ADVANCED DATABASE MANAGEMENT SYSTEM PRACTICAL LAB ASSIGNMENT - III

COURSE CODE : MCC541

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LAB Report - 3

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;
```

```sql
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;
```

```
use adbms;
```

Question 1 :

```
create view faculty as
select id , name , dept_name
from instructor;

select * from faculty;
```

Question 2 :

```
create view Department_salary_total as
select dept_name , sum(salary)
from instructor
group by dept_name;

select * from Department_salary_total;
```

Question 3 :
Creating Role

```
create ROLE 'student_role';
```

Question 4 :

```
grant select on adbms. faculty to'student_role';
```

Question 5 :
Creating New User Name as student in local host and Assigning him Student role
after assigning role to any user set role also Needed

```
create user 'student'@'localhost' identified by 'student';
grant 'student_role' to 'student'@'localhost';
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| adbms              |
| information_schema |
| performance_schema |
+--------------------+
3 rows in set (0.00 sec)

mysql> select * from faculty;
ERROR 1046 (3D000): No database selected
mysql> use adbms;
Database changed
mysql> select * from faculty;
+-------+------------+------------+
| id    | name       | dept_name  |
+-------+------------+------------+
| 10101 | Srinivasan | Comp. Sci. |
| 10211 | Smith      | Biology    |
| 12121 |  Wu        | Finance    |
| 15151 | Mozart     | Music      |
| 22222 | Einstein   | Physics    |
| 32343 | El Said    | History    |
| 33456 | Gold       | Physics    |
| 45565 | Katz       | Comp. Sci. |
| 58583 | Califieri  | History    |
| 76543 | Singh      | Finance    |
| 76766 | Crick      | Biology    |
| 83821 | Brandt     | Comp. Sci. |
| 98345 | Kim        | Elec. Eng. |
+-------+------------+------------+
13 rows in set (0.00 sec)

mysql> select * from instructor;
ERROR 1142 (42000): SELECT command denied to user 'student'@'localhost' for
table 'instructor'
mysql>
```

Question 6 :

```
mysql> select current_user();
+------------------+
| current_user()   |
+------------------+
| student@localhost |
+------------------+
1 row in set (0.00 sec)

mysql> select name , id from faculty where dept_name = 'Biology';
+-------+-------+
| name  | id    |
+-------+-------+
| Smith | 10211 |
| Crick | 76766 |
+-------+-------+
2 rows in set (0.00 sec)

mysql>
```

Question 7 :

```
mysql> REVOKE ALL PRIVILEGES ON *.* from 'student'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

Question 8 :

drop role 'student_role' ;

Question 9 :

create user 'new_user'@'localhost' identified by 'new_user' ;
create role 'read_only';
grant select on adbms. faculty to'read_only' ;
grant 'read_only' to 'new_user'@'localhost' ;

Question 10 :

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| adbms              |
| information_schema |
| performance_schema |
+--------------------+
3 rows in set (0.00 sec)

mysql> select current_user();
+--------------------+
| current_user()     |
+--------------------+
| new_user@localhost |
+--------------------+
1 row in set (0.00 sec)

mysql> use adbms;
Database changed
mysql> select id as ID , name as Name from faculty where dept_name = 'Finance';
+-------+-------+
| ID    | Name  |
+-------+-------+
| 12121 |  Wu   |
| 76543 | Singh |
+-------+-------+
2 rows in set (0.00 sec)

mysql>
```

Question 11 :

```
C:\Users\Kushashu>mysql -u root -p
Enter password: ***********
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 118
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> select current_user();
+----------------+
| current_user() |
+----------------+
| root@localhost |
+----------------+
1 row in set (0.00 sec)

mysql>
```

Question 12 :

create table teaches2
(ID int ,
 Course_id varchar(20),
 sec_id varchar(20),
 semester varchar(20),
 year int,
 check (semester in ('fall','winter','spring','summer'))
);
insert into teaches2 select * from teaches;

Question 13 :

create index ind on teaches(id);
select * from teaches;
select * from teaches use index(ind);

As table contains 45 col only with index and without index both are taking same time

✓	20	01:07:00	select * from teaches LIMIT 0, 1000	45 row(s) returned	0.000 sec / 0.000 sec
✓	21	01:07:07	select * from teaches use index(ind) LIMIT 0, 1000	45 row(s) returned	0.000 sec / 0.000 sec

 Question 14 :

drop index ind on teaches;