Lab Report-2

CSE - 4302
Database Management Systems Lab

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Task-1:
Create a user with user_name and password and grant necessary privileges.

Analysis:
We are performing these tasks on Oracle 11g and this certain task was performed in the command line using the default user creation method in Oracle SQL.

Solution:

```
CONNECT SYSTEM/7445;
CREATE USER mukit_200042170 IDENTIFIED BY mahdin70;
GRANT ALL PRIVILEGES TO mukit_200042170;
CONNECT mukit_200042170/mahdin70;
```

Explanation:
Firstly, I logged into the system with the default credentials set while installing Oracle 11g in the system which is SYSTEM, and identified by 7445. Then I created a user as per the lab manual which is ***mukit_200042170*** and identified by ***mahdin70*** . After that, I provided all the privileges to the newly created user and connected the new user to perform further tasks.

Task-2:
Write SQL Statement to create a table 'INSTRUCTOR' which has 4 attributes named ID, NAME, DEPT_NAME, SALARY.

Solution:

```
create table INSTRUCTOR(
    ID number not null,
    NAME varchar2(20),
    DEPT_NAME varchar2(20),
    salary number
);
```

Explanation:

While creating the table we need to specify the attribute/column names with the specification of what data type they can contain and the length of each field. We need to also specify if the column accepts a null value or not. Here is this task we also did. We can see Data types like number, and varchar2 are specified just after the column names, and the length is mentioned in the bracket.

Task-3:

Write SQL statements to insert the following records into the 'INSTRUCTOR' table

ID	NAME	DEPT_NAME	SALARY
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

Solution:

```
INSERT INTO INSTRUCTOR VALUES(10101,'Srinivasan','Comp. Sci.',
65000);
INSERT INTO INSTRUCTOR VALUES(12121,'Wu','Finance',90000);
INSERT INTO INSTRUCTOR VALUES(15151,'Mozart','Comp. Sci.',
40000);
INSERT INTO INSTRUCTOR VALUES(22222,'Einstein','Physics,
95000);
INSERT INTO INSTRUCTOR VALUES(32343,'El Said','History',
```

```
60000);
INSERT INTO INSTRUCTOR VALUES(33456,'Gold','Physics',87);
INSERT INTO INSTRUCTOR VALUES(45565,'Katz','Comp. Sci',75000);
INSERT INTO INSTRUCTORVALUES(58583,'Califieri','History',
62000);
INSERT INTO INSTRUCTOR VALUES(76543,'Singh','Finance',80000);
INSERT INTO INSTRUCTOR VALUES(76766,'Crick','Biology',72000);
INSERT INTO INSTRUCTOR VALUES(83821,'Brandt','Comp.
Sci',92000);
INSERT INTO INSTRUCTOR VALUES(98345,'Kim','Elec. Eng.',80000);
```

Explanation:
I simply did this using INSERT INTO keyword which will update the rows as per the given values in the curly braces separated by commas.

Task-4:

Write SQL Statements to perform the following queries.

Solution:

(a) Display all records of the 'INSTRUCTOR' table.

```
select * from INSTRUCTOR;
```

(b) Show instructor ID and name only.

```
select ID,Name from INSTRUCTOR;
```

(c) Find the name and department of instructors who have a salary of more than 70000.

```
select * from INSTRUCTOR
 where salary>70000;
```

(d) Find names and departments of instructors who have a salary in between 80000 and 10000

```
select Name,DEPT_NAME from INSTRUCTOR
 where salary BETWEEN 80000 and 100000;
```

(e) Find ID and name of instructors of Comp. Sci. department.

```
select ID,Name from INSTRUCTOR
 where DEPT_Name ='Comp. Sci.';
```

(f) Find names and salaries of instructors in the Finance department.

```
select Name,salary from INSTRCTOR
 where DEPT_NAME='Finance';
```

(g) Find ID and name of instructors of Comp. Sci. department or instructors who are paid more than 75000.

```
select ID,Name from INSTRUCTOR
 where DEPT_NAME='Comp. Sci.' AND salary>75000;
```

(h) Find the names of the department.

```
select DISTINCT DEPT_NAME from INSTRUCTOR;
```

Explanation:

For the above tasks, we used select commands and different keywords like DISTINCT, WHERE, (*) and FROM to impose the conditions on the SQL. And we got our desired output by imposing these conditions in our SQL.