

Ex.No.: 2

Date: 13 | 08 | 25

DATA MANIPULATIONS

Create the following tables with the given structure.

EMPLOYEES TABLE

NAME	NULL?	TYPE
Employee_id	Not null	Number(6)
First_Name		Varchar(20)
Last_Name	Not null	Varchar(25)
Email	Not null	Varchar(25)
Phone_Number		Varchar(20)
Hire_date	Not null	Date
Job_id	Not null	Varchar(10)
Salary		Number(8,2)
Commission_pct		Number(2,2)
Manager_id		Number(6)
Department_id		Number(4)

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```
CREATE TABLE EMPLOYEES (
    Employee_id NUMBER(6) NOT NULL,
    First_Name VARCHAR(20),
    Last_Name VARCHAR(25) NOT NULL,
    Email VARCHAR(25) NOT NULL,
    Phone_Number VARCHAR(20),
    Hire_Date DATE NOT NULL,
    Job_id VARCHAR(10) NOT NULL,
    Salary NUMBER(8,2),
    Commission_pct NUMBER(2,2),
    Manager_id NUMBER(6),
    Department_id NUMBER(4)
);
```

```
Firstname || ' ' || LastName AS FullName,  
Salary
```

```
FROM EMPLOYEES;
```

(b) List out the employees who works under manager 100

```
SELECT Employee_id,  
       FirstName || ' ' || LastName AS FullName,  
       ManagerId  
FROM EMPLOYEES WHERE ManagerId = 100;
```

(c) Find the names of the employees who have a salary greater than or equal to 4800

```
SELECT FirstName || ' ' || LastName AS FullName,  
       Salary  
FROM EMPLOYEES WHERE Salary >= 4800;
```

(a) BEGIN

```
FOR r IN (
    SELECT 1 AS EmpNo, 'Alice' AS EmpName, 'Analyst'
    SELECT 2, 'Bob', 'Clerk', 3500 UNION ALL
    SELECT 3, 'Carol', 'Manager', 3000 UNION ALL
    SELECT 4, 'Dave', 'Clerk', 3000 UNION ALL
    SELECT 5, 'Eve', 'Analyst', 5500
) LOOP
    INSERT INTO Emp(
        EmpNo, EmpName, Job, Basic, DA, HRA, PA, GrossPay,
        NetPay)
    VALUES (
        r.EmpNo, r.EmpName, r.Job, r.Basic,
        r.Basic * 0.30, r.Basic * 0.40, r.Basic * 0.10,
        r.Basic + (r.Basic * 0.30) + (r.Basic * 0.40),
        (r.Basic + (r.Basic * 0.30) + (r.Basic * 0.40))); END LOOP;
    COMMIT;
```

```
CREATE TABLE Emp(
    EmpNo NUMBER(4) PRIMARY KEY,
    EmpName VARCHAR2(30) NOT NULL,
    Job VARCHAR2(20),
    Basic NUMBER(9,2) NOT NULL,
    DA NUMBER(9,2),
    HRA NUMBER(9,2),
    PF NUMBER(9,2),
    GrossPay NUMBER(9,2),
    NetPay NUMBER(9,2).
```

);

(d) List out the employees whose last name is 'AUSTIN'

```
SELECT Employee_Id,  
       First_Name || ' ' || Last_Name AS Full_Name  
FROM EMPLOYEES  
WHERE Last_Name = 'AUSTIN';
```

(e) Find the names of the employees who works in departments 60,70 and 80

```
SELECT Employee_id,  
       First_Name || ' ' || Last_Name AS Full_Name,  
       Department_id  
FROM EMPLOYEES WHERE Department_id IN (60,70,80);
```

(f) Display the unique Manager_Id.

```
SELECT DISTINCT Manager_id  
FROM EMPLOYEES  
WHERE Manager_id IS NOT NULL;
```

Create an Emp table with the following fields: (EmpNo, EmpName, Job,Basic, DA, HRA,PF, GrossPay, NetPay) (Calculate DA as 30% of Basic and HRA as 40% of Basic)

(a) Insert Five Records and calculate GrossPay and NetPay.

(b) Display the employees whose Basic is lowest in each department.

```
SELECT * FROM Emp  
WHERE Basic = (SELECT MIN(Basic) FROM Emp);
```

(c) If Net Pay is less than

```
SELECT * FROM Emp
```

```
WHERE NetPay < PF;
```

DEPARTMENT TABLE

NAME	NULL?	TYPE
Dept_id	Not null	Number(6)
Dept_name	Not null	Varchar(20)
Manager_id		Number(6)
Location_id		Number(4)

JOB_GRADE TABLE

NAME	NULL?	TYPE
Grade_level		Varchar(2)
Lowest_sal		Number
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 NUMBER(7) PRIMARY KEY,
    NAME VARCHAR(25)
);
```

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

2) CREATE TABLE EMP(

```
ID Number(7) PRIMARY KEY,
LAST_NAME VARCHAR2(25),
FIRST_NAME VARCHAR2(25),
DEPT_ID NUMBER(7),
FOREIGN KEY (DEPT_ID) REFERENCES DEPTID));
```

- 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 VARCHAR2(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 EMPLOYEES AS
SELECT Employee_id AS Id, First_name, Last_name, Salary,
       department_id AS Dept_id
FROM EMPLOYEES;
```

- 5 Drop the EMP table.

```
DROP TABLE EMP;
```

- 6 Rename the EMPLOYEES2 table as EMP.

```
RENAME EMPLOYEES2 TO EMP;
```

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

COMMENT ON TABLE DEPT IS 'Department Master Table';
COMMENT ON TABLE EMP IS 'Employee Master Table';
DESC DEPT;
DESC EMP;

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

ALTER TABLE EMP
DROP COLUMN First_Name;
DESC EMP;

Evaluation Procedure	Marks awarded
Query(5)	
Execution (5)	
Viva(5)	
Total (15)	
Faculty Signature	

RJ



RESULT :

Thus all the above SQL statements were executed.