

## EXERCISE-14

### OTHER DATABASE OBJECTS

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Department: CSE

1. Create a sequence to be used with the primary key column of the DEPT table. The sequence should start at 200 and have a maximum value of 1000. Have your sequence increment by ten numbers. Name the sequence DEPT\_ID\_SEQ.

The screenshot displays the Oracle APEX SQL Workshop interface. At the top, the navigation bar includes the APEX logo and links to App Builder, SQL Workshop (selected), Team Development, and Gallery. Below this, the 'SQL Commands' section is active, showing a list of commands with line numbers 1 through 6. The commands are: 1. CREATE SEQUENCE dept\_id\_seq, 2. INCREMENT BY 10, 3. START WITH 200, 4. MAXVALUE 1000, 5. NOCACHE, and 6. NOCYCLE;. The interface also features a toolbar with icons for undo, redo, search, and other functions. At the bottom, the 'Results' tab is selected, displaying the message 'Sequence created.' and the execution time '0.02 seconds'.

```
1 CREATE SEQUENCE dept_id_seq
2 INCREMENT BY 10
3 START WITH 200
4 MAXVALUE 1000
5 NOCACHE
6 NOCYCLE;
```

Sequence created.

0.02 seconds

2. Write a query in a script to display the following information about your sequences: sequence name, maximum value, increment size, and last number.

The screenshot shows the SQL Workshop interface with the following SQL query:

```
1 SELECT sequence_name,  
2       max_value,  
3       increment_by,  
4       last_number  
5 FROM user_sequences  
6 WHERE sequence_name = 'DEPT_ID_SEQ';
```

The results tab displays the following table:

SEQUENCE_NAME	MAX_VALUE	INCREMENT_BY	LAST_NUMBER
DEPT_ID_SEQ	1000	10	200

1 rows returned in 0.01 seconds


3. Write a script to insert two rows into the DEPT table. Name your script lab12\_3.sql. Be sure to use the sequence that you created for the ID column. Add two departments named Education and Administration. Confirm your additions. Run the commands in your script.


The screenshot shows the SQL Workshop interface with the following SQL script:


```
1 INSERT INTO departments (department_id, department_name, location_id)  
2 VALUES (dept_id_seq.NEXTVAL, 'Education', 1008);
```


The results tab displays the following message:

```
1 row(s) inserted.  
  
0.01 seconds
```

 **APEX**





App Builder 





**SQL Workshop** 

Team Development 

Gallery

↑ SQL Commands

Language SQL   Rows 20   Clear Command Find Tables

    Az

```
1 INSERT INTO departments (department_id, department_name, location_id)
2 VALUES (dept_id_seq.NEXTVAL, 'Administration', 1009);
```



Results





ExplainDescribeSaved SQLHistory






1 row(s) inserted.

0.00 seconds

↑ SQL Commands

Schema WKSP\_DBMS05  

Language SQL   Rows 20   Clear Command Find Tables Save Run

    Az 

```
1 SELECT * FROM departments
2 WHERE department_name IN ('Education', 'Administration');
```

Results

ExplainDescribeSaved SQLHistory

DEPARTMENT_ID	DEPARTMENT_NAME	LOCATION_ID
210	Administration	1009
200	Education	1008

2 rows returned in 0.00 seconds Download

4. Create a nonunique index on the foreign key column (DEPT\_ID) in the EMP table.

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes the APEX logo, 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. Below the navigation bar, the 'SQL Commands' section is active. It features a 'Language' dropdown set to 'SQL', a 'Rows' dropdown set to '20', and buttons for 'Clear Command' and 'Find Tables'. The SQL command editor contains the following code:

```
1 CREATE INDEX emp_dept_id_idx
2 ON employees(department_id);
```

Below the editor, the 'Results' tab is selected, displaying the message 'Index created.' and the execution time '0.04 seconds'.

5. Display the indexes and uniqueness that exist in the data dictionary for the EMP table.

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes the APEX logo, 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. Below the navigation bar, the 'SQL Commands' section is active. It features a 'Language' dropdown set to 'SQL', a 'Rows' dropdown set to '20', and buttons for 'Clear Command', 'Find Tables', 'Save', and 'Run'. The SQL command editor contains the following code:

```
1 SELECT ic.index_name,
2        ic.column_name,
3        ic.column_position AS col_pos,
4        ix.uniqueness
5 FROM user_indexes ix
6 JOIN user_ind_columns ic
7 ON ic.index_name = ix.index_name
8 WHERE ic.table_name = 'EMPLOYEES';
```

Below the editor, the 'Results' tab is selected, displaying a table with the following data:

INDEX_NAME	COLUMN_NAME	COL_POS	UNIQUENESS
EMP_DEPT_ID_IDX	DEPARTMENT_ID	1	NONUNIQUE
SYS_C00186810558	EMPLOYEE_ID	1	UNIQUE

At the bottom of the results section, it states '2 rows returned in 0.20 seconds' and provides a 'Download' link.