

ADVANCED DATABASE MANAGEMENT SYSTEM PRACTICAL LAB REPORT - II

COURSE CODE : MCC541

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LAB Report - 2

1. Table Creation :

create database ADBMS;

create table instructor
(ID int primary key,
name varchar(20),
dept_name varchar(20),
salary int
);

insert into instructor values
(10101 , 'Srinivasan ', 'Comp. Sci.', 65000),
(12121 , ' Wu', 'Finance', 90000),
(15151 , 'Mozart', 'Music', 40000),
(22222 , 'Einstein', 'Physics', 95000),
(32343 , 'El Said', 'History' ,60000),
(33456 , 'Gold', 'Physics', 87000),
(45565 , 'Katz', 'Comp. Sci.' ,75000),
(58583 , 'Califieri', 'History', 62000),
(76543 , 'Singh', 'Finance', 80000),
(76766 , 'Crick', 'Biology', 72000),
(83821 , 'Brandt', 'Comp. Sci.', 92000),
(98345 , 'Kim', 'Elec. Eng.', 80000);

insert into instructor value('10211', 'Smith', 'Biology', 66000);
Select * from instructor;

```
create table teaches  
(ID int ,  
Course_id varchar(20),  
sec_id varchar(20),  
semester varchar(20),  
year int  
);
```

```
insert into teaches values  
(10101,'CS-101',1,'Fall',2017),  
(10101,'CS-315',1,'Spring',2018),  
(10101,'CS-347',1,'Fall',2017),  
(12121,'FIN-201',1,'Spring',2018),  
(15151,'MU-199',1,'Spring',2018),  
(22222,'PHY-101',1,'Fall',2017),  
(32343,'HIS-351',1,'Spring',2018),  
(45565,'CS-101',1,'Spring',2018),  
(45565,'CS-319',1,'Spring',2018),  
(76766,'BIO-101',1,'Summer',2017),  
(76766,'BIO-301',1,'Summer',2018),  
(83821,'CS-190',1,'Spring',2017),  
(83821,'CS-190',2,'Spring',2017),  
(83821,'CS-319',2,'Spring',2018),  
(98345,'EE-181',1,'Spring',2017);
```

```
Select * from instructor;  
Select * from teaches;
```

Question 1

select * from instructor order by salary;

Question 2

select distinct(Course_id) from teaches where (semester = 'fall' and year = 2017) or (semester = 'spring' and year = 2018);

Question 3

select distinct(Course_id) from teaches where (semester = 'fall' and year = 2017) and Course_id in (select distinct(Course_id) from teaches where (semester = 'Spring' and year = 2018));

Question 4

select distinct(Course_id) from teaches where (semester = 'fall' and year = 2017) and Course_id not in (select distinct(Course_id) from teaches where (semester = 'Spring' and year = 2018));

Question 5

**insert into instructor values
('10211', 'Smith', 'Biology', 66000),
('10212', 'Tom', 'Biology', NULL);
select * from instructor;**

Question 6

select name from instructor where salary is null;

Question 7

select avg(salary) from instructor group by dept_name having dept_name = 'Comp. Sci.';

Question 8

select count(*) from teaches where semester ='Spring' and year = '2018';

Question 9

**Select * from teaches;
select count(*) from teaches;**

Question 10

select dept_name , avg(salary) as Average_salary from instructor group by dept_name ;

Question 11

select dept_name , avg(salary) as Average_salary from instructor group by dept_name having avg(salary)>42000;

Question 12

select name from instructor where name <>'Mozart' and name <> 'Einstein';

Question 13

select name from instructor where salary > some(select salary from instructor where dept_name ='Biology');

Question 14

select name from instructor where salary > all(select salary from instructor where dept_name ='Biology');

Question 15

select dept_name , avg(salary) as Average_salary from instructor group by dept_name having avg(salary)>42000;

Question 16

**with table1(dept_name,total) as (select dept_name , sum(salary) from instructor group by dept_name),
table2(all_dept_avg) as (select avg(total) from table1)
select table1.dept_name , table1.total from table1,table2
where table1.total>table2.all_dept_avg;**

Question 17

select distinct(a.name) as Name , b.Course_id as Course from instructor a join teaches b on a.id = b.id ;

Question 18

select distinct(a.name) as Name , b.Course_id as Course from instructor a left join teaches b on a.id = b.id ;