**EX.NO:01**

**CONSTRAINTS**

**QUERIES:**

SQL> create table employee(empno number(10) primary key , name varchar(15),job varchar(15),salary number(8),commission number(6),deparment varchar(15));

Table created.

SQL> insert into employee values(20,'srini','developer',60000,2000,'software');

1 row created.

SQL> insert into employee values(06,'honey','tester',100000,6000,'software');

1 row created.

SQL> insert into employee values(02,'srinivasan','trainee',30000,3000,'software');

1 row created.

SQL> alter table employee add constraints sal\_chk check(salary>0 AND salary > commission );

Table altered.

SQL> select constraint\_name,constraint\_type , table\_name from user\_constraints where table\_name='EMPLOYEE';

CONSTRAINT\_NAME C TABLE\_NAME

------------------------------ - ------------------------------

SYS\_C009736 P EMPLOYEE

SAL\_CHK C EMPLOYEE

**EX.NO:02**

**VIEWS**

**QUERIES:**

SQL> insert into employee values(29, 'nitin','manager',29000,2900,'hr');

1 row created.

SQL> select \* from employee;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT

---------- --------------- --------------- ---------- ---------- ---------------

29 nitin manager 29000 2900 hr

20 srini developer 60000 2000 software

6 honey tester 100000 6000 software

2 srinivasan trainee 30000 3000 software

SQL> create view workers as select \* from employee where job <> 'manager';

View created.

SQL> select \* from workers;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT

---------- --------------- --------------- ---------- ---------- ---------------

20 srini developer 60000 2000 software

6 honey tester 100000 6000 software

2 srinivasan trainee 30000 3000 software

SQL> create view upd\_workers as select \* from employee;

View created.

SQL> select \* from upd\_workers;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

29 nitin manager 29000 2900 hr 29-JAN-16 6

50 Antony trainee 20000 2000 software 17-JAN-02 20

20 srini developer 60000 2000 software 20-NOV-00 21

6 honey tester 100000 6000 software 06-DEC-98 23

2 srinivasan trainee 30000 3000 software 20-NOV-00 21

SQL> insert into upd\_workers values(07,'shriram','test associate',25000,2500,'IT','07-mar-00',22);

1 row created.

SQL> select \* from upd\_workers;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

29 nitin manager 29000 2900 hr 29-JAN-16 6

50 Antony trainee 20000 2000 software 17-JAN-02 20

20 srini developer 60000 2000 software 20-NOV-00 21

6 honey tester 100000 6000 software 06-DEC-98 23

2 srinivasan trainee 30000 3000 software 20-NOV-00 21

7 shriram test associate 25000 2500 IT 07-MAR-00 22

6 rows selected.

**EX.NO:03**

**PARTITIONS**

**QUERIES:**

SQL> create table sal\_part(emp\_id number primary key,name varchar(20), Sal number(10,2)) partition by range(Sal)(partition p1 values less than(5000) tablespace users,partition p2 values less than(15000) tablespace users);

Table created.

SQL> Insert into sal\_part values(1001,'srini',10000);

1 row created.

SQL> Insert into sal\_part values(1002,'srini',2000);

1 row created.

SQL> Select \* from sal\_part partition(p1);

EMP\_ID NAME SAL

---------- -------------------- ----------

1002 srini 2000

SQL> Select \* from sal\_part partition(p2);

EMP\_ID NAME SAL

---------- -------------------- ----------

1001 srini 10000

SQL> Select tablespace\_name from user\_tables;

TABLESPACE\_NAME

------------------------------

USERS

TBS\_SRINI

TBS\_SRINI

TBS\_SRINI

USERS

USERS

USERS

**EX.NO:04**

**INDEX**

**QUERIES:**

SQL> create index idx\_empname on employee(name);

Index created.

SQL> create index idx\_nam\_age on employee(upper(name),age);

Index created.

SQL> select index\_name from user\_indexes where table\_name='EMPLOYEE';

INDEX\_NAME

------------------------------

SYS\_C008685

IDX\_EMPNAME

IDX\_NAM\_AGE

SQL> alter index idx\_nam\_age rebuild;

Index altered.

SQL> drop index idx\_empname;

Index dropped.

SQL> select index\_name from user\_indexes where table\_name='EMPLOYEE';

INDEX\_NAME

------------------------------

SYS\_C008685

IDX\_NAM\_AGE

**EX.NO:05**

**SEQUENCE**

**QUERIES:**

SQL> create sequence seq\_empno start with 1 minvalue 1 maxvalue 1000000 nocycle;

Sequence created.

SQL> select sequence\_name from user\_sequences ;

SEQUENCE\_NAME

------------------------------

SEQ\_EMPNO

SQL> insert into employee values(seq\_empno.nextval,'abishek','trainee',25000,2500,'IT','16-jan-02',20);

1 row created.

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

29 nitin manager 29000 2900 hr 29-JAN-16 6

50 Antony trainee 20000 2000 software 17-JAN-02 20

20 srini developer 60000 2000 software 20-NOV-00 21

6 honey tester 100000 6000 software 06-DEC-98 23

2 srinivasan trainee 30000 3000 software 20-NOV-00 21

7 shriram test associate 25000 2500 IT 07-MAR-00 22

1 abishek trainee 25000 2500 IT 16-JAN-02 20

7 rows selected.

SQL> select seq\_empno.nextval from dual;

NEXTVAL

----------

2

SQL> select seq\_empno.currval from dual;

CURRVAL

----------

2

**EX.NO:06**

**USERS AND PREVILEGES**

**QUERIES:**

SQL> create user test123 identified by test123;

User created.

SQL> grant create session to test123;

Grant succeeded.

SQL> grant resource to test123;

Grant succeeded.

SQL> grant all on employee to tes123;

Grant succeeded.

SQL> revoke delete on employee from test123;

Revoke succeeded.

select \* from cat00.employee;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

29 nitin manager 29000 2900 hr 29-JAN-16 6

50 Antony trainee 20000 2000 software 17-JAN-02 20

21 harish analyst 50000 5000 it 05-SEP-04 17

20 srini developer 60000 2000 software 20-NOV-00 21

6 honey tester 100000 6000 software 06-DEC-98 23

2 srinivasan trainee 30000 3000 software 20-NOV-00 21

7 shriram test associate 25000 2500 IT 07-MAR-00 22

1 abishek trainee 25000 2500 IT 16-JAN-02 20

8 rows selected

**EX.NO:07**

**SOLVING QUERIES**

**QUERIES:**

SQL> create table personal(EmpNo number(10) ,blood\_grp varchar(5),height number(3),weight number(5),mobile\_no number (12));

Table created.

SQL>

SQL> alter table personal add foreign key(EmpNo) references employee(EmpNo);

Table altered.

SQL> select constraint\_name,constraint\_type , table\_name from user\_constraints where table\_name='PERSONAL';

CONSTRAINT\_NAME C TABLE\_NAME

------------------------------ - ------------------------------

SYS\_C009219 R PERSONAL

SQL>

SQL> insert into personal values(29,'B+ve',100,30,9790922199);

1 row created.

SQL> insert into personal values(50,'A+ve',165,60,9876543210);

1 row created.

SQL> insert into personal values(20,'O+ve',175,90,9840778106);

1 row created.

SQL> insert into personal values(6,'O+ve',170,90,8667801338);

1 row created.

SQL> insert into personal values(2,'O+ve',173,95,9840778106);

1 row created.

SQL> insert into personal values(7,'B+ve',174,85,9444778983);

1 row created.

SQL> insert into personal values(1,'A+ve',165,60,9876543210);

1 row created.

SQL> insert into personal values(10,'O+ve',160,75,9840904801);

1 row created.

SQL> select \* from personal;

EMPNO BLOOD HEIGHT WEIGHT MOBILE\_NO

---------- ----- ---------- ---------- ----------

10 O+ve 160 75 9840904801

29 B+ve 100 30 9790922199

50 A+ve 165 60 9876543210

20 O+ve 175 90 9840778106

6 O+ve 170 90 8667801338

2 O+ve 173 95 9840778106

7 B+ve 174 85 9444778983

1 A+ve 165 60 9876543210

8 rows selected.

SQL> select name from employee where age>40 ;

NAME

---------------

name

SQL> select name,salary from employee where salary between 10000 and 60000;

NAME SALARY

--------------- ----------

nitin 29000

Antony 20000

srini 60000

srinivasan 30000

shriram 25000

abishek 25000

6 rows selected.

SQL> select employee.name ,employee.age ,personal.blood\_grp from employee,personal where employee.empno=personal.empno and blood\_grp='A+ve';

NAME AGE BLOOD

--------------- ---------- -----

Antony 20 A+ve

abishek 20 A+ve

SQL> select employee.name ,personal.height from employee,personal where employee.empno=personal.empno and height=(select max(height) from personal);

NAME HEIGHT

--------------- ----------

srini 175

**EX.NO:08**

**PROCEDURE**

**QUERIES:**

SQL> create procedure pr\_add\_emp(name varchar,job varchar,salary number,commission number , department varchar, dob date,age number)

is

begin

insert into employee values(seq\_empno.nextval,name,job,salary,commission,department,dob,age);

end;

/

Procedure created.

Set serverout on

SQL> execute pr\_add\_emp('harish','analyst','50000','5000','it','05-sep-04',17);

PL/SQL procedure successfully completed.

SQL> select \* from employee;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

29 nitin manager 29000 2900 hr 29-JAN-16 6

50 Antony trainee 20000 2000 software 17-JAN-02 20

21 harish analyst 50000 5000 it 05-SEP-04 17

20 srini developer 60000 2000 software 20-NOV-00 21

6 honey tester 100000 6000 software 06-DEC-98 23

2 srinivasan trainee 30000 3000 software 20-NOV-00 21

7 shriram test associate 25000 2500 IT 07-MAR-00 22

1 abishek trainee 25000 2500 IT 16-JAN-02 20

8 rows selected.

SQL> select seq\_empno.nextval from dual;

NEXTVAL

----------

22

**EX.NO:09**

**DECODE**

**QUERIES:**

SQL> create or replace procedure num2word\_dec (n number) is

2 word varchar(20);

3 begin

4 select decode (n,0,'zero',1,'one',2,'two',3,'three',4,'four',5,'five',6,'six',7,'seven',

5 8,'eight',9,'nine','non single digit') into word from dual;

6 dbms\_output.put\_line(word);

7 end;

8 /

Procedure created.

SQL> set serverout on

SQL> execute num2word\_dec(2);

two

PL/SQL procedure successfully completed.

**EX.NO:10**

**PACKAGE**

**QUERIES:**

SQL> create package pack1 is

2 function fn\_add2(first number , second number)

3 return number;

4 procedure pr\_year(db date);

5 end;

6 /

Package created.

SQL> create package body pack1 is

2 function fn\_add2(first number,second number)

3 return number is

4 begin

5 return(first+second);

6 end;

7 procedure pr\_year(db date) is

8 begin

9 DBMS\_output.put\_line((sysdate-db)/365);

10 end;

11 end;

12 /

Package body created.

SQL> select pack1.fn\_add2(10,20) from dual;

PACK1.FN\_ADD2(10,20)

--------------------

30

SQL> execute pack1.pr\_year('20-nov-2000');

PL/SQL procedure successfully completed.

SQL>

**EX.NO:11**

**TRIGGER**

**QUERIES:**

SQL> create table emp\_log as select \* from employee where empno=0;

Table created.

SQL> alter table emp\_log add(new\_dob date,user\_id varchar(10),curdate date);

Table altered.

SQL> create or replace trigger trig\_update after update on employee for each row

2 begin

3 insert into emp\_log values(:old.empno,:old.name,:old.job,:old.salary,:old.commission,

4 :old.deparment,:old.dob,:old.age,:new.dob,user,sysdate);

5 end;

6 /

Trigger created.

SQL> update employee set dob='16-jan-2003' where empno=1;

1 row updated.

SQL> select \* from emp\_log;

EMPNO NAME JOB SALARY COMMISSION DEPARMENT DOB AGE NEW\_DOB USER\_ID CURDATE

---------- --------------- --------------- ---------- ---------- --------------- --------- ---------

1 abishek trainee 25000 2500 IT 16-JAN-02 20 16-JAN-03 CAT01 31-MAR-22

SQL>