LAB 10- COLLEGE DATABASE

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1BM19CS194

4-D

```
create database collegedb;
use collegedb;

create table student (
usn varchar (10),
sname varchar (25),
address varchar (25),
phone long,
gender char (1),
primary key (usn));

desc student;
```

	Field	Type	Null	Key	Default	Extra
▶	usn	varchar(30)	NO	PRI	NULL	
	sname	varchar(30)	YES		NULL	
	address	varchar(30)	YES		NULL	
	phone	double	YES		NULL	
	gender	varchar(30)	YES		NULL	

```
create table semsec (
ssid varchar (5),
sem int,
sec char (1),
desc semsec;
```

	Field	Type	Null	Key	Default	Extra
▶	ssid	varchar(30)	NO	PRI	NULL	
	sem	int	YES		NULL	
	sec	varchar(30)	YES		NULL	

```
create table class (
usn varchar (10),
ssid varchar (5),
primary key (usn, ssid),
foreign key (usn) references student (usn),
foreign key (ssid) references semsec (ssid));
desc class;
```

	Field	Type	Null	Key	Default	Extra
▶	usn	varchar(30)	NO	PRI	NULL	
	ssid	varchar(30)	NO	PRI	NULL	

```
create table subject (
subcode varchar (8),
title varchar (20),
sem int,
credits int,
```

primary key (subcode));

desc subject;

	Field	Type	Null	Key	Default	Extra
▶	code	varchar(30)	NO	PRI	NULL	
	title	varchar(30)	YES		NULL	
	sem	int	YES		NULL	
	credits	int	YES		NULL	

create table iamarks (

usn varchar (10),

subcode varchar (8),

ssid varchar (5),

test1 int,

test2 int,

test3 int,

finalia int,

primary key (usn, subcode, ssid),

foreign key (usn) references student (usn),

foreign key (subcode) references subject (subcode),

foreign key (ssid) references semsec (ssid));

desc marks;

	Field	Type	Null	Key	Default	Extra
▶	usn	varchar(30)	NO	PRI	NULL	
	code	varchar(30)	NO	PRI	NULL	
	ssid	varchar(30)	NO	PRI	NULL	
	test1	double	YES		NULL	
	test2	double	YES		NULL	
	test3	double	YES		NULL	
	final	double	YES		NULL	

insert into student values ('1rn13cs020','akshay','belagavi', 8877881122,'m');

insert into student values ('1rn13cs062','sandhya','bengaluru', 7722829912,'f');

insert into student values ('1rn13cs091','teesha','bengaluru', 7712312312,'f');

insert into student values ('1rn13cs066','supriya','mangaluru', 8877881122,'f');

insert into student values ('1rn14cs010','abhay','bengaluru', 9900211201,'m');

insert into student values ('1rn14cs032','bhaskar','bengaluru', 9923211099,'m');

insert into student values ('1rn14cs025','asmi','bengaluru', 7894737377,'f');

insert into student values ('1rn15cs011','ajay','tumkur', 9845091341,'m');

insert into student values ('1rn15cs029','chitra','davangere', 7696772121,'f');

insert into student values ('1rn15cs045','jeeva','bellary', 9944850121,'m');

insert into student values ('1rn15cs091','santosh','mangaluru', 8812332201,'m');

insert into student values ('1rn16cs045','ismail','kalburgi', 9900232201,'m');

insert into student values ('1rn16cs088','sameera','shimoga', 9905542212,'f');

insert into student values ('1rn16cs122','vinayaka','chikamagalur', 8800880011,'m');

select * from student;

usn	sname	address	phone	gender
1RN13CS020	akshay	belagavi	8877881122	m
1RN13CS062	sandhya	bengaluru	7722829912	f
1RN13CS066	supriya	mangaluru	8877881122	f
1RN13CS091	teesha	bengaluru	7712312312	f
1RN14CS010	abhay	bengaluru	9900211201	m
1RN14CS025	asmi	bengaluru	7894737377	f
1RN14CS032	bhaskar	bengaluru	9923211099	m
1RN15CS011	ajay	tumkur	98545091341	m
1RN15CS029	chitra	davangere	7696772121	f
1RN15CS045	jeeva	bellary	9944850121	m
1RN15CS091	santosh	mangaluru	8812332201	m
1RN16CS045	ismail	kalburgi	9900232201	m
1RN16CS088	sameera	shimoga	9905542212	f
1RN16CS122	vinayaka	chikamag...	8800880011	m
NULL	NULL	NULL	NULL	NULL

insert into semsec values ('cse8a', 8,'a');

insert into semsec values ('cse8b', 8,'b');

insert into semsec values ('cse8c', 8,'c');

insert into semsec values ('cse7a', 7,'a');

insert into semsec values ('cse7b', 7,'b');

insert into semsec values ('cse7c', 7,'c');

insert into semsec values ('cse6a', 6,'a');

insert into semsec values ('cse6b', 6,'b');

```
insert into semsec values ('cse6c', 6,'c');
insert into semsec values ('cse5a', 5,'a');
insert into semsec values ('cse5b', 5,'b');
insert into semsec values ('cse5c', 5,'c');
insert into semsec values ('cse4a', 4,'a');
insert into semsec values ('cse4b', 4,'b');
insert into semsec values ('cse4c', 4,'c');
insert into semsec values ('cse3a', 3,'a');
insert into semsec values ('cse3b', 3,'b');
insert into semsec values ('cse3c', 3,'c');
insert into semsec values ('cse2a', 2,'a');
insert into semsec values ('cse2b', 2,'b');
insert into semsec values ('cse2c', 2,'c');
insert into semsec values ('cse1a', 1,'a');
insert into semsec values ('cse1b', 1,'b');
insert into semsec values ('cse1c', 1,'c');
select * from semsec;
```

ssid	sem	sec
CSE1A	1	A
CSE1B	1	B
CSE1C	1	C
CSE2A	2	A
CSE2B	2	B
CSE2C	2	C
CSE3A	3	A
CSE3B	3	B
CSE3C	3	C
CSE4A	4	A
CSE4B	4	B
CSE4C	4	C
CSE5A	5	A
CSE5B	5	B
CSE5C	5	C
CSE6A	6	A
CSE6B	6	B
CSE6C	6	C
CSE7A	7	A
CSE7B	7	B
CSE7C	7	C
CSE8A	8	A
CSE8B	8	B
CSE8C	8	C
NULL	NULL	NULL

insert into class values ('1rn13cs020','cse8a');

insert into class values ('1rn13cs062','cse8a');

insert into class values ('1rn13cs066','cse8b');

insert into class values ('1rn13cs091','cse8c');

insert into class values ('1rn14cs010','cse7a');

insert into class values ('1rn14cs025','cse7a');

insert into class values ('1rn14cs032','cse7a');

insert into class values ('1rn15cs011','cse4a');

insert into class values ('1rn15cs029','cse4a');

insert into class values ('1rn15cs045','cse4b');

insert into class values ('1rn15cs091','cse4c');

insert into class values ('1rn16cs045','cse3a');

insert into class values ('1rn16cs088','cse3b');

insert into class values ('1rn16cs122','cse3c');

select * from class;

usn	ssid
1RN16CS045	CSE3A
1RN16CS088	CSE3B
1RN16CS122	CSE3C
1RN15CS011	CSE4A
1RN15CS029	CSE4A
1RN15CS045	CSE4B
1RN15CS091	CSE4C
1RN14CS010	CSE7A
1RN14CS025	CSE7A
1RN14CS032	CSE7A
1RN13CS020	CSE8A
1RN13CS062	CSE8A
1RN13CS066	CSE8B
1RN13CS091	CSE8C
NULL	NULL

insert into subject values('10cs81','aca',8,4),
('10cs82','ssm',8,4),('10cs83','nm',8,4),
('10cs84','cc',8,4),('10cs85','pw',8,4),
('10cs71','ooad',7,4),('10cs72','ecs',7,4),
('10cs73','ptw',7,4),('10cs74','dwdm',7,4),
('10cs75','java',7,4),('10cs76','san',7,4),
('10cs51','me',5,4),('10cs52','cn',5,4),
('10cs53','dbms',5,4),('10cs54','atc',5,4),
('10cs55','java',5,3),('10cs56','ai',5,3),
('10cs41','m4',4,4),('10cs42','se',4,4),
('10cs43','daa',4,4),('10cs44','mpmc',4,4),
('10cs45','ooc',4,3),('10cs46','dc',4,3),
('10cs31','m3',3,4),('10cs32','ade',3,4),
('10cs33','dsa',3,4),('10cs34','co',3,4),

('10cs35','usp',3,3),('10cs36','dms',3,3);
select * from subject;

	code	title	sem	credits
▶	10CS31	M3	3	4
	10CS32	ADE	3	4
	10CS33	DSA	3	4
	10CS34	CO	3	4
	10CS35	USP	3	3
	10CS36	DMS	3	3
	10CS41	M4	4	4
	10CS42	SE	4	4
	10CS43	DAA	4	4
	10CS44	MPMC	4	4
	10CS45	OOC	4	3
	10CS46	DC	4	3
	10CS51	ME	5	4
	10CS52	CN	5	4
	10CS53	DBMS	5	4
	10CS54	ATC	5	4

insert into marks (usn, subcode, ssid, test1, test2, test3) values ('1rn13cs091','10cs81','cse8c', 15, 16, 18);

insert into marks (usn, subcode, ssid, test1, test2, test3) values ('1rn13cs091','10cs82','cse8c', 12, 19, 14);

insert into marks (usn, subcode, ssid, test1, test2, test3) values ('1rn13cs091','10cs83','cse8c', 19, 15, 20);

insert into marks (usn, subcode, ssid, test1, test2, test3) values ('1rn13cs091','10cs84','cse8c', 20, 16, 19);

insert into marks (usn, subcode, ssid, test1, test2, test3) values ('1rn13cs091','10cs85','cse8c', 15, 15, 12);

select * from marks

	usn	code	ssid	test1	test2	test3	final
▶	1RN13CS091	10CS81	CSE8C	15	16	18	NULL
	1RN13CS091	10CS82	CSE8C	12	19	14	NULL
	1RN13CS091	10CS83	CSE8C	19	15	20	NULL
	1RN13CS091	10CS84	CSE8C	20	16	19	NULL
	1RN13CS091	10CS85	CSE8C	15	15	12	NULL
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Additional Queries:

```
select s.*, ss.sem, ss.sec
from student s, semsec ss, class c
where s.usn = c.usn and
ss.ssid = c.ssid and
ss.sem = 4 and ss.sec='c';
```

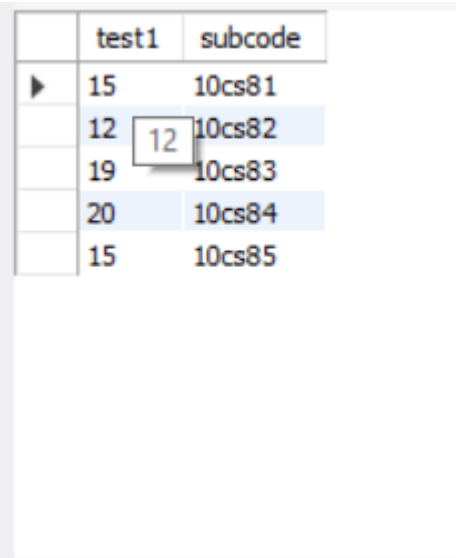
	usn	sname	address	phone	gender	sem	sec
▶	1rn15cs091	santosh	mangaluru	8812332201	m	4	c

```
select ss.sem, ss.sec, s.gender, count(s.gender) as count
from student s, semsec ss, class c
where s.usn = c.usn and
ss.ssid = c.ssid
group by ss.sem, ss.sec, s.gender
order by sem;
```

	sem	sec	gender	count
▶	3	a	m	1
	3	b	f	1
	3	c	m	1
	4	a	f	1
	4	a	m	1
	4	b	m	1
	4	c	m	1
	7	a	f	1
	7	a	m	2
	8	a	f	1
	8	a	m	1
	8	b	f	1
	8	c	f	1

```
create view stu_test1_marks_view
as
select test1, subcode
from iamarks
where usn = '1rn13cs091';

select * from stu_test1_marks_view;
```



test1	subcode
15	10cs81
12	10cs82
19	10cs83
20	10cs84
15	10cs85

if finalia = 17 to 20 then cat = ‘outstanding’

if finalia = 12 to 16 then cat = ‘average’

if finalia< 12 then cat = ‘weak’

give these details only for 8th semester a, b, and c section students. */

```
select s.usn,s.sname,s.address,s.phone,s.gender,
(case
when ia.finalia between 17 and 20 then 'outstanding'
when ia.finalia between 12 and 16 then 'average'
else 'weak'
end) as cat
from student s, semsec ss, iamarks ia, subject sub
where s.usn = ia.usn and
ss.ssid = ia.ssid and
sub.subcode = ia.subcode and
sub.sem = 8;
```

usn	sname	address	phone	gender	cat
1rn13cs091	teesha	bengaluru	7712312312	f	weak
1rn13cs091	teesha	bengaluru	7712312312	f	weak
1rn13cs091	teesha	bengaluru	7712312312	f	weak
1rn13cs091	teesha	bengaluru	7712312312	f	weak
1rn13cs091	teesha	bengaluru	7712312312	f	weak