1. Creates a view that selects employees in the EMP table with a salary higher than the average salary:

**i)**

**create view emp\_with\_high\_sal**

**as select \* from emp**

**where sal > (select avg(sal) from emp)**

**ii) select \* from emp\_with\_high\_sal**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7566 | JONES | MANAGER | 7839 | 04/02/1981 | 2975 | - | 20 |
| 7698 | BLAKE | MANAGER | 7839 | 05/01/1981 | 2850 | - | 30 |
| 7782 | CLARK | MANAGER | 7839 | 06/09/1981 | 2450 | - | 10 |
| 7788 | SCOTT | ANALYST | 7566 | 12/09/1982 | 3000 | - | 20 |
| 7839 | KING | PRESIDENT | - | 11/17/1981 | 5000 | - | 10 |
| 7902 | FORD | ANALYST | 7566 | 12/03/1981 | 3000 | - | 20 |

1. Create a view “emp\_sales” that selects all the employees of department Sales

**i)**

**create view emp\_sales**

**as select \* from emp**

**where deptno=(select deptno from dept where dname='SALES');**

**ii)**

**select \* from emp\_sales**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7499 | ALLEN | SALESMAN | 7698 | 02/20/1981 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 02/22/1981 | 1250 | 500 | 30 |
| 7654 | MARTIN | SALESMAN | 7698 | 09/28/1981 | 1250 | 1400 | 30 |
| 7698 | BLAKE | MANAGER | 7839 | 05/01/1981 | 2850 | - | 30 |
| 7844 | TURNER | SALESMAN | 7698 | 09/08/1981 | 1500 | 0 | 30 |
| 7900 | JAMES | CLERK | 7698 | 12/03/1981 | 950 | - | 30 |

1. Change the following column names of the above created view

“ JOB” to Designation

“Hiredate ” to JoiningDate

**create or replace view emp\_sales**

**as select ename ,job as "Designation",hiredate as "Join Date",e.deptno,dname,loc**

**from emp e,dept d**

**where dname='SALES' and e.deptno=d.deptno**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ENAME** | **Designation** | **Join Date** | **DEPTNO** | **DNAME** | **LOC** |
| ALLEN | SALESMAN | 02/20/1981 | 30 | SALES | CHICAGO |
| WARD | SALESMAN | 02/22/1981 | 30 | SALES | CHICAGO |
| MARTIN | SALESMAN | 09/28/1981 | 30 | SALES | CHICAGO |
| BLAKE | MANAGER | 05/01/1981 | 30 | SALES | CHICAGO |
| TURNER | SALESMAN | 09/08/1981 | 30 | SALES | CHICAGO |
| JAMES | CLERK | 12/03/1981 | 30 | SALES | CHICAGO |

1. Create a view that selects ename, empno,deptno from emp and dname and loc from dept

**i)**

**CREATE VIEW dept\_sum\_vu**

**AS SELECT e.ename,e.empno,e.deptno,d.dname,d.loc**

**FROM emp e, dept d**

**WHERE e.deptno = d.deptno**

**ii)**

**select \* from dept\_sum\_vu**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENAME** | **EMPNO** | **DEPTNO** | **DNAME** | **LOC** |
| SMITH | 7369 | 20 | RESEARCH | DALLAS |
| ALLEN | 7499 | 30 | SALES | CHICAGO |
| WARD | 7521 | 30 | SALES | CHICAGO |
| JONES | 7566 | 20 | RESEARCH | DALLAS |
| MARTIN | 7654 | 30 | SALES | CHICAGO |
| BLAKE | 7698 | 30 | SALES | CHICAGO |
| CLARK | 7782 | 10 | ACCOUNTING | NEW YORK |
| SCOTT | 7788 | 20 | RESEARCH | DALLAS |
| KING | 7839 | 10 | ACCOUNTING | NEW YORK |
| TURNER | 7844 | 30 | SALES | CHICAGO |
| ADAMS | 7876 | 20 | RESEARCH | DALLAS |
| JAMES | 7900 | 30 | SALES | CHICAGO |
| FORD | 7902 | 20 | RESEARCH | DALLAS |

1. Drop the view emp\_sales.

**drop view emp\_sales**

1. Create a view that selects all managers from emp with read only option

**i)**

**create view managers\_view**

**as select \* from emp**

**where job like 'MANAGER'**

**with read only**

**ii)**

**select \* from managers\_view**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7566 | JONES | MANAGER | 7839 | 04/02/1981 | 2975 | - | 20 |
| 7698 | BLAKE | MANAGER | 7839 | 05/01/1981 | 2850 | - | 30 |
| 7782 | CLARK | MANAGER | 7839 | 06/09/1981 | 2450 | - | 10 |

1. Create a view that selects all employees of dept20 with salary greater than 1500.

**i)**

**create view dept20**

**as select \* from emp**

**where deptno=20 and sal>1500**

**ii)**

**select \* from dept20**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **JOB** | **MGR** | **HIREDATE** | **SAL** | **COMM** | **DEPTNO** |
| 7566 | JONES | MANAGER | 7839 | 04/02/1981 | 2975 | - | 20 |
| 7788 | SCOTT | ANALYST | 7566 | 12/09/1982 | 3000 | - | 20 |
| 7902 | FORD | ANALYST | 7566 | 12/03/1981 | 3000 | - | 20 |

1. Design a small database and store employees table, dept table and student table (you created in last lab).

**Dropped Question**

1. Create Two tables of student and subjects and join them using foreign key.

**i)**

**create table STUDENT**

**(**

**REQNO Number(4) primary key,**

**SNAME VARCHAR2(10) NOT NULL,**

**subjectNo Number(4) ,**

**PROGRAM VARCHAR2(4) CHECK (PROGRAM IN('BS','BBA','BA')),**

**NIC Number(13)**

**)**

**ii)**

**create table subject**

**(**

**subjectNo Number(4) NOT NULL,**

**sname VARCHAR2(10)**

**)**

**iii)**

**alter table subject**

**add primary key(subjectNo)**

**iv)**

**alter table student**

**add foreign key(subjectNo) references subject(subjectNo)**

| **Table** | **Column** | **Data Type** | **Length** | **Precision** | **Scale** | **Primary Key** | **Nullable** | **Default** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [STUDENT](javascript:ret_Column('BCSF18M027.STUDENT');) | [REQNO](javascript:ret_Column('REQNO');) | NUMBER | - | 4 | 0 | 1 | - | - | - |
|  | [SNAME](javascript:ret_Column('SNAME');) | VARCHAR2 | 10 | - | - | - | - | - | - |
|  | [SUBJECTNO](javascript:ret_Column('SUBJECTNO');) | NUMBER | - | 4 | 0 | - | nullable | - | - |
|  | [PROGRAM](javascript:ret_Column('PROGRAM');) | VARCHAR2 | 4 | - | - | - | nullable | - | - |
|  | [NIC](javascript:ret_Column('NIC');) | NUMBER | - | 13 | 0 | - | nullable | - | - |

1. Create a view to show student name and his subjects only. Using Q 9 tables.

**create view student\_sum\_subject (student,subject)**

**as select st.sname , s.sname**

**FROM student st, subject s**

**WHERE st.subjectNo = s.subjectNo**

|  |  |
| --- | --- |
| **STUDENT** | **SUBJECT** |
| Ali | OOP |
| Humza | DSA |
| Humza | AOA |

1. Suppose that each employee in emp table was hired at the age of 24. So your task is to get the age of each employee.

**select ename,hiredate,(trunc(months\_between(sysdate,hiredate)/12,0))+24 as "age of each employee"**

**from emp**

|  |  |  |
| --- | --- | --- |
| **ENAME** | **HIREDATE** | **age of each employee** |
| SMITH | 12/17/1980 | 63 |
| ALLEN | 02/20/1981 | 63 |
| WARD | 02/22/1981 | 63 |
| JONES | 04/02/1981 | 63 |
| MARTIN | 09/28/1981 | 63 |
| BLAKE | 05/01/1981 | 63 |
| CLARK | 06/09/1981 | 63 |
| SCOTT | 12/09/1982 | 61 |
| KING | 11/17/1981 | 63 |
| TURNER | 09/08/1981 | 63 |
| ADAMS | 01/12/1983 | 61 |
| JAMES | 12/03/1981 | 62 |
| FORD | 12/03/1981 | 62 |

1. Write a query to create a view for all salesmen with columns \_id, name, and Location.

**i)**

**create view emp\_salesman**

**as select empno as "ID",ename as "name",d.loc as Locaion from emp e , dept d**

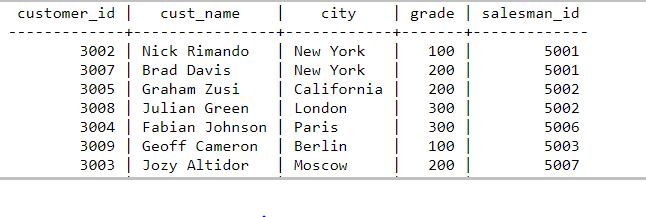
**where e.deptno=d.deptno and job='SALESMAN'**

**ii)**

**select \* from emp\_salesman**

|  |  |  |
| --- | --- | --- |
| **ID** | **name** | **LOCAION** |
| 7499 | ALLEN | CHICAGO |
| 7521 | WARD | CHICAGO |
| 7654 | MARTIN | CHICAGO |
| 7844 | TURNER | CHICAGO |

1. Create the following Table



**create table customer**

**(**

**customer\_id Number(4) primary key,**

**cust\_name VARCHAR2(20) NOT NULL ,**

**city VARCHAR2(15) ,**

**grade Number(5),**

**salesman\_id Number(4)**

**)**

**insert into customer**

**values (3002,'Nick Rimando','New York',100,5001)**

**insert into customer**

**values (3007,'Brad Davis','New York',200,5001);**

**insert into customer**

**values (3005,'Graham Zusi','California',200,5002);**

**insert into customer**

**values (3008,'Julian Green','London',300,5002);**

**insert into customer**

**values (3004,'Fabian Johnson','Paris',300,5006);**

**insert into customer**

**values (3009,'Geoff Cameron','Berlin',100,5003);**

**insert into customer**

**values (3003,'jozy Altidor','Moscow',200,5007);**

**select \* from customer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CUSTOMER\_ID** | **CUST\_NAME** | **CITY** | **GRADE** | **SALESMAN\_ID** |
| 3002 | Nick Rimando | New York | 100 | 5001 |
| 3003 | jozy Altidor | Moscow | 200 | 5007 |
| 3009 | Geoff Cameron | Berlin | 100 | 5003 |
| 3004 | Fabian Johnson | Paris | 300 | 5006 |
| 3007 | Brad Davis | New York | 200 | 5001 |
| 3005 | Graham Zusi | California | 200 | 5002 |
| 3008 | Julian Green | London | 300 | 5002 |