**EX.No. 02 DATA MANIPULATION LANGUAGE,DATA CONTROL LANGUAGE DATE: 7.3.2024 COMMANDS AND TCL COMMANDS**

**AIM:**

To execute data manipulation language,data control language commands ans TCL commands.

**Creating the table:**

create table student(roll number(10) primary key,name varchar(20) not null,mail varchar(20) unique,age number(3),gender char(1) check(gender='m' or gender='f'));

Table created.

**Inserting instance in table:**

insert into student values(&roll,'&name','&mail',&age,'&gender');

SQL> insert into student values(&roll,'&name','&mail',&age,'&gender');

Enter value for roll: 101

Enter value for name:dinesh

Enter value for mail: dinesh@gmail.com

Enter value for age: 18

Enter value for gender: m

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(101,'dinesh','dinesh@gmail.com',18,'m')

1 row created.

SQL> /

Enter value for roll: 102

Enter value for name: babu

Enter value for mail: babu@gmail.com

Enter value for age: 19

Enter value for gender: m

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(102,'babu','babu@gmail.com',19,'m')

1 row created.

SQL> /

Enter value for roll: 103

Enter value for name: kohli

Enter value for mail: kohli@gmail.com

Enter value for age: 19

Enter value for gender: m

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(103,'kohli','kohli@gmail.com',19,'m')

1 row created.

SQL> /

Enter value for roll: 104

Enter value for name: dhoni

Enter value for mail: dhoni@gmail.com

Enter value for age: 19

Enter value for gender: m

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(104,'dhoni','dhoni@gmail.com',19,'m')

1 row created.

SQL> /

Enter value for roll: 105

Enter value for name: sri

Enter value for mail: sri@gmail.com

Enter value for age: 20

Enter value for gender: f

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(105,'sri','sri@gmail.com',20,'f')

1 row created.

**To see the structure of the table:**

SQL> desc student;

Name Null? Type

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ROLL NOT NULL NUMBER(10)

NAME NOT NULL VARCHAR2(20)

MAIL VARCHAR2(20)

AGE NUMBER(3)

GENDER CHAR(1)

**To see Data dictionary:**

SQL>select \* from tab;

TNAME TABTYPE CLUSTERID

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CUST TABLE

STUDENT TABLE

**To see the instance of the table:**

SQL> select \* from student;

ROLL NAME MAIL AGE G

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101 dinesh dinesh@gmail.com 18 m

102 babu babu@gmail.com 19 m

103 kohli kohli@gmail.com 19 m

104 dhoni dhoni@gmail.com 19 m

105 sri sri@gmail.com 20 f

**Commit Command:**

SQL> commit;

Commit complete.

SQL> insert into student values(&roll,'&name','&mail',&age,'&gender');

Enter value for roll: 106

Enter value for name: hema

Enter value for mail: hema@gmail.com

Enter value for age: 19

Enter value for gender: f

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(106,hema','hema@gmail.com',19,'f')

1 row created.

SQL> /

Enter value for roll: 107

Enter value for name:saai

Enter value for mail: saai@gmail.com

Enter value for age: 19

Enter value for gender: m

old 1: insert into student values(&roll,'&name','&mail',&age,'&gender')

new 1: insert into student values(107,'saai','saai@gmail.com',19,'m')

1 row created.

SQL> select \* from student;

ROLL NAME MAIL AGE G

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101 dinesh dinesh@gmail.com 18 m

102 babu babu@gmail.com 19 m

104 dhoni dhoni@gmail.com 19 m

105 sri sri@gmail.com 20 f

106 hema hema@gmail.com 19 f

107 saai saai@gmail.com 19 m

6 rows selected.

**Rollback command:**

SQL> rollback;

Rollback complete.

SQL> select \* from student;

ROLL NAME MAIL AGE G

---------- -------------- -------------------- -------- ---

101 dinesh dinesh@gmail.com 18 m

102 babu babu@gmail.com 19 m

104 dhoni dhoni@gmail.com 19 m

105 sri sri@gmail.com 20 f

**Select command:**

SQL> select \* from student;

ROLL NAME MAIL AGE G

---------- ------------- - -------------------- ------- ----

101 dinesh dinesh@gmail.com 18 m

102 babu babu@gmail.com 19 m

104 dhoni dhoni@gmail.com 19 m

105 sri sri@gmail.com 20 f

SQL>select roll,name from student;

ROLL NAME

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101 dinesh

102 babu

104 dhoni

105 sri

SQL>select name from student where roll=101;

NAME

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Dinesh

**Update command:**

SQL> create table department(deptname varchar(20) primary key,building varchar(15),budget number(10,2) );

Table created.

**To Insert instance into table:**

SQL> insert into department values('&deptname','&building',&budget);

Enter value for deptname: IT

Enter value for building: seminar hall

Enter value for budget: 10000.00

old 1: insert into department values('&deptname','&building',&budget)

new 1: insert into department values('IT','seminar hall',10000.00)

1 row created.

SQL>select \* from department;

DEPTNAME BUILDING BUDGET

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IT seminar hall 10000

SQL> insert into dept(deptname,building) values('CSE','CC');

1 row created.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

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IT seminar hall 10000

CSE CC

**After update the budget of IT department:**

SQL> update dept set budget=100000.00 where budget=10000.00;

1 row updated.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

----------------- --------------- ----------

IT seminar hall 100000

CSE CC

**Add missing records:**

SQL> update dept set budget=100000.00 where deptname='CSE';

1 row updated.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

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IT seminar hall 100000

CSE CC 100000

SQL> insert into dept(deptname) values('ECE');

1 row created.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

----------------- --------------- ----------

IT seminar hall 100000

CSE CC 100000

ECE

SQL> update dept set building='Lab',budget=200000.00 where deptname='ECE';

1 row updated.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

---------------- --------------- ----------

IT seminar hall 100000

CSE CC 100000

ECE Lab 200000

**SAVEPOINT:**

SQL> update dept set budget=150000 where deptname='IT';

1 row updated.

SQL> savepoint A;

Savepoint created.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

---------------- --------------- ----------

IT seminar hall 150000

CSE CC 100000

ECE Lab 200000

SQL> update dept set budget=125000 where deptname='IT';

1 row updated.

SQL> savepoint B;

Savepoint created.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

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IT seminar hall 125000

CSE CC 100000

ECE Lab 200000

SQL> rollback to A;

Rollback complete.

SQL> select \* from dept;

DEPTNAME BUILDING BUDGET

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IT seminar hall 150000

CSE CC 100000

ECE Lab 200000

**Update with case command:**

SQL> create table emp(empid number(5),empname varchar(20),salary number(6));

Table created.

SQL> insert into emp values(&empid,'&empname',&salary);

Enter value for empid: 1

Enter value for empname: Dinesh

Enter value for salary: 15000

old 1: insert into emp values(&empid,'&empname',&salary)

new 1: insert into emp values(1,'Dinesh',15000)

1 row created.

SQL> /

Enter value for empid: 2

Enter value for empname: Guna

Enter value for salary: 17000

old 1: insert into emp values(&empid,'&empname',&salary)

new 1: insert into emp values(2,'Guna',17000)

1 row created.

SQL> /

Enter value for empid: 3

Enter value for empname: Anand

Enter value for salary: 10000

old 1: insert into emp values(&empid,'&empname',&salary)

new 1: insert into emp values(3,'Anand',10000)

1 row created.

SQL> /

Enter value for empid: 4

Enter value for empname: Babu

Enter value for salary: 17000

old 1: insert into emp values(&empid,'&empname',&salary)

new 1: insert into emp values(4,'Babu',17000)

1 row created.

SQL> /

Enter value for empid: 5

Enter value for empname: suji

Enter value for salary: 10000

old 1: insert into emp values(&empid,'&empname',&salary)

new 1: insert into emp values(5,'suji',10000)

1 row created.

**Before updating the salary bonus:**

SQL> select \* from emp;

EMPID EMPNAME SALARY

---------- -------------------- --------------

1 Dinesh 15000

2 Gunal 17000

3 Anand 10000

4 Babu 17000

5 suji 10000

SQL> update emp set salary=case when salary <=10000 then salary\*1.03 else salary\*1.05 end;

5 rows updated.

**After updating the salary bonus:**

SQL> select \* from emp;

EMPID EMPNAME SALARY

--------------- -------------------- ----------

1 Dinesh 15750

2 Gunal 17850

3 Anand 10300

4 Babu 17850

5 suji 10300

**DELETION:**

SQL> delete from emp where empname=’anand’;

EMPID EMPNAME SALAR

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1 Dinesh 15750

2 Gunal 17850

4 Babu 17850

5 suji 10300

SQL>delete from emp;

4 rows deleted.

|  |  |  |
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**RESULT:**

Thus the execution of DML,DCL and TCL commands using SQL were executed successfully