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**Lab Activity 1: Create a table STUDENT with under mentioned structure by using SQL Statement:**

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

```
mysql> create table Student(Std_Id int(4) primary key, Std_Name varchar(30) not null,  
Sex varchar(6), Percentage decimal(5,2), S_Class int, Sec varchar(1), Stream  
Varchar(10), DOB date);  
Query OK, 0 rows affected, 1 warning (0.03 sec)
```

```
mysql> desc Student;
```

Field	Type	Null	Key	Default	Extra
Std_Id	int	NO	PRI	NULL	
Std_Name	varchar(30)	NO		NULL	
Sex	varchar(6)	YES		NULL	
Percentage	decimal(5,2)	YES		NULL	
S_Class	int	YES		NULL	
Sec	varchar(1)	YES		NULL	
Stream	varchar(10)	YES		NULL	
DOB	date	YES		NULL	

8 rows in set (0.01 sec)

```
mysql> insert into Student values(1001,"AKSHRA AGARWAL", 'FEMALE', 70, 11, 'A',  
"SCIENCE", "1996/11/10");  
Query OK, 1 row affected, 1 warning (0.00 sec)
```

```
mysql> insert into Student values(1002,"ANJANI SHARMA", 'FEMALE', 75, 11, 'A',  
"COMMERCE", "1996/09/18");  
Query OK, 1 row affected, 1 warning (0.00 sec)
```

```
mysql> insert into Student values(1003,"ANSHUL SAXENA", 'MALE', 78, 11, 'A',  
"COMMERCE", "1996/11/19");;  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1004,"AISHWARYA SIGN", 'FEMALE', 79, 11, 'A',  
"COMMERCE", "1996/11/01");  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1005,"AKRITI SAXENA", 'FEMALE', 76, 11, 'A',  
"COMMERCE", "1996/09/20");  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1006,"KUSHI AGARWAL", 'FEMALE', 77, 11, 'A',  
"COMMERCE", "2003/09/14");  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1007,"MAAHI AGARWAL", 'FEMALE', 74, 11, 'A', "SCIENCE",  
"1997/04/21");;  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1008,"MITALI GUPTA", 'FEMALE', 78, 11, 'A', "SCIENCE",  
"1997/11/26");  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1009,"NIKUNJ AGARWAL", 'MALE', 58, 12, 'A', "SCIENCE",  
"1997/07/12");  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1010,"PARKHI", 'FEMALE', 59, 12, 'A', "COMMERCE",  
"1997/12/20");  
Query OK, 1 row affected, 1 warning (0.00 sec)
```

```
mysql> insert into Student values(1001,"AKSHRA AGARWAL", 'FEMALE', 70, 11, 'A', "SCIENCE", "1996/11/10");  
Query OK, 1 row affected, 1 warning (0.00 sec)  
  
mysql> insert into Student values(1002,"ANJANI SHARMA", 'FEMALE', 75, 11, 'A', "COMMERCE", "1996/09/18");  
Query OK, 1 row affected, 1 warning (0.00 sec)  
  
mysql> insert into Student values(1003,"ANSHUL SAXENA", 'MALE', 78, 11, 'A', "COMMERCE", "1996/11/19");;  
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> insert into Student values(1004,"AISHWARYA SIGN", 'FEMALE', 79, 11, 'A', "COMMERCE", "1996/11/01");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1005,"AKRITI SAXENA", 'FEMALE', 76, 11, 'A', "COMMERCE", "1996/09/20");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1006,"KUSHI AGARWAL", 'FEMALE', 77, 11, 'A', "COMMERCE", "2003/09/14");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1007,"MAAHI AGARWAL", 'FEMALE', 74, 11, 'A', "SCIENCE", "1997/04/21");;
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1008,"MITALI GUPTA", 'FEMALE', 78, 11, 'A', "SCIENCE", "1997/11/26");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1009,"NIKUNJ AGARWAL", 'MALE', 58, 12, 'A', "SCIENCE", "1997/07/12");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1010,"PARKHI", 'FEMALE', 59, 12, 'A', "COMMERCE", "1997/12/20");
Query OK, 1 row affected, 1 warning (0.00 sec)

mysql> insert into Student values(1011,"PRAKHAV GANGWAR", 'MALE', 43, 12, 'A', "SCIENCE", "1997/04/22");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1012,"RAGHAV GANGWAR", 'MALE', 58, 12, 'A', "COMMERCE", "1997/12/21");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1013,"SAHIL SARASWAT", 'MALE', 57, 12, 'A', "COMMERCE", "1997/08/13");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1014,"SWATI MISHRA", 'FEMALE', 98, 11, 'A', "SCIENCE", "1996/08/13");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1015,"HARSH AGARWAL", 'MALE', 58, 11, 'B', "SCIENCE", "2003/08/28");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1016,"HARSHIT KUMAR", 'MALE', 98, 11, 'B', "SCIENCE", "2003/05/22");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1017,"JAHANVI KAPOOR", 'MALE', 65, 11, 'B', "SCIENCE", "1997/01/10");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1018,"STUTI MISHRA", 'MALE', 66, 11, 'C', "COMMERCE", "1996/01/10");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1019,"SURYANSH KUMAR AGARWAL", 'MALE', 85, 11, 'C', "COMMERCE", "2007/08/22");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1020,"TANI RASTOGI", 'FEMALE', 75, 12, 'C', "COMMERCE", "1998/01/15");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1021,"TANISHK GUPTA", 'MALE', 55, 12, 'C', "SCIENCE", "1998/04/11");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1022,"TANMAY AGARWAL", 'MALE', 57, 11, 'C', "COMMERCE", "1998/06/28");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1023,"YASH SAXENA", 'MALE', 79, 11, 'C', "SCIENCE", "1998/03/13");
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into Student values(1024,"YESH DUBEY", 'MALE', 85, 12, 'C', "COMMERCE", "1998/04/03");
Query OK, 1 row affected, 1 warning (0.00 sec)
```

**Lab Activity 2: Open school database, then select student table and use following SQL statements. TYPE THE STATEMENT, PRESS ENTER AND NOTE THE OUTPUT**

1 To display all the records form STUDENT table.

SELECT \* FROM student ;

```
mysql> select *from Student;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB
1001	AKSHRA AGARWAL	FEMALE	70.00	11	A	SCIENCE	1996-11-10
1002	ANJANI SHARMA	FEMALE	75.00	11	A	COMMERCE	1996-09-18
1003	ANSHUL SAXENA	MALE	78.00	11	A	COMMERCE	1996-11-19
1004	AISHWARYA SIGN	FEMALE	79.00	11	A	COMMERCE	1996-11-01
1005	AKRITI SAXENA	FEMALE	76.00	11	A	COMMERCE	1996-09-20
1006	KUSHI AGARWAL	FEMALE	77.00	11	A	COMMERCE	2003-09-14
1007	MAAHI AGARWAL	FEMALE	74.00	11	A	SCIENCE	1997-04-21
1008	MITALI GUPTA	FEMALE	78.00	11	A	SCIENCE	1997-11-26
1009	NIKUNJ AGARWAL	MALE	58.00	12	A	SCIENCE	1997-07-12
1010	PARKHI	FEMALE	59.00	12	A	COMMERCE	1997-12-20
1011	PRAKHAV GANGWAR	MALE	43.00	12	A	SCIENCE	1997-04-22
1012	RAGHAV GANGWAR	MALE	58.00	12	A	COMMERCE	1997-12-21
1013	SAHIL SARASWAT	MALE	57.00	12	A	COMMERCE	1997-08-13
1014	SWATI MISHRA	FEMALE	98.00	11	A	SCIENCE	1996-08-13
1015	HARSH AGARWAL	MALE	58.00	11	B	SCIENCE	2003-08-28
1016	HARSHIT KUMAR	MALE	98.00	11	B	SCIENCE	2003-05-22
1017	JAHANVI KAPOOR	MALE	65.00	11	B	SCIENCE	1997-01-10
1018	STUTI MISHRA	MALE	66.00	11	C	COMMERCE	1996-01-10
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22
1020	TANI RASTOGI	FEMALE	75.00	12	C	COMMERCE	1998-01-15
1021	TANISHK GUPTA	MALE	55.00	12	C	SCIENCE	1998-04-11
1022	TANMAY AGARWAL	MALE	57.00	11	C	COMMERCE	1998-06-28
1023	YASH SAXENA	MALE	79.00	11	C	SCIENCE	1998-03-13
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03

24 rows in set (0.00 sec)

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

SELECT StdName, DOB FROM student ;

```
mysql> select Std_Name,DOB from Student;
```

Std_Name	DOB
AKSHRA AGARWAL	1996-11-10
ANJANI SHARMA	1996-09-18
ANSHUL SAXENA	1996-11-19
AISHWARYA SIGN	1996-11-01
AKRITI SAXENA	1996-09-20
KUSHI AGARWAL	2003-09-14
MAAHI AGARWAL	1997-04-21
MITALI GUPTA	1997-11-26
NIKUNJ AGARWAL	1997-07-12
PARKHI	1997-12-20
PRAKHAV GANGWAR	1997-04-22
RAGHAV GANGWAR	1997-12-21
SAHIL SARASWAT	1997-08-13
SWATI MISHRA	1996-08-13
HARSH AGARWAL	2003-08-28
HARSHIT KUMAR	2003-05-22
JAHAVNI KAPOOR	1997-01-10
STUTI MISHRA	1996-01-10
SURYANSH KUMAR AGARWAL	2007-08-22
TANI RASTOGI	1998-01-15
TANISHK GUPTA	1998-04-11
TANMAY AGARWAL	1998-06-28
YASH SAXENA	1998-03-13
YESH DUBEY	1998-04-03

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

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

SELECT \* FROM student WHERE percentage >= 80;

```
mysql> select *from student where percentage>=80;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB
1014	SWATI MISHRA	FEMALE	98.00	11	A	SCIENCE	1996-08-13
1016	HARSHIT KUMAR	MALE	98.00	11	B	SCIENCE	2003-05-22
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03

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

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

SELECT StdName, Stream, Percentage WHERE percentage > 80;

```
mysql> select Std_Name,Stream,Percentage from student where Percentage>80;
+-----+-----+-----+
| Std_Name          | Stream   | Percentage |
+-----+-----+-----+
| SWATI MISHRA      | SCIENCE  | 98.00      |
| HARSHIT KUMAR     | SCIENCE  | 98.00      |
| SURYANSH KUMAR AGARWAL | COMMERCE | 85.00      |
| YESH DUBEY        | COMMERCE | 85.00      |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

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

SELECT \* FROM student WHERE stream = 'Science' AND percentage > 75;

```
mysql> select *from student where stream="science" and percentage>75;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Std_Id | Std_Name    | Sex   | Percentage | S_Class | Sec | Stream | DOB       |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1008   | MITALI GUPTA | FEMALE | 78.00      | 11      | A   | SCIENCE | 1997-11-26 |
| 1014   | SWATI MISHRA | FEMALE | 98.00      | 11      | A   | SCIENCE | 1996-08-13 |
| 1016   | HARSHIT KUMAR | MALE   | 98.00      | 11      | B   | SCIENCE | 2003-05-22 |
| 1023   | YASH SAXENA  | MALE   | 79.00      | 11      | C   | SCIENCE | 1998-03-13 |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

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

**TYPE THE STATEMENT, PRESS ENTER AND NOTE THE OUTPUT 1.**

1.To display the STUDENT table structure.

DESCRIBE Student;

```
mysql> describe Student;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Std_Id     | int           | NO   | PRI | NULL    |       |
| Std_Name   | varchar(30)   | NO   |     | NULL    |       |
| Sex        | varchar(6)    | YES  |     | NULL    |       |
| Percentage | decimal(5,2)  | YES  |     | NULL    |       |
| S_Class    | int           | YES  |     | NULL    |       |
| Sec        | varchar(1)    | YES  |     | NULL    |       |
| Stream     | varchar(10)   | YES  |     | NULL    |       |
| DOB        | date          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

```
mysql> alter table student add Teacher_Id varchar(20);
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> desc Student;
```

Field	Type	Null	Key	Default	Extra
Std_Id	int	NO	PRI	NULL	
Std_Name	varchar(30)	NO		NULL	
Sex	varchar(6)	YES		NULL	
Percentage	decimal(5,2)	YES		NULL	
S_Class	int	YES		NULL	
Sec	varchar(1)	YES		NULL	
Stream	varchar(10)	YES		NULL	
DOB	date	YES		NULL	
Teacher_Id	varchar(20)	YES		NULL	

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

```
mysql> select *from Student;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB	Teacher_Id
1001	AKSHRA AGARWAL	FEMALE	70.00	11	A	SCIENCE	1996-11-10	NULL
1002	ANJANI SHARMA	FEMALE	75.00	11	A	COMMERCE	1996-09-18	NULL
1003	ANSHUL SAXENA	MALE	78.00	11	A	COMMERCE	1996-11-19	NULL
1004	AISHWARYA SIGN	FEMALE	79.00	11	A	COMMERCE	1996-11-01	NULL
1005	AKRITI SAXENA	FEMALE	76.00	11	A	COMMERCE	1996-09-20	NULL
1006	KUSHI AGARWAL	FEMALE	77.00	11	A	COMMERCE	2003-09-14	NULL
1007	MAAHI AGARWAL	FEMALE	74.00	11	A	SCIENCE	1997-04-21	NULL
1008	MITALI GUPTA	FEMALE	78.00	11	A	SCIENCE	1997-11-26	NULL
1009	NIKUNJ AGARWAL	MALE	58.00	12	A	SCIENCE	1997-07-12	NULL
1010	PARKHI	FEMALE	59.00	12	A	COMMERCE	1997-12-20	NULL
1011	PRAKHAV GANGWAR	MALE	43.00	12	A	SCIENCE	1997-04-22	NULL
1012	RAGHAV GANGWAR	MALE	58.00	12	A	COMMERCE	1997-12-21	NULL
1013	SAHIL SARASWAT	MALE	57.00	12	A	COMMERCE	1997-08-13	NULL
1014	SWATI MISHRA	FEMALE	98.00	11	A	SCIENCE	1996-08-13	NULL
1015	HARSH AGARWAL	MALE	58.00	11	B	SCIENCE	2003-08-28	NULL
1016	HARSHIT KUMAR	MALE	98.00	11	B	SCIENCE	2003-05-22	NULL
1017	JAHANWI KAPOOR	MALE	65.00	11	B	SCIENCE	1997-01-10	NULL
1018	STUTI MISHRA	MALE	66.00	11	C	COMMERCE	1996-01-10	NULL
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22	NULL
1020	TANI RASTOGI	FEMALE	75.00	12	C	COMMERCE	1998-01-15	NULL
1021	TANISHK GUPTA	MALE	55.00	12	C	SCIENCE	1998-04-11	NULL
1022	TANMAY AGARWAL	MALE	57.00	11	C	COMMERCE	1998-06-28	NULL
1023	YASH SAXENA	MALE	79.00	11	C	SCIENCE	1998-03-13	NULL
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03	NULL

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



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

```
ALTER TABLE Student MODIFY TeacherID INTEGER ;
```

```
DESC Student;
```

```
SELECT * FROM student;
```

```
mysql> alter table student modify Teacher_Id int;
Query OK, 24 rows affected (0.16 sec)
Records: 24 Duplicates: 0 Warnings: 0
```

```
mysql> desc Student;
```

Field	Type	Null	Key	Default	Extra
Std_Id	int	NO	PRI	NULL	
Std_Name	varchar(30)	NO		NULL	
Sex	varchar(6)	YES		NULL	
Percentage	decimal(5,2)	YES		NULL	
S_Class	int	YES		NULL	
Sec	varchar(1)	YES		NULL	
Stream	varchar(10)	YES		NULL	
DOB	date	YES		NULL	
Teacher_Id	int	YES		NULL	

9 rows in set (0.00 sec)

```
mysql> select *from Student;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB	Teacher_Id
1001	AKSHRA AGARWAL	FEMALE	70.00	11	A	SCIENCE	1996-11-10	NULL
1002	ANJANI SHARMA	FEMALE	75.00	11	A	COMMERCE	1996-09-18	NULL
1003	ANSHUL SAXENA	MALE	78.00	11	A	COMMERCE	1996-11-19	NULL
1004	AISHWARYA SIGN	FEMALE	79.00	11	A	COMMERCE	1996-11-01	NULL
1005	AKRITI SAXENA	FEMALE	76.00	11	A	COMMERCE	1996-09-20	NULL
1006	KUSHI AGARWAL	FEMALE	77.00	11	A	COMMERCE	2003-09-14	NULL
1007	MAAHI AGARWAL	FEMALE	74.00	11	A	SCIENCE	1997-04-21	NULL
1008	MITALI GUPTA	FEMALE	78.00	11	A	SCIENCE	1997-11-26	NULL
1009	NIKUNJ AGARWAL	MALE	58.00	12	A	SCIENCE	1997-07-12	NULL
1010	PARKHI	FEMALE	59.00	12	A	COMMERCE	1997-12-20	NULL
1011	PRAKHAV GANGWAR	MALE	43.00	12	A	SCIENCE	1997-04-22	NULL
1012	RAGHAV GANGWAR	MALE	58.00	12	A	COMMERCE	1997-12-21	NULL
1013	SAHIL SARASWAT	MALE	57.00	12	A	COMMERCE	1997-08-13	NULL
1014	SWATI MISHRA	FEMALE	98.00	11	A	SCIENCE	1996-08-13	NULL
1015	HARSH AGARWAL	MALE	58.00	11	B	SCIENCE	2003-08-28	NULL
1016	HARSHIT KUMAR	MALE	98.00	11	B	SCIENCE	2003-05-22	NULL
1017	JAHANVI KAPOOR	MALE	65.00	11	B	SCIENCE	1997-01-10	NULL
1018	STUTI MISHRA	MALE	66.00	11	C	COMMERCE	1996-01-10	NULL
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22	NULL
1020	TANI RASTOGI	FEMALE	75.00	12	C	COMMERCE	1998-01-15	NULL
1021	TANISHK GUPTA	MALE	55.00	12	C	SCIENCE	1998-04-11	NULL
1022	TANMAY AGARWAL	MALE	57.00	11	C	COMMERCE	1998-06-28	NULL
1023	YASH SAXENA	MALE	79.00	11	C	SCIENCE	1998-03-13	NULL
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03	NULL

24 rows in set (0.00 sec)



#### Lab Activity 4

1. To Drop (Delete) a field from a table. For e.g you want to delete TeacherID field.  
ALTER TABLE Student DROP TeacherID;

```
mysql> alter table student drop Teacher_id;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Std_Id     | int           | NO   | PRI | NULL    |       |
| Std_Name   | varchar(30)   | NO   |     | NULL    |       |
| Sex        | varchar(6)    | YES  |     | NULL    |       |
| Percentage | decimal(5,2)  | YES  |     | NULL    |       |
| S_Class    | int           | YES  |     | NULL    |       |
| Sec        | varchar(1)    | YES  |     | NULL    |       |
| Stream     | varchar(10)   | YES  |     | NULL    |       |
| DOB        | date          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

2. To subtract 5 from all students percentage and display name and percentage.  
SELECT name, percentage - 5 FROM Student;

```
mysql> select Std_Name, Percentage -5 from Student;
+-----+-----+
| Std_Name          | Percentage -5 |
+-----+-----+
| AKSHRA AGARWAL    | 65.00        |
| ANJANI SHARMA     | 70.00        |
| ANSHUL SAXENA     | 73.00        |
| AISHWARYA SIGN    | 74.00        |
| AKRITI SAXENA     | 71.00        |
| KUSHI AGARWAL     | 72.00        |
| MAAHI AGARWAL     | 69.00        |
| MITALI GUPTA      | 73.00        |
| NIKUNJ AGARWAL    | 53.00        |
| PARKHI            | 54.00        |
| PRAKHAV GANGWAR   | 38.00        |
| RAGHAV GANGWAR    | 53.00        |
| SAHIL SARASWAT    | 52.00        |
| SWATI MISHRA      | 93.00        |
| HARSH AGARWAL     | 53.00        |
| HARSHIT KUMAR     | 93.00        |
| JAHANVI KAPOOR    | 60.00        |
| STUTI MISHRA      | 61.00        |
| SURYANSH KUMAR AGARWAL | 80.00        |
| TANI RASTOGI      | 70.00        |
| TANISHK GUPTA     | 50.00        |
| TANMAY AGARWAL    | 52.00        |
| YASH SAXENA       | 74.00        |
| YESH DUBEY        | 80.00        |
+-----+-----+
24 rows in set (0.00 sec)
```

3. Using column alias for example we want to display StdName as Student Name and DOB as Date of Birth then the statement will be.

SELECT StdName AS "Student Name", DOB AS "Date of Birth" FROM Student;

```
mysql> select Std_Name as "Student Name", DOB as "Date of Birth" from Student;
```

Student Name	Date of Birth
AKSHRA AGARWAL	1996-11-10
ANJANI SHARMA	1996-09-18
ANSHUL SAXENA	1996-11-19
AISHWARYA SIGN	1996-11-01
AKRITI SAXENA	1996-09-20
KUSHI AGARWAL	2003-09-14
MAAHI AGARWAL	1997-04-21
MITALI GUPTA	1997-11-26
NIKUNJ AGARWAL	1997-07-12
PARKHI	1997-12-20
PRAKHAV GANGWAR	1997-04-22
RAGHAV GANGWAR	1997-12-21
SAHIL SARASWAT	1997-08-13
SWATI MISHRA	1996-08-13
HARSH AGARWAL	2003-08-28
HARSHIT KUMAR	2003-05-22
JAHAVI KAPOOR	1997-01-10
STUTI MISHRA	1996-01-10
SURYANSH KUMAR AGARWAL	2007-08-22
TANI RASTOGI	1998-01-15
TANISHK GUPTA	1998-04-11
TANMAY AGARWAL	1998-06-28
YASH SAXENA	1998-03-13
YESH DUBEY	1998-04-03

24 rows in set (0.00 sec)

4. Display the name of all students whose stream is not Science SELECT StdName FROM student WHERE Stream <> 'Science';

```
mysql> select Std_Name from Student where Stream <> "SCIENCE";
```

Std_Name
ANJANI SHARMA
ANSHUL SAXENA
AISHWARYA SIGN
AKRITI SAXENA
KUSHI AGARWAL
PARKHI
RAGHAV GANGWAR
SAHIL SARASWAT
STUTI MISHRA
SURYANSH KUMAR AGARWAL
TANI RASTOGI
TANMAY AGARWAL
YESH DUBEY

13 rows in set (0.00 sec)

5. Display all name and percentage where percentage is between 60 and 80 SELECT StdName, percentage FROM student WHERE percentage >=60 AND percentage<=80 ;

```
mysql> select Std_Name, Percentage from Student where Percentage>=60 AND Percentage<=80;
```

Std_Name	Percentage
AKSHRA AGARWAL	70.00
ANJANI SHARMA	75.00
ANSHUL SAXENA	78.00
AISHWARYA SIGN	79.00
AKRITI SAXENA	76.00
KUSHI AGARWAL	77.00
MAAHI AGARWAL	74.00
MITALI GUPTA	78.00
JAHANVI KAPOOR	65.00
STUTI MISHRA	66.00
TANI RASTOGI	75.00
YASH SAXENA	79.00

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

### Lab Activity 5:

1.TochangeastudentnamefromSWATIMISHRAtoSWATIVERMAwhoseStdIDis1014andalsochange percentage 86.

UPDATE Student SET StdName = 'SWATI VERMA', percentage = 86 WHERE StdId = 1014;

```
mysql> update Student set Std_Name="SWATI VERMA", Percentage=86 where Std_Id=1014;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select *from Student;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB
1001	AKSHRA AGARWAL	FEMALE	70.00	11	A	SCIENCE	1996-11-10
1002	ANJANI SHARMA	FEMALE	75.00	11	A	COMMERCE	1996-09-18
1003	ANSHUL SAXENA	MALE	78.00	11	A	COMMERCE	1996-11-19
1004	AISHWARYA SIGN	FEMALE	79.00	11	A	COMMERCE	1996-11-01
1005	AKRITI SAXENA	FEMALE	76.00	11	A	COMMERCE	1996-09-20
1006	KUSHI AGARWAL	FEMALE	77.00	11	A	COMMERCE	2003-09-14
1007	MAAHI AGARWAL	FEMALE	74.00	11	A	SCIENCE	1997-04-21
1008	MITALI GUPTA	FEMALE	78.00	11	A	SCIENCE	1997-11-26
1009	NIKUNJ AGARWAL	MALE	58.00	12	A	SCIENCE	1997-07-12
1010	PARKHI	FEMALE	59.00	12	A	COMMERCE	1997-12-20
1011	PRAKHAV GANGWAR	MALE	43.00	12	A	SCIENCE	1997-04-22
1012	RAGHAV GANGWAR	MALE	58.00	12	A	COMMERCE	1997-12-21
1013	SAHIL SARASWAT	MALE	57.00	12	A	COMMERCE	1997-08-13
1014	SWATI VERMA	FEMALE	86.00	11	A	SCIENCE	1996-08-13
1015	HARSH AGARWAL	MALE	58.00	11	B	SCIENCE	2003-08-28
1016	HARSHIT KUMAR	MALE	98.00	11	B	SCIENCE	2003-05-22
1017	JAHANVI KAPOOR	MALE	65.00	11	B	SCIENCE	1997-01-10
1018	STUTI MISHRA	MALE	66.00	11	C	COMMERCE	1996-01-10
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22
1020	TANI RASTOGI	FEMALE	75.00	12	C	COMMERCE	1998-01-15
1021	TANISHK GUPTA	MALE	55.00	12	C	SCIENCE	1998-04-11
1022	TANMAY AGARWAL	MALE	57.00	11	C	COMMERCE	1998-06-28
1023	YASH SAXENA	MALE	79.00	11	C	SCIENCE	1998-03-13
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03

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

2. To delete the records form student table where StdId is 1016.

DELETE FROM Student WHERE StdID = 1016;

```
mysql> delete from Student where Std_Id=1016;  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select *from Student;
```

Std_Id	Std_Name	Sex	Percentage	S_Class	Sec	Stream	DOB
1001	AKSHRA AGARWAL	FEMALE	70.00	11	A	SCIENCE	1996-11-10
1002	ANJANI SHARMA	FEMALE	75.00	11	A	COMMERCE	1996-09-18
1003	ANSHUL SAXENA	MALE	78.00	11	A	COMMERCE	1996-11-19
1004	AISHWARYA SIGN	FEMALE	79.00	11	A	COMMERCE	1996-11-01
1005	AKRITI SAXENA	FEMALE	76.00	11	A	COMMERCE	1996-09-20
1006	KUSHI AGARWAL	FEMALE	77.00	11	A	COMMERCE	2003-09-14
1007	MAAHI AGARWAL	FEMALE	74.00	11	A	SCIENCE	1997-04-21
1008	MITALI GUPTA	FEMALE	78.00	11	A	SCIENCE	1997-11-26
1009	NIKUNJ AGARWAL	MALE	58.00	12	A	SCIENCE	1997-07-12
1010	PARKHI	FEMALE	59.00	12	A	COMMERCE	1997-12-20
1011	PRAKHAV GANGWAR	MALE	43.00	12	A	SCIENCE	1997-04-22
1012	RAGHAV GANGWAR	MALE	58.00	12	A	COMMERCE	1997-12-21
1013	SAHIL SARASWAT	MALE	57.00	12	A	COMMERCE	1997-08-13
1014	SWATI VERMA	FEMALE	86.00	11	A	SCIENCE	1996-08-13
1015	HARSH AGARWAL	MALE	58.00	11	B	SCIENCE	2003-08-28
1017	JAHANVI KAPOOR	MALE	65.00	11	B	SCIENCE	1997-01-10
1018	STUTI MISHRA	MALE	66.00	11	C	COMMERCE	1996-01-10
1019	SURYANSH KUMAR AGARWAL	MALE	85.00	11	C	COMMERCE	2007-08-22
1020	TANI RASTOGI	FEMALE	75.00	12	C	COMMERCE	1998-01-15
1021	TANISHK GUPTA	MALE	55.00	12	C	SCIENCE	1998-04-11
1022	TANMAY AGARWAL	MALE	57.00	11	C	COMMERCE	1998-06-28
1023	YASH SAXENA	MALE	79.00	11	C	SCIENCE	1998-03-13
1024	YESH DUBEY	MALE	85.00	12	C	COMMERCE	1998-04-03

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

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%';

```
mysql> select *from Student where Std_Name like 'G_';
Empty set (0.00 sec)

mysql> select *from Student where Std_Name like 'G';
Empty set (0.00 sec)

mysql> select *from Student where Std_Name like 'G%';
Empty set (0.00 sec)

mysql> select *from Student where Std_Name like '%G%';
+-----+-----+-----+-----+-----+-----+-----+-----+
| Std_Id | Std_Name          | Sex   | Percentage | S_Class | Sec | Stream | DOB       |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1001 | AKSHRA AGARWAL    | FEMALE | 70.00      | 11      | A   | SCIENCE | 1996-11-10 |
| 1004 | AISHWARYA SIGN    | FEMALE | 79.00      | 11      | A   | COMMERCE | 1996-11-01 |
| 1006 | KUSHI AGARWAL     | FEMALE | 77.00      | 11      | A   | COMMERCE | 2003-09-14 |
| 1007 | MAAHI AGARWAL     | FEMALE | 74.00      | 11      | A   | SCIENCE | 1997-04-21 |
| 1008 | MITALI GUPTA      | FEMALE | 78.00      | 11      | A   | SCIENCE | 1997-11-26 |
| 1009 | NIKUNJ AGARWAL    | MALE   | 58.00      | 12      | A   | SCIENCE | 1997-07-12 |
| 1011 | PRAKHAV GANGWAR   | MALE   | 43.00      | 12      | A   | SCIENCE | 1997-04-22 |
| 1012 | RAGHAV GANGWAR    | MALE   | 58.00      | 12      | A   | COMMERCE | 1997-12-21 |
| 1015 | HARSH AGARWAL     | MALE   | 58.00      | 11      | B   | SCIENCE | 2003-08-28 |
| 1019 | SURYANSH KUMAR AGARWAL | MALE | 85.00      | 11      | C   | COMMERCE | 2007-08-22 |
| 1020 | TANI RASTOGI      | FEMALE | 75.00      | 12      | C   | COMMERCE | 1998-01-15 |
| 1021 | TANISHK GUPTA     | MALE   | 55.00      | 12      | C   | SCIENCE | 1998-04-11 |
| 1022 | TANMAY AGARWAL    | MALE   | 57.00      | 11      | C   | COMMERCE | 1998-06-28 |
+-----+-----+-----+-----+-----+-----+-----+-----+
13 rows in set (0.00 sec)
```

4. Display all the streams in student table.

SELECT DISTINCT Stream FROM Student;

```
mysql> select distinct stream from Student;
+-----+
| stream |
+-----+
| SCIENCE |
| COMMERCE |
+-----+
2 rows in set (0.00 sec)
```

5. Note the output of the following statement.

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

```
mysql> select Std_Name, Sex, Stream from Student where Percentage between 70 and 80;
+-----+-----+-----+
| Std_Name | Sex | Stream |
+-----+-----+-----+
| AKSHRA AGARWAL | FEMALE | SCIENCE |
| ANJANI SHARMA | FEMALE | COMMERCE |
| ANSHUL SAXENA | MALE | COMMERCE |
| AISHWARYA SIGN | FEMALE | COMMERCE |
| AKRITI SAXENA | FEMALE | COMMERCE |
| KUSHI AGARWAL | FEMALE | COMMERCE |
| MAAHI AGARWAL | FEMALE | SCIENCE |
| MITALI GUPTA | FEMALE | SCIENCE |
| TANI RASTOGI | FEMALE | COMMERCE |
| YASH SAXENA | MALE | SCIENCE |
+-----+-----+-----+
10 rows in set (0.00 sec)
```

**Do yourself:**

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

**alter table Empl modify column sal decimal(6,2); (modifying teh column name)**

1. Consider the **Empl** table and write SQL command to get the following.

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



```
mysql> select ename,sal from Empl where sal>=2200;
```

ename	sal
MAHADEVAN	2985.00
BINA	2850.00
AMIR	5000.00
SHIVANSH	2450.00
SCOTT	3000.00

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

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

```
mysql> select ename from Empl where comm is null;
```

ename
SMITH
MAHADEVAN
BINA
AMIR
SHIVANSH
SCOTT

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

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?

```
mysql> select ename,sal from Emp1 where sal not between 2500 and 4000;
+-----+-----+
| ename  | sal    |
+-----+-----+
| SMITH  | 800.00 |
| ANYA   | 1600.00|
| SETH   | 1250.00|
| MOMIN  | 1250.00|
| AMIR   | 5000.00|
| KULDEEP| 1500.00|
| SHIVANSH| 2450.00|
+-----+-----+
7 rows in set (0.00 sec)
```

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

```
mysql> select ename,job,sal from Empl where job!= 'MANAGER';
```

ename	job	sal
SMITH	CLERK	800.00
ANYA	SALESMAN	1600.00
SETH	SALESMAN	1250.00
MOMIN	SALESMAN	1250.00
AMIR	PRESIDENT	5000.00
KULDEEP	SALESMAN	1500.00
SCOTT	ANALYST	3000.00

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

```
mysql> select ename,job,sal from Empl where job<> 'MANAGER';
```

ename	job	sal
SMITH	CLERK	800.00
ANYA	SALESMAN	1600.00
SETH	SALESMAN	1250.00
MOMIN	SALESMAN	1250.00
AMIR	PRESIDENT	5000.00
KULDEEP	SALESMAN	1500.00
SCOTT	ANALYST	3000.00

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

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

```
mysql> select ename from Empl where ename like "__A%";
```

ename
ANYA
MAHADEVAN
BINA

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

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

```
mysql> select ename from Empl where ename like "%T";
+-----+
| ename |
+-----+
| SCOTT |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> select ename from Empl where ename like "M%" and ename like "__h%";
+-----+
| ename |
+-----+
| MAHADEVAN |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select ename from Empl where ename like "K%" and ename like "__L%";
+-----+
| ename |
+-----+
| KULDEEP |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> select *, "Not given" from empl where comm is null;
```

empno	ename	job	mgr	hiredate	sal	comm	deptno	Not given
8369	SMITH	CLERK	8902	1990-12-18	800.00	NULL	20	Not given
8566	MAHADEVAN	MANAGER	8839	1991-04-02	2985.00	NULL	20	Not given
8698	BINA	MANAGER	8839	1991-05-01	2850.00	NULL	30	Not given
8839	AMIR	PRESIDENT	NULL	1991-11-18	5000.00	NULL	10	Not given
8882	SHIVANSH	MANAGER	8839	1991-06-09	2450.00	NULL	10	Not given
8888	SCOTT	ANALYST	8566	1992-12-09	3000.00	NULL	20	Not given

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