

# Database Management System

## Lab Assignment–3

**Name – Tanmay Garg**

**Batch – 3ENC1**

**Roll No. – 101915001**

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

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```
create table Tanmay101915001 (  
Rno int,  
Name varchar(30),  
DOB date,  
Gender varchar(10),  
Class varchar(5),  
College varchar(40),  
City varchar(15),  
Marks int,  
);
```

### 2. Insert 5 records in student table

---

```
insert into Tanmay101915001  
values  
(1, 'Paul', '2001-05-25', 'Male', 'ENC 3', 'TIET', 'Patiala', 40),  
(2, 'Rahul', '2001-09-15', 'Male', 'COE 5', 'TIET', 'Surat', 25),  
(3, 'Seema', '2001-07-02', 'Female', 'CHE 7', 'TIET', 'Delhi', 90),  
(5, 'Vaibhav', '2001-01-20', 'Male', 'ME 4', 'TIET', 'Amritsar', 10),  
(9, 'Debra', '2002-12-25', 'Female', 'CIV 2', 'TIET', 'Patiala', 69);
```

### 3. Display the information of all the students

---

```
select *from Tanmay101915001
```

Results		Messages						
	Rno	Name	DOB	Gender	Class	College	City	Marks
1	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
2	2	Rahul	2001-09-15	Male	COE 5	TIET	Surat	25
3	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90
4	5	Vaibhav	2001-01-20	Male	ME 4	TIET	Amritsar	10
5	9	Debra	2002-12-25	Female	CIV 2	TIET	Patiala	69

## 4. Display the detail structure of student table

```
exec sp_columns Tanmay101915001/*describes the detail structure of provided table*/
```

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	COLUMN_NAME	DATA_TYPE	TYPE_NAME	PRECISION	LENGTH	SCALE	RADIX	NULLABLE	REMARKS	COLUMN_DEF	SQL_DATA_TYPE	SQL_DATETIME_SUB	CHAR_OCTET_LENGTH	ORDINAL_POSITION	IS_NULLABLE	SS_DATA_TYPE
1	School	dbo	Tanmay101915001	Rno	4	int	10	4	0	10	1	NULL	NULL	4	NULL	NULL	1	YES	38
2	School	dbo	Tanmay101915001	Name	12	varchar	30	30	NULL	NULL	1	NULL	NULL	12	NULL	30	2	YES	39
3	School	dbo	Tanmay101915001	DOB	-9	date	10	20	NULL	NULL	1	NULL	NULL	-9	NULL	NULL	3	YES	0
4	School	dbo	Tanmay101915001	Gender	12	varchar	10	10	NULL	NULL	1	NULL	NULL	12	NULL	10	4	YES	39
5	School	dbo	Tanmay101915001	Class	12	varchar	5	5	NULL	NULL	1	NULL	NULL	12	NULL	5	5	YES	39
6	School	dbo	Tanmay101915001	College	12	varchar	40	40	NULL	NULL	1	NULL	NULL	12	NULL	40	6	YES	39
7	School	dbo	Tanmay101915001	City	12	varchar	15	15	NULL	NULL	1	NULL	NULL	12	NULL	15	7	YES	39
8	School	dbo	Tanmay101915001	Marks	4	int	10	4	0	10	1	NULL	NULL	4	NULL	NULL	8	YES	38

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

```
select Rno, Name, Class
from Tanmay101915001 where City='Patiala'
```

	Rno	Name	Class
1	1	Paul	ENC 3
2	9	Debra	CIV 2

## 6. Display information on ascending order of marks

```
select *from Tanmay101915001
order by Marks asc;
```

	Rno	Name	DOB	Gender	Class	College	City	Marks
1	5	Vaibhav	2001-01-20	Male	ME 4	TIET	Amritsar	10
2	2	Rahul	2001-09-15	Male	COE 5	TIET	Surat	25
3	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
4	9	Debra	2002-12-25	Female	CIV 2	TIET	Patiala	69
5	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90

## 7. Change the marks of Rno 5 to 89.

```
update Tanmay101915001
set Marks=89
where Rno = 5;
```

	Rno	Name	DOB	Gender	Class	College	City	Marks
1	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
2	2	Rahul	2001-09-15	Male	COE 5	TIET	Surat	25
3	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90
4	5	Vaibhav	2001-01-20	Male	ME 4	TIET	Amritsar	89
5	9	Debra	2002-12-25	Female	CIV 2	TIET	Patiala	69

## 8. Change the name and city of Rno 9.

```
update Tanmay101915001
set Name = 'Ash', City='Mumbai'
where Rno = 9;
```

	Rno	Name	DOB	Gender	Class	College	City	Marks
1	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
2	2	Rahul	2001-09-15	Male	COE 5	TIET	Surat	25
3	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90
4	5	Vaibhav	2001-01-20	Male	ME 4	TIET	Amritsar	89
5	9	Ash	2002-12-25	Female	CIV 2	TIET	Mumbai	69

## 9. Delete the information of 'Amritsar' city records

```
delete from Tanmay101915001
where City = 'Amritsar'
```

	Rno	Name	DOB	Gender	Class	College	City	Marks
1	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
2	2	Rahul	2001-09-15	Male	COE 5	TIET	Surat	25
3	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90
4	9	Ash	2002-12-25	Female	CIV 2	TIET	Mumbai	69

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

```
delete from Tanmay101915001
where Marks<30;
```

	Rno	Name	DOB	Gender	Class	College	City	Marks
1	1	Paul	2001-05-25	Male	ENC 3	TIET	Patiala	40
2	3	Seema	2001-07-02	Female	CHE 7	TIET	Delhi	90
3	9	Ash	2002-12-25	Female	CIV 2	TIET	Mumbai	69

---

1. Create table emp which has the following attributes (employee table)  
(empno, ename, job, sal, deptno)

```
create table emp(  
empno int,  
ename varchar(20),  
job varchar(20),  
sal int,  
deptno int  
);
```

2. Insert appropriate records in above tables.

```
insert into emp values  
(12, 'Arman', 'CEO', 250000, 1),  
(10, 'Sage', 'SDE', 250000, 10),  
(10, 'Milo', 'SDE', NULL, 20),  
(10, 'Zucc', 'SDE', 1500, 30),  
(13, 'Chard', 'Guard', 2500, 30),  
(18, 'Timmy', 'SDE', 250000, 10),  
(2, 'Abhishek', 'Clerk', 250000, 7),  
(1, 'Vinay', 'Guard', 250000, 5),  
(1, 'Sam', 'Salesman', 50000, 7),  
(102, 'Anil', 'Intern', 250000, 3);
```

Results		Messages			
	empno	ename	job	sal	deptno
1	12	Arman	CEO	250000	1
2	10	Sage	SDE	250000	10
3	10	Milo	SDE	NULL	20
4	10	Zucc	SDE	1500	30
5	13	Chard	Guard	2500	30
6	18	Timmy	SDE	250000	10
7	2	Abhishek	Clerk	250000	7
8	1	Vinay	Guard	250000	5
9	1	Sam	Salesman	50000	7
10	102	Anil	Intern	250000	3

3. Get employee no and employee name who works in dept no 10

```
select empno, ename from emp  
where deptno=10;
```

Results Messages		
	empno	ename
1	10	Sage
2	18	Timmy

#### 4. Display the employee names of those clerks whose salary > 2000

```
select ename from emp
where sal > 2000;
```

Results Messages	
	ename
1	Aman
2	Sage
3	Chard
4	Timmy
5	Abhishek
6	Vinay
7	Sam
8	Anil

#### 5. Display name and sal of Salesperson & Clerks

```
select ename, sal from emp
where job in ('Salesman', 'Clerk');
```

Results Messages		
	ename	sal
1	Abhishek	250000
2	Sam	50000

#### 6. Display all details of employees whose salary between 2000 and 3000

```
select ename from emp
where sal between 2000 and 3000;
```

Results Messages	
	ename
1	Chard

#### 7. Display all details of employees whose dept no is 10, 20, or 30

```
select * from emp
where deptno in (10, 20, 30);
```

	empno	ename	job	sal	deptno
1	10	Sage	SDE	250000	10
2	10	Milo	SDE	NULL	20
3	10	Zucc	SDE	1500	30
4	13	Chard	Guard	2500	30
5	18	Timmy	SDE	250000	10

8. Display name of those employees whose commission is NULL

```
select *from emp
where sal is NULL;
```

	empno	ename	job	sal	deptno
1	10	Milo	SDE	NULL	20

9. Display dept no & salary in ascending order of dept no and with in each dept no salary should be in descending order

```
select deptno, sal from emp
order by deptno asc, sal desc;
```

	deptno	sal
1	1	250000
2	3	250000
3	5	250000
4	7	250000
5	7	50000
6	10	250000
7	10	250000
8	20	NULL
9	30	2500
10	30	1500

10. Display name of employees that starts with 'C'

```
select ename from emp
where ename like 'C%' or ename like 'c%'
```

	ename
1	Chard

11. Display name of employees that ends with with 'C'

```
select ename from emp
```

where ename like '%C' or ename like '%c'

Results		Messages	
	ename		
1	Zucc		

12. Display name of employees having two 'a' or 'A' chars in the name

```
select ename from emp
where ename like 'A%a%' or ename like '%a%a'
```

Results		Messages	
	ename		
1	Arman		

13. Display the name of the employees whose second char is 'b' or 'B'

```
select ename from emp
where ename like '_b%' or ename like '_B%'
```

Results		Messages	
	ename		
1	Abhishek		

14. Display the name of the employees whose first or last char is 'a' or 'A'

```
select ename from emp
where ename like 'A%a'
```

Results		Messages	
	ename		