

Practical DBMS

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Course: Bsc (P) Physical Science with Computer Science

I. Create and use the following student-society database schema for a college to answer the given (sample) queries using the standalone SQL editor.

create tables

1. Create Student Table

```
create table student(  
    rollno char(6),  
    studentname varchar(20),  
    course varchar(10),  
    dob date,  
  
    primary key(rollno)  
);
```

2. Create Society Table

```
create table society(  
    socid char(6),  
    socname varchar(20),  
    mentorname varchar(15),  
    totalseat integer,  
  
    primary key(socid)  
);
```

3. Create Enrollment Table

```
create table enrollment(  
    rollno char(6),  
    sid char(6),  
    date_of_enrollment date,  
  
    primary key (rollno),  
    foreign key (rollno) REFERENCES student(rollno),  
    foreign key (sid) REFERENCES society(socid)  
);
```

insert some data

1. Insert into Student Table

INSERT INTO student (rollno, studentname, course, dob) VALUES

('S001','Asha Verma','BSc CS','2003-05-14'),
('S002','Ravi Kumar','BCom','2002-11-23'),
('S003','Meena Patel','BA Eng','2003-07-02'),
('S004','Rahul Singh','BSc CS','2002-03-10'),
('S005','Pooja Sharma','BBA','2003-12-29'),
('S006','Anil Yadav','BSc Phy','2002-06-09'),
('S007','Kiran Das','BSc CS','2003-09-17'),
('S008','Neha Gupta','BCom','2002-04-19'),
('S009','Suresh Rai','BA Hist','2001-12-05'),
('S010','Divya Jain','BSc Math','2003-01-22'),
('S011','Amit Roy','BSc Phy','2003-07-13'),
('S012','Sneha Tiwari','BBA','2003-03-09'),
('S013','Rohit Mehra','BA Eng','2002-09-21'),
('S014','Manish Bansal','BSc CS','2003-11-03'),
('S015','Priya Saini','BCom','2002-05-27'),
('S016','Kavita Nair','BSc Phy','2003-10-15'),
('S017','Harshit Malhotra','BSc Math','2003-02-12'),
('S018','Tanya Sharma','BA Hist','2001-10-06'),
('S019','Gaurav Joshi','BBA','2003-08-18'),
('S020','Sakshi Verma','BSc CS','2002-09-25'),
('S021','Mohit Rana','BSc Phy','2003-04-07'),
('S022','Ananya Singh','BA Eng','2002-01-03'),
('S023','Deepak Chauhan','BCom','2003-07-29'),
('S024','Nisha Gupta','BSc Math','2002-06-11'),
('S025','Abhishek Das','BSc CS','2003-11-26'),
('S026','Kritika Bhat','BSc Phy','2003-12-02'),
('S027','Kunal Jain','BBA','2003-10-19'),
('S028','Shruti Patel','BA Hist','2002-08-30'),
('S029','Vikas Mishra','BSc Math','2003-02-09'),

('S030','Riya Kapoor','BSc CS','2003-03-24');

2. Insert into Society Table

INSERT INTO society (socid, socname, mentorname, totalseat) VALUES

('SO001','Music Club','Mr. Rao',25),
('SO002','Dance Club','Ms. Neha',20),
('SO003','Drama Society','Mr. Amit',15),
('SO004','Art Circle','Mrs. Joshi',18),
('SO005','Science Forum','Dr. Nair',30),
('SO006','Photography','Mr. Anand',20),
('SO007','Robotics Club','Dr. Mehta',25),
('SO008','Literary Club','Ms. Rekha',20),
('SO009','Coding Hub','Mr. Arjun',30),
('SO010','Eco Society','Dr. Sharma',18),
('SO011','Sports Club','Mr. Raj',40),
('SO012','Yoga Club','Ms. Divya',25),
('SO013','Astronomy','Dr. Kiran',20),
('SO014','Finance Club','Mr. Ravi',25),
('SO015','Film Society','Ms. Priya',15),
('SO016','Social Work','Mr. Suresh',20),
('SO017','AI Club','Dr. Tiwari',25),
('SO018','Math Circle','Dr. Rao',30),
('SO019','Gaming Club','Mr. Nikhil',20),
('SO020','CyberSec Club','Mr. Adarsh',25),
('SO021','Electronics','Dr. Kapil',30),
('SO022','Quiz Club','Ms. Jaya',15),
('SO023','Nature Club','Mr. Ghosh',20),
('SO024','Entrepreneurship','Mr. Manoj',25),
('SO025','Public Speaking','Ms. Anu',20),
('SO026','Film Makers','Mr. Rohan',15),
('SO027','Design Club','Ms. Tanvi',18),
('SO028','Poetry Society','Mr. Vivek',20),
('SO029','Data Science','Dr. Lal',25),

('SO030','Chess Club','Mr. Deep',15);

3. Insert into Enrollment Table

INSERT INTO enrollment (rollno, sid, date_of_enrollment) VALUES

('S001','SO001','2023-08-01'),

('S002','SO009','2023-08-02'),

('S003','SO004','2023-08-03'),

('S004','SO007','2023-08-03'),

('S005','SO002','2023-08-04'),

('S006','SO005','2023-08-04'),

('S007','SO009','2023-08-05'),

('S008','SO011','2023-08-06'),

('S009','SO015','2023-08-07'),

('S010','SO018','2023-08-07'),

('S011','SO017','2023-08-08'),

('S012','SO006','2023-08-09'),

('S013','SO014','2023-08-09'),

('S014','SO009','2023-08-10'),

('S015','SO010','2023-08-10'),

('S016','SO021','2023-08-11'),

('S017','SO018','2023-08-12'),

('S018','SO023','2023-08-13'),

('S019','SO025','2023-08-14'),

('S020','SO017','2023-08-14'),

('S021','SO029','2023-08-15'),

('S022','SO008','2023-08-16'),

('S023','SO020','2023-08-16'),

('S024','SO018','2023-08-17'),

('S025','SO027','2023-08-17'),

('S026','SO030','2023-08-18'),

('S027','SO003','2023-08-18'),

('S028','SO028','2023-08-19'),

('S029','SO026','2023-08-19'),

('S030','SO001','2023-08-20');

Question1: Retrieve names of students enrolled in any society.

select distinct s.studentname from student s join enrollment e on s.rollno = e.rollno;

studentname	
Asha Verma	
Ravi Kumar	
Meena Patel	
Rahul Singh	
Pooja Sharma	
Anil Yadav	
Kiran Das	
Neha Gupta	
Suresh Rai	
Divya Jain	
Amit Roy	
Sneha Tiwari	
Rohit Mehra	
Manish Bansal	
Priya Saini	
Kavita Nair	
Harshit Malhotra	
Tanya Sharma	
Gaurav Joshi	
Sakshi Verma	
Mohit Rana	
Ananya Singh	
Deepak Chauhan	
Nisha Gupta	
Abhishek Das	
Kritika Bhat	
Kunal Jain	
Shruti Patel	
Vikas Mishra	
Riya Kapoor	

Question2: Retrieve all society names.

select socname from society;

socname	
Music Club	
Dance Club	
Drama Society	
Art Circle	
Science Forum	
Photography	
Robotics Club	
Literary Club	
Coding Hub	
Eco Society	
Sports Club	
Yoga Club	
Astronomy	
Finance Club	
Film Society	
Social Work	
AI Club	
Math Circle	
Gaming Club	
CyberSec Club	
Electronics	
Quiz Club	
Nature Club	
Entrepreneurship	
Public Speaking	
Film Makers	
Design Club	
Poetry Society	
Data Science	
Chess Club	

Question3: Retrieve students' names starting with the letter 'A'.

select studentname from student where studentname like 'a%';

studentname	
Asha Verma	
Anil Yadav	
Amit Roy	
Ananya Singh	
Abhishek Das	

Question4: Retrieve students' details studying in courses 'computer science' or 'chemistry'.
 select * from student where course in ('BSc CS', 'BSc Chem');

rollno	studentname	course	dob	mobilenumber	
S001	Asha Verma	BSc CS	2003-05-14	9999999999	
S004	Rahul Singh	BSc CS	2002-03-10	9999999999	
S007	Kiran Das	BSc CS	2003-09-17	9999999999	
S014	Manish Bansal	BSc CS	2003-11-03	9999999999	
S020	Sakshi Verma	BSc CS	2002-09-25	9999999999	
S025	Abhishek Das	BSc CS	2003-11-26	9999999999	
S030	Riya Kapoor	BSc CS	2003-03-24	9999999999	
NULL	NULL	NULL	NULL	NULL	

Question5: Retrieve students' names whose roll number starts with 'X' or 'Z' and ends with '9'.
 select studentname from student where (rollno like 'x%9' or rollno like 'z%9');

studentname	

Question6: Find society details with more than N total seats (input by user).
 set @n = 20; -- user input
 select * from society WHERE totalseat > @n;

socid	socname	mentorname	totalseat	
SO001	Music Club	Mr. Rao	25	
SO005	Science Forum	Dr. Nair	30	
SO007	Robotics Club	Dr. Mehta	25	
SO009	Coding Hub	Mr. Arjun	30	
SO011	Sports Club	Mr. Raj	40	
SO012	Yoga Club	Ms. Divya	25	
SO014	Finance Club	Mr. Ravi	25	
SO017	AI Club	Dr. Tiwari	25	
SO018	Math Circle	Dr. Rao	30	
SO020	CyberSec Club	Mr. Adarsh	25	
SO021	Electronics	Dr. Kapil	30	
SO024	Entrepreneurship	Mr. Manoj	25	
SO029	Data Science	Dr. Lal	25	
NULL	NULL	NULL	NULL	

Question7: Update mentor name for a specific society.
update society
set mentorname = 'new mentor' where socid = 'SO001';
select distinct mentorname from society order by socid;

mentorname	
new mentor	
Ms. Neha	
Mr. Amit	
Mrs. Joshi	
Dr. Nair	
Mr. Anand	
Dr. Mehta	
Ms. Rekha	
Mr. Arjun	
Dr. Sharma	
Mr. Raj	
Ms. Divya	
Dr. Kiran	
Mr. Ravi	
Ms. Priya	
Mr. Suresh	
Dr. Tiwari	
Dr. Rao	
Mr. Nikhil	
Mr. Adarsh	
Dr. Kapil	
Ms. Jaya	
Mr. Ghosh	
Mr. Manoj	
Ms. Anu	
Mr. Rohan	
Ms. Tanvi	
Mr. Vivek	
Dr. Lal	
Mr. Deep	

Question8: Find society names in which more than five students have enrolled.
select s.socname from society s join enrollment e on s.socid = e.sid group by s.socid having count(e.rollno) > 5;

[illegible]

```
select s.studentname, s.dob from student s join enrollment e on s.rollno = e.rollno join society so on e.sid = so.socid
where so.socname = 'nss' order by s.dob desc limit 1;
```

[illegible]

```
select s.socname, count(e.rollno) as total from society s join enrollment e on s.socid = e.sid group by s.socid order by total desc limit 1;
```

socname	total
Math Circle	3

```
select s.socname, count(e.rollno) as total from society s join enrollment e on s.socid = e.sid group by s.socid
order by total asc limit 1;
```

	socname	total	
	Nature Club	1	

```
select studentname from student where rollno not in (select rollno from enrollment);
```

[illegible]

```
select s.studentname from student s join enrollment e on s.rollno = e.rollno
group by s.rollno
having count(e.sid) >= 2;
```

studentname	

Question14: Societies with maximum students enrolled.

```
select s.socname, count(e.rollno) as total from society s join enrollment e on s.socid = e.sid group by s.socid
having total = (
    select max(cnt)
    from (
        select count(e2.rollno) as cnt
        from enrollment e2
        group by e2.sid
    ) as t
);
```

	socname	total	
	Coding Hub	3	
	Math Circle	3	

Question15: Students enrolled in any society and their society names.

```
select st.studentname, so.socname from student st
join enrollment e on st.rollno = e.rollno
join society so on e.sid = so.socid;
```

studentname	socname	
Asha Verma	Music Club	
Ravi Kumar	Coding Hub	
Meena Patel	Art Circle	
Rahul Singh	Robotics Club	
Pooja Sharma	Dance Club	
Anil Yadav	Science Forum	
Kiran Das	Coding Hub	
Neha Gupta	Sports Club	
Suresh Rai	Film Society	
Divya Jain	Math Circle	
Amit Roy	AI Club	
Sneha Tiwari	Photography	
Rohit Mehra	Finance Club	
Manish Bansal	Coding Hub	
Priya Saini	Eco Society	
Kavita Nair	Electronics	
Harshit Malho...	Math Circle	
Tanya Sharma	Nature Club	
Gaurav Joshi	Public Speaking	
Sakshi Verma	AI Club	
Mohit Rana	Data Science	
Ananya Singh	Literary Club	
Deepak Chau...	CyberSec Club	
Nisha Gupta	Math Circle	
Abhishek Das	Design Club	
Kritika Bhat	Chess Club	
Kunal Jain	Drama Society	
Shruti Patel	Poetry Society	
Vikas Mishra	Film Makers	
Riya Kapoor	Music Club	

Question16: Students enrolled in any of the three societies 'Debating', 'Dancing', or 'Sashakt'.

```
select distinct st.studentname from student st
join enrollment e on st.rollno = e.rollno
join society so on e.sid = so.socid
where so.socname in ('debating', 'dancing', 'sashakt');
```

studentname

Question17: Societies whose mentor has 'Gupta' in the name.

```
select * from society where mentorname like '%gupta%';
```

socid	socname	mentorname	totalseat
NULL	NULL	NULL	NULL

Question18: Societies where enrolled students are only 10% of total capacity.

```
select s.socname from society s left join enrollment e on s.socid = e.sid group by s.socid, s.socname, s.totalseat
having count(e.rollno) = 0.1 * s.totalseat;
```

socname
Coding Hub
Math Circle

Question19: Display vacant seats for each society.

```
select s.socname, s.totalseats - count(e.rollno) as vacant_seats from society s
left join enrollment e on s.socid = e.sid
group by s.socid;
```

socname	vacant_seats	
Music Club	23	
Dance Club	19	
Drama Society	14	
Art Circle	17	
Science Forum	29	
Photography	19	
Robotics Club	24	
Literary Club	19	
Coding Hub	27	
Eco Society	17	
Sports Club	39	
Yoga Club	25	
Astronomy	20	
Finance Club	24	
Film Society	14	
Social Work	20	
AI Club	23	
Math Circle	27	
Gaming Club	20	
CyberSec Club	24	
Electronics	29	
Quiz Club	15	
Nature Club	19	
Entrepreneurship	25	
Public Speaking	19	
Film Makers	14	
Design Club	17	
Poetry Society	19	
Data Science	24	
Chess Club	14	

Question20: Increment total seats by 10%.

```
update society set totalseat = totalseat * 1.10;
select * from society;
```

socid	socname	mentorname	totalseat	
SO001	Music Club	new mentor	28	
SO002	Dance Club	Ms. Neha	22	
SO003	Drama Society	Mr. Amit	17	
SO004	Art Circle	Mrs. Joshi	20	
SO005	Science Forum	Dr. Nair	33	
SO006	Photography	Mr. Anand	22	
SO007	Robotics Club	Dr. Mehta	28	
SO008	Literary Club	Ms. Rakha	22	
SO009	Coding Hub	Mr. Arjun	33	
SO010	Eco Society	Dr. Sharma	20	
SO011	Sports Club	Mr. Raj	44	
SO012	Yoga Club	Ms. Divya	28	
SO013	Astronomy	Dr. Kiran	22	
SO014	Finance Club	Mr. Ravi	28	
SO015	Film Society	Ms. Priya	17	
SO016	Social Work	Mr. Suresh	22	
SO017	AI Club	Dr. Tiwari	28	
SO018	Math Circle	Dr. Rao	33	
SO019	Gaming Club	Mr. Nikhil	22	
SO020	CyberSec Club	Mr. Adarsh	28	
SO021	Electronics	Dr. Kapil	33	
SO022	Quiz Club	Ms. Jaya	17	
SO023	Nature Club	Mr. Ghosh	22	
SO024	Entrepreneurship	Mr. Manoj	28	
SO025	Public Speaking	Ms. Anu	22	
SO026	Film Makers	Mr. Rohan	17	
SO027	Design Club	Ms. Tanvi	20	
SO028	Poetry Society	Mr. Vivek	22	
SO029	Data Science	Dr. Lal	28	
SO030	Chess Club	Mr. Deep	17	
NULL	NULL	NULL	NULL	

Question21: Add new column FeesPaid ('Yes'/'No') in ENROLLMENT table.

alter table enrollment

add column feepaid enum('yes', 'no') default 'no';

select * from enrollment;

rollno	sid	date_of_enrollme...	feepaid	
S001	SO001	2023-08-01	no	
S002	SO009	2023-08-02	no	
S003	SO004	2023-08-03	no	
S004	SO007	2023-08-03	no	
S005	SO002	2023-08-04	no	
S006	SO005	2023-08-04	no	
S007	SO009	2023-08-05	no	
S008	SO011	2023-08-06	no	
S009	SO015	2023-08-07	no	
S010	SO018	2023-08-07	no	
S011	SO017	2023-08-08	no	
S012	SO006	2023-08-09	no	
S013	SO014	2023-08-09	no	
S014	SO009	2023-08-10	no	
S015	SO010	2023-08-10	no	
S016	SO021	2023-08-11	no	
S017	SO018	2023-08-12	no	
S018	SO023	2023-08-13	no	
S019	SO025	2023-08-14	no	
S020	SO017	2023-08-14	no	
S021	SO029	2023-08-15	no	
S022	SO008	2023-08-16	no	
S023	SO020	2023-08-16	no	
S024	SO018	2023-08-17	no	
S025	SO027	2023-08-17	no	
S026	SO030	2023-08-18	no	
S027	SO003	2023-08-18	no	
S028	SO028	2023-08-19	no	
S029	SO026	2023-08-19	no	
S030	SO001	2023-08-20	no	
NULL	NULL	NULL	NULL	

Question22: Update enrollment date for specific societies.

update enrollment

set dateofenrollment = '2018-01-02'

where sid in ('s1', 's2', 's3');

rollno	sid	date_of_enrollme...	feepaid	
S001	SO001	2018-01-02	no	
S002	SO009	2023-08-02	no	
S003	SO004	2023-08-03	no	
S004	SO007	2023-08-03	no	
S005	SO002	2018-01-02	no	
S006	SO005	2023-08-04	no	
S007	SO009	2023-08-05	no	
S008	SO011	2023-08-06	no	
S009	SO015	2023-08-07	no	
S010	SO018	2023-08-07	no	
S011	SO017	2023-08-08	no	
S012	SO006	2023-08-09	no	
S013	SO014	2023-08-09	no	
S014	SO009	2023-08-10	no	
S015	SO010	2023-08-10	no	
S016	SO021	2023-08-11	no	
S017	SO018	2023-08-12	no	
S018	SO023	2023-08-13	no	
S019	SO025	2023-08-14	no	
S020	SO017	2023-08-14	no	
S021	SO029	2023-08-15	no	
S022	SO008	2023-08-16	no	
S023	SO020	2023-08-16	no	
S024	SO018	2023-08-17	no	
S025	SO027	2023-08-17	no	
S026	SO030	2023-08-18	no	
S027	SO003	2018-01-02	no	
S028	SO028	2023-08-19	no	
S029	SO026	2023-08-19	no	
S030	SO001	2018-01-02	no	
NULL	NULL	NULL	NULL	

if we use (where sid = 'SO001' or 'SO002' or 'SO003');

rollno	sid	date_of_enrollme...	feepaid
S001	SO001	2018-01-02	no
S002	SO009	2023-08-02	no
S003	SO004	2023-08-03	no
S004	SO007	2023-08-03	no
S005	SO002	2023-08-04	no
S006	SO005	2023-08-04	no
S007	SO009	2023-08-05	no
S008	SO011	2023-08-06	no
S009	SO015	2023-08-07	no
S010	SO018	2023-08-07	no
S011	SO017	2023-08-08	no
S012	SO006	2023-08-09	no
S013	SO014	2023-08-09	no
S014	SO009	2023-08-10	no
S015	SO010	2023-08-10	no
S016	SO021	2023-08-11	no
S017	SO018	2023-08-12	no
S018	SO023	2023-08-13	no
S019	SO025	2023-08-14	no
S020	SO017	2023-08-14	no
S021	SO029	2023-08-15	no
S022	SO008	2023-08-16	no
S023	SO020	2023-08-16	no
S024	SO018	2023-08-17	no
S025	SO027	2023-08-17	no
S026	SO030	2023-08-18	no
S027	SO003	2023-08-18	no
S028	SO028	2023-08-19	no
S029	SO026	2023-08-19	no
S030	SO001	2018-01-02	no
NULL	NULL	NULL	NULL

2 row(s) affected, 4 warning(s): 1292 Truncated incorrect DOUBLE value: 'SO002' 1292 Truncated incorrect DOUBLE value: 'SO003' 1292 Truncated incorrect DOUBLE value: 'SO002' 1292 Truncated incorrect DOUBLE value: 'SO003' Rows matched: 2 Changed: 2 Warnings: 4

Question23: Create a view to track society name and total number of students enrolled.

```
create view society_enrollment_view as
select s.socname, count(e.rollno) as total_enrolled
from society s
left join enrollment e on s.socid = e.sid
group by s.socid;
select * from society_enrollment_view;
```

socname	total_enrolled
Music Club	2
Dance Club	1
Drama Society	1
Art Circle	1
Science Forum	1
Photography	1
Robotics Club	1
Literary Club	1
Coding Hub	3
Eco Society	1
Sports Club	1
Yoga Club	0
Astronomy	0
Finance Club	1
Film Society	1
Social Work	0
AI Club	2
Math Circle	3
Gaming Club	0
CyberSec Club	1
Electronics	1
Quiz Club	0
Nature Club	1
Entrepreneurship	0
Public Speaking	1
Film Makers	1
Design Club	1
Poetry Society	1
Data Science	1
Chess Club	1

Question24: Find student names enrolled in all societies.

```
select s.studentname
from student s
join enrollment e on s.rollno = e.rollno
group by s.rollno
having count(distinct e.sid) = (select count(*) from society);
```

	studentname	

Question25: Count societies with more than 5 students enrolled.

```
select count(*) as society_count
from (
  select sid
  from enrollment
  group by sid
  having count(rollno) > 5
) as t;
```

	society_count	
	0	

Question26: Add column Mobile number in student table with default value '9999999999'

```
alter table student
add column mobilenumber varchar(15) default '9999999999';
select * from student;
```

rollno	studentname	course	dob	mobilenumb...
S001	Asha Verma	BSc CS	2003-05-14	9999999999
S002	Ravi Kumar	BCom	2002-11-23	9999999999
S003	Meena Patel	BA Eng	2003-07-02	9999999999
S004	Rahul Singh	BSc CS	2002-03-10	9999999999
S005	Pooja Sharma	BBA	2003-12-29	9999999999
S006	Anil Yadav	BSc Phy	2002-06-09	9999999999
S007	Kiran Das	BSc CS	2003-09-17	9999999999
S008	Neha Gupta	BCom	2002-04-19	9999999999
S009	Suresh Rai	BA Hist	2001-12-05	9999999999
S010	Divya Jain	BSc Math	2003-01-22	9999999999
S011	Amit Roy	BSc Phy	2003-07-13	9999999999
S012	Sneha Tiwari	BBA	2003-03-09	9999999999
S013	Rohit Mehra	BA Eng	2002-09-21	9999999999
S014	Manish Bansal	BSc CS	2003-11-03	9999999999
S015	Priya Saini	BCom	2002-05-27	9999999999
S016	Kavita Nair	BSc Phy	2003-10-15	9999999999
S017	Harshit Malhotra	BSc Math	2003-02-12	9999999999
S018	Tanya Sharma	BA Hist	2001-10-06	9999999999
S019	Gaurav Joshi	BBA	2003-08-18	9999999999
S020	Sakshi Verma	BSc CS	2002-09-25	9999999999
S021	Mohit Rana	BSc Phy	2003-04-07	9999999999
S022	Ananya Singh	BA Eng	2002-01-03	9999999999
S023	Deepak Chauhan	BCom	2003-07-29	9999999999
S024	Nisha Gupta	BSc Math	2002-06-11	9999999999
S025	Abhishek Das	BSc CS	2003-11-26	9999999999
S026	Kritika Bhat	BSc Phy	2003-12-02	9999999999
S027	Kunal Jain	BBA	2003-10-19	9999999999
S028	Shruti Patel	BA Hist	2002-08-30	9999999999
S029	Vikas Mishra	BSc Math	2003-02-09	9999999999
S030	Riya Kapoor	BSc CS	2003-03-24	9999999999
NULL	NULL	NULL	NULL	NULL

Question27: Find total students older than 20 years.

```
select count(*) as total_students
from student
where timestampdiff(year, dob, curdate()) > 20;
```

total_students
30

Question28: Students born in 2001 and enrolled in at least one society.

```
select distinct s.studentname
from student s
join enrollment e on s.rollno = e.rollno
where year(s.dob) = 2001;
```

studentname
Suresh Rai
Tanya Sharma

Question29: Count societies starting with 'S' and ending with 't' with ≥ 5 students enrolled.

```
select count(*) as total_societies
from society s
join enrollment e on s.socid = e.sid
where s.socname like 's%t'
group by s.socid
having count(e.rollno) >= 5;
```

total_societies

Question30: Display Society name, Mentor name, Total capacity, Total enrolled, and Unfilled seats.

```
select s.socname, s.mentorname, s.totalseat, count(e.rollno) as total_enrolled, s.totalseat - count(e.rollno) as  
unfilled_seats  
from society s  
left join enrollment e on s.socid = e.sid  
group by s.socid;
```

socname	mentorname	totalseat	total_enrolled	unfilled_seats
Music Club	new mentor	28	2	26
Dance Club	Ms. Neha	22	1	21
Drama Society	Mr. Amit	17	1	16
Art Circle	Mrs. Joshi	20	1	19
Science Forum	Dr. Nair	33	1	32
Photography	Mr. Anand	22	1	21
Robotics Club	Dr. Mehta	28	1	27
Literary Club	Ms. Rekha	22	1	21
Coding Hub	Mr. Arjun	33	3	30
Eco Society	Dr. Sharma	20	1	19
Sports Club	Mr. Raj	44	1	43
Yoga Club	Ms. Divya	28	0	28
Astronomy	Dr. Kiran	22	0	22
Finance Club	Mr. Ravi	28	1	27
Film Society	Ms. Priya	17	1	16
Social Work	Mr. Suresh	22	0	22
AI Club	Dr. Tiwari	28	2	26
Math Circle	Dr. Rao	33	3	30
Gaming Club	Mr. Nikhil	22	0	22
CyberSec Club	Mr. Adarsh	28	1	27
Electronics	Dr. Kapil	33	1	32
Quiz Club	Ms. Jaya	17	0	17
Nature Club	Mr. Ghosh	22	1	21
Entrepreneurship	Mr. Manoj	28	0	28
Public Speaking	Ms. Anu	22	1	21
Film Makers	Mr. Rohan	17	1	16
Design Club	Ms. Tanvi	20	1	19
Poetry Society	Mr. Vivek	22	1	21
Data Science	Dr. Lal	28	1	27
Chess Club	Mr. Deep	17	1	16

II. Do the following database administration commands:

Create user, create role, grant privileges to a role, revoke privileges from a role, create index

1. CREATE USER 'college_user'@'localhost' IDENTIFIED BY 'password123';
2. CREATE ROLE 'society_manager';
3. GRANT SELECT, INSERT, UPDATE, DELETE ON CollegeDB.* TO 'society_manager';
4. GRANT 'society_manager' TO 'college_user';
5. REVOKE DELETE ON CollegeDB.* FROM 'society_manager';
6. CREATE INDEX idx_studentname ON STUDENT(StudentName);