

Assignment – 6

DBMS LAB(CSP362)

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1.Show tuples present in student table ordered as per total credit.

```
SELECT *  
FROM student ORDER BY tot_cred;
```

		* S_ID ◆	S_NAME ◆	D_NAME ◆	TOT_CRE ◆
		Filter	Filter	Filter	Filter
	1	70557	Snow	Physics	0
	2	12345	Shankar	Comp. Sci.	32
	3	55739	Sanchez	Music	38
	4	45678	Levy	Physics	46
	5	54321	Williams	Comp. Sci.	54
	6	44553	Peltier	Physics	56
	7	76543	Brown	Comp. Sci.	58
	8	76653	Aoi	Elec. Eng.	60
	9	19991	Brandt	History	80
	10	98765	Bourikas	Elec. Eng.	98
	11	00128	Zhang	Comp. Sci.	102
	12	23121	Chavez	Finance	110
	13	98988	Tanaka	Biology	120

2.Find number of courses a student has taken.

```
SELECT s_id,count(c_id ) as course_taken  
FROM takes  
GROUP BY s_id;
```

		* s_id	* course_taken
		Filter	Filter
<input type="checkbox"/>	1	00128	2
<input type="checkbox"/>	2	12345	4
<input type="checkbox"/>	3	19991	1
<input type="checkbox"/>	4	23121	1
<input type="checkbox"/>	5	44553	1
<input type="checkbox"/>	6	45678	3
<input type="checkbox"/>	7	54321	2
<input type="checkbox"/>	8	55739	1
<input type="checkbox"/>	9	76543	2
<input type="checkbox"/>	10	76653	1
<input type="checkbox"/>	11	98765	2
<input type="checkbox"/>	12	98988	2

3.Find the total credit of all the courses offered in each department.Select sum

```
select D_NAME, sum(CRED) as Total_Credit  
from course  
group by D_NAME;
```

<input type="checkbox"/>	<input type="checkbox"/>	* D_NAME	Total_cred
		Filter	Filter
<input type="checkbox"/>	1	Biology	11
<input type="checkbox"/>	2	Comp. Sci.	17
<input type="checkbox"/>	3	Elec. Eng.	3
<input type="checkbox"/>	4	Finance	3
<input type="checkbox"/>	5	History	3
<input type="checkbox"/>	6	Music	3
<input type="checkbox"/>	7	Physics	4



4. Find the average grade obtained by students in each course across semester.
(Takes table)

```
SELECT c_id,AVG(GRADE)
FROM takes
GROUP BY c_id;
```

<input type="checkbox"/>	<input type="checkbox"/>	* c_id	* AVG(GRADE)
		Filter	Filter
<input type="checkbox"/>	1	CS-101	7
<input type="checkbox"/>	2	CS-347	9.5
<input type="checkbox"/>	3	CS-190	9
<input type="checkbox"/>	4	CS-315	8.5
<input type="checkbox"/>	5	HIS-351	7
<input type="checkbox"/>	6	FIN-201	6
<input type="checkbox"/>	7	PHY-101	6
<input type="checkbox"/>	8	CS-319	8.5
<input type="checkbox"/>	9	MU-199	9
<input type="checkbox"/>	10	EE-181	5
<input type="checkbox"/>	11	BIO-101	9
<input type="checkbox"/>	12	BIO-301	(NULL)

5. Find the name of student having average grade more than 6 across all semester.

```
SELECT student.s_id, student.s_name  
FROM student  
INNER JOIN takes ON (takes.s_id = student.s_id)  
GROUP BY takes.s_id  
HAVING avg(takes.grade) > 6;
```

			* s_id 	s_name 
			Filter	Filter
	1		00128	Zhang
	2		12345	Shankar
	3		19991	Brandt
	4		54321	Williams
	5		55739	Sanchez
	6		76543	Brown
	7		98988	Tanaka

6. Find the average salary of instructor in each department.

```
select D_NAME, avg(SAL)
from INSTRUCTOR
group by D_NAME;
```

<input type="checkbox"/>	<input type="checkbox"/>	* D_NAME	* avg_sal
		Filter	Filter
<input type="checkbox"/>	1	Comp. Sci.	77333.3333
<input type="checkbox"/>	2	Finance	85000.0000
<input type="checkbox"/>	3	Music	40000.0000
<input type="checkbox"/>	4	Physics	91000.0000
<input type="checkbox"/>	5	History	61000.0000
<input type="checkbox"/>	6	Biology	72000.0000
<input type="checkbox"/>	7	Elec. Eng.	80000.0000

7. Create a table persons with person id (Primary Key) with auto increment, name and age. Insert 2 tuples in it without specifying the person id (it will be automatically filled).

```
CREATE TABLE Persons (
Person_id INT NOT NULL AUTO_INCREMENT,
Name VARCHAR (100),
Age INT ,
PRIMARY KEY (Person_id)
);
INSERT INTO Persons (Name,age)
value ("Deepansh" , 21),("Shanky" ,3 );
```

<input type="checkbox"/>	<input type="checkbox"/>	* Person_id	Name	Age
		Filter	Filter	Filter
<input type="checkbox"/>	1	1	Deepansh	21
<input type="checkbox"/>	2	2	Shanky	3

8. Create a table persons with person id (Primary Key), name and city with default value as Jammu. Insert 2 tuples in it one with specifying the city other without it.

```
CREATE TABLE Persons (  
  Person_id int NOT NULL ,  
  Name varchar(100),  
  City varchar(200) DEFAULT 'Jammu',  
  PRIMARY KEY (Person_id)  
);
```

```
INSERT INTO Persons(Person_id , name)  
value ( 1 , "Shanky");  
INSERT INTO Persons(Person_id , name, city)  
value (2,"Deepansh" ,"Vidisha");
```

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Person_id	Name	City
		Filter	Filter	Filter
<input type="checkbox"/>	1	1	Shanky	Jammu
<input type="checkbox"/>	2	2	Deepansh	Vidisha