Name: Samriddhi Verma
Reg.No.: 16BCE1375
Faculty: Prof. M. Premlatha

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Programme	:	**B.Tech - CSE**	Semester	:	**Winter 18 - 19**
Course	:	**Database Management Systems (Embedded Lab)**	Code	:	**CSE2004**
Faculty	:	**Prof. R. Gayathri Prof. M. Premalatha**	Slot	:	**L3 + L4**

Ex. No. 1

SQL Basics – DDL Commands

1. **Create the following schemas**

    student(regno, sname, cgpa)

    course(ccode, cname, credits)

    faculty(empid, fname, designation, salary)

```
SQL> create table student(regno varchar(10), sname varchar(10), cgpa
number(3,2)
);
Table created.
SQL> desc student
 Name                                      Null?    Type
 ----------------------------------------- -------- -------------------
---------

 REGNO                                              VARCHAR2(10)
 SNAME                                              VARCHAR2(10)
 CGPA                                               NUMBER(3,2)
```

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```
SQL> create table course(ccode varchar(8), cname char(10), credits
number(2));

Table created.

SQL> desc course
 Name                                      Null?    Type
 ----------------------------------------- -------- -------------------
---------

 CCODE                                              VARCHAR2(8)
 CNAME                                              CHAR(10)
 CREDITS                                            NUMBER(2)

SQL> create table faculty(empid varchar(8), fname char(10), designation
char(10)
,salary number(10));

Table created.

SQL> desc faculty
 Name                                      Null?    Type
 ----------------------------------------- -------- -------------------
---------

 EMPID                                              VARCHAR2(8)
 FNAME                                              CHAR(10)
 DESIGNATION                                        CHAR(10)
 SALARY                                             NUMBER(10)
```

2. Add email id attribute to student relation and describe the structure.

```
SQL> alter table student add emailid varchar(10);


Table altered.


SQL> desc student
 Name                                       Null?    Type
 ----------------------------------------- -------- ----------------
------------

 REGNO                                                VARCHAR2(10)
 SNAME                                                VARCHAR2(10)
 CGPA                                                 NUMBER(3,2)
 EMAILID                                              VARCHAR2(10)
```

3. Change the data type of sname in student relation and describe the structure.

```
SQL> alter table student modify sname char(10);


Table altered.
SQL> desc student
 Name                                       Null?    Type
 ----------------------------------------- -------- ----------------
------------

 REGNO                                                VARCHAR2(10)
 SNAME                                                CHAR(10)
 CGPA                                                 NUMBER(3,2)
 EMAILID                                              VARCHAR2(10)
```

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4. Change the size of any attribute and describe the structure.

```
SQL> alter table student modify regno varchar(8);


Table altered.


SQL> desc student
 Name                                      Null?    Type
 ----------------------------------------- -------- ------------------
 REGNO                                              VARCHAR2(8)
 SNAME                                              CHAR(10)
 CGPA                                               NUMBER(3,2)
 EMAILID                                            VARCHAR2(10)
```

5. Add phone number attribute to student relation and describe the structure.

```
SQL> alter table student add phonenumber number(10);


Table altered.


SQL> desc student
 Name                                      Null?    Type
 ----------------------------------------- -------- ------------------
 REGNO                                              VARCHAR2(8)
 SNAME                                              CHAR(10)
 CGPA                                               NUMBER(3,2)
 EMAILID                                            VARCHAR2(10)
 PHONENUMBER                                        NUMBER(10)
```

6. Rename the empid attribute as fid in faculty relation and describe the structure.

```
SQL> alter table faculty rename column empid to fid;


Table altered.


SQL> desc faculty
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------


 FID                                                VARCHAR2(8)
 FNAME                                              CHAR(10)
 DESIGNATION                                        CHAR(10)
 SALARY                                             NUMBER(10)
```

7. Delete the email id attribute from student and describe the structure.

```
SQL> alter table student drop column emailid;


Table altered.


SQL> desc student
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------


 REGNO                                              VARCHAR2(8)
 SNAME                                              CHAR(10)
 CGPA                                               NUMBER(3,2)
 PHONENUMBER                                        NUMBER(10)
```

8. Insert 5 records each to all the schemas.

```
SQL>insert                              into                    student
values('&regno','&sname','&cgpa','&phonenumber');
Enter value for regno: 16bce101
Enter value for sname: Samriddhi
Enter value for cgpa: 8.9
Enter value for phonenumber: 9873456210
old                      1:      insert      into      student
values('&regno','&sname','&cgpa','&phonenumber')
new                      1:      insert      into      student
values('16bce101','Samriddhi','8.9','9873456210')


1 row created.


SQL>              insert              into              student
values('&regno','&sname','&cgpa','&phonenumber');
Enter value for regno: 16bce102
Enter value for sname: Raj
Enter value for cgpa: 9.2
Enter value for phonenumber: 7638910978
old                      1:      insert      into      student
values('&regno','&sname','&cgpa','&phonenumber')
new   1: insert into student values('16bce102','Raj','9.2','7638910978')


1 row created.


SQL>              insert              into              student
values('&regno','&sname','&cgpa','&phonenumber');
Enter value for regno: 16bce103
Enter value for sname: Anmol
Enter value for cgpa: 8.4
Enter value for phonenumber: 9876123478
old                      1:      insert      into      student
values('&regno','&sname','&cgpa','&phonenumber')
```

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```
new                      1:      insert     into     student
values('16bce103','Anmol','8.4','9876123478')

1 row created.


SQL>           insert              into           student
values('&regno','&sname','&cgpa','&phonenumber');
Enter value for regno: 16bce104
Enter value for sname: Atishi
Enter value for cgpa: 8.6
Enter value for phonenumber: 7661098723
old                      1:      insert     into     student
values('&regno','&sname','&cgpa','&phonenumber')
new                      1:      insert     into     student
values('16bce104','Atishi','8.6','7661098723')

1 row created.


SQL>           insert              into           student
values('&regno','&sname','&cgpa','&phonenumber');
Enter value for regno: 16bce105
Enter value for sname: Aastha
Enter value for cgpa: 9.1
Enter value for phonenumber: 7654812345
old                      1:      insert     into     student
values('&regno','&sname','&cgpa','&phonenumber')
new                      1:      insert     into     student
values('16bce105','Aastha','9.1','7654812345')

1 row created.


SQL> insert into course values('&ccode','&cname','&credits');
Enter value for ccode: CSE2004
```

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Faculty: Prof. M. Premlatha

```
Enter value for cname: DBMS

Enter value for credits: 4

old   1: insert into course values('&ccode','&cname','&credits')
new   1: insert into course values('CSE2004','DBMS','4')


1 row created.


SQL> insert into course values('&ccode','&cname','&credits');
Enter value for ccode: CSE4001

Enter value for cname: PDC

Enter value for credits: 4

old   1: insert into course values('&ccode','&cname','&credits')
new   1: insert into course values('CSE4001','PDC','4')


1 row created.


SQL> insert into course values('&ccode','&cname','&credits');
Enter value for ccode: CSE3009

Enter value for cname: IOT

Enter value for credits: 4

old   1: insert into course values('&ccode','&cname','&credits')
new   1: insert into course values('CSE3009','IOT','4')


1 row created.


SQL> insert into course values('&ccode','&cname','&credits');
Enter value for ccode: CSE2004

Enter value for cname: MicroP

Enter value for credits: 4

old   1: insert into course values('&ccode','&cname','&credits')
new   1: insert into course values('CSE2004','MicroP','4')


1 row created.
```

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```
SQL> insert into course values('&ccode','&cname','&credits');

Enter value for ccode: CSE3020

Enter value for cname: Data Vis

Enter value for credits: 4

old   1: insert into course values('&ccode','&cname','&credits')

new   1: insert into course values('CSE3020','Data Vis','4')


1 row created.

SQL>              insert              into              faculty
values('&fid','&fname','&designation','&salary');

Enter value for fid: 50001

Enter value for fname: Rick

Enter value for designation: Prof

Enter value for salary: 600000

old                    1:      insert     into       faculty
values('&fid','&fname','&designation','&salary')

new   1: insert into faculty values('50001','Rick','Prof','600000')


1 row created.


SQL>              insert              into              faculty
values('&fid','&fname','&designation','&salary');

Enter value for fid: 50002

Enter value for fname: Mick

Enter value for designation: Prof

Enter value for salary: 700000

old                    1:      insert     into       faculty
values('&fid','&fname','&designation','&salary')

new   1: insert into faculty values('50002','Mick','Prof','700000')


1 row created.


SQL>              insert              into              faculty
values('&fid','&fname','&designation','&salary');
```

```
Enter value for fid: 50003

Enter value for fname: Serena

Enter value for designation: Director

Enter value for salary: 1200000

old                         1:      insert      into        faculty
values('&fid','&fname','&designation','&salary')
new                         1:      insert      into        faculty
values('50003','Serena','Director','1200000')


1 row created.


SQL>                  insert                   into                 faculty
values('&fid','&fname','&designation','&salary');
Enter value for fid: 50004

Enter value for fname: Sally

Enter value for designation: Asst Prof

Enter value for salary: 500000

old                         1:      insert      into        faculty
values('&fid','&fname','&designation','&salary')
new       1:   insert   into   faculty   values('50004','Sally','Asst
Prof','500000')


1 row created.


SQL>                  insert                   into                 faculty
values('&fid','&fname','&designation','&salary');
Enter value for fid: 50005

Enter value for fname: Dev

Enter value for designation: Res Sch

Enter value for salary: 300000

old                         1:      insert      into        faculty
values('&fid','&fname','&designation','&salary')
new   1: insert into faculty values('50005','Dev','Res Sch','300000')
```

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```
1 row created.
```

9. Display the contents of all the schemas.

```
SQL> select * from faculty;


FID       FNAME       DESIGNATIO     SALARY
--------  ----------  ----------  ----------
50001     Rick        Prof            600000

50002     Mick        Prof            700000

50003     Serena      Director       1200000

50004     Sally       Asst Prof       500000

50005     Dev         Res Sch         300000


SQL> select * from course;


CCODE     CNAME          CREDITS
--------  ----------  ----------
CSE2004   DBMS                 4

CSE4001   PDC                  4

CSE3009   IOT                  4

CSE2004   MicroP               4

CSE3020   Data Vis             4


SQL> select * from student;


REGNO     SNAME             CGPA PHONENUMBER
--------  ----------  ---------- -----------
16bce101  Samriddhi        8.9  9873456210

16bce102  Raj              9.2  7638910978

16bce103  Anmol            8.4  9876123478

16bce104  Atishi           8.6  7661098723

16bce105  Aastha           9.1  7654812345
```

10. Copy the contents of student table and name the table as student new.

Name: Samriddhi Verma
Reg.No.: 16BCE1375
Faculty: Prof. M. Premlatha
```
SQL> create table studentnew as select * from student;


Table created.


SQL> desc studentnew
 Name                                      Null?    Type
 ----------------------------------------- -------- -------------------
 ---------
 REGNO                                              VARCHAR2(8)
 SNAME                                              CHAR(10)
 CGPA                                               NUMBER(3,2)
 PHONENUMBER                                        NUMBER(10)


SQL> insert into studentnew select * from student;


5 rows created.


SQL> select * from studentnew;


REGNO     SNAME            CGPA PHONENUMBER
-------- ---------- ---------- -----------
16bce101 Samriddhi         8.9 9873456210
16bce102 Raj               9.2 7638910978
16bce103 Anmol             8.4 9876123478
16bce104 Atishi            8.6 7661098723
16bce105 Aastha            9.1 7654812345


5 rows selected.
```

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11.Delete the contents of student new table, describe the structure and display the contents of the table.

```
SQL> delete from studentnew;

5 rows deleted.

SQL> desc studentnew
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------
 ------------
 REGNO                                              VARCHAR2(8)
 SNAME                                              CHAR(10)
 CGPA                                               NUMBER(3,2)
 PHONENUMBER                                        NUMBER(10)

SQL> select * from studentnew;

no rows selected
```

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12.Delete the structure of student new table , describe the structure and display the contents of the table

student(regno, sname, cgpa)

course(ccode, cname, credits)

faculty(empid, fname, designation)

```
SQL> drop table studentnew;


Table dropped.


SQL> desc studentnew
ERROR:
ORA-04043: object studentnew does not exist



SQL> select * from studentnew;
select * from studentnew
              *
ERROR at line 1:
ORA-00942: table or view does not exist


SQL> select * from faculty;


FID        FNAME      DESIGNATIO   SALARY
--------   ---------- ----------   ----------
50001      Rick       Prof          600000
50002      Mick       Prof          700000
50003      Serena     Director     1200000
50004      Sally      Asst Prof     500000
50005      Dev        Res Sch       300000
```

Name: Samriddhi Verma
Reg.No.: 16BCE1375
Faculty: Prof. M. Premlatha

```
SQL> select * from course;


CCODE     CNAME         CREDITS

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

CSE2004   DBMS                 4

CSE4001   PDC                  4

CSE3009   IOT                  4

CSE2004   MicroP               4

CSE3020   Data Vis             4


SQL> select * from student;


REGNO     SNAME           CGPA PHONENUMBER

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

16bce101  Samriddhi        8.9  9873456210

16bce102  Raj              9.2  7638910978

16bce103  Anmol            8.4  9876123478

16bce104  Atishi           8.6  7661098723

16bce105  Aastha           9.1  7654812345
```