DBS211 – Introduction to Database Systems

Lab 01

Objectives:

The purpose of the first lab of DBS211 is to familiarize yourself with the User Interface, SQL Developer, that we will be using throughout the course to communicate with the Oracle server. By the end of this lab you should be able to:

* Successfully establish a connection with and login to the Oracle database server using SQL Developer
* Run the sample database creation script
* Navigate SQL Developer to view the tables created, their structure and the data contained within them.

LAB 01 - SUBMISSION

Explore the Database

Answer the following questions

In the connections window, expand **Tables.**

1. How many tables have been created? List the names of the created tables.

* There are 8 tables created. The name of the created tables are:
* CUSTOMERS
* EMPLOYEES
* OFFICES
* ORDERDETAILS
* ORDERS
* PAYMENTS
* PRODUCTLINES
* PRODUCTS

1. Click on table **customers**. Click on the Data tab near the top of the worksheet. How many rows are there in the table **customers**?

* There are 13 rows in the customer table.

1. What SQL statement would return the same results. Write the statement in the .sql file and execute it.

* SELECT \* FROM CUSTOMERS;

You will learn how to select rows and columns from a table by writing SQL select statements later in this course.

1. How many columns does the **customers** table have? List the column names.

* There are 122 rows in the customers table. The name of the columns are:
* CUSTOMERNUMBER
* CUSTOMERNAME
* CONTACTLASTNAME
* CONTACTFIRSTNAME
* PHONE
* ADDRESSLINE1
* ADDRESSLINE2
* CITY
* STATE
* POSTALCODE
* COUNTRY
* SALESREPEMPLOYEENUMBER
* CREDITLIMIT

1. What is the value of each column in the first row in table **customers**? Write the column name and the column data type in addition to the value.

|  |  |  |
| --- | --- | --- |
| CUSTOMERNUMBER | NUMBER(38,0) | 103 |
| CUSTOMERNAME | VARCHAR2(50 BYTE) | Atelier graphique |
| CONTACTLASTNAME | VARCHAR2(50 BYTE) | Schmitt |
| CONTACTFIRSTNAME | VARCHAR2(50 BYTE) | Carine |
| PHONE | VARCHAR2(50 BYTE) | 40.32.2555 |
| ADDRESSLINE1 | VARCHAR2(50 BYTE) | 54, rue Royale |
| ADDRESSLINE2 | VARCHAR2(50 BYTE) | NULL |
| CITY | VARCHAR2(50 BYTE) | Nantes |
| STATE | VARCHAR2(50 BYTE) | NULL |
| POSTALCODE | VARCHAR2(15 BYTE) | 44000 |
| COUNTRY | VARCHAR2(50 BYTE) | France |
| SALESREPEMPLOYEENUMBER | NUMBER(38,0) | 1370 |
| CREDITLIMIT | NUMBER(10,2) | 21000 |

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1. Write the number of rows and columns for the rest of the tables in your schema. Format it something like the following.

|  |  |  |
| --- | --- | --- |
| Table Name | Rows | Columns |
| CUSTOMERNUMBER | 13 | 122 |
| EMPLOYEES | 8 | 23 |
| OFFICES  ORDERDETAILS  ORDERS  PAYMENTS  PRODUCTLINES  PRODUCTS | 9  5  6  4  4  9 | 7  61  60  53  7  110 |

1. Right Click on the **orderdetails** table and choose tables/count rows. How many rows does the order details table include?

* There are 5 rows in the order details table

1. Write the following SQL statement in the new tab.

desc offices;

You can also write

describe offices;

What is the result of the statement execution?

Name Null? Type

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OFFICECODE NOT NULL VARCHAR2(10)

CITY NOT NULL VARCHAR2(50)

PHONE NOT NULL VARCHAR2(50)

ADDRESSLINE1 NOT NULL VARCHAR2(50)

ADDRESSLINE2 VARCHAR2(50)

STATE VARCHAR2(50)

COUNTRY NOT NULL VARCHAR2(50)

POSTALCODE NOT NULL VARCHAR2(15)

TERRITORY NOT NULL VARCHAR2(10)

1. Type the following statements in, execute them, then briefly describe what the statement is doing!

SELECT \* FROM employees;

This statement selects all the rows and columns from the employees table and displays it

SELECT \* FROM customers ORDER BY ContactLastName.

This statement selects all the data from customers table and displays in ascending order according to ContactLastName

1. How many constraints does the **products** table have?

* There are 11 constraints in products table.

1. Set the font size in the worksheet editor to a size that is best for you. (Hint: Tools/Preferences)

* I set the font size to 12 and is comfortable to me