

Lab Assignment-1



THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

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CSBS/BS-3

1. Create table Student (Rno, Name, DOB, Gender, Class, College, City, Marks)

```
create table student(  
  Rno int PRIMARY KEY,  
  name char(25) NOT NULL,  
  dob date NOT NULL,  
  gender char(10),  
  class varchar2(15),  
  college varchar2(30),  
  city char(20),  
  marks int CHECK(marks>=0)  
);
```

SQL Worksheet

```
1 create table student(  
2   Rno int PRIMARY KEY,  
3   name char(25) NOT NULL,  
4   dob date NOT NULL,  
5   gender char(10),  
6   class varchar2(15),  
7   college varchar2(30),  
8   city char(20),  
9   marks int CHECK(marks>=0)  
10  );  
11  
12  
13 desc student;  
14  
15 insert into student values(1,'Ram','12-DEC-2001','Male','COE','Thapar','Patiala',78);  
16 insert into student values(2,'Rajesh','06-JAN-2001','Male','CIE','Thapar','Amritsar',15);  
17 insert into student values(4,'Preet','30-AUG-2001','Female','CHE','Thapar','Chandigarh',85);  
18 insert into student values(3,'Suresh','23-MAY-2001','Male','MEC','Thapar','Patiala',10);  
19 insert into student values(5,'Jaspreet','03-MAR-2001','Female','COE','Thapar','Amritsar',64);
```

Table created.

2. Insert 5 records in student table

```
insert into student values(1,'Ram','12-DEC-2001','Male','COE','Thapar','Patiala',78);
```

```
insert into student values(2,'Rajesh','06-JAN-2001','Male','CIE','Thapar','Amritsar',15);
```

```
insert into student values(4,'Preet','30-AUG-2001','Female','CHE','Thapar','Chandigarh',85);
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```

```
insert into student values(5,'Jaspreet','03-MAR-2001','Female','COE','Thapar','Amritsar',64);
```

```
insert into student values(6,'Raman','11-NOV-2001','Male','COE','Thapar','Patiala',81);
```

```
insert into student values(7,'Saurabh','17-JUN-2001','Male','CIE','Thapar','Ambala',25);
```

```
insert into student values(8,'Preetika','30-SEP-2001','Female','CHE','Thapar','Chandigarh',37);
```

```
insert into student values(9,'Surbhi','17-APR-2001','Female','ECE','Thapar','Rajpura',50);
```

```
insert into student values(10,'Jaskaran','13-MAR-2001','Male','COE','Thapar','Bathinda',94);
```

```
insert into student values(11,'Rahul','28-FEB-2001','Male','ECE','Thapar','Mumbai',08);
```

```
insert into student values(12,'Jason','20-JAN-2001','Male','ENC','Thapar','Chennai',11);
```

```
insert into student values(13,'Param','31-DEC-2001','Male','CHE','Thapar','Punchkula',65);
```

```
insert into student values(14,'Sumit','14-MAR-2001','Male','MEC','Thapar','Patiala',89);
```

```
insert into student values(15,'Jasraj','07-JUL-2001','Male','CSE','Thapar','Amritsar',74);
```

SQL Worksheet

```
15 insert into student values(1,'Ram','12-DEC-2001','Male','COE','Thapar','Patiala',78);
16 insert into student values(2,'Rajesh','06-JAN-2001','Male','CIE','Thapar','Amritsar',15);
17 insert into student values(4,'Preet','30-AUG-2001','Female','CHE','Thapar','Chandigarh',85);
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19 insert into student values(5,'Jaspreet','03-MAR-2001','Female','COE','Thapar','Amritsar',64);
20
21
22 insert into student values(6,'Raman','11-NOV-2001','Male','COE','Thapar','Patiala',81);
23 insert into student values(7,'Saurabh','17-JUN-2001','Male','CIE','Thapar','Ambala',25);
24 insert into student values(8,'Preetika','30-SEP-2001','Female','CHE','Thapar','Chandigarh',37);
25 insert into student values(9,'Surbhi','17-APR-2001','Female','ECE','Thapar','Rajpura',50);
26 insert into student values(10,'Jaskaran','13-MAR-2001','Male','COE','Thapar','Bathinda',94);
27
28
29 insert into student values(11,'Rahul','28-FEB-2001','Male','ECE','Thapar','Mumbai',08);
30 insert into student values(12,'Jason','20-JAN-2001','Male','ENC','Thapar','Chennai',11);
31 insert into student values(13,'Param','31-DEC-2001','Male','CHE','Thapar','Punchkula',65);
32 insert into student values(14,'Sumit','14-MAR-2001','Male','MEC','Thapar','Patiala',89);
33 insert into student values(15,'Jasraj','07-JUL-2001','Male','CSE','Thapar','Amritsar',74);
```

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

3. Display the information of all the students

select * from student order by Rno asc

SQL Worksheet

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
2	Rajesh	06-JAN-01	Male	CIE	Thapar	Amritsar	15
3	Suresh	23-MAY-01	Male	MEC	Thapar	Patiala	10
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
5	Jaspreet	03-MAR-01	Female	COE	Thapar	Amritsar	64
6	Raman	11-NOV-01	Male	COE	Thapar	Patiala	81
7	Saurabh	17-JUN-01	Male	CIE	Thapar	Ambala	25
8	Preetika	30-SEP-01	Female	CHE	Thapar	Chandigarh	37
9	Surbhi	17-APR-01	Female	ECE	Thapar	Rajpura	50
10	Jaskaran	13-MAR-01	Male	COE	Thapar	Bathinda	94
11	Rahul	28-FEB-01	Male	ECE	Thapar	Mumbai	8
12	Jason	20-JAN-01	Male	ENC	Thapar	Chennai	11
13	Param	31-DEC-01	Male	CHE	Thapar	Punchkula	65
14	Sumit	14-MAR-01	Male	MEC	Thapar	Patiala	89
15	Jasraj	07-JUL-01	Male	CSE	Thapar	Amritsar	74

[Download CSV](#)

15 rows selected.

4. Display the detail structure of student table

desc student;

SQL Worksheet

TABLE STUDENT

Column	Null?	Type
RNO	NOT NULL	NUMBER
NAME	NOT NULL	CHAR(25)
DOB	NOT NULL	DATE
GENDER	–	CHAR(10)
CLASS	–	VARCHAR2(15)
COLLEGE	–	VARCHAR2(30)
CITY	–	CHAR(20)
MARKS	–	NUMBER

[Download CSV](#)

8 rows selected.

5. Display Rno, Name and Class information of 'Patiala' students.

select Rno,name,class from student where city='Patiala' order by Rno asc ;

SQL Worksheet

```
33 insert into student values(15,'Jasraj','07-JUL-2001','Male','CSE','Thapar','Amritsar',74);
34
35
36 select * from student order by Rno asc;
37
38 desc student;
39
40 select Rno,name,class from student where city='Patiala' order by Rno asc ;
41
42 select * from student order by marks asc;
43
44 update student set marks = 89 where Rno=5;
45 select * from student order by Rno asc;
46
47 update student set name = 'Rohan',city='Moga' where Rno = 9;
48 select * from student order by Rno asc;
49
50 delete from student where city = 'Amritsar';
51 select * from student order by Rno asc;
```

RNO	NAME	CLASS
1	Ram	COE
3	Suresh	MEC
6	Raman	COE
14	Sumit	MEC

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4 rows selected.

6. Display information on ascending order of marks

select * from student order by marks asc;

SQL Worksheet

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
11	Rahul	28-FEB-01	Male	ECE	Thapar	Mumbai	8
3	Suresh	23-MAY-01	Male	MEC	Thapar	Patiala	10
12	Jason	20-JAN-01	Male	ENC	Thapar	Chennai	11
2	Rajesh	06-JAN-01	Male	CIE	Thapar	Amritsar	15
7	Saurabh	17-JUN-01	Male	CIE	Thapar	Ambala	25
8	Preetika	30-SEP-01	Female	CHE	Thapar	Chandigarh	37
9	Surbhi	17-APR-01	Female	ECE	Thapar	Rajpura	50
5	Jaspreet	03-MAR-01	Female	COE	Thapar	Amritsar	64
13	Param	31-DEC-01	Male	CHE	Thapar	Punchkula	65
15	Jasraj	07-JUL-01	Male	CSE	Thapar	Amritsar	74
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
6	Raman	11-NOV-01	Male	COE	Thapar	Patiala	81
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
14	Sumit	14-MAR-01	Male	MEC	Thapar	Patiala	89
10	Jaskaran	13-MAR-01	Male	COE	Thapar	Bathinda	94

[Download CSV](#)
15 rows selected.

7. Change the marks of Rno 5 to 89.

update student set marks = 89 where Rno=5;
select * from student order by Rno asc;

SQL Worksheet

```
33 insert into student values(15,'Jasraj','07-JUL-2001','Male','CSE','Thapar','Amritsar',74);
34
35
36 select * from student order by Rno asc;
37
38 desc student;
39
40 select Rno,name,class from student where city='Patiala' order by Rno asc ;
41
42 select * from student order by marks asc;
43
44 update student set marks = 89 where Rno=5;
45 select * from student order by Rno asc;
46
47 update student set name = 'Rohan',city='Moga' where Rno = 9;
48 select * from student order by Rno asc;
49
50 delete from student where city = 'Amritsar';
51 select * from student order by Rno asc;
```

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
2	Rajesh	06-JAN-01	Male	CIE	Thapar	Amritsar	15
3	Suresh	23-MAY-01	Male	MEC	Thapar	Patiala	10
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
5	Jaspreet	03-MAR-01	Female	COE	Thapar	Amritsar	89
6	Raman	11-NOV-01	Male	COE	Thapar	Patiala	81
7	Suresh	17-JUN-01	Male	CIE	Thapar	Patiala	25

8. Change the name and city of Rno 9.

```
update student set name = 'Rohan',city='Moga' where Rno = 9;
select * from student order by Rno asc;
```

SQL Worksheet

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
2	Rajesh	06-JAN-01	Male	CIE	Thapar	Amritsar	15
3	Suresh	23-MAY-01	Male	MEC	Thapar	Patiala	10
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
5	Jaspreet	03-MAR-01	Female	COE	Thapar	Amritsar	89
6	Raman	11-NOV-01	Male	COE	Thapar	Patiala	81
7	Saurabh	17-JUN-01	Male	CIE	Thapar	Ambala	25
8	Preetika	30-SEP-01	Female	CHE	Thapar	Chandigarh	37
9	Rohan	17-APR-01	Female	ECE	Thapar	Moga	50
10	Jaskaran	13-MAR-01	Male	COE	Thapar	Bathinda	94
11	Rahul	28-FEB-01	Male	ECE	Thapar	Mumbai	8
12	Jason	20-JAN-01	Male	ENC	Thapar	Chennai	11
13	Param	31-DEC-01	Male	CHE	Thapar	Punchkula	65
14	Sumit	14-MAR-01	Male	MEC	Thapar	Patiala	89
15	Jasraj	07-JUL-01	Male	CSE	Thapar	Amritsar	74

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15 rows selected.

9. Delete the information of 'Amritsar' city records

```
delete from student where city = 'Amritsar';  
select * from student order by Rno asc;
```

SQL Worksheet

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
3	Suresh	23-MAY-01	Male	MEC	Thapar	Patiala	10
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
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11	Rahul	28-FEB-01	Male	ECE	Thapar	Mumbai	8
12	Jason	20-JAN-01	Male	ENC	Thapar	Chennai	11
13	Param	31-DEC-01	Male	CHE	Thapar	Punchkula	65
14	Sumit	14-MAR-01	Male	MEC	Thapar	Patiala	89

[Download CSV](#)
12 rows selected.

10. Delete the records of student where marks<30.

```
delete from student where marks<30;  
select * from student order by Rno asc;
```

RNO	NAME	DOB	GENDER	CLASS	COLLEGE	CITY	MARKS
1	Ram	12-DEC-01	Male	COE	Thapar	Patiala	78
4	Preet	30-AUG-01	Female	CHE	Thapar	Chandigarh	85
6	Raman	11-NOV-01	Male	COE	Thapar	Patiala	81
8	Preetika	30-SEP-01	Female	CHE	Thapar	Chandigarh	37
9	Rohan	17-APR-01	Female	ECE	Thapar	Moga	50
10	Jaskaran	13-MAR-01	Male	COE	Thapar	Bathinda	94
13	Param	31-DEC-01	Male	CHE	Thapar	Punchkula	65
14	Sumit	14-MAR-01	Male	MEC	Thapar	Patiala	89

[Download CSV](#)

8 rows selected.

Code –

```
create table student(
Rno int PRIMARY KEY,
name char(25) NOT NULL,
dob date NOT NULL,
gender char(10),
class varchar2(15),
college varchar2(30),
city char(20),
marks int CHECK(marks>=0)
);
```

```
desc student;
```

```
insert into student values(1,'Ram','12-DEC-2001','Male','COE','Thapar','Patiala',78);
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insert into student values(3,'Suresh','23-MAY-2001','Male','MEC','Thapar','Patiala',10);
insert into student values(5,'Jaspreet','03-MAR-2001','Female','COE','Thapar','Amritsar',64);
```

```
insert into student values(6,'Raman','11-NOV-2001','Male','COE','Thapar','Patiala',81);
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insert into student values(15,'Jasraj','07-JUL-2001','Male','CSE','Thapar','Amritsar',74);
```

```
select * from student order by Rno asc;
```

```
select Rno,name,class from student where city='Patiala' order by Rno asc ;
```

```
select * from student order by marks asc;
```

```
update student set marks = 89 where Rno=5;
```

```
select * from student order by Rno asc;
```

```
update student set name = 'Rohan',city='Moga' where Rno = 9;
```

```
delete from student where city = 'Amritsar';
```

```
delete from student where marks<30;
```