

Name: Gurdev singh










Id:100376466

Lab:6

1. Name of students Who enrolled in at least One section:

Ans:












```
SELECT DISTINCT(SName)
FROM student JOIN std_enrolls_sec
ON std_enrolls_sec.sid = student.sid
```

Data output		Messages	Notifications
       			
	sname character varying 		
1	Jocelyn Bowes		
2	Eshaan Barry		
3	Chinmaya Mahapat...		
4	Iris Chang		

2. Show the course id, section id, and section type that have been enrolled by at least one student.

Ans:

```
SELECT course_section.cid, course_section.secid,  
course_section.stype  
FROM course_section;
```

Data output Messages Notifications				
       				
	cid [PK] integer 	secid [PK] integer 	stype character varying 	
1	1030	1	Reg	
2	1030	2	Reg	
3	1045	1	WWW	
4	1045	2	WWW	
5	1045	3	WWW	
6	1045	4	WWW	
7	1045	5	Reg	
8	1050	1	WWW	
9	1280	1	WWW	
10	1280	2	Reg	
11	1480	1	WWW	
12	1480	2	WWW	
13	1480	3	WWW	

3. Show the secid, cid, stype (no metter if student is enrolled or not) and student name who is enrolled:

Ans:

```
SELECT  
course.cid,std_enrolls_sec.secid,student.sname,course_se  
ction.stype
```

```

FROM student FULL JOIN std_enrolls_sec
ON std_enrolls_sec.sid=student.sid
RIGHT JOIN course
ON course.cid = std_enrolls_sec.cid
LEFT JOIN course_section
ON course_section.cid = course.cid
AND course_section.secid = std_enrolls_sec.secid

```

Data output Messages Notifications					Data output Messages Notifications				
	cid integer	secid integer	sname character varying	stype character varying		cid integer	secid integer	sname character varying	stype character varying
1	1045	2	Jocelyn Bowes	WWW	10	1480	3	Jocelyn Bowes	WWW
2	1045	1	Chinmaya Mahapat...	WWW	11	1045	4	Eshaan Barry	WWW
3	1045	1	Jocelyn Bowes	WWW	12	1480	3	Eshaan Barry	WWW
4	1030	1	Chinmaya Mahapat...	Reg	13	1030	1	Iris Chang	Reg
5	1480	3	Chinmaya Mahapat...	WWW	14	1280	2	Iris Chang	Reg
6	1480	2	Chinmaya Mahapat...	WWW	15	1045	2	Chinmaya Mahapat...	WWW
7	1050	1	Chinmaya Mahapat...	WWW	16	1045	3	Chinmaya Mahapat...	WWW
8	1050	1	Jocelyn Bowes	WWW	17	1045	4	Chinmaya Mahapat...	WWW
9	1280	2	Jocelyn Bowes	Reg	18	1045	5	Chinmaya Mahapat...	Reg
10	1480	3	Jocelyn Bowes	WWW	19	1030	2	Chinmaya Mahapat...	Reg
11	1045	4	Eshaan Barry	WWW	20	1480	1	Chinmaya Mahapat...	WWW
12	1480	3	Eshaan Barry	WWW	21	1280	1	Chinmaya Mahapat...	WWW
13	1030	1	Iris Chang	Reg	22	1045	3	Iris Chang	WWW
14	1280	2	Iris Chang	Reg	23	1280	2	Chinmaya Mahapat...	Reg
15	1045	2	Chinmaya Mahapat...	WWW	24	2221	[null]	[null]	[null]
Total rows: 24 of 24 Query complete 00:00:00.115					Total rows: 24 of 24 Query complete 00:00:00.115				















































































































































































































































































4. Display the name of all the students(Whether or not they are enrolled In any section) and section number of all the sections they are enrolled;

Ans:

```

SELECT std_enrolls_sec.secid,student.sname
FROM student LEFT JOIN std_enrolls_sec
ON std_enrolls_sec.sid=student.sid

```

Data output	Messages	Notifications	Data output	Messages	Notifications
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					

5. Display the name of the students and name of all sections they have enrolled(NO matter if student is enrolled in section or section have any students)

Ans:


```
SELECT std_enrolls_sec.secid,student.sname
FROM student LEFT JOIN std_enrolls_sec
ON std_enrolls_sec.sid=student.sid
FULL JOIN course
ON course.cid = std_enrolls_sec.cid
```

Data output			Messages	Notifications
<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>				
	secid integer		sname character varying	
8	1		Jocelyn Bowes	
9	2		Jocelyn Bowes	
10	3		Jocelyn Bowes	
11	4		Eshaan Barry	
12	3		Eshaan Barry	
13	1		Iris Chang	
14	2		Iris Chang	
15	2		Chinmaya Mahapat...	
16	3		Chinmaya Mahapat...	
17	4		Chinmaya Mahapat...	
18	5		Chinmaya Mahapat...	
19	2		Chinmaya Mahapat...	
20	1		Chinmaya Mahapat...	
21	1		Chinmaya Mahapat...	
22	3		Iris Chang	
23	2		Chinmaya Mahapat...	
24	[null]		Rodrigo Ferrara	
25	[null]		Jack Lei	
26	[null]		Jagmeet Singh	
27	[null]		[null]	
Total rows: 27 of 27			Query complete 00:00:00.153	

6. Display the name of the student who is not enrolled in any section.

Ans:

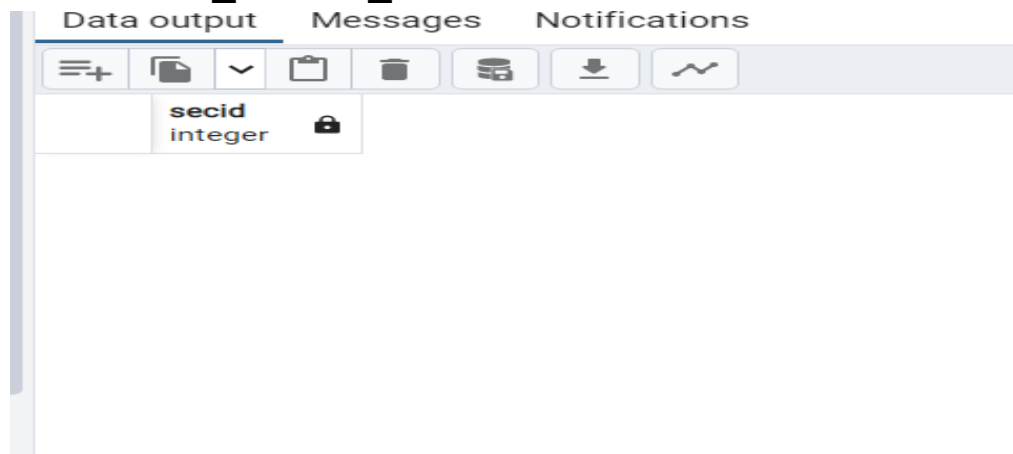
```
SELECT student.sname
FROM student
WHERE sid IN(
SELECT student.sid
FROM student
EXCEPT
SELECT std_enrolls_sec.sid
FROM std_enrolls_sec
)
```

Data output		Messages	Notifications
	sname character varying 		
1	Jagmeet Singh		
2	Rodrigo Ferrara		
3	Jack Lei		

7. Display the name of the section which is not enrolled by any student.

Ans:

```
SELECT course_section.secid  
FROM course_section  
EXCEPT  
SELECT std_enrolls_sec.secid  
FROM std_enrolls_sec
```



Q-8: Display the name of student and number of section they are enrolled.

Ans:

```
SELECT student.sname,count(secid)  
FROM std_enrolls_sec JOIN student  
ON student.sid = std_enrolls_sec.sid  
GROUP BY(student.sname)
```

Data output			Messages	Notifications
	sname character varying	count bigint		
1	Jocelyn Bowes	5		
2	Eshaan Barry	2		
3	Chinmaya Mahap...	13		
4	Iris Chang	3		

9. Show the name of the students who have taken all the courses.

Ans:

--//This will create a new table:

CREATE TABLE std_have_course

AS

SELECT count(DISTINCT cid) AS

"no_of_courses",sid

FROM std_enrolls_sec

GROUP BY(sid)

Data output			Messages	Notifications
	no_of_courses bigint	sid integer		
1	5	1000		
2	3	1001		
3	4	1002		
4	2	1003		

--A student who is enrolled in all 6 courses:

SELECT sname,no_of_courses

FROM student JOIN

std_have_course

ON

student.sid=std_have_course.sid

WHERE no_of_courses=6

Data output			Messages	Notifications
	sname character varying	no_of_courses bigint		

10. show the CID of courses and number of students who are enrolled in all these sections.

Ans:

```
SELECT cid,secid,count(sid) AS "student enrolled"  
FROM std_enrolls_sec  
GROUP BY (cid,secid)
```










	cid integer	secid integer	student enrolled bigint
1	1045	5	1
2	1045	3	2
3	1280	1	1
4	1480	3	3
5	1045	1	2
6	1280	2	3
7	1480	2	1
8	1045	4	2
9	1050	1	2
10	1480	1	1
11	1030	1	2
12	1030	2	1
13	1045	2	2

11. Show the name friends of Chinmaya Mahapatra in all sections he is enrolled

Ans:

```
SELECT DISTINCT student.sname AS "friend of Chinmya  
mahaptara"  
FROM student JOIN std_enrolls_sec  
ON student.sid = std_enrolls_sec.sid  
WHERE cid IN(  
SELECT cid  
FROM std_enrolls_sec  
WHERE sid=1000
```

```
) AND secid IN  
(  
    SELECT secid  
    FROM std_enrolls_sec  
    WHERE sid=1000  
)  
AND std_enrolls_sec.sid<>1000
```

Data output		Messages	Notifications
       			
	friend of Chinmya mahaptara character varying		
1	Eshaan Barry		
2	Iris Chang		
3	Jocelyn Bowes		

12. Show the name of all students who are enrolled in 1045-001.



Ans:

```
SELECT sname
```

```
FROM student JOIN std_enrolls_sec
```

```
ON std_enrolls_sec.sid = student.sid
```

```
WHERE cid=1045 AND secid=001
```

Data output		Messages	Notifications
			
	sname character varying 		
1	Chinmaya Mahap...		
2	Jocelyn Bowes		