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Branch - Computer Science and Technology Group - GX

Subject - DBMS Laboratory

Assignment - 3

Q1)

<A. Creation of tables:>

SAILORS Table

create table SAILORS(

-> s_id varchar(10) primary key,

-> s_name varchar(10),

-> rating double(2,1),

-> age int);

Field	Type	Null	Key	Default	Extra
s_id	varchar(10)	NO	PRI	NULL	
s_name	varchar(10)	YES		NULL	
rating	double(2,1)	YES		NULL	
age	int(11)	YES		NULL	

After insertion of values:-

s_id	s_name	rating	age
10	Tarun	8.5	56
11	Greg	9.9	70
12	Roy	9.0	44
13	Hennessy	6.8	20
14	Nevada	7.7	60
15	Paul	7.5	40
16	Shannon	2.2	98

BOATS Table

create table BOATS(

-> b_id varchar(10) primary key,

-> b_name varchar(10),

-> color varchar(10));

Field	Type	Null	Key	Default	Extra
b_id	varchar(10)	NO	PRI	NULL	
b_name	varchar(10)	YES		NULL	
color	varchar(10)	YES		NULL	

After insertion of values:-

b_id	b_name	color
20	Cruisey	Red
21	Wavezzz	Blue
22	ShoreMe	Green
23	SailFree	Yellow
24	Waterways	Red

RESERVES Table

```
create table RESERVES(
    s_id varchar(10) references SAILORS(s_id),b_id
    varchar(10) references BOATS(b_id), day varchar(10),
    primary key(s_id, b_id));
```

Field	Type	Null	Key	Default	Extra
s_id	varchar(10)	NO	PRI	NULL	
b_id	varchar(10)	NO	PRI	NULL	
day	varchar(10)	YES		NULL	

After insertion of values:-

s_id	b_id	day
10	20	Monday
10	23	Monday
11	24	Friday
12	20	Saturday
12	21	Tuesday
13	23	Monday
14	21	Monday
14	22	Thursday
15	21	Tuesday
15	22	Thursday
15	24	Tuesday
16	20	Tuesday

<B. Queries >

a) Find the color of boats reserved by Tarun.

```
select color
from BOATS B, SAILORS S, RESERVES R
where S.s_name='Tarun' and S.s_id=R.s_id and B.b_id=R.b_id;
```

color
Red
Yellow

b) Find sailor id's and sailor names who have reserved boats on Monday.

```
select S.s_id, s_name from
```

```
SAILORS S,RESERVES R
```

```
where S.s_id=R.s_id and R.day='MONDAY';
```

s_id	s_name
10	Tarun
10	Tarun
13	Hennessy
14	Nevada

c) List boat id's and boat names for green and red colors only.

```
select b_id,b_name from BOATS where color='Red' or color='Green';
```

b_id	b_name
20	Cruisey
22	ShoreMe
24	Waterways

d) Delete all sailors' information whose age is greater than 60.

```
delete from SAILORS where age>60;
```

After deletion:

s_id	s_name	rating	age
10	Tarun	8.5	56
12	Roy	9.0	44
13	Hennessy	6.8	20
14	Nevada	7.7	60
15	Paul	7.5	40

Q2)

<A. Creation of tables:>

TEACHER Table

create table TEACHER(

- > Tid int primary key,
- > name varchar(20),
- > Dept varchar(20));

Field	Type	Null	Key	Default	Extra
Tid	int(11)	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
Dept	varchar(20)	YES		NULL	

After insertion of values:-

Tid	name	Dept
10	Florence	Physics
11	Britney	Physics
12	Lucas	Computer Science
13	Warren	Chemistry
14	Harold	Mathematics

Subject Table

create table Subject(

- > Subno int primary key,
- > SubTitle varchar(20));

Field	Type	Null	Key	Default	Extra
Subno	int(11)	NO	PRI	NULL	
SubTitle	varchar(20)	YES		NULL	

After insertion of values:-

Subno	SubTitle
20	Thermodynamics
21	DBMS
22	Integration
23	Alcohols
24	Data Structures

TaughtBy Table

create table TaughtBy(

- >Tid int references TEACHER(Tid),

-> Subno int references Subject(Subno),

-> primary key(Tid,Subno));

Field	Type	Null	Key	Default	Extra
Tid	int(11)	NO	PRI	NULL	
Subno	int(11)	NO	PRI	NULL	

After insertion of values:-

Tid	Subno
10	20
11	20
12	21
12	24
13	23
14	22

Student Table

create table Student(

-> RollNo int primary key,

-> Sname varchar(20),

-> City varchar(20));

Field	Type	Null	Key	Default	Extra
RollNo	int(11)	NO	PRI	NULL	
Sname	varchar(20)	YES		NULL	
City	varchar(20)	YES		NULL	

After insertion of values:-

RollNo	Sname	City
17	Martin	Pune
21	Demetria	Kolkata
23	Daniel	Kolkata
25	Alexis	Kolkata
38	Sue	Bangalore
50	Bradley	Chennai

<B. Queries >

a) Get names of all teachers of Physics dept who teach Thermodynamics.

select Name

from TEACHER T,Subject S,TaughtBy TB

where TB.Tid=T.Tid and TB.Subno=S.Subno and Dept='Physics' and SubTitle='Thermodynamics';

Name
Florence
Britney

b) Rename subject DBMS to RDBMS.

```
update Subject
set SubTitle='RDBMS' where
SubTitle='DBMS';
```

After updating:

Subno	SubTitle
20	Thermodynamics
21	RDBMS
22	Integration
23	Alcohols
24	Data Structures

c) Find all students who stay in Kolkata and have roll number between 20 and 25.

```
select Sname from Student where City='Kolkata' and RollNo between 20 and 25;
```

Sname
Demetria
Daniel
Alexis

d) Display all students information in descending order of their rollnumber who stay in Kolkata.

```
select * from Student where City='Kolkata' order by Rollno desc;
```

RollNo	Sname	City
25	Alexis	Kolkata
23	Daniel	Kolkata
21	Demetria	Kolkata