Fatima Jinnah Women University
Department of Software Engineering

LAB 9

Name: Raifa Khalid

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Section: A

Semester: Fourth

Course: Data Base (LAB)

EXAMPLES:

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Querying Data Dictionary:

```
SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
```

```
SQL> select distinct object_type from user_objects;

OBJECT_TYPE
-------------------
INDEX
TABLE
```

```
SQL> select * from user_catalog;

TABLE_NAME                     TABLE_TYPE
------------------------------ -----------
BONUS                          TABLE
DEPT                           TABLE
EMP                            TABLE
SALGRADE                       TABLE
```

Creating Tables:

```
SQL> create table hiredate (id number(8), hire_date date default sysdate);

Table created.

SQL> create table department
  2  (deptno number(2),
  3  dname varchar2(14),
  4  create_date date default sysdate);

Table created.
```

```
SQL> desc department;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(2)
 DNAME                                              VARCHAR2(14)
 CREATE_DATE                                        DATE
```

Adding a Column:

```
SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE

SQL> alter table deptt
  2  add (job_id varchar2(10));

Table altered.

SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE
 JOB_ID                                             VARCHAR2(10)
```

Modifying a Column:

```
SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE
 JOB_ID                                             VARCHAR2(10)

SQL> alter table deptt
  2  modify (job_id number(10));

Table altered.

SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE
 JOB_ID                                             NUMBER(10)
```

Dropping a Column:

```
SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE
 JOB_ID                                             NUMBER(10)

SQL> alter table deptt
  2  drop column job_id;

Table altered.

SQL> desc deptt;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 DEPTNO                                             NUMBER(6)
 DNAME                                              VARCHAR2(20)
 CREATE_DATE                                        DATE
```

Dropping Table:

```
SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPARTMENT
DEPTT

7 rows selected.

SQL> drop table department;

Table dropped.

SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT

6 rows selected.
```

Changing the Name of the Object:

```
SQL> rename deptt to dept_detail;

Table renamed.
```

Truncating Table:

```
SQL> truncate table dept_detail;

Table truncated.
```

Adding Comments to the Table:

```
SQL> comment on table dept_detail
  2  is 'department detail';

Comment created.
```

The SET UNUSED Option:

```
SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
 DEPT_ID                                            NUMBER(7)

SQL> alter table Employee_Detail
  2  set unused (dept_id);

Table altered.

SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
```

TASKS

1. Create “Department_Detail” table with the schema given below. Conform that the table is created.

```
SQL> create table Department_Detail
  2  (int number(7),
  3  name varchar(25));

Table created.

SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT
DEPARTMENT_DETAIL

7 rows selected.
```

2. Create the “Employee_Detail” table based on the following table instance chart. Confirm that the table is created.

```
SQL> create table Employee_Detail
  2  (id number(7),
  3  last_name varchar(25),
  4  first_name varchar(25),
  5  dept_id number(7));

Table created.

SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT
DEPARTMENT_DETAIL
EMPLOYEE_DETAIL

8 rows selected.
```

3. Modify the “Employee_Detail” table to allow for longer employee last names. Confirm your modifications.

```
SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
 FIRST_NAME                                         VARCHAR2(25)
 DEPT_ID                                            NUMBER(7)

SQL> alter table Employee_Detail
  2  modify (last_name varchar2(50));

Table altered.

SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(50)
 FIRST_NAME                                         VARCHAR2(25)
 DEPT_ID                                            NUMBER(7)
```

4. Confirm that both tables created above are stored in the data dictionary.

```
SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT
DEPARTMENT_DETAIL
EMPLOYEE_DETAIL

8 rows selected.
```

5. Create the “Employee2” table based on the structure of “Employee_Detail” table.

```
SQL> create table Employee2
  2  (id number(7),
  3  last_name varchar(25),
  4  first_name varchar(25),
  5  dept_id number(7));

Table created.
```

6. Drop the Employee_Detail table.

```
SQL> drop table Employee_Detail;

Table dropped.

SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT
DEPARTMENT_DETAIL
EMPLOYEE2

8 rows selected.
```

7. Rename the “Employee2” table as “Employee_Detail” table.

```
SQL> rename "EMPLOYEE2" to
  2  Employee_Detail;

Table renamed.

SQL> select table_name from user_tables;

TABLE_NAME
------------------------------
DEPT
EMP
BONUS
SALGRADE
HIREDATE
DEPTT
DEPARTMENT_DETAIL
EMPLOYEE_DETAIL

8 rows selected.
```

8. Add a comment to both table definitions describing the tables. Confirm your additions in the data dictionary.

```
SQL> comment on table Employee_detail is 'Employee information';

Comment created.
```

9. Drop the First_Name column from the Employee_Detail table. Confirm your modifications by checking the description of the table.

```
SQL> alter table Employee_Detail
  2  drop column first_name;

Table altered.

SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
 DEPT_ID                                            NUMBER(7)
```

10. In the Employee_Detail table, mark the DEPT_ID column in the Employee_Detail table as unused. Confirm your modifications by checking the description of the table.

```
SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
 DEPT_ID                                            NUMBER(7)

SQL> alter table Employee_Detail
  2  set unused (dept_id);

Table altered.

SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
```

11. Drop all the UNUSED columns from the Employee_Detail table. Confirm your modifications by checking the description of the table.

```
SQL> alter table Employee_Detail
  2  drop unused columns;

Table altered.

SQL> desc Employee_Detail;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(7)
 LAST_NAME                                          VARCHAR2(25)
```