19/7/2025

EXERCISE-1
Creating and Managing Tables

OBJECTIVE

After the completion of this exercise, students should be able to do the following:

- Create tables
- Describing the data types that can be used when specifying column definition
- Alter table definitions
- Drop, rename, and truncate tables

NAMING RULES

Table names and column names:

- Must begin with a letter
- Must be 1-30 characters long
- Must contain only A-Z, a-z, 0-9, _, $, and #
- Must not duplicate the name of another object owned by the same user
- Must not be an oracle server reserve words
- 2 different tables should not have same name.
- Should specify a unique column name.
- Should specify proper data type along with width
- Can include "not null" condition when needed. By default it is 'null'.

The CREATE TABLE Statement

Table: Basic unit of storage; composed of rows and columns

Syntax: 1 Create table table_name (column_name1 data_ type (size)
column_name2 data_ type (size)….);

Syntax: 2 Create table table_name (column_name1 data_ type (size) constraints,
column_name2 data_ type constraints …);

Example:

Create table employlees (employee_id number(6), first_name varchar2(20), ..job_id varchar2(10),
CONSTRAINT emp_emp_id_pk PRIMARY KEY (employlee_id));

Tables Used in this course

Creating a table by using a Sub query

SYNTAX
// CREATE TABLE table_name(column_name type(size)…);

Create table table_name **as** select column_name1,column_name2,……colmn_namen from
table_name where predicate;

AS Subquery

Highest_sal		Number

LOCATION TABLE

NAME	NULL?	TYPE
Location_id	Not null	Number(4)
St_addr		Varchar(40)
Postal_code		Varchar(12)
City	Not null	Varchar(30)
State_province		Varchar(25)
Country_id		Char(2)

1. Create the DEPT table based on the DEPARTMENT following the table instance chart below. Confirm that the table is created.

Column name	ID	NAME
Key Type		
Nulls/Unique		
FK table		
FK column		
Data Type	Number	Varchar2
Length	7	25

```
create table DEPT ( ID NUBIBER(7) NOT NULL PRIMARY KEY,
                    NAME VARCHAR (27) NOT NULL) ;
```

2. Create the EMP table based on the following instance chart. Confirm that the table is created.

Column name	ID	LAST_NAME	FIRST_NAME	DEPT_ID
Key Type				
Nulls/Unique				
FK table				
FK column				
Data Type	Number	Varchar2	Varchar2	Number
Length	7	25	25	7

```
create table EMP ( ID NUMBER (7) NOT NULL PRIMARY KEY,
  LAST-NAME VARCHAR (20) NOT NULL, FIRST_NAME VARCHAR ('20)
  NOT NULL , DEPT-ID NUMBER (7) NOT NULL,
CONSTRAINT FK_dept FOREIGN KEY (DEPT_ID ) REFERENCES DEPT(ID) ) ;
```

3. Modify the EMP table to allow for longer employee last names. Confirm the modification.(Hint: Increase the size to 50)

```
ALTER TABLE EMP
MODIFY LAST_NAME VARCHAR (50) ;
```

4. Create the EMPLOYEES2 table based on the structure of EMPLOYEES table. Include Only the Employee_id, First_name, Last_name, Salary and Dept_id coloumns. Name the columns Id, First_name, Last_name, salary and Dept_id respectively.

```
Create table EMPLOYEES2( Employee_id NUMBER(7),
First_name VARCHAR(25), Last_name VARCHAR(25),
Salary NUMBER(7,2), Dept_id NUMBER(7)
);
```

5. Drop the EMP table.

```
DROP TABLE EMP;
```

6. Rename the EMPLOYEES2 table as EMP.

```
alter table EMPLOYEES2 rename TO EMP ;
```

7. Add a comment on DEPT and EMP tables. Confirm the modification by describing the table.

```
COMMENT ON TABLE DEPT IS 'This table contains department
info, include id & name';
COMMENT ON TABLE EMP IS 'This table stores employee
info, include employee ID, last name, and dept ID';
```

8. Drop the First_name column from the EMP table and confirm it.

```
ALTER TABLE EMP DROP COLUMN FIRST_NAME;
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	Dept 9/9/25