

DATE: 01/08/2024

DATA MANIPULATIONS.

create table employees(employee_id number(6),First_Name varchar(20),Last_Name varchar(25),Email varchar(25),Phone_number varchar(20),hire_date date,Job_id varchar(10),Salary number(8,2),Commission_pct number(2,2),Manager_id number(6),Department_id number(4));

| Column Name | Data Type | Nullable | Default | Primary Key |
|----------------|--------------|----------|---------|-------------|
| EMPLOYEE_ID | NUMBER(6,0) | Yes | - | - |
| FIRST_NAME | VARCHAR2(20) | Yes | - | - |
| LAST_NAME | VARCHAR2(25) | Yes | - | - |
| EMAIL | VARCHAR2(25) | Yes | - | - |
| PHONE_NUMBER | VARCHAR2(20) | Yes | - | - |
| HIRE_DATE | DATE | Yes | - | - |
| JOB_ID | VARCHAR2(10) | Yes | - | - |
| SALARY | NUMBER(8,2) | Yes | - | - |
| COMMISSION_PCT | NUMBER(2,2) | Yes | - | - |
| MANAGER_ID | NUMBER(6,0) | Yes | - | - |
| DEPARTMENT_ID | NUMBER(4,0) | Yes | - | - |
| 1 - 11 | | | | |

Insert into employees

values(3,'Ralph','Patel','rpatel@gmail.com',9768403822,'11-12-2000',13,5000,.25,101,40);

Insert into employees

values(4,'George','Austin','geaustin@gmail.com',9573268191,'09-10-2018',14,6000,.3,103,60);

Insert into employees values

(1,'Ben','Chad','bchad@gmail.com',9493836325,'24-07-2022',11,4500,.15,100,70);

Insert into employees values

(2,'Bety','Dancs','bdancs@gmail.com',9763467298,'19-05-2021',12,4800,.17,100,56);

Insert into employees values

```
(5,'Audrey','Austin','audaustin@gmail.com',9684357377,'06-05-2017',15,7000,.35,104,80);
```

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|---------------------|--------------|------------|--------|--------|----------------|------------|---------------|
| 3 | Ralph | Patel | rpatel@gmail.com | 768403822 | 11/12/2000 | 13 | 5000 | .25 | 101 | 40 |
| 4 | George | Austin | geaustin@gmail.com | 9573268191 | 09/10/2018 | 14 | 6000 | .3 | 103 | 60 |
| 1 | Ben | Chad | bchad@gmail.com | 9493836325 | 04/07/2022 | 11 | 4500 | .15 | 100 | 70 |
| 2 | Bety | Dancs | bdancs@gmail.com | 9763467298 | 09/05/2021 | 12 | 4800 | .17 | 100 | 56 |
| 5 | Audrey | Austin | audaustin@gmail.com | 9684357377 | 06/05/2017 | 15 | 7000 | .35 | 104 | 80 |

```
select employee_id,first_name,last_name,salary from employees;
```

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | SALARY |
|-------------|------------|-----------|--------|
| 3 | Ralph | Patel | 5000 |
| 4 | George | Austin | 6000 |
| 1 | Ben | Chad | 4500 |
| 2 | Bety | Dancs | 4800 |
| 5 | Audrey | Austin | 7000 |

```
select *from employees where manager_id=100;
```

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|------------------|--------------|------------|--------|--------|----------------|------------|---------------|
| 1 | Ben | Chad | bchad@gmail.com | 9493836325 | 04/07/2022 | 11 | 4500 | .15 | 100 | 70 |
| 2 | Bety | Dancs | bdancs@gmail.com | 9763467298 | 09/05/2021 | 12 | 4800 | .17 | 100 | 56 |

```
select first_name,last_name from employees where salary>=4800;
```

| FIRST_NAME | LAST_NAME |
|------------|-----------|
| Ralph | Patel |
| George | Austin |
| Bety | Dancs |
| Audrey | Austin |

```
select *from employees where last_name ='Austin';
```

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|---------------------|--------------|------------|--------|--------|----------------|------------|---------------|
| 4 | George | Austin | geaustin@gmail.com | 9573268191 | 09/10/2018 | 14 | 6000 | .3 | 103 | 60 |
| 5 | Audrey | Austin | audaustin@gmail.com | 9684357377 | 06/05/2017 | 15 | 7000 | .35 | 104 | 80 |

select first_name ,last_name from employees where department_id=60 or department_id=70 or department_id=80;

| FIRST_NAME | LAST_NAME |
|------------|-----------|
| George | Austin |
| Ben | Chad |
| Audrey | Austin |

select distinct manager_id from employees;

| MANAGER_ID |
|------------|
| 100 |
| 101 |
| 104 |
| 103 |

(2B)

create table emp1(empno number(4),empname varchar(25),job varchar(25),basic number(10),da number(10),hra number(10),pf number(10),grosspay number(10),netpay number(10));

Object Type: TABLE Object: EMP1

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------|----------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMP1 | EMPNO | NUMBER | - | 4 | 0 | - | ✓ | - | - |
| | EMPNAME | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | JOB | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | BASIC | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | DA | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | HRA | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | PF | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | GROSSPAY | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | NETPAY | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | | | | | | | | | 1 - 9 |

insert into emp1 values(1,'betty','manager',7000,2100,2800,1000,10,20);

insert into emp1 values(2,'annie','secretary',5000,1500,2000,1500,20,30);

insert into emp1 values(3,'ralph','technician',8000,2400,3200,2000,30,40);

insert into emp1 values(4,'linda','assistant',4000,1200,1600,1200,40,50); insert

into emp1 values(5,'becky','manager',9000,2700,3600,2500,50,60);

Results Explain Describe Saved SQL History

| EMPNO | EMPNAME | JOB | BASIC | DA | HRA | PF | GROSSPAY | NETPAY |
|-------|---------|------------|-------|------|------|------|----------|--------|
| 1 | betty | manager | 7000 | 2100 | 2800 | 1000 | 10 | 20 |
| 2 | annnie | secretary | 5000 | 1500 | 2000 | 1500 | 20 | 30 |
| 3 | ralph | technician | 8000 | 2400 | 3200 | 2000 | 30 | 40 |
| 4 | linda | assistant | 4000 | 1200 | 1600 | 1200 | 40 | 50 |
| 5 | becky | manager | 9000 | 2700 | 3600 | 2500 | 50 | 60 |

5 rows returned in 0.00 secondsDownload

update emp1 set

grosspay=basic+da+hra+pf; set

netpay=basic-pf;

Results Explain Describe Saved SQL History

| EMPNO | EMPNAME | JOB | BASIC | DA | HRA | PF | GROSSPAY | NETPAY |
|-------|---------|------------|-------|------|------|------|----------|--------|
| 1 | betty | manager | 7000 | 2100 | 2800 | 1000 | 12900 | 6000 |
| 2 | annnie | secretary | 5000 | 1500 | 2000 | 1500 | 10000 | 3500 |
| 3 | ralph | technician | 8000 | 2400 | 3200 | 2000 | 15600 | 6000 |
| 4 | linda | assistant | 4000 | 1200 | 1600 | 1200 | 8000 | 2800 |
| 5 | becky | manager | 9000 | 2700 | 3600 | 2500 | 17800 | 6500 |

5 rows returned in 0.01 secondsDownload

select * from emp1 where basic=(select
min(basic) from emp1);

Results Explain Describe Saved SQL History

| EMPNO | EMPNAME | JOB | BASIC | DA | HRA | PF | GROSSPAY | NETPAY |
|-------|---------|-----------|-------|------|------|------|----------|--------|
| 4 | linda | assistant | 4000 | 1200 | 1600 | 1200 | 8000 | 2800 |

1 rows returned in 0.01 secondsDownload

select * from emp1 where netpay=(select
min(netpay)from emp1);

| EMPNO | EMPNAME | JOB | BASIC | DA | HRA | PF | GROSSPAY | NETPAY |
|-------|---------|-----------|-------|------|------|------|----------|--------|
| 4 | linda | assistant | 4000 | 1200 | 1600 | 1200 | 8000 | 2800 |

1 rows returned in 0.00 seconds [Download](#)

----- (2c) create table emp3(id number(7) primary key not null,last_name varchar2(25) not
null,first_name varchar2(25),dept_id number(7));

Object Type **TABLE** Object **EMP3**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------|------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMP3 | ID | NUMBER | - | 7 | 0 | 1 | - | - | - |
| | LAST_NAME | VARCHAR2 | 25 | - | - | - | - | - | - |
| | FIRST_NAME | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | DEPT_ID | NUMBER | - | 7 | 0 | - | ✓ | - | - |
| 1 - 4 | | | | | | | | | |

alter table emp3 modify

last_name varchar2(50);

Object Type **TABLE** Object **EMP3**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------|------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMP3 | ID | NUMBER | - | 7 | 0 | 1 | - | - | - |
| | LAST_NAME | VARCHAR2 | 50 | - | - | - | - | - | - |
| | FIRST_NAME | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | DEPT_ID | NUMBER | - | 7 | 0 | - | ✓ | - | - |
| 1 - 4 | | | | | | | | | |

create table employees2(employee_id number(4),first_name varchar(25),last_name varchar(20),salary number(10),dept_id varchar(5));

Object Type **TABLE** Object **EMPLOYEES2**

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|------------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPLOYEES2 | EMPLOYEE_ID | NUMBER | - | 4 | 0 | - | ✓ | - | - |
| | FIRST_NAME | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | LAST_NAME | VARCHAR2 | 20 | - | - | - | ✓ | - | - |
| | SALARY | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | DEPT_ID | VARCHAR2 | 5 | - | - | - | ✓ | - | - |
| 1 - 5 | | | | | | | | | |

drop table emp3;

Table dropped.

0.38 seconds

```
alter table employees2 rename to emp3;
```

| Object Type | TABLE | Object | EMP3 | | | | | | |
|-------------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
| EMP3 | EMPLOYEE_ID | NUMBER | - | 4 | 0 | - | ✓ | - | - |
| | FIRST_NAME | VARCHAR2 | 25 | - | - | - | ✓ | - | - |
| | LAST_NAME | VARCHAR2 | 20 | - | - | - | ✓ | - | - |
| | SALARY | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | DEPT_ID | VARCHAR2 | 5 | - | - | - | ✓ | - | - |

1 - 5

```
alter table emp3 drop
```

```
column first_name;
```

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMP3 | EMPLOYEE_ID | NUMBER | - | 4 | 0 | - | ✓ | - | - |
| | LAST_NAME | VARCHAR2 | 20 | - | - | - | ✓ | - | - |
| | SALARY | NUMBER | - | 10 | 0 | - | ✓ | - | - |
| | DEPT_ID | VARCHAR2 | 5 | - | - | - | ✓ | - | - |

1 - 4