Lab-04

Instructor:

Table Create:

CREATE TABLE 'instructor' ('Id' varchar(30), 'Name' varchar(30), 'Dept_Name' varchar(30), 'Salary' int(30));

Table data input:

```
INSERT INTO `instructor` ('Id`, `Name`, `Dept_Name`, `Salary`) VALUES ('10101', 'Srinivasan', 'CSE', 65000), ('12121', 'Wu', 'FIN', 90000), ('15151', 'Mozart', 'Music', 40000), ('22222', 'Einstein', 'Physics', 50000), ('32343', 'Said', 'History', 60000), ('33456', 'Gold', 'Physics', 87000), ('45555', 'Katz', 'CSE', 75000), ('58583', 'Cali', 'History', 62000), ('76543', 'Singh', 'FIN', 80000), ('76766', 'Crick', 'Bio', 72000), ('83821', 'Brandt', 'CSE', 92000),
```

Teaches:

Table create:

('98345', 'Kin', 'EEE', 80000);

CREATE TABLE 'teaches' ('Id' varchar(30), 'C Id' varchar(30, Section Id' int(10));

 $\begin{tabular}{ll} \textbf{Table data input:} & INSERT INTO `teaches` (`Id`, `C_Id`, `Section_Id`) VALUES ('10101', 'CSE_101', 1), ('12121', 'CSE_111', 2), ('13131', 'CSE_311', 3); \\ \end{tabular}$

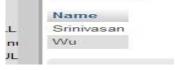
Q1.Perform Cartesian Product Operation between these two relation.

SELECT * FROM instructor,teaches;

ld	Name	Dept_Name	Salary	ld	C_ld	Section_Id
10101	Srinivasan	CSE	65000	10101	CSE_101	05
10101	Srinivasan	CSE	65000	12121	CSE_111	2
10101	Srinivasan	CSE	65000	13131	CSE_311	3
12121	Wu	FIN	90000	10101	CSE_101	1
12121	Wu	FIN	90000	12121	CSE_111	2
12121	Wu	FIN	90000	13131	CSE_311	3
15151	Mozart	Music	40000	10101	CSE_101	1
15151	Mozart	Music	40000	12121	CSE_111	2
15151	Mozart	Music	40000	13131	CSE_311	3
22222	Einstein	Physics	50000	10101	CSE_101	4
22222	Einstein	Physics	50000	12121	CSE_111	2
22222	Einstein	Physics	50000	13131	CSE_311	1
32343	Said	History	60000	10101	CSE_101	-
32343	Said	History	60000	12121	CSE_111	2
32343	Said	History	60000	13131	CSE_311	15
33456	Gold	Physics	87000	10101	CSE_101	3
33456	Gold	Physics	87000	12121	CSE_111	2
33456	Gold	Physics	87000	13131	CSE_311	3
45555	Katz	CSE	75000	10101	CSE_101	98
45555	Katz	CSE	75000	12121	CSE_111	2
45555	Katz	CSE	75000	13131	CSE_311	3
58583	Cali	History	62000	10101	CSE_101	19
58583	Cali	History	62000	12121	CSE_111	2
58583	Cali	History	62000	13131	CSE_311	3
76543	Singh	FIN	80000	10101	CSE_101	
Co	nsole					

Q2. Find those instructors who teaches any of the courses.

SELECT Name FROM instructor, teaches WHERE instructor.Id=teaches.Id;



Q3. Find only instructor names and course id for instructors in the Computer Science

department.

Select Name, instructor.Id from instructor INNER JOIN teaches where
instructor.Id=teaches.Id AND Dept_Name= 'CSE';



Q4. Find the total no. of tuples in "Instructor" relation.



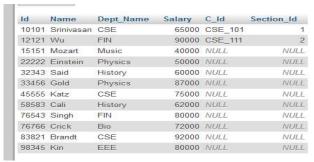
Q5. Answer Q2 using Natural Join.

SELECT * FROM instructor NATURAL JOIN teaches;

ld	Name	Dept_Name	Salary	C_ld	Section_Id
10101	Srinivasan	CSE	65000	CSE_101	4
12121	Wu	FIN	90000	CSE_111	2

Q6. Perform Left Outer Join.

SELECT * FROM instructor NATURAL LEFT OUTER JOIN teaches;



Q7. Perform Right Outer Join.

SELECT * FROM instructor NATURAL RIGHT OUTER JOIN teaches;

ld	C_ld	Section_Id		Name	Dept_Name	Salary
10101	CSE_101	1		Srinivasan	CSE	65000
12121	CSE_111	2	2	Wu	FIN	90000
13131	CSE_311	3	3	NULL	NULL	NULL