figure 6. Unzipping the file may take quite several minutes to complete.
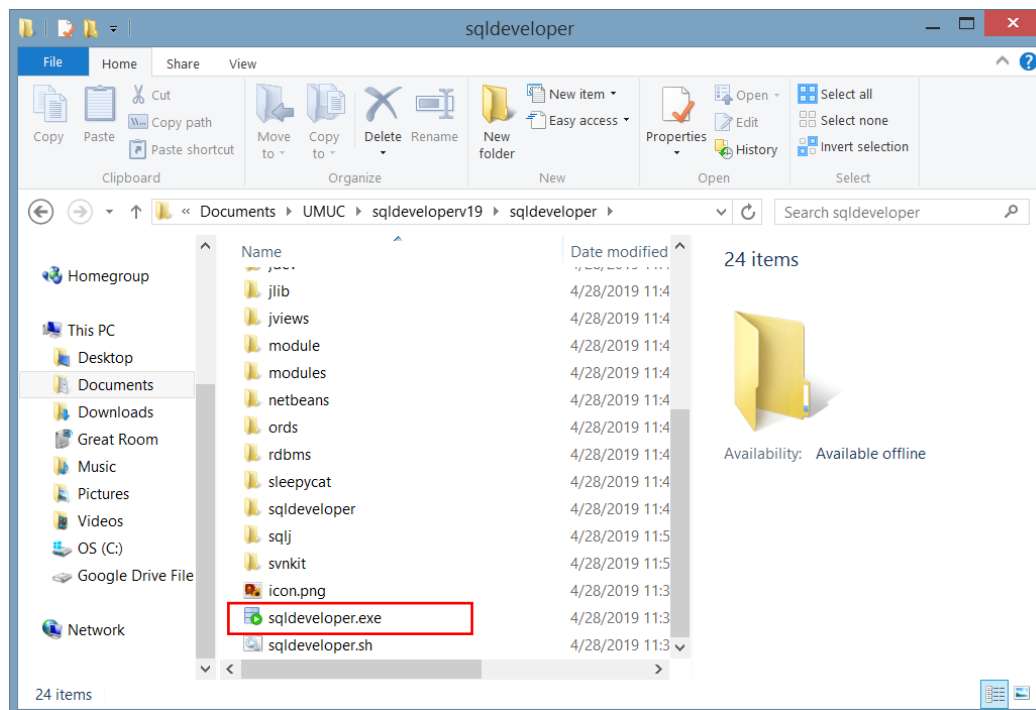

Figure 6 Double click on SQLDeveloper.exe to install

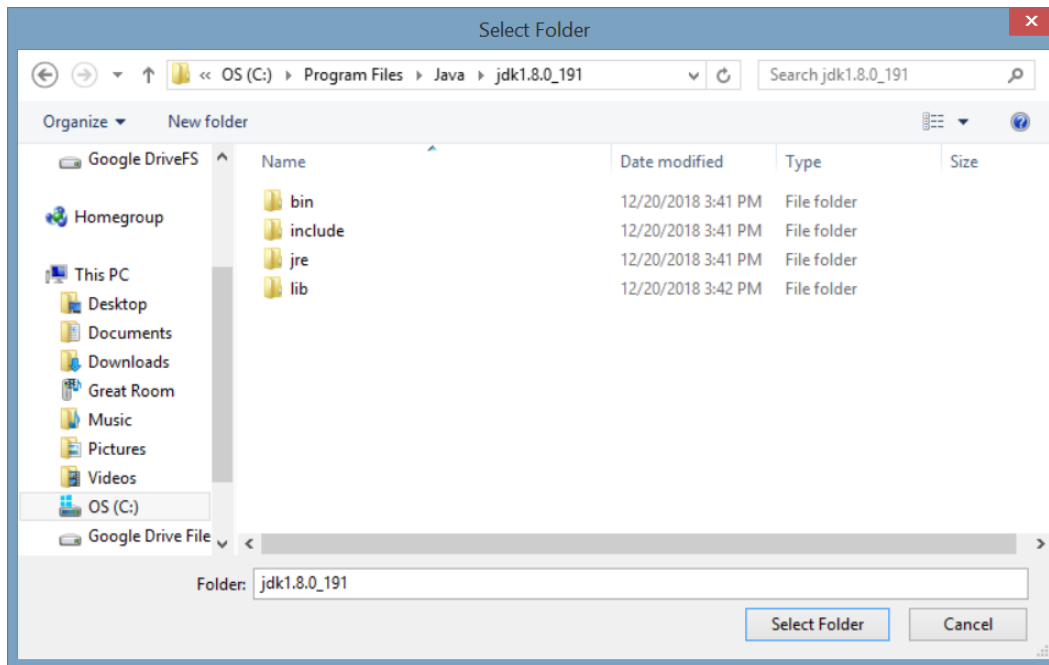Make sure you know where your Java JDK home is installed as shown in figure 7.

Figure 7 Installation location of Java

Once the JDK path is set, the installation will begin as shown in figure 8.

Figure 8 SQL Developer Installation Progress

As shown in figure 9, after the installation has completed, click on the green plus sign on the upper left side of the screen to add your Oracle AWS connection.
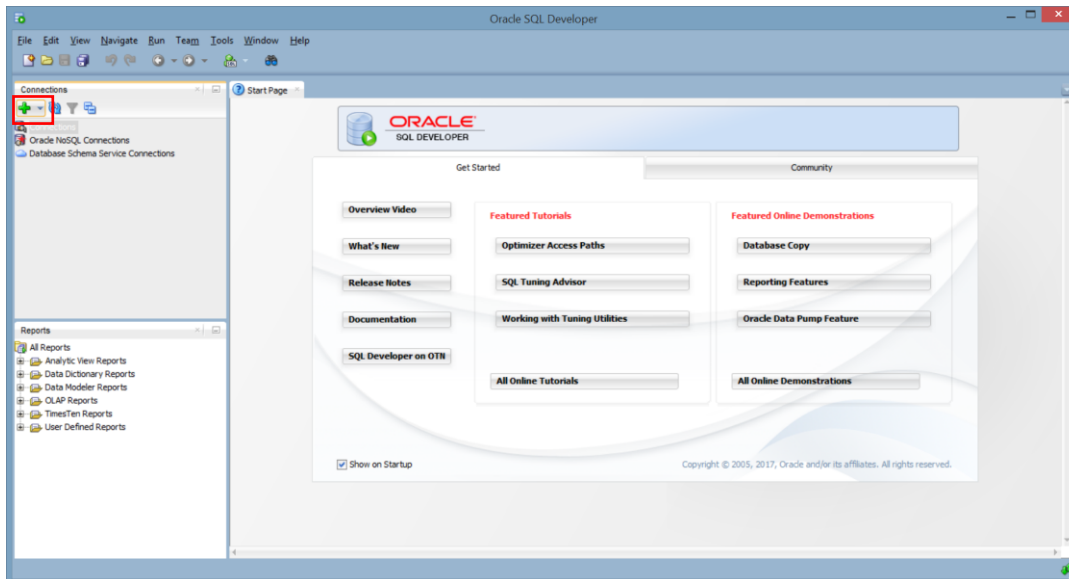

Figure 9 Start a Connection to AWS

Once the Database connection form appears, enter the RDS instance information. Be sure to have the endpoint for your instance and your login credentials. **Endpoint**: your_endpoint.rds.amazonaws.com

- **Port**: 1521
- **Username**: your_username
- **Password**: your_password
- **Service Name (DB Name)**: ORCL

You can retrieve your RDS instance endpoint by logging into AWS Educate, entering the classroom and selecting the AWS Console. Navigate to the RDS service and select your DB instance. Figures 10 -13 demonstrate these steps.
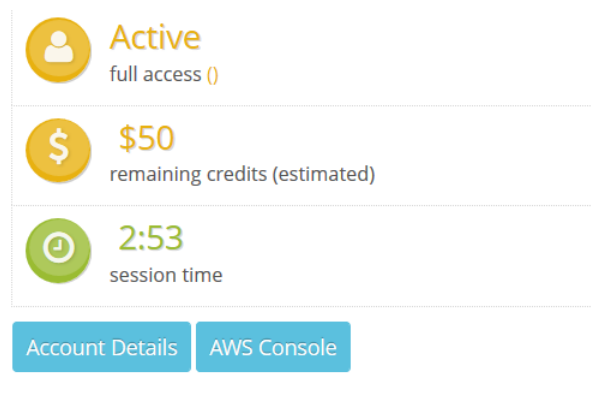

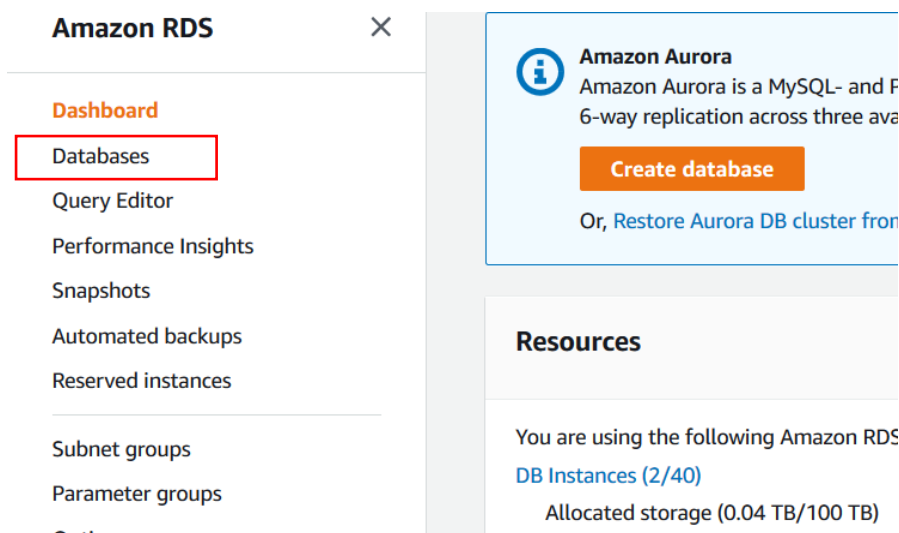*Figure 10 Select the AWS Console from your AWS Educate Classroom*

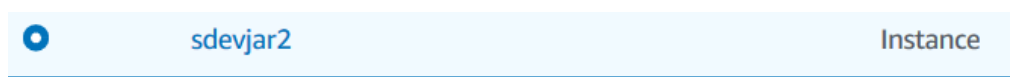*Figure 11 Navigate the RDS Dashboard in the AWS Console and Click on Databases*
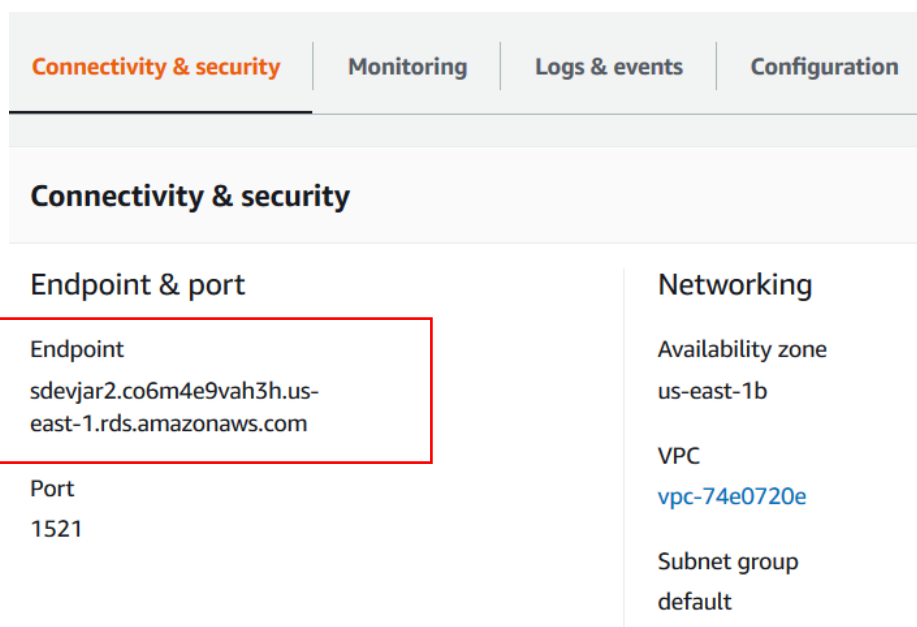

Figure 12 Select the RDS Instance

Figure 13 Under Connectivity & Security, Make note of the Endpoint

Also note, the AWS system set-up a security group for you when you created the instance. This allows access only from the IP that you created the RDS with. You may need to modify that for access from other workstations or IP addresses.

Figure 14 shows the screen used for connecting to the AWS RDS instance you previously created.

Figure 14 Setting up your AWS RDS Connection

Click on "Test" to test the connection. A successful connection will provide a Success on the status area in the lower left side of the screen. Click "Save" to save the connection under the connection name you entered.

Once saved, click on the connection and use the Query builder to enter your queries just like you would at SQL*PLUS prompt as shown in Figure 15.
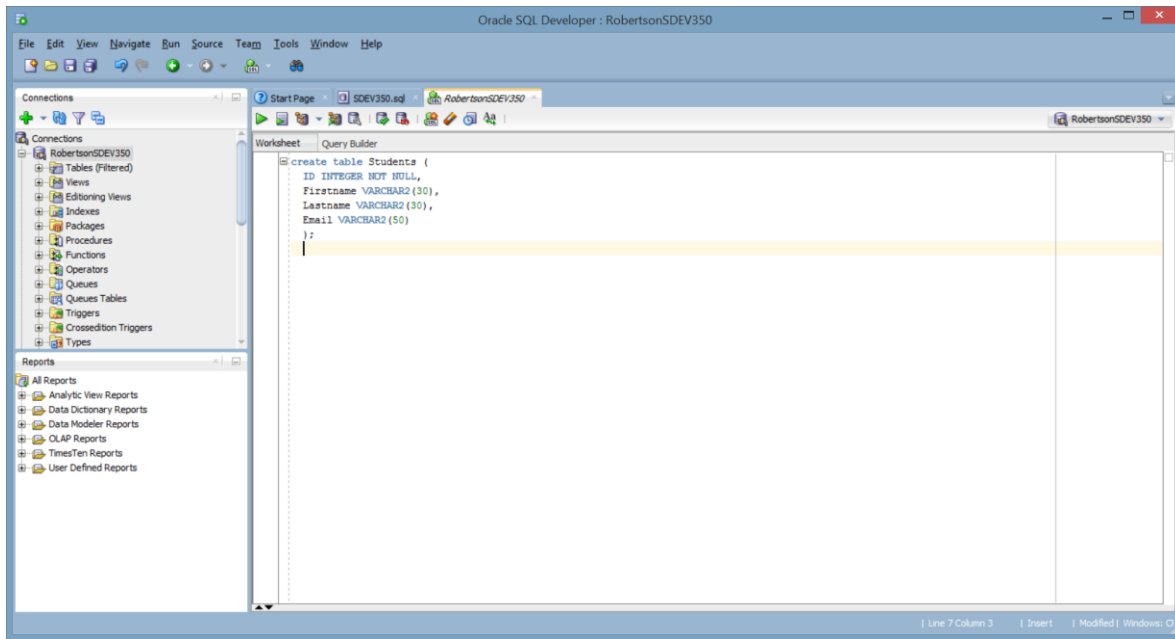
Figure 15 Using the Query Builder Tool

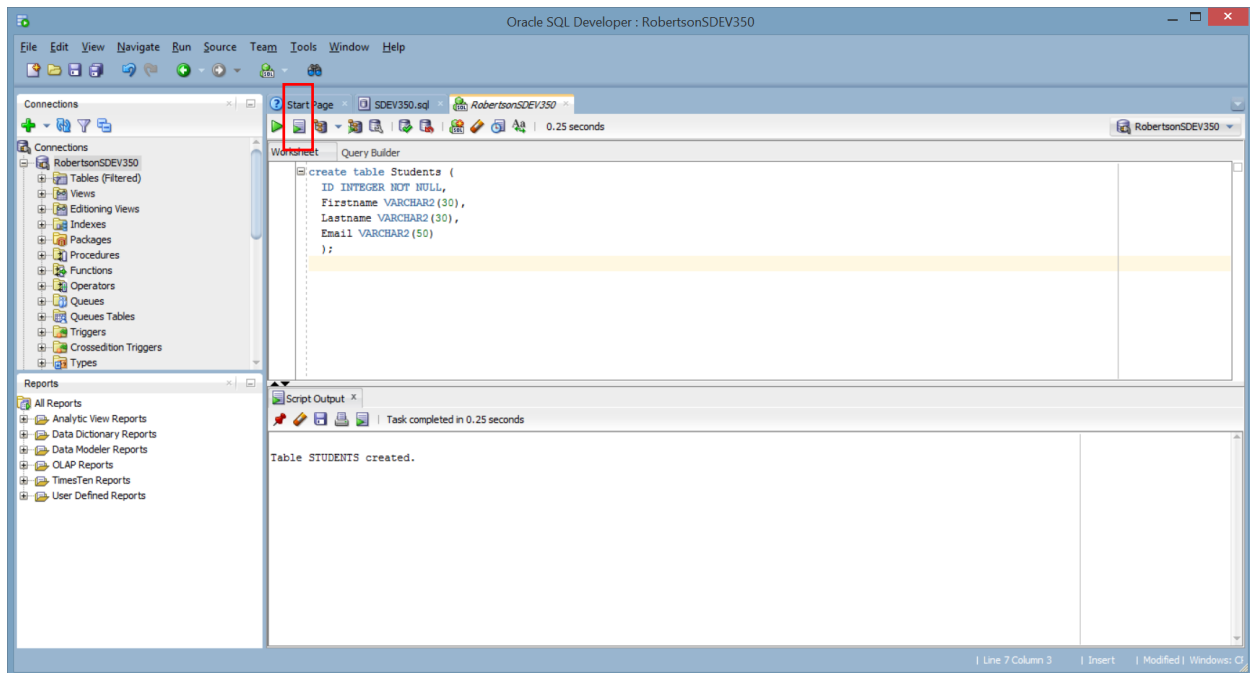Click on the Run script to run the entire script in the Query window as shown in figure 16.

Figure 16 Running a Script in SQL Developer

The query builder within SQL Developer will suffice for most of the activities in this course. However; to explore the many features within SQL Developer, click on the help as in figure 17.
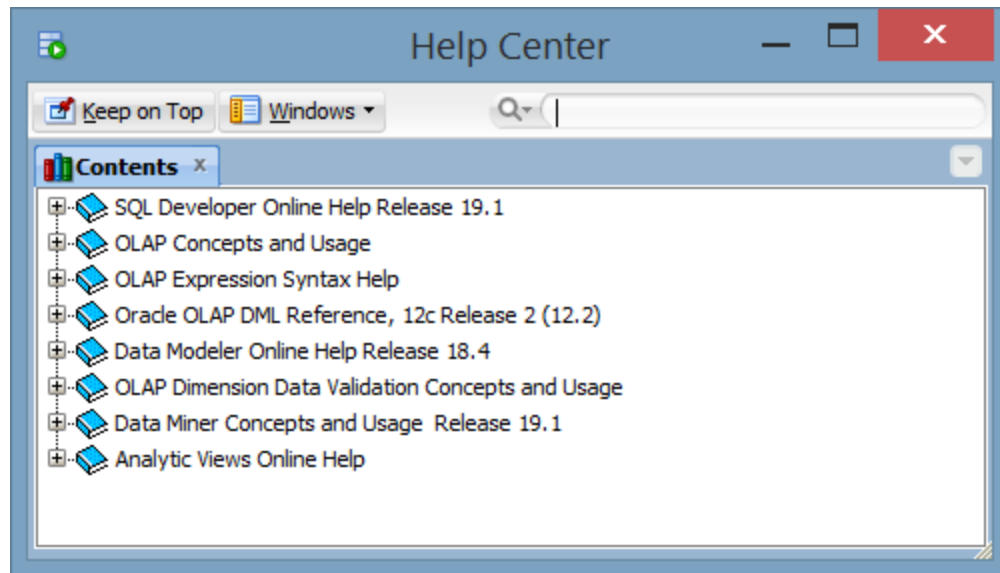
Figure 17 Help Screen Available in SQL Developer