

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 in each section might present the most challenge. Students are expected to work out and submit the solutions to at least 5 problems in each section. If you have previous experience in SQL you can select the 5 most challenging problems in each section 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

1) Practice Problems: Views

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.

- Create a view that lists the name and phone number of the contact person for each publisher. Don't include the publisher's ID in the view. Name the view CONTACT.
- Change the CONTACT view so that no users can accidentally perform DML operations on the view.

- Create a view called **HOMEWORK13** that includes the columns named **Col1** and **Col2** from the **FIRSTATTEMPT** table. Make sure the view is created even if the **FIRSTATTEMPT** table doesn't exist.
- Attempt to view the structure of the **HOMEWORK13** view.
- Create a view that lists the **ISBN** and title for each book in inventory along with the name and phone number of the person to contact if the book needs to be reordered. Name the view **REORDERINFO**.
- Try to change the name of a contact person in the **REORDERINFO** view to your name. Was an error message displayed when performing this step? If so, what was the cause of the error message?
- Select one of the books in the **REORDERINFO** view and try to change its **ISBN**. Was an error message displayed when performing this step? If so, what was the cause of the error message?
- Delete the record in the **REORDERINFO** view containing your name (If you weren't able to perform #6 successfully, delete one of the contacts already listed in the table.) Was an error message displayed when performing this step? If so, what was the cause of the error message?
- Issue a rollback command to undo any changes made with the preceding DML operations.
- Delete the **REORDERINFO** view.

2) Practice Problems: Additional Database Objects

*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.*

- Create a sequence for populating the **Customer#** column of the **CUSTOMERS** table. When setting the start and increment values, keep in mind that data already exists in this table. The options should be set to not cycle the values and not cache any values, and no minimum or maximum values should be declared.
- Add a new customer row by using the sequence created in Question 1. The only data currently available for the customer is as follows: last name = Shoulders, first name = Frank, and zip = 23567.
- Create a sequence that generates integers starting with the value 5. Each value should be three less than the previous value generated. The lowest possible value should be 0, and the sequence shouldn't be allowed to cycle. Name the sequence **MY_FIRST_SEQ**.
- Issue a **SELECT** statement that displays **NEXTVAL** for **MY_FIRST_SEQ** three times. Because the value isn't being placed in a table, use the **DUAL** table in the **FROM** clause of the **SELECT** statement. What causes the error on the third **SELECT**?
- Change the setting of **MY_FIRST_SEQ** so that the minimum value that can be generated is -1000.

Assignment Submission

My Session

?

Actions

Reset Session

Statement 210

```
CREATE VIEW CONTACT AS
SELECT NAME, PHONE
FROM PUBLISHER
```

View created.

Statement 211

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 212

```
CREATE OR REPLACE VIEW CONTACT AS
SELECT NAME, PHONE
FROM PUBLISHER
WITH READ ONLY
```

View created.

Statement 213

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Statement 213

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 214

```
DROP VIEW HOMEWORK13
```

ORA-00942: table or view does not exist

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

Statement 215

```
CREATE VIEW HOMEWORK13 (COL1, COL2) AS
SELECT NULL, NULL
FROM DUAL
```

View created.




Statement 216

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

My Session




Statement 215



```
CREATE VIEW HOMEWORK13 (  
SELECT NULL, NULL  
FROM DUAL
```

View created.

Statement 216



```
SELECT SYSDATE, 'Chrissie
```




My Session

ⓘ

Actions ▾

↺ Reset Session




Statement 215



```
CREATE VIEW HOMEWORK13 (COL1, COL2) AS  
SELECT NULL, NULL  
FROM DUAL
```

View created.

Statement 216






```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 217



```
DESCRIBE HOMEWORK13
```




VIEW HOMEWORK13

Column	Null?	Type
COL1	-	VARCHAR2(0)
COL2	-	VARCHAR2(0)

Download CSV

2 rows selected.

Statement 218



Statement 218	<div><div><div></div><div></div><div></div></div><div>SELECT SYSDATE, 'Chrissie Raj' FROM DUAL</div></div> <div><table><tr><th>SYSDATE</th><th>'CHRISSIERAJ'</th></tr><tr><td>17-DEC-24</td><td>Chrissie Raj</td></tr></table><div>Download CSV</div></div>	SYSDATE	'CHRISSIERAJ'	17-DEC-24	Chrissie Raj
SYSDATE	'CHRISSIERAJ'				
17-DEC-24	Chrissie Raj				
Statement 219	<div><div><div></div><div></div><div></div></div><div>DROP VIEW REORDERINFO</div></div> <div><div>ORA-00942: table or view does not exist</div><div>More Details: https://docs.oracle.com/error-help/db/ora-00942</div></div>				
Statement 220	<div><div><div></div><div></div><div></div></div><div>CREATE VIEW REORDERINFO AS SELECT B.ISBN, B.TITLE, P.NAME AS CONTACT_NAME, P.PHONE FROM BOOKS B JOIN PUBLISHER P ON B.PUBID = P.PUBID</div></div> <div>View created.</div>				
Statement 221	<div><div><div></div><div></div><div></div></div><div>SELECT SYSDATE, 'Chrissie Raj' FROM DUAL</div><div><table><tr><th>SYSDATE</th><th>'CHRISSIERAJ'</th></tr><tr><td></td><td></td></tr></table></div></div>	SYSDATE	'CHRISSIERAJ'		
SYSDATE	'CHRISSIERAJ'				

Statement 221



```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 222



```
UPDATE PUBLISHER
SET NAME = 'Chrissie Raj'
WHERE PUBID = (SELECT PUBID FROM BOOKS WHERE ISBN = '123456789')
```

0 row(s) updated.

Statement 223



```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj



Download CSV

Statement 224






```
UPDATE BOOKS
SET ISBN = '987654321'
WHERE ISBN = '123456789'
```

My Session

 Actions 




Statement 224

```
UPDATE BOOKS
SET ISBN = '987654321'
WHERE ISBN = '123456789'
```

0 row(s) updated.

Statement 225




  

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV




Statement 226

```
DELETE FROM PUBLISHER
WHERE NAME = 'Chrissie Raj'
```

0 row(s) deleted.



Statement 227




```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

My Session

 Actions 

Statement 227




  

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV




Statement 228

```
ROLLBACK
```

Statement processed.

Statement 229




  

```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 230

```
DROP VIEW REORDERINFO
```

View dropped.

My Session

Statement 230

DROP VIEW REORDERINFO

View dropped.

Statement 231

SELECT SYSDATE, 'Chrissie Raj' FROM DUAL

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 232

DROP SEQUENCE CUSTOMER_SEQ

ORA-02289: sequence does not exist

More Details: <https://docs.oracle.com/error-help/db/ora-02289>

Statement 233

CREATE SEQUENCE CUSTOMER_SEQ
START WITH 101
INCREMENT BY 1
NOCYCLE
NOCACHE

Sequence created.

My Session

Statement 233



```
CREATE SEQUENCE CUSTOMER_SEQ  
START WITH 101  
INCREMENT BY 1  
NOCYCLE  
NOCACHE
```

Sequence created.

Statement 234



```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 235



```
INSERT INTO CUSTOMERS (CUSTOMER#, LASTNAME, FIRSTNAME, ZIP)  
VALUES (CUSTOMER_SEQ.NEXTVAL, 'Shoulders', 'Frank', 23567)
```

1 row(s) inserted.

Statement 236

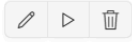


```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

My Session

Statement 236



```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 237



```
DROP SEQUENCE MY_FIRST_SEQ
```

ORA-02289: sequence does not exist

More Details: <https://docs.oracle.com/error-help/db/ora-02289>

Statement 238



```
CREATE SEQUENCE MY_FIRST_SEQ  
START WITH 5  
INCREMENT BY -3  
MINVALUE -1000  
MAXVALUE 5  
NOCYCLE
```

Sequence created.

Statement 239



```
SELECT SYSDATE, 'Chrissie Raj' FROM DUAL
```

SYSDATE	'CHRISSIERAJ'
---------	---------------

My Session

Statement 239

SELECT SYSDATE, 'Chrissie Raj' FROM DUAL

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 240

SELECT MY_FIRST_SEQ.NEXTVAL FROM DUAL

NEXTVAL
5

Download CSV

Statement 241

SELECT MY_FIRST_SEQ.NEXTVAL FROM DUAL

NEXTVAL
2

Download CSV

My Session

NEXTVAL

2

Download CSV

Statement 242

SELECT MY_FIRST_SEQ.NEXTVAL FROM DUAL

NEXTVAL

-1

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Statement 243

SELECT SYSDATE, 'Chrissie Raj' FROM DUAL

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 244

ALTER SEQUENCE MY_FIRST_SEQ
MINVALUE -1000

My Session

Statement 243

SELECT SYSDATE, 'Chrissie Raj' FROM DUAL

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV

Statement 244

ALTER SEQUENCE MY_FIRST_SEQ
MINVALUE -1000

Sequence altered.

Statement 245

SELECT SYSDATE, 'Chrissie Raj' FROM DUAL

SYSDATE	'CHRISSIERAJ'
17-DEC-24	Chrissie Raj

Download CSV