Instructions

Please select the link above to submit this week's assignment.

Instructions

Practice Problems Instructions:

When working with a database, it is important to know what tables it contains. It is also essential to have information about the structure of each table, including column names, data types, constraints, etc. to retrieve data. This kind of information (and much more!) can be found in the data dictionary, which is a collection of read-only tables that contain metadata, or data about the database.

See more on the data dictionary here.

Use the following commands to obtain information about the tables in the database:

- select table_name from user_tables; /* to display a list of tables */
- select * from all_tab_columns where table_name='table_name'; /* to display the structure of a table */
- select * from table_name; /* to display the content of a table */

In the commands above, substitute *table_name* with the actual name of the table. If '*table_name*' is enclosed in single quotation marks, the name of the table must be entered in capital letters.

Important Note:

For the practice problems below, follow examples shown in the PowerPoint presentations and textbooks but do not copy their solutions unless it is the only possible answer to the problem.

General Instructions:

The practice problems are arranged in order of increasing difficulty – the last several problems might present the most challenge. Students are expected to work out and submit the solutions to **at least 5 problems**. If you have previous experience in SQL you can select the 5 most challenging problems though it is still recommended to complete all problems. This will help you be better prepared for the Midterm and Final Exams. Challenge yourself to complete all problems!

Instructions: For each problem

- Write and execute an SQL query in Oracle Live SQL or SQL*Plus
- Execute the following command: select sysdate, '*your name*' from dual; where *your_name* is substituted with your name
- Take a screenshot that includes both SQL statements and all results
- Copy and paste the screenshot into a Word file containing your solutions

Practice Problems: Joining Data from Multiple Tables

Before starting these problems, update the JustLee Books database by executing the JLDB_Build_Extended.sql script. You can find the script in the "Class Databases" folder.

- List the book title and retail price for all books with a retail price lower than the average retail price of all books sold by JustLee Books.
- Determine which books cost less than the average cost of other books in the same category.
- Determine which orders were shipped to the same state as order 1014.
- Determine which orders had a higher total amount due than order 1008.
- Determine which author or authors wrote the books most frequently purchased by customers of JustLee Books.

- List the title of all books in the same category as books previously purchased by customer 1007. Don't include books this customer has already purchased.
- List the shipping city and state for the order that had the longest shipping delay.
- Determine which customers placed orders for the least expensive book (in terms of the regular retail price) carried by JustLee Books.
- Determine the number of different customers who have placed an order for books written or co-written by James Austin.
- Determine which books were published by the publisher of The Wok Way to Cook.

Assignment Submission

Save all your solution screenshots in a Word file, type your name and course number in that file, name it M7_1_Practice_Problems.

Due Date

This assignment is due by **Monday, 11:59 pm ET**.

Sort [most recent last ⌄] View [Statements and Results ⌄] Include [All Statements ⌄]

Statement 1
✎ ▷ 🗑

```
CREATE TABLE Customers
(Customer#  NUMBER(4),
LastName VARCHAR2(10) NOT NULL,
FirstName VARCHAR2(10) NOT NULL,
Address VARCHAR2(20),
City VARCHAR2(12),
State VARCHAR2(2),
Zip VARCHAR2(5),
Referred NUMBER(4),
Region CHAR(2),
    CONSTRAINT customers_customer#_pk PRIMARY KEY(customer#),
    CONSTRAINT customers_region_ck
                 CHECK (region IN ('N', 'NW', 'NE', 'S', 'SE', 'SW', 'W', 'E')) )
```

Table created.

Statement 2
✎ ▷ 🗑

```
INSERT INTO CUSTOMERS
VALUES (1001, 'MORALES', 'BONITA', 'P.O. BOX 651', 'EASTPOINT', 'FL', '32328', NULL, 'SE')
```

1 row(s) inserted.

Statement 3
✎ ▷ 🗑

```
INSERT INTO CUSTOMERS
VALUES (1002, 'THOMPSON', 'RYAN', 'P.O. BOX 9835', 'SANTA MONICA', 'CA', '90404', NULL, 'W')
```

1 row(s) inserted.

Statement 4

---

1 row(s) inserted.

Statement 138
✎ ▷ 🗑

```
INSERT into promotion
  VALUES ('FREE SHIPPING', 56.01, 999.99)
```

1 row(s) inserted.

Statement 139
✎ ▷ 🗑

```
COMMIT
```

Statement processed.

Statement 140
✎ ▷ 🗑

```
CREATE TABLE acctmanager
(amid VARCHAR2(4) PRIMARY KEY,
amfirst VARCHAR2(12)  NOT NULL,
amlast VARCHAR2(12)  NOT NULL,
amedate DATE DEFAULT SYSDATE,
region CHAR(2) NOT NULL)
```

Table created.

Statement 141
✎ ▷ 🗑

```
CREATE TABLE acctmanager2
(amid CHAR(4),
amfirst VARCHAR2(12)  NOT NULL,
amlast VARCHAR2(12)  NOT NULL,
amedate DATE DEFAULT SYSDATE,
region CHAR(2),
     CONSTRAINT acctmanager2_amid_pk PRIMARY KEY (amid),
     CONSTRAINT acctmanager2_region_ck
                 CHECK (region IN ('N', 'NW', 'NE', 'S', 'SE', 'SW', 'W', 'E')))
```

Table created.

Statement **141**

✎ ▷ 🗑

```
CREATE TABLE acctmanager2
(amid CHAR(4),
amfirst VARCHAR2(12) NOT NULL,
amlast VARCHAR2(12) NOT NULL,
amedate DATE DEFAULT SYSDATE,
region CHAR(2),
     CONSTRAINT acctmanager2_amid_pk PRIMARY KEY (amid),
     CONSTRAINT acctmanager2_region_ck
             CHECK (region IN ('N', 'NW', 'NE', 'S', 'SE', 'SW', 'W', 'E')))
```

Table created.

Statement **142**

✎ ▷ 🗑

```
CREATE TABLE acctbonus
(amid CHAR(4),
 amsal NUMBER(8,2),
 region CHAR(2),
  CONSTRAINT acctbonus_amid_pk PRIMARY KEY (amid))
```

Table created.

Statement **143**

✎ ▷ 🗑

```
CREATE TABLE testing
 (id NUMBER(2),
  tvalue VARCHAR2(10),
  descrip VARCHAR2(50))
```

Table created.

Statement **144**

✎ ▷ 🗑

```
INSERT INTO testing
 VALUES (1, '%ccAccT', 'Value starts with special character')
```

✎ ▷ 🗑

```
INSERT INTO BOOKS_2
VALUES ('0299282519','THE WOK WAY TO COOK',TO_DATE('11-SEP-00','DD-MON-YY'),28.75, 'COOKING')
```

1 row(s) inserted.

Statement **208**

✎ ▷ 🗑

```
COMMIT
```

Statement processed.

Statement **209**

✎ ▷ 🗑

```
SELECT table_name FROM user_tables
```

TABLE_NAME
ACCTBONUS
ACCTMANAGER
ACCTMANAGER2
AUTHOR
BOOKAUTHOR
BOOKS
BOOKS_1
BOOKS_2
CONTACTS
CUSTOMERS

Actions ∨   Reset Session   Save

DEPARTMENT

EMPLOYEES

ORDERITEMS

ORDERS

PROMOTION

PUBLISHER

PUBLISHER2

PUBLISHER3

SUPPLIERS

TESTING

WAREHOUSES

WEBHITS

Download CSV

22 rows selected.

Statement **210**

SELECT * FROM Customers

CUSTOMER#	LASTNAME	FIRSTNAME	ADDRESS	CITY	STATE	ZIP	REFERRED	REGION
1001	MORALES	BONITA	P.O. BOX 651	EASTPOINT	FL	32328	-	SE

Actions ∨   Reset Session   Save

Download CSV

22 rows selected.

Statement **210**

SELECT * FROM Customers

CUSTOMER#	LASTNAME	FIRSTNAME	ADDRESS	CITY	STATE	ZIP	REFERRED	REGION
1001	MORALES	BONITA	P.O. BOX 651	EASTPOINT	FL	32328	-	SE
1002	THOMPSON	RYAN	P.O. BOX 9835	SANTA MONICA	CA	90404	-	W
1003	SMITH	LEILA	P.O. BOX 66	TALLAHASSEE	FL	32306	-	SE
1004	PIERSON	THOMAS	69821 SOUTH AVENUE	BOISE	ID	83707	-	NW
1005	GIRARD	CINDY	P.O. BOX 851	SEATTLE	WA	98115	-	NW
1006	CRUZ	MESHIA	82 DIRT ROAD	ALBANY	NY	12211	-	NE
1007	GIANA	TAMMY	9153 MAIN STREET	AUSTIN	TX	78710	1003	SW
1008	JONES	KENNETH	P.O. BOX 137	CHEYENNE	WY	82003	-	N
1009	PEREZ	JORGE	P.O. BOX 8564	BURBANK	CA	91510	1003	W
1010	LUCAS	JAKE	114 EAST SAVANNAH	ATLANTA	GA	30314	-	SE
1011	MCGOVERN	REESE	P.O. BOX 18	CHICAGO	IL	60606	-	N
1012	MCKENZIE	WILLIAM	P.O. BOX 971	BOSTON	MA	02110	-	NE
1013	NGUYEN	NICHOLAS	357 WHITE EAGLE AVE.	CLERMONT	FL	34711	1006	SE
1014	LEE	JASMINE	P.O. BOX 2947	CODY	WY	82414	-	N

Actions Reset Session Save

Statement 211

✎ ▷ 🗑

```
SELECT * FROM schema_name.Customers
```

ORA-00942: table or view does not exist

More Details: https://docs.oracle.com/error-help/db/ora-00942

Statement 212

✎ ▷ 🗑

```
SELECT c.Customer#, c.LastName, c.FirstName, o.OrderID
FROM Customers c
JOIN Orders o ON c.Customer# = o.Customer#
WHERE o.OrderDate IS NOT NULL
```

ORA-00904: "O"."ORDERID": invalid identifier

More Details: https://docs.oracle.com/error-help/db/ora-00904

Statement 213

✎ ▷ 🗑

```
SELECT * FROM schema_name.Customers
```

ORA-00942: table or view does not exist

More Details: https://docs.oracle.com/error-help/db/ora-00942

Statement 214

✎ ▷ 🗑

```
SELECT c.Customer#, c.LastName, c.FirstName, o.OrderID
FROM Customers c
JOIN Orders o ON c.Customer# = o.Customer#
WHERE o.OrderDate IS NOT NULL
```

ORA-00904: "O"."ORDERID": invalid identifier

More Details: https://docs.oracle.com/error-help/db/ora-00904

Statement 215

✎ ▷ 🗑

```
SELECT * FROM Customers
```

Statement 215

✎ ▷ 🗑

```
SELECT * FROM Customers
```

CUSTOMER#	LASTNAME	FIRSTNAME	ADDRESS	CITY	STATE	ZIP	REFERRED	REGION
1001	MORALES	BONITA	P.O. BOX 651	EASTPOINT	FL	32328	-	SE
1002	THOMPSON	RYAN	P.O. BOX 9835	SANTA MONICA	CA	90404	-	W
1003	SMITH	LEILA	P.O. BOX 66	TALLAHASSEE	FL	32306	-	SE
1004	PIERSON	THOMAS	69821 SOUTH AVENUE	BOISE	ID	83707	-	NW
1005	GIRARD	CINDY	P.O. BOX 851	SEATTLE	WA	98115	-	NW
1006	CRUZ	MESHIA	82 DIRT ROAD	ALBANY	NY	12211	-	NE
1007	GIANA	TAMMY	9153 MAIN STREET	AUSTIN	TX	78710	1003	SW
1008	JONES	KENNETH	P.O. BOX 137	CHEYENNE	WY	82003	-	N
1009	PEREZ	JORGE	P.O. BOX 8564	BURBANK	CA	91510	1003	W
1010	LUCAS	JAKE	114 EAST SAVANNAH	ATLANTA	GA	30314	-	SE
1011	MCGOVERN	REESE	P.O. BOX 18	CHICAGO	IL	60606	-	N
1012	MCKENZIE	WILLIAM	P.O. BOX 971	BOSTON	MA	02110	-	NE
1013	NGUYEN	NICHOLAS	357 WHITE EAGLE AVE.	CLERMONT	FL	34711	1006	SE
1014	LEE	JASMINE	P.O. BOX 2947	CODY	WY	82414	-	N
1015	SCHELL	STEVE	P.O. BOX 677	MIAMI	FL	33111	-	SE

Actions   Reset Session   Save

20 rows selected.

Statement 216

```
SELECT c.Customer#, c.LastName, c.FirstName, o.OrderID
FROM Customers c
JOIN Orders o ON c.Customer# = o.Customer#
WHERE o.OrderDate IS NOT NULL
```

ORA-00904: "O"."ORDERID": invalid identifier

More Details: https://docs.oracle.com/error-help/db/ora-00904

Statement 217

```
SELECT * FROM schema_name.Customers
```

ORA-00942: table or view does not exist

More Details: https://docs.oracle.com/error-help/db/ora-00942

Statement 218

```
SELECT c.Customer#, c.LastName, c.FirstName, o.OrderID
FROM Customers c
JOIN Orders o ON c.Customer# = o.Customer#
WHERE o.OrderDate IS NOT NULL
```

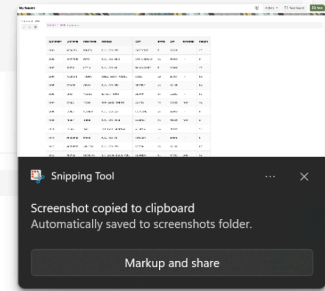ORA-00904: "O"."ORDERID": invalid identifier

More Details: https://docs.oracle.com/error-help/db/ora-00904

Statement 219

```
SELECT table_name FROM user_tables
```

TABLE_NAME
ACCTBONUS

Snipping Tool

Screenshot copied to clipboard
Automatically saved to screenshots folder.

Markup and share

Statement 219

✎ ▷ 🗑

```
SELECT table_name FROM user_tables
```

TABLE_NAME
ACCTBONUS
ACCTMANAGER
ACCTMANAGER2
AUTHOR
BOOKAUTHOR
BOOKS
BOOKS_1
BOOKS_2
CONTACTS
CUSTOMERS
DEPARTMENT
EMPLOYEES
ORDERITEMS
ORDERS
PROMOTION

22 rows selected.

Statement 220

✎ ▷ 🗑

```
SELECT user FROM dual
```

USER
APEX_PUBLIC_USER

Download CSV

Statement 221

✎ ▷ 🗑

```
SELECT column_name
FROM all_tab_columns
WHERE table_name = 'ORDERS'
```

COLUMN_NAME
ORDER_ID
ORDER_DATE
ORDER_MODE
CUSTOMER_ID
ORDER_STATUS
ORDER_TOTAL
SALES_REP_ID
PROMOTION_ID