**EX:02.DATA MANIPULATIONS**

**DEPT:CSE(CYBER SECURITY)**

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**1)CREATE THE FOLLOWING TABLES EMPLOYEE WITH THE GIVEN STRUCTURE**:

create table employee(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));

**OUTPUT:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| EMPLOYEE\_ID | NUMBER(6,0) | No | - | - |
| FIRST\_NAME | VARCHAR2(20) | Yes | - | - |
| LAST\_NAME | VARCHAR2(25) | No | - | - |
| EMAIL | VARCHAR2(25) | No | - | - |
| PHONE\_NUMBER | VARCHAR2(20) | Yes | - | - |
| HIRE\_DATE | DATE | No | - | - |
| JOB\_ID | VARCHAR2(10) | No | - | - |
| SALARY | NUMBER(8,2) | Yes | - | - |
| COMMISSION\_PCT | NUMBER(2,2) | Yes | - | - |
| MANAGER\_ID | NUMBER(6,0) | Yes | - | - |
| DEPARTMENT\_ID | NUMBER(4,0) | Yes | - | - |

**(a)FIND OUT THE EMPLOYEE\_ID,NAMES,SALARIES OF ALL THE EMPLOYEES:**

Select employee\_id,first\_name,last\_name ,salary from employees;

|  |  |  |  |
| --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** |
| 1 | betty | austin | 6000 |
| 2 | biri | ben | 4500 |
| 3 | newman | chad | 5000 |
| 4 | patel | ralph | 4800 |

**(b)LIST OUT THE EMPLOYEES WHO WORKS UNDER MANAGER 100:**

select \* from employee where manager\_id='100';

**OUTPUT:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **EMAIL** | **PHONE\_NUMBER** | **HIRE\_DATE** | **JOB\_ID** | **SALARY** | **COMMISSION\_PCT** | **MANAGER\_ID** | **DEPARTMENT\_ID** |
| 3 | newman | chad | rithu@gmail.com | abcdefgh | 09/09/2020 | aa | 5000 | .02 | 100 | 10 |
| 4 | patel | ralph | abc@gmail.com | xxxxxxxx | 11/18/2003 | bb | 4800 | .03 | 100 | 60 |

**(c)FIND THE NAME OF THE EMPLOYEES WHO HAVE A SALARY GRATER THAN OR EQUAL TO 4800:**

select \* from employee where salary>='4800';

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **EMAIL** | **PHONE\_NUMBER** | **HIRE\_DATE** | **JOB\_ID** | **SALARY** | **COMMISSION\_PCT** | **MANAGER\_ID** | **DEPARTMENT\_ID** |
| 1 | betty | austin | xyz@gmail.com | yyyyyyyy | 11/28/2019 | cc | 6000 | .04 | 20 | 70 |
| 3 | newman | chad | rithu@gmail.com | abcdefgh | 09/09/2020 | aa | 5000 | .02 | 100 | 10 |
| 4 | patel | ralph | abc@gmail.com | xxxxxxxx | 11/18/2003 | bb | 4800 | .03 | 100 | 60 |

**(d)LIST OUT THE EMPLOYEES WHOSE LAST NAME IS AUSTIN:**

select \* from employee where last\_name='austin';

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **EMAIL** | **PHONE\_NUMBER** | **HIRE\_DATE** | **JOB\_ID** | **SALARY** | **COMMISSION\_PCT** | **MANAGER\_ID** | **DEPARTMENT\_ID** |
| 1 | betty | austin | xyz@gmail.com | yyyyyyyy | 11/28/2019 | cc | 6000 | .04 | 20 | 70 |

**(e)FIND THE NAMES OF THE EMPLOYEE WHO WORKS IN DEPARTMENTS 60,70,80:**

select \*from employee where department\_id='60' or department\_id='70' or department\_id='80';

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **EMAIL** | **PHONE\_NUMBER** | **HIRE\_DATE** | **JOB\_ID** | **SALARY** | **COMMISSION\_PCT** | **MANAGER\_ID** | **DEPARTMENT\_ID** |
| 1 | betty | austin | xyz@gmail.com | yyyyyyyy | 11/28/2019 | cc | 6000 | .04 | 20 | 70 |
| 2 | biri | ben | pqr@gmail.com | zzzzzzzzz | 11/18/2020 | dd | 4500 | .05 | 300 | 80 |
| 4 | patel | ralph | abc@gmail.com | xxxxxxxx | 11/18/2003 | bb | 4800 | .03 | 100 | 60 |

**(f)DISPLAY THE UNIQUE MANAGER\_ID:**

select distinct manager\_id from employee;

|  |
| --- |
| **MANAGER\_ID** |
| 100 |
| 20 |
| 300 |

**2)CREATE AN EMP TABLE WITH THE FOLLOWING FIELDS:**

create table empy(empno number(10),empname varchar(25),job varchar(25),basic number(20),DA number(20) as (basic\*0.30),HRA number(20) as (basic\*0.40),PF number(10,2),grosspay number(10,2),Netpay number(20));

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| EMPNO | NUMBER | Yes | - | - |
| EMPNAME | VARCHAR2(25) | Yes | - | - |
| JOB | VARCHAR2(25) | Yes | - | - |
| BASIC | NUMBER | Yes | - | - |
| DA | NUMBER | Yes | - | - |
| HRA | NUMBER | Yes | - | - |
| PF | NUMBER | Yes | - | - |
| GROSSPAY | NUMBER | Yes | - | - |
| NETPAY | NUMBER | Yes | - | - |

**(a)INSERT FIVE RECORDS AND CALCULATE GROSSPAY AND NETPAY**:

insert into empy(empno,empname,job,basic,PF)values(101,'sai','assistant manager',95000,1000);

insert into empy(empno,empname,job,basic,PF)values(102,'shaini','manager',85000,5000);

insert into empy(empno,empname,job,basic,PF)values(103,'nandhini','team leader',75000,5000);

insert into empy(empno,empname,job,basic,PF)values(104,'kamali','asst team leader',95000,8000);

insert into empy(empno,empname,job,basic,PF)values(105,'varshini','cashier',95000,9000);

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **EMPNAME** | **JOB** | **BASIC** | **DA** | **HRA** | **PF** | **GROSSPAY** | **NETPAY** |
| 101 | sai | assistant manager | 95000 | 28500 | 38000 | 1000 | 161500 | 94000 |
| 102 | shaini | manager | 85000 | 25500 | 34000 | 5000 | 144500 | 80000 |
| 103 | nandhini | team leader | 75000 | 22500 | 30000 | 5000 | 127500 | 70000 |
| 104 | kamali | asst team leader | 95000 | 28500 | 38000 | 8000 | 161500 | 87000 |
| 105 | varshini | cashier | 95000 | 28500 | 38000 | 9000 | 161500 | 86000 |

**(b)DISPLAY THE EMPLOYEES WHOSE BASIC IS LOWEST IN EACH DEPARTMENT:**

select \* from empy where basic=(select min (basic) from empy);

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **EMPNAME** | **JOB** | **BASIC** | **DA** | **HRA** | **PF** | **GROSSPAY** | **NETPAY** |
| 103 | nandhini | team leader | 75000 | 22500 | 30000 | 5000 | 127500 | 70000 |

**(c)IF NET PAY IS LESS THAN:**

select \* from empy where netpay=(select min (netpay) from empy);

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **EMPNAME** | **JOB** | **BASIC** | **DA** | **HRA** | **PF** | **GROSSPAY** | **NETPAY** |
| 103 | nandhini | team leader | 75000 | 22500 | 30000 | 5000 | 127500 | 70000 |

**3)CREATE THE EMP TABLE BASED ON THE FOLLOWING INSTANCE CHART:**

create table emply(id number(7) primary key,last\_name varchar(25) not null,first\_name

varchar(25),dept\_id number(7));

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| ID | NUMBER(7,0) | No | - | 1 |
| LAST\_NAME | VARCHAR2(25) | No | - | - |
| FIRST\_NAME | VARCHAR2(25) | Yes | - | - |
| DEPT\_ID | NUMBER(7,0) | Yes | - | - |

**4)MODIFY THE EMP TABLE TO ALLOW FOR LONGER EMPLOYEE LAST NAMES:**

create table employee2(id number(7),first\_name varchar(25),last\_name varchar(25),salary number(10),dept\_id number(5));

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| ID | NUMBER(7,0) | Yes | - | - |
| FIRST\_NAME | VARCHAR2(25) | Yes | - | - |
| LAST\_NAME | VARCHAR2(25) | Yes | - | - |
| SALARY | NUMBER(10,0) | Yes | - | - |
| DEPT\_ID | NUMBER(5,0) | Yes | - | - |

drop table emply;

Tabe dropped

alter table employee2 rename to emply;

table altered

**5)CREATE THE EMPLOYEES2 TABLE BASED ON THE STRUCTURES OF EMPLOYEE TABLE:**

create table employee2(id number(7),first\_name varchar(25),last\_name varchar(25),salary number(10),dept\_id number(5));

Table created.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| ID | NUMBER(7,0) | Yes | - | - |
| FIRST\_NAME | VARCHAR2(25) | Yes | - | - |
| LAST\_NAME | VARCHAR2(25) | Yes | - | - |
| SALARY | NUMBER(10,0) | Yes | - | - |
| DEPT\_ID | NUMBER(5,0) | Yes | - | - |

**6)Drop the EMP table:**

drop table emply;

Output:

Table dropped.

**7)Rename the EMPLOYEES2 table as EMP:**

alter table employee2 rename to emply;

output:

Table altered.

**8) Add a comment on DEPT and EMP table. Confirm the modification by describing the table**:

comment on table dept is &#39;this is to store dept info&#39;.

Output:

Statement processed.

comment on table emply is &#39;this is to store emply info&#39;.

Output:

Statement processed.

**9)Drop the first\_name column from the EMP table and confirm it.**

alter table emply drop column first\_name

Output:

Table altered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Nullable** | **Default** | **Primary Key** |
| ID | NUMBER(7,0) | Yes | - | - |
| FIRST\_NAME | VARCHAR2(25) | Yes | - | - |
| LAST\_NAME | VARCHAR2(25) | Yes | - | - |
| SALARY | NUMBER(10,0) | Yes | - | - |
| DEPT\_ID | NUMBER(5,0) | Yes | - | - |