

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

2. 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

3. 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

4. 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

5. Drop the view emp\_sales.

**drop view emp\_sales**

6. 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

7. 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
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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

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

### **Dropped Question**

9. 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
<u>STUDENT</u>	<u>REQNO</u>	NUMBER	-	4	0	1	-	-	-
	<u>SNAME</u>	VARCHAR2	10	-	-	-	-	-	-
	<u>SUBJECTNO</u>	NUMBER	-	4	0	-	✓	-	-
	<u>PROGRAM</u>	VARCHAR2	4	-	-	-	✓	-	-
	<u>NIC</u>	NUMBER	-	13	0	-	✓	-	-

10. 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

11. 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

12. 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
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7499	ALLEN	CHICAGO
7521	WARD	CHICAGO
7654	MARTIN	CHICAGO
7844	TURNER	CHICAGO

13. Create the following Table

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007

**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