Task 1:
Create a table STUDENT with under mentioned structure by using SQL Statement:

StdID Number Primary Key
StdName Character (30) NOT NULL
Gender Character(6) Male or Female
Percentage Number
SClass Number
Sec Character
Stream Character(10) Science or Commerce
DOB Date Date of Birth

```
Create Schema SQL_Basics_Practice;
use SQL_Basics_Practice;


Create Table STUDENT (
StdID integer Primary Key,
StdName VARCHAR (30) NOT NULL,
Gender VARCHAR(6),
Percentage integer,
SClass integer,
Sec VARCHAR(10),
Stream VARCHAR(10) ,
DOB Date ,
check(Gender in ('Male', 'Female')),
check(Stream in ('Science', 'Commerce'))
);

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(1001,'AKSHRA AGARWAL','Female',70,11,'A','Science','1996-11-10');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1002,'ANJANI SHARMA','Female',89,12,'B','Commerce','1996-09-18');
INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1003,'ANSHUL SAXENA','Male',98,11,'C','Commerce','1996-11-01');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1004,'AISHWARYA SINGH','Female',49,12,'D','Commerce','1996-09-20');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1005,'AKRITI SAXENA','Female',67,12,'A','Commerce','2003-09-14');
```

```
INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(1006,'KHUSHI AGARWAL','Female',78,11,'E','Commerce','1997-04-21');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1007,'MAAHI AGARWAL','Female','79','12','B','Science','1997-11-26');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1008,'MITALI GUPTA','Female',78,11,'A','Science','1997-07-12');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1009,'NIKUNJ AGARWAL','Male',58,12,'C','Commerce','1997-12-20');

INSERT INTO STUDENT
  (StdID,StdName,Gender,Percentage,SClass,Sec,Stream,DOB)
VALUES(
1010,'PARKHI','Female',59,12,'D','Commerce','1996-11-19');
```

Task 2:
Open school database, then select student table and use following statements.

1. To display all the records form STUDENT table.

```
select * from sql_basics_practice.student;
```

2. To display only name and date of birth from the table STUDENT.

```
select StdName,DOB from sql_basics_practice.student;
```

3. To display all students record where percentage is greater of equal to 80 FROM student table.

```
select * from sql_basics_practice.student where Percentage >=80;
```

4. To display student name, stream and percentage where percentage of student is more than 80

```
select StdName,Stream,Percentage from sql_basics_practice.student where
Percentage >80;
```

5. To display all records of science students whose percentage is more than 75 form student table.

```
select * from sql_basics_practice.student where Percentage > 75 and
Stream = 'Science' ;
```

Task 3:
Open school database, then select student table and use following SQL statements.

1. To display the STUDENT table structure.

```
Desc student;
```

2. To add a column (FIELD)in the STUDENT table, for example TeacherID as VARCHAR(20);

```
ALTER TABLE STUDENT ADD Column TeacherID  VARCHAR(20);
```

3. Describe the table - showing detailed information about the structure or the schema of a table in a database.

```
select COLUMN_NAME,DATA_TYPE,COLUMN_TYPE from INFORMATION_SCHEMA.columns
where table_name = 'student';
```

4. Print all rows from student table, note the new field that you have added as TeacherID

```
select * from student;
```

5. To modify the TeacherID data type form character to integer.

```
ALTER TABLE STUDENT MODIFY Column TeacherID  integer;
```

Task 4:
1. To Drop (Delete) a field form a table. For e.g you want to delete TeacherID field.

```
ALTER TABLE STUDENT drop Column TeacherID;
```

2. To subtract 5 form all students percentage and display name and percentage.

```
select stdName,(Percentage -5) from sql_basics_practice.student ;
```

3. Using column alise for example we want to display StdName as Student Name and DOB as Date of Birth then select the output.

```
select stdName as "Student Name", DOB as "Date of Birth" from
sql_basics_practice.student ;
```

4. Display the name of all students whose stream is not Science

```
select stdName as "Student Name", stream from student where Stream
!='Science';
```

5. Display all name and percentage where percentage is between 60 and 80

```
select stdName,Percentage  from sql_basics_practice.student where
percentage between 60 and 80 ;
```

Task 5:

1. To change a student name from AISHWARYA SINGH to SWATI VERMA whose StdID is 1004 and also change percentage 86.

```
select * from student where stdid =1004;
update student set stdName ='SWATI VERMA' , percentage ='86' where
stdID=1004;
```

2. To delete the records form student table where StdId is 1006.

```
delete  from student where stdid =1006;
```

3. Type the following SQL statement and note the output.

```
SELECT * FROM Student WHERE StdName LIKE 'G_' ;
SELECT * FROM Student WHERE StdName='G';
SELECT * FROM Student WHERE StdName LIKE 'G%' ;
SELECT * WHERE Student WHERE StdName='%G%' ;
```

```
SELECT * WHERE Student WHERE StdName='%G%' ;
got error have to change
SELECT * FROM Student WHERE StdName='%G%' ;
```

4. Display all the streams in student table.

```
select  stream FROM Student group by stream;
```

5. Note the output of the following statement.

```
SELECT StdName, Gender, Stream FROM Student WHERE percentage BETWEEN 70
AND 80

SELECT StdName, Gender, Stream FROM Student WHERE percentage BETWEEN 70
AND 80;
```

Task: 6
Create a Table Empl to store employee details as shown below and write statements for following queries based on the table.

```
Create Table Empl (
empno integer primary key not null ,
ename varchar (50),
job varchar(20),
mgr varchar(10) NULL ,
hiredate date ,
sal float ,
comm varchar(10) NULL ,
deptno integer);

select * from Empl;

insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8369,'SMITH','CLERK',8902,'1990-12-18',800.00,NULL,20);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8499,'ANYA','SALESMAN',8698,'1991-02-20',1600.00,300,30);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8521,'SETH','SALESMAN',8698,'1991-02-22',1250.00,500,30);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8566,'MAHADEVAN','MANAGER',8839,'1991-04-02',2985.00,NULL,20);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8654,'MOMIN','SALESMAN',8698,'1991-09-28',1250.00,1400,30);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8698,'BINA','MANAGEr',8839,'1991-05-01',2850.00,NULL,30);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8882,'SHIVANSH','MANAGER',8839,'1991-06-09',2450.00,NULL,10);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8888,'SCOTT','ANALYST',8566,'1992-12-19',3000.00,NULL,20);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8839,'AMIR','PRESIDENT',NULL,'1991-11-18',5000.00,NULL,10);
insert into  Empl (empno ,ename ,job ,mgr ,hiredate ,sal ,comm ,deptno )
values (8844,'KULDEEP','SALESMAN',8698,'1991-09-08',1500.00,NULL,30);
```

a. Write a query to display EName and Sal of employees whose salary are greater than or equal to 2200?

```
select Ename,sal from Empl Where Sal >= 2200;
```

b. Write a query to display details of employs who are not getting commission?

```
select Ename,sal,comm from Empl Where  comm is null;
```

c. Write a query to display employee name and salary of those employees who don’t have their salary in range of 2500 to 4000?

```
select Ename,sal from Empl Where Sal between 2500 and 4000;
```

d. Write a query to display the name, job title and salary of employees who don’t have manager?

```
select Ename,job,sal from Empl Where mgr is null;
```

e. Write a query to display the name of employee whose name contains “A” as third alphabet?

```
select Ename,sal from Empl where ename like  '__A%' ;
```

f. Write a query to display the name of employee whose name contains “T” as last alphabet?

```
select Ename,sal from Empl where ename like  '%T' ;
```

g. Write a query to display the name of employee whose name contains “M” as First and
“L” as third alphabet?

```
select Ename,sal from Empl where ename like  'M_L%' ;
```

h. Write a query to display details of employs with the text “Not given”, if commission is null?

```
select Ename,sal, COALESCE(comm,'Not Given') as com from Empl ;
```

```
select Ename,sal, comm from Empl Where comm is null;
```