

INSTALLATION INSTRUCTIONS FOR THE STUDENT SAMPLE SCHEMA

PURPOSE

This document describes the files and steps used to create the STUDENT schema, which is used for all exercises in the Oracle by Example series.

OVERVIEW

This document is organized as follows:

- I. Steps to create the STUDENT account
- II. Steps to build STUDENT schema objects and load associated data
- III. Steps to rebuild the objects and data in the STUDENT schema
- IV. Additional example tables installation instructions
- V. List of files used in the create and rebuild steps

NOTE

These instructions will work in Windows and UNIX environments and should work in just about any other OS environment. If you use UNIX, substitute the drive and path names with the appropriate UNIX directory structure.

If you use iSQL*Plus (browser-based SQL*Plus version), you will notice that some instructions are slightly different from the SQL*Plus version. The differences are pointed out as you read through this document.

I. STEPS TO CREATE THE STUDENT ACCOUNT

Before creating the STUDENT schema objects and loading data into them, it is necessary to create the STUDENT account (a schema/place/user in the database that will hold the objects and data). The default account and password used will be STUDENT and LEARN respectively.

If a DBA is managing your Oracle database, ask him/her to create an account named STUDENT with a password of LEARN and proceed with item *II. Steps To Build STUDENT Schema Objects and Load Associated Data*. If you need to create the account yourself, perform the following steps:

1. Connect to your database as SYSTEM and the appropriate password at the log on screen. The screen for SQL*Plus for Windows looks similar to Figure 1.

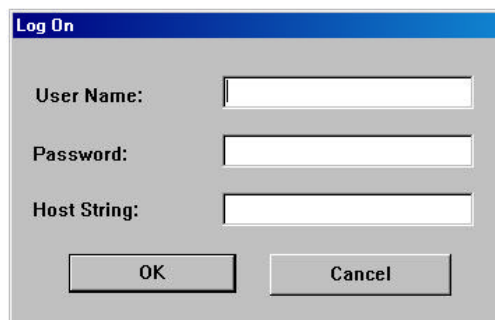


Figure 1: Windows graphical user interface log on dialog box.

If you use *iSQL*Plus*, the login screen looks similar to Figure 2.

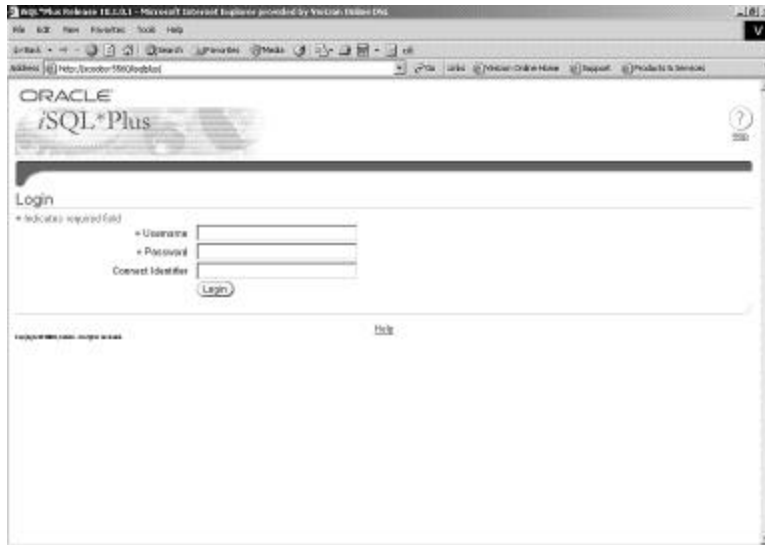


Figure 2: *i*SQL*Plus logon screen for Oracle 10g.

If you are unclear how to execute SQL statements or log on with SQL*Plus or iSQL*Plus, read through the Labs 2.1, 2.2, and 2.3 of the Oracle SQL by Example book. You probably remembered to write down the SYSTEM password when you performed your Oracle database system installation.

2. Once you successfully connect to the database with the SYSTEM account, issue the following SQL statement to find the names of the tablespaces in your database. (Note tablespaces are areas that hold database objects in an Oracle database. If you are not familiar with tablespaces right now, don't worry.)

```
SELECT tablespace_name
FROM dba_tablespaces
ORDER BY tablespace_name;
```

3. After you pressed the Execute button in iSQL*Plus or the Enter key in SQL*Plus, you will see the resulting output. You need to find two particular tablespaces:

(a) A tablespace used as the default place to store your objects. The name of this tablespace will vary depending on your operating system platform and your Oracle database version. Your DEFAULT TABLESPACE will have a name similar to one of the following:

USERS
USER_DATA
USR

(b) A tablespace known as the TEMPORARY TABLESPACE. Typical names for TEMPORARY TABLESPACEs are:

TEMP
TEMPORARY
TEMPORARY_DATA

4. After you have found your DEFAULT TABLESPACE and TEMPORARY TABLESPACE names, write them down for the next step. Note that the most common two names will be USERS and TEMP.

5. Now, you are ready to create the STUDENT database account.

a. Still logged on as SYSTEM, issue the following statement, substituting the tablespace names from steps 3 (a) and 3 (b):

```
CREATE USER student IDENTIFIED by learn
  DEFAULT TABLESPACE <name from step 3 (a)>
  TEMPORARY TABLESPACE <name from step 3 (b)>;
```

b. Your final statement should look similar to the following:

```
CREATE USER student IDENTIFIED by learn
  DEFAULT TABLESPACE users
  TEMPORARY TABLESPACE temp;
```

6. Next, you need to give the STUDENT account the ability to use the database. Execute the following statement while connected as the SYSTEM user:

```
GRANT CONNECT, RESOURCE TO student;
```

7. Now, you can test to see if you can connect as the STUDENT account.

a. In iSQL*Plus (browser-based SQL*Plus version), click the Logout icon and login as the new STUDENT user with the password LEARN.

b. If you use SQL*Plus, issue the following statement at the SQL> prompt to connect as STUDENT:

```
CONNECT student/learn
```

Execute the SHOW USER command.

```
SHOW USER
```

You should receive this message:

```
USER is "STUDENT"
```

Now you are connected as the STUDENT user. You are ready to proceed to item II. *Steps to Build STUDENT Schema Objects and Load Associated Data.*

II. STEPS TO BUILD STUDENT SCHEMA OBJECTS AND LOAD ASSOCIATED DATA

Connect via *iSQL*Plus* or *SQL*Plus* to the database as STUDENT with the password of LEARN. Make a note of the directory where you found this readme file you are reading right now. A common place where you may have this file and all others you need for installation is C:\guest\schemasetup.

If you are using *iSQL*Plus*, do the following: Click the Load Script... button and then the Browse button to locate in the C:\guest\schemasetup directory the script named createStudent.sql. Open the file and then click the Load button to load the script into the Workspace area of *iSQL*Plus*. Once the script is visible in the Workspace area, press the Execute button to run the script.

If you using *SQL*Plus* rather than *iSQL*Plus* and using the C:\guest\schemasetup directory, issue this command at the SQL> prompt:

```
@C:\guest\schemasetup\createStudent.sql
```

After the script completes (approximately 3-5 minutes), it will show a list of counts representing the number of rows it created for each table. Compare that list on screen with the following list. The two lists should match. If you used *iSQL*Plus*, you may need to scroll all the way to the bottom of the screen to see the result.

```
Count of COURSE Table: 30
Count of ENROLLMENT Table: 226
Count of GRADE Table: 2004
Count of GRADE_CONVERSION Table: 15
Count of GRADE_TYPE Table: 6
Count of GRADE_TYPE_WEIGHT Table: 300
Count of INSTRUCTOR Table: 10
Count of SECTION Table: 78
Count of STUDENT Table: 268
Count of ZIPCODE Table: 227
```

III. STEPS TO REBUILD THE STUDENT SCHEMA

This step will rebuild the objects in the STUDENT schema. You may wish to perform this step if you want to return the STUDENT schema objects to their pristine state. This is especially useful after you have worked through the chapters that focus on data manipulation. For example, if you have just been working on DELETing data, you may wish to restore that data to practice SELECTing the data. Caution: Running this script removes the objects and then reinserts the data!

Connect to the database as STUDENT/LEARN. A common place that you may have your script is C:\guest\schemasetup. If you are logged into the database with *iSQL*Plus*, use the Browse button to locate the rebuildStudent.sql script. Load the script into the Workspace of *iSQL*Plus* and press the Execute button.

If you are using *SQL*Plus* and the C:\guest\schemasetup directory, issue the following at the *SQL*Plus* prompt:

```
@C:\guest\schemasetup\rebuildStudent.sql
```

When the rebuildStudent.sql script has completed, it will show a list of counts representing the number of rows it created for each table. Compare that list on screen with the following list. The two lists should match.

```
Count of COURSE Table: 30
Count of ENROLLMENT Table: 226
Count of GRADE Table: 2004
Count of GRADE_CONVERSION Table: 15
Count of GRADE_TYPE Table: 6
Count of GRADE_TYPE_WEIGHT Table: 300
Count of INSTRUCTOR Table: 10
Count of SECTION Table: 78
Count of STUDENT Table: 268
Count of ZIPCODE Table: 227
```

IV. ADDITIONAL EXAMPLE TABLES INSTALLATION INSTRUCTIONS

The Oracle SQL by Example book 3rd edition contains additional example tables that help illustrate extra functionality and concepts. If you want to try out some of these exercises in the book, I suggest you install these tables in the STUDENT schema.

In iSQL*Plus: To run the script sql_book_add_tables.sql click the Browse... button to locate the C:\guest\schemasetup directory where you will find the sql_book_add_tables.sql script. Click the Load Script button to retrieve the file into the Workspace area (also called input area) of iSQL*Plus. Press the Execute button to run the script.

In SQL*Plus for Windows: At the SQL prompt, issue the following command:

```
@C:\guest\schemasetup\sql_book_add_tables.sql
```

If you want to remove these tables from the schema, run the drop_extra_tables.sql script.

V. LIST OF FILES IN THE ZIP FILE

The following is a list of the files included in the downloaded zipped file.

File Name	Description
createStudent.sql	The primary script that creates the objects in the STUDENT schema.
dropStudent.sql	A script that drops STUDENT objects.
readme.pdf	The Adobe version of the readme.txt file. This is the file you are currently reading.
readme.txt	The text-only version of readme.pdf.
rebuildStudent.sql	The script to run for recreating and reloading the STUDENT schema tables.
AppendixD.pdf	This file graphically displays the STUDENT schema diagram; you need Adobe Acrobat to view it.
sql_book_add_tables.sql	This script creates additional example tables not created by the createStudent.sql script.
drop_extra_tables.sql	This script drops the additional example tables created by the sql_book_add_tables.sql script.