Academic Year: 2022-23 **Semester: III**
Class / Branch: SE IT **Subject: SQL Lab**

Academic Year: 2022-23
Semester: III
Class / Branch:SE(IT)
Subject: SQL Lab
Name of Instructor: Prof. Charul Singh

Name of Student: Harsh Joshi
Student ID: 22204012
Date of Performance: 29/11/2022
Date of Submission: 29/11/2022

Experiment No. 4

Aim:- To study and implement data manipulation language (DML) commands.

Queries:

Q1: Insert a single record into dept table.
Solution:
1.Decide the data to add in dept.
2.Add to dept one row at a time using the insert into syntax.

Ans:
SQL> insert into dept values (1,'IT','Tholudur');
1 row created.

Q2: Insert more than a record into emp table using a single insert command.

Ans:
SQL> insert into emp values(1,'Mathi','AP',1,10000)
1 row created.
SQL> insert into emp values(2,'Arjun','ASP',2,12000)
1 row created.
SQL> insert into emp values(3,'Gugan','ASP',1,12000)
1 row created.

```
mysql> insert into students values(2,'Jash',23,'Java');
Query OK, 1 row affected (0.04 sec)

mysql> select * from students;
+------+--------+-------+-----------+
| s_id | s_name | s_age | s_subject |
+------+--------+-------+-----------+
|    1 | Harsh  |    22 | DBMS      |
|    2 | Jash   |    23 | Java      |
+------+--------+-------+-----------+
2 rows in set (0.00 sec)

mysql> insert into students(s_id,s_name,s_age,s_subject) values(3,'Mithilesh',22
,'SQL');
Query OK, 1 row affected (0.05 sec)

mysql> insert into students(s_id,s_name,s_age,s_subject) values(4,'Abhay',22,'CN
');
```

Q3: Update the emp table to set the salary of all employees to Rs15000/- who are working as ASP

Ans:

```
SQL> select * from emp;
EMPNO      ENAME      JOB    DEPTNO     SAL
----------      -------------- ---------- -------------   ----------
1              Mathi                AP     1              10000
2               Arjun               ASP    2              12000
3               Gugan       ASP    1              12000

SQL> update emp set sal=15000 where job='ASP';
2 rows updated.

SQL> select * from emp;
EMPNO      ENAME      JOB    DEPTNO     SAL
---------- -------------------- ------------- ---------- ----------
1              Mathi                AP     1              10000
```

2 Arjun ASP 2 15000
3 Gugan ASP 1 15000

```
mysql> update students set s_age=23 where s_id=1;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> delete from students where s_id=3;
Query OK, 1 row affected (0.04 sec)

mysql> select * from students;
+------+--------+-------+-----------+
| s_id | s_name | s_age | s_subject |
+------+--------+-------+-----------+
|    1 | Harsh  |    23 | DBMS      |
|    2 | Jash   |    23 | Java      |
|    4 | Abhay  |    22 | CN        |
+------+--------+-------+-----------+
3 rows in set (0.00 sec)
```

Q4: Create a pseudo table employee with the same structure as the table emp and insert
rows into the table using select clauses.
Ans:

SQL> create table employee as select * from emp;
Table created.
SQL> desc employee;

Name	Null?	Type
EMPNO		NUMBER (6)
ENAME	NOT NULL	VARCHAR2(20)
JOB	NOT NULL	VARCHAR2 (13)
DEPTNO		NUMBER (3)
SAL		NUMBER (7)

Q5: select employee name, job from the emp table
Ans:

SQL> select ename, job from emp;

ENAME	JOB
Mathi	AP
Arjun	ASP
Gugan	ASP

Karthik Prof
Akalya AP
Suresh lect
6 rows selected.

Q6: Delete only those who are working as lecturer

Ans:

```
SQL> select * from emp;

EMPNO      ENAME       JOB   DEPTNO      SAL
---------- ------------------- ------------ ---------- ----------
1          Mathi            AP          1      10000
2          Arjun       ASP          2      15000
3           Gugan      ASP          1      15000
4          Karthik     Prof         2      30000
5          Akalya      AP           1      10000
6          suresh           lect          1      8000

6 rows selected.

SQL> delete from emp where job='lect';
1 row deleted.

SQL> select * from emp;

EMPNO      ENAME       JOB   DEPTNO     SAL
---------- ------------------- ------------ ---------- ----------
1          Mathi            AP     1            10000
2          Arjun       ASP   2            15000
3           Gugan            ASP  1            15000
4          Karthik     Prof  2            30000
5              Akalya  AP     1            10000
```

```
mysql> insert into students(s_id,s_name,s_age,s_subject) values(3,'Mithilesh',22
,'SQL');
Query OK, 1 row affected (0.05 sec)

mysql> insert into students(s_id,s_name,s_age,s_subject) values(4,'Abhay',22,'CN
');
Query OK, 1 row affected (0.10 sec)

mysql> select * from students;
+------+-----------+-------+-----------+
| s_id | s_name    | s_age | s_subject |
+------+-----------+-------+-----------+
|    1 | Harsh     |    22 | DBMS      |
|    2 | Jash      |    23 | Java      |
|    3 | Mithilesh |    22 | SQL       |
|    4 | Abhay     |    22 | CN        |
+------+-----------+-------+-----------+
4 rows in set (0.00 sec)
```

Q7: List the records in the emp table orderby salary in ascending order. Ans:

SQL> select * from emp order by sal;

EMPNO	ENAME	JOB	DEPTNO	SAL
1	Mathi	AP	1	10000
5	Akalya	AP	1	10000
2	Arjun	ASP	2	15000
3	Gugan	ASP	1	15000
4	Karthik	Prof	2	30000

```
mysql> create database Student;
Query OK, 1 row affected (0.00 sec)

mysql> use Student;
Database changed
mysql> create table students(s_id int, s_name varchar(99), s_age int, s_subject
varchar(16));
Query OK, 0 rows affected (0.24 sec)

mysql> desc students;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| s_id      | int(11)     | YES  |     | NULL    |       |
| s_name    | varchar(99) | YES  |     | NULL    |       |
| s_age     | int(11)     | YES  |     | NULL    |       |
| s_subject | varchar(16) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

Q8: List the records in the emp table orderby salary in descending order. Ans:

SQL> select * from emp order by sal desc;

EMPNO	ENAME	JOB	DEPTNO	SAL
4	Karthik	Prof	2	30000
2	Arjun	ASP	2	15000
3	Gugan	ASP	1	15000
1	Mathi	AP	1	10000
5	Akalya	AP	1	10000

Q9: Display deptno from the table employee avoiding the duplicated values.
Ans:
SQL> select distinct deptno from emp;

DEPTNO

1
2

```
mysql> delete from students;
Query OK, 3 rows affected (0.05 sec)

mysql> select * from students;
Empty set (0.00 sec)

mysql> desc students;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| s_id      | int(11)     | YES  |     | NULL    |       |
| s_name    | varchar(99) | YES  |     | NULL    |       |
| s_age     | int(11)     | YES  |     | NULL    |       |
| s_subject | varchar(16) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

Conclusion :- Thus we have studied DML Commands like insert, update, delete in this experiment.