

Lab experiments

1.

```
SQL> create table emp(empno number(4),ename char(10),dept number(3));
```

Table created.

```
SQL> desc emp;
```

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)

```
SQL>
```

```
SQL> create table emp(empno number(4),ename char(10),dept number(3));
```

Table created.

```
SQL> desc emp;
```

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)

```
SQL> alter table emp add(sal number(7,2));
```

Table altered.

```
SQL> desc emp;
```

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)
SAL		NUMBER(7,2)

```
SQL> .
```

Table created.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)

SQL> alter table emp add(sal number(7,2));

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)
SAL		NUMBER(7,2)

SQL> alter table emp drop column sal;

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)

SQL> .

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)
SAL		NUMBER(7,2)

SQL> alter table emp drop column sal;

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		CHAR(10)
DEPT		NUMBER(3)

SQL> alter table modify(ename varchar2(15));

alter table modify(ename varchar2(15))

+

ERROR at line 1:

ORA-00903: invalid table name

SQL> alter table emp modify(ename varchar(15));

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		VARCHAR2(15)
DEPT		NUMBER(3)

SQL> .

2.

```
SQL> create table stud(sno number(5), sname varchar(15), sjob varchar(10));
```

Table created.

```
SQL> describe stud
```

Name	Null?	Type
SNO		NUMBER(5)
SNAME		VARCHAR2(15)
SJOB		VARCHAR2(10)

```
SQL>
```

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

```
mysql> use nisha
```

Database changed

```
mysql> DROP TABLE CLASS;
```

Query OK, 0 rows affected (1.70 sec)

```
mysql> CREATE TABLE CLASS(ID INT,NAME VARCHAR(15));
```

Query OK, 0 rows affected (1.09 sec)

```
mysql> INSERT INTO CLASS VALUES(12,"VGVXS");
```

Query OK, 1 row affected (0.17 sec)

```
mysql> COMMIT;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> START TRANSACTION;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> SAVEPOINT A;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> INSERT INTO CLASS VALUES(15,"VGWVC");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO CLASS VALUES(18,"VGYUC");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> SAVEPOINT B;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> INSERT INTO CLASS VALUES(19,"VFCF");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO CLASS VALUES(20,"VRWR");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> SAVEPOINT C;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> INSERT INTO CLASS VALUES(23,"VRGEV");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> INSERT INTO CLASS VALUES(234,"VRGOPWJEF");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> SELECT * FROM CLASS;
```

```
+-----+-----+
```

```
mysql> ALTER TABLE STUDENT1
  -> ADD CONSTRAINT NEWID
  -> FOREIGN KEY(REG_NO)
  -> REFERENCES STUDENT(ID);
Query OK, 0 rows affected (1.38 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> DESC STUDENT1;
```

Field	Type	Null	Key	Default	Extra
REG_NO	int	YES	MUL	NULL	
NAME	varchar(15)	YES		NULL	
GENDER	char(1)	YES		NULL	

3 rows in set (0.00 sec)

3.

```
Query OK, 0 rows affected (2.12 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> ALTER TABLE DEPARTMENT ADD PRIMARY KEY(DEPT_NO);
Query OK, 0 rows affected (0.78 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql>
mysql> DESC DEPARTMENT;
```

Field	Type	Null	Key	Default	Extra
DEPT_NO	int	NO	PRI	NULL	
DEPT_NAME	varchar(15)	YES		NULL	
DEPT_HEAD	varchar(15)	YES		NULL	

```
3 rows in set (0.07 sec)
```

```
mysql> DESC FACULTY;
```

Field	Type	Null	Key	Default	Extra
Faculty_id	int	NO	PRI	NULL	
Faculty_name	varchar(15)	YES		NULL	
gender	char(1)	YES		NULL	
faculty_DOB	int	YES		NULL	
faculty_DOJ	int	YES		NULL	
Mobile_number	int	YES		NULL	
dept	char(10)	YES		NULL	

```
7 rows in set (0.00 sec)
```

4.

```
mysql> DESC STUDENT;
```

Field	Type	Null	Key	Default	Extra
REG_NO	int	YES		NULL	
NAME	varchar(15)	YES		NULL	
GENDER	char(1)	YES		NULL	
DOB	int	YES		NULL	
MOBILE_NO	int	YES		NULL	
CITY	varchar(15)	YES		NULL	

```
5 rows in set (0.14 sec)
```

```
mysql> DESC COURSE;
```

Field	Type	Null	Key	Default	Extra
COURSE_NO	int	YES		NULL	
COURSE_NAME	varchar(15)	YES		NULL	
SEM_NO	int	YES		NULL	
HALL_NO	int	YES		NULL	
FAC_ID	int	YES		NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> DESC FACULTY;
```

Field	Type	Null	Key	Default	Extra
Faculty_id	int	YES		NULL	
Faculty_name	varchar(15)	YES		NULL	
gender	char(1)	YES		NULL	
faculty_DOB	int	YES		NULL	
faculty_DOJ	int	YES		NULL	
Mobile_number	int	YES		NULL	
dept	char(10)	YES		NULL	

```
7 rows in set (0.01 sec)
```

```
mysql> DESC DEPARTMENT;
```

Field	Type	Null	Key	Default	Extra
DEPT_NO	int	YES		NULL	
DEPT_NAME	varchar(15)	YES		NULL	
DEPT_HEAD	varchar(15)	YES		NULL	

```
3 rows in set (0.00 sec)
```


5.

```
mysql> SELECT * FROM STUDENT;
+-----+-----+-----+-----+-----+-----+
| REG_NO | NAME   | GENDER | DOB   | MOBILE_NO | CITY   |
+-----+-----+-----+-----+-----+-----+
| 124    | BRITISH | F      | 2002  | 123786    | DELHI  |
| 128    | NISH   | F      | 2003  | 1237584   | BANGALORE |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> SELECT NAME FROM STUDENT WHERE GENDER='F';
+-----+
| NAME   |
+-----+
| BRITISH |
| NISH   |
+-----+
2 rows in set (0.00 sec)

mysql> SELECT * FROM STUDENT WHERE NAME LIKE '%SH';
+-----+-----+-----+-----+-----+-----+
| REG_NO | NAME   | GENDER | DOB   | MOBILE_NO | CITY   |
+-----+-----+-----+-----+-----+-----+
| 124    | BRITISH | F      | 2002  | 123786    | DELHI  |
| 128    | NISH   | F      | 2003  | 1237584   | BANGALORE |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```


6.

```
mysql> INSERT INTO STUDENT VALUES(123,"NISHA",'F',2001,123456,"CHENNAI");
Query OK, 1 row affected (0.21 sec)

mysql> INSERT INTO STUDENT VALUES(124,"BRITISH",'F',2002,123786,"DELHI");
Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO STUDENT VALUES(128,"NISH",'F',2003,1237584,"BANGALORE");
Query OK, 1 row affected (0.09 sec)

mysql> SELECT * FROM STUDENT;
+-----+-----+-----+-----+-----+-----+
| REG_NO | NAME   | GENDER | DOB   | MOBILE_NO | CITY   |
+-----+-----+-----+-----+-----+-----+
| 123    | NISHA  | F      | 2001  | 123456    | CHENNAI |
| 124    | BRITISH | F      | 2002  | 123786    | DELHI   |
| 128    | NISH   | F      | 2003  | 1237584   | BANGALORE |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> UPDATE STUDENT SET REG_NO=456 WHERE NAME="NISHA";
Query OK, 1 row affected (0.13 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT * FROM STUDENT;
+-----+-----+-----+-----+-----+-----+
| REG_NO | NAME   | GENDER | DOB   | MOBILE_NO | CITY   |
+-----+-----+-----+-----+-----+-----+
| 124    | BRITISH | F      | 2002  | 123786    | DELHI   |
| 128    | NISH   | F      | 2003  | 1237584   | BANGALORE |
| 456    | NISHA  | F      | 2001  | 123456    | CHENNAI |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.03 sec)

mysql> DELETE FROM STUDENT WHERE NAME="NISHA";
Query OK, 1 row affected (0.09 sec)

mysql> SELECT * FROM STUDENT;
+-----+-----+-----+-----+-----+-----+
| REG_NO | NAME   | GENDER | DOB   | MOBILE_NO | CITY   |
+-----+-----+-----+-----+-----+-----+
| 124    | BRITISH | F      | 2002  | 123786    | DELHI   |
| 128    | NISH   | F      | 2003  | 1237584   | BANGALORE |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

7.

```
mysql> select * from course;
+-----+-----+-----+-----+
| COURSE_NO | REG_NO | COURSE_NAME | SCORES |
+-----+-----+-----+-----+
|          1 | 192011494 | MATHS      |      93 |
|          2 | 192011495 | MATHS      |      80 |
|          3 | 192011496 | MATHS      |      75 |
|          4 | 192011497 | DBMS       |      85 |
|          5 | 192011498 | DBMS       |      91 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select course from course where scores between 50 and 85;
ERROR 1054 (42S22): Unknown column 'course' in 'field list'
mysql> select course_no from course where scores between 50 and 85;
+-----+
| course_no |
+-----+
|          2 |
|          3 |
|          4 |
+-----+
3 rows in set (0.00 sec)

mysql> SELECT AVG(SCORES) FROM COURSE;
+-----+
| AVG(SCORES) |
+-----+
|      84.8000 |
+-----+
1 row in set (0.00 sec)

mysql> SELECT MAX(SCORES),MIN(SCORES),AVG(SCORES),SUM(SCORES) FROM COURSE;
+-----+-----+-----+-----+
| MAX(SCORES) | MIN(SCORES) | AVG(SCORES) | SUM(SCORES) |
+-----+-----+-----+-----+
|          93 |          75 |      84.8000 |          424 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> SELECT COURSE_NO,COURSE_NAME,COUNT(REG_NO) FROM COURSE WHERE REG_NO LIKE '192011%';
+-----+-----+-----+
| COURSE_NO | COURSE_NAME | COUNT(REG_NO) |
+-----+-----+-----+
|          1 | MATHS      |          5 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

8.

```
USE SQLShackDemo
GO
CREATE VIEW EmployeeFullInfo
AS
SELECT EMP.[BusinessEntityID]
      ,EMP.[LoginID]
      ,EMP.[JobTitle]
      ,EMP.[BirthDate]
      ,EMP.[MaritalStatus]
      ,EMP.[Gender]
      ,EMP.[HireDate]
      ,Dep.Name AS Department
      ,SH.Name AS ShiftName
      ,EMPPayHist.Rate AS EmployeeRate
FROM [SQLShackDemo].[HumanResources].[Employee] AS EMP
JOIN [SQLShackDemo].[HumanResources].[EmployeeDepartmentHistory] AS EMPDepHist
ON EMP.BusinessEntityID =EMPDepHist.BusinessEntityID
JOIN [SQLShackDemo].[HumanResources].[Department] AS Dep
ON DEP.DepartmentID =EMPDepHist .DepartmentID
JOIN [SQLShackDemo].[HumanResources].[Shift] SH
ON EMPDepHist.ShiftID=SH.ShiftID
JOIN [SQLShackDemo].[HumanResources].[EmployeePayHistory] EMPPayHist
ON EMP.BusinessEntityID =EMPPayHist.BusinessEntityID
```