



# SQL ALTER TABLE – ADD, DROP, MODIFY

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The **ALTER TABLE statement in SQL** is used to add, remove, or modify columns in an existing table. The ALTER TABLE statement is also used to add and remove various constraints on existing tables.

## ALTER TABLE ADD Column Statement in SQL

ADD is used to add columns to the existing table. Sometimes we may require to add additional information, in that case, we do not require to create the whole database again, **ADD** comes to our rescue.

### ALTER TABLE ADD Column Statement Syntax:

```
ALTER TABLE table_name ADD (Columnname_1 datatype,  
Columnname_2 datatype, ...Columnname_n datatype);
```

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The following SQL adds an “Email” column to the “Students” table:

### ALTER TABLE ADD Column Statement Example:

```
ALTER TABLE Students  
ADD Email varchar(255);
```

## ALTER TABLE DROP Column Statement

DROP COLUMN is used to drop columns in a table. Deleting the unwanted columns from the table.

### ALTER TABLE DROP Column Statement Syntax:

```
ALTER TABLE table_name
```

```
DROP COLUMN column_name;
```

The following SQL drop an “Email” column to the “Students” table:

### ALTER TABLE DROP Column Statement Example:

```
ALTER TABLE Students  
DROP COLUMN Email;
```

## ALTER TABLE MODIFY Column Statement in SQL

It is used to modify the existing columns in a table. Multiple columns can also be modified at once. *\*Syntax may vary slightly in different databases.*

### ALTER TABLE MODIFY Column Statement Syntax:

```
ALTER TABLE table_name
```

```
MODIFY column_name column_type;
```

### ALTER TABLE MODIFY Column Statement Syntax(SQL Server):

```
ALTER TABLE table_name
```

```
ALTER COLUMN column_name column_type;
```

### ALTER TABLE MODIFY Column Statement Example:

```
ALTER TABLE table_name  
MODIFY COLUMN column_name datatype;
```

## SQL ALTER TABLE Queries

Suppose there is a student database:

ROLL_NO	NAME
1	Ram
2	Abhi
3	Rahul
4	Tanu

To ADD 2 columns AGE and COURSE to table Student.

### Query:

```
ALTER TABLE Student ADD  
(AGE number(3),COURSE varchar(40));
```

### Output:

ROLL_NO	NAME	AGE	COURSE
1	Ram		
2	Abhi		
3	Rahul		
4	Tanu		

MODIFY column COURSE in table Student.

### Query:

```
ALTER TABLE Student  
MODIFY COURSE varchar(20);
```

After running the above query the maximum size of the Course Column is reduced to 20 from 40.

DROP column COURSE in table Student.

### Query:

```
ALTER TABLE Student  
DROP COLUMN COURSE;
```

### Output:

ROLL_NO	NAME	AGE
1	Ram	
2	Abhi	
3	Rahul	
4	Tanu	

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