1) Create the DEPT table based on the following table instance chart. Save the statement in a script called lab\_10\_01.sql, and then execute the statement in the script to create the table. Confirm that the table is created.

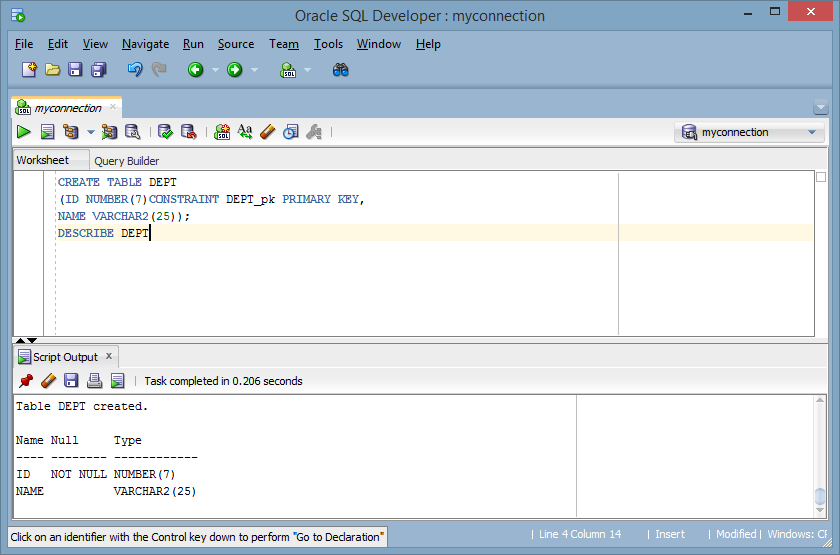
|  |  |  |
| --- | --- | --- |
| **Column Name** | ID | NAME |
| **Key Type** | Primary key |  |
| **Nulls/Unique** |  |  |
| **FK Table** |  |  |
| **FK Column** |  |  |
| **Data type** | NUMBER | VARCHAR2 |
| **Length** | 7 | 25 |

**CREATE TABLE DEPT**

**(ID NUMBER(7)CONSTRAINT DEPT\_pk PRIMARY KEY,**

**NAME VARCHAR2(25));**

**DESCRIBE DEPT**

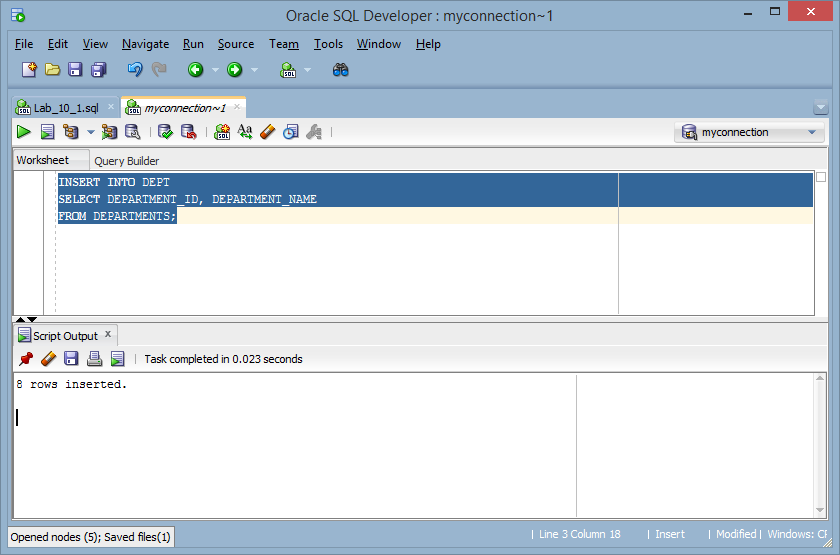


2) Populate the DEPT table with data from the DEPARTMENTS table. Include only columns that you need.

**INSERT INTO DEPT**

**SELECT DEPARTMENT\_ID, DEPARTMENT\_NAME**

**FROM DEPARTMENTS;**



3) Create the EMP table based on the following table instance chart. Save the statement in a script called lab\_10\_03.sql, and then execute the statement in the script to create the table. Confirm that the table is created.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | ID | LAST\_NAME | FIRST\_NAME | DEPT\_ID |
| **Key Type** |  |  |  |  |
| **Nulls/Unique** |  |  |  |  |
| **FK Table** |  |  |  | DEPT |
| **FK Column** |  |  |  | ID |
| **Data type** | NUMBER | VARCHAR2 | VARCHAR2 | NUMBER |
| **Length** | 7 | 25 | 25 | 7 |

**CREATE TABLE EMP**

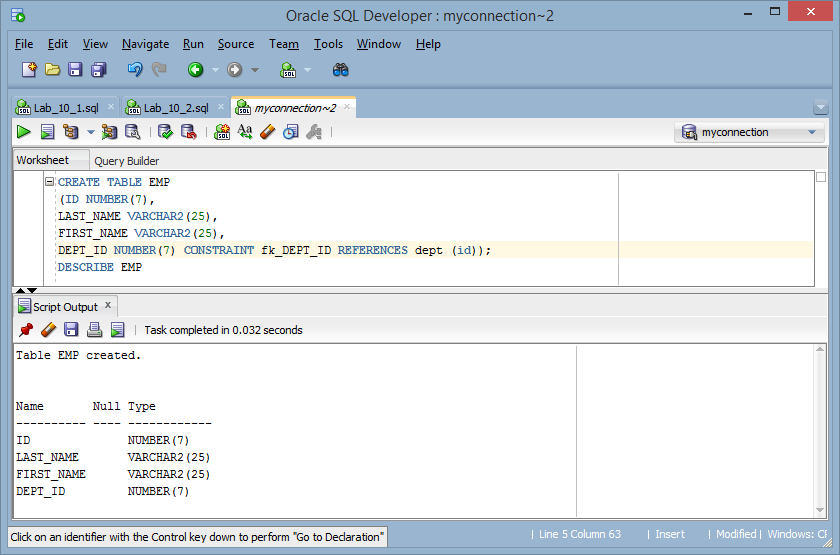
**(ID NUMBER(7),**

**LAST\_NAME VARCHAR2(25),**

**FIRST\_NAME VARCHAR2(25),**

**DEPT\_ID NUMBER(7) CONSTRAINT fk\_DEPT\_ID REFERENCES dept (id));**

**DESCRIBE EMP**



4) Create the EMPLOYEES2 table based on the structure of the EMPLOYEES table. Include only the EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, SALARY, and DEPARTMENT\_ID columns. Name the columns in your new table ID, FIRST\_NAME, LAST\_NAME, SALARY, and DEPT\_ID, respectively.

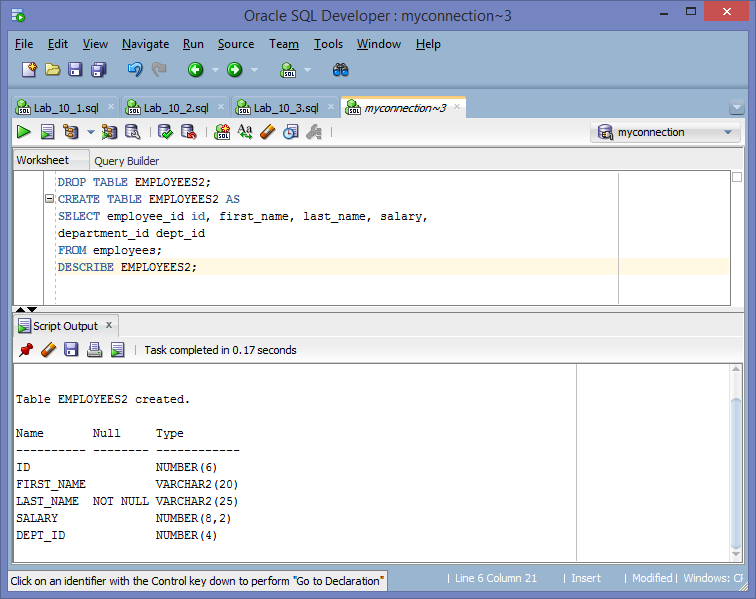
**CREATE TABLE EMPLOYEES2 AS**

**SELECT employee\_id id, first\_name, last\_name, salary,**

**department\_id dept\_id**

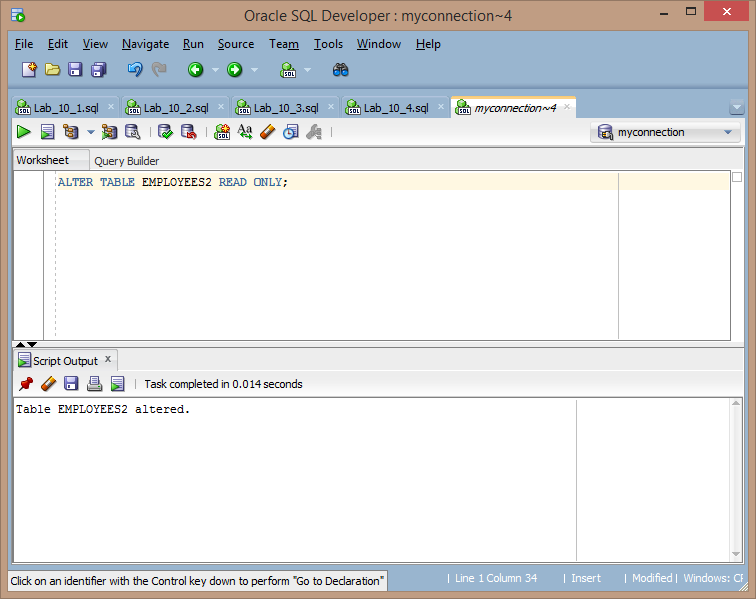
**FROM employees;**

**DESCRIBE EMPLOYEES2;**



5) Alter the EMPLOYEES2 table status to read-only.

**ALTER TABLE EMPLOYEES2 READ ONLY;**



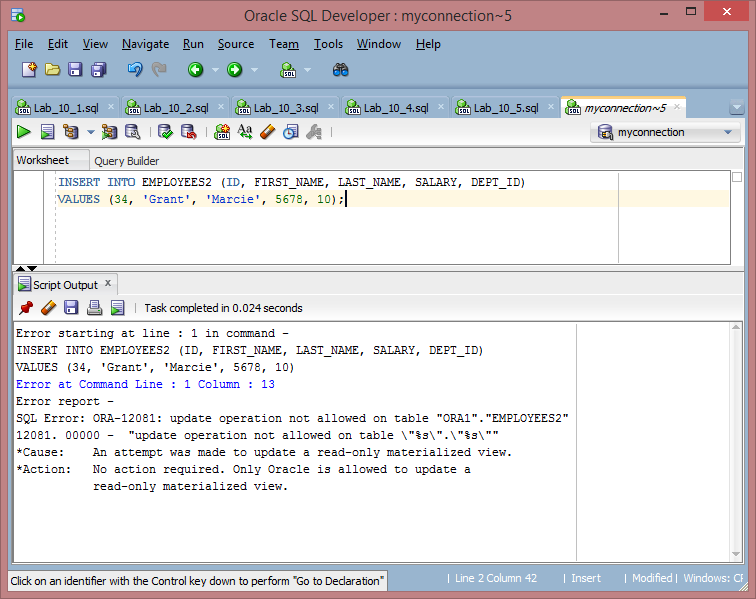
6) Try to insert the following row in the EMPLOYEES2 table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | FIRST\_NAME | LAST\_NAME | SALARY | DEPT\_ID |
| **34** | Grant | Marcie | 5678 | 10 |

You get the following error message:

**INSERT INTO EMPLOYEES2 (ID, FIRST\_NAME, LAST\_NAME, SALARY, DEPT\_ID)**

**VALUES (34, 'Grant', 'Marcie', 5678, 10);**

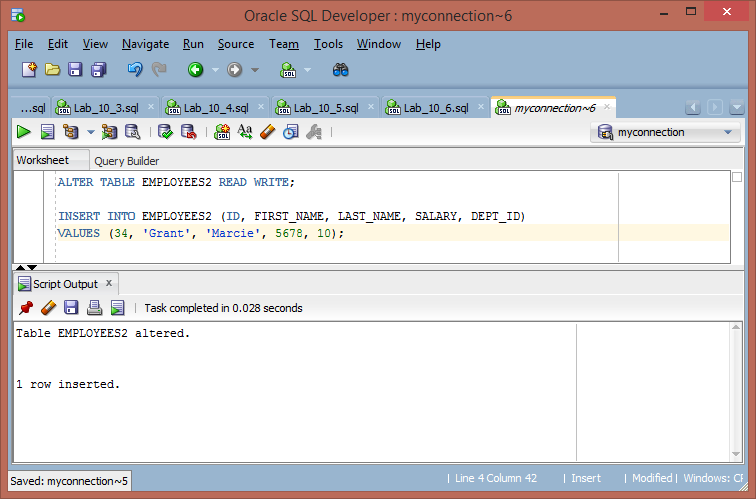


7) Revert the EMPLOYEES2 table to the read/write status. Now, try to insert the same row again. You should get the following messages:

**ALTER TABLE EMPLOYEES2 READ WRITE;**

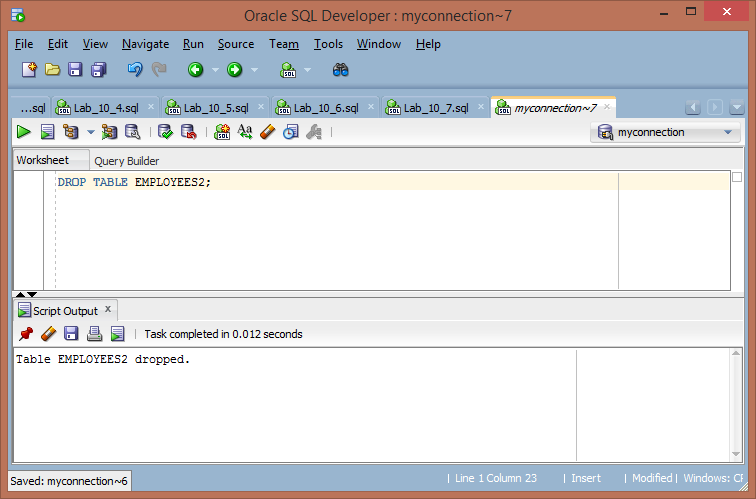
**INSERT INTO EMPLOYEES2 (ID, FIRST\_NAME, LAST\_NAME, SALARY, DEPT\_ID)**

**VALUES (34, 'Grant', 'Marcie', 5678, 10);**



8) Drop the EMPLOYEES2 table.

**DROP TABLE EMPLOYEES2;**



9) In this exercise, you will use the ERD diagram from your previous Cookbook assignment to implement your design into actual tables and columns. The tables and attributes should be logically created and parallel the third normal form design. In other words, appropriate constraints should exist given the primary and foreign keys, proper field types and length should occur, and appropriate naming conventions should be used.

Once the proper DDL code has been written, run the code in your Oracle database. Screenshots are required for each DDL statement and subsequent table created. When complete, the final Cookbook tables should track:

• Management of kitchen inventory

• Management of cooking recipes

• Comparison of cooking recipes to necessary inventory to fulfill the recipe’s requirements

**CREATE TABLE KITCHENINVENTORY**

**(InventoryID INT CONSTRAINT Inventory\_fk PRIMARY KEY,**

**Inv\_name VARCHAR2(45),**

**Inv\_type VARCHAR2(45),**

**Inv\_quantity FLOAT);**

**DESCRIBE KITCHENINVENTORY;**

**CREATE TABLE COOKINGRECIPES**

**(RecipeID INT CONSTRAINT Recipe\_fk PRIMARY KEY,**

**Rec\_name VARCHAR2(45),**

**Rec\_steps VARCHAR2(500));**

**DESCRIBE COOKINGRECIPES;**

**CREATE TABLE INGREDIENTS**

**(RecipeID\_fk INT,**

**InventoryID\_fk INT,**

**Ing\_quantity FLOAT,**

**FOREIGN KEY (RecipeID\_fk) REFERENCES COOKINGRECIPES(RecipeID),**

**FOREIGN KEY (InventoryID\_fk) REFERENCES KITCHENINVENTORY(InventoryID));**

**DESCRIBE INGREDIENTS;**

