

SQL - ALTER TABLE COMMAND

<http://www.tutorialspoint.com/sql/sql-alter-command.htm>

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The SQL **ALTER TABLE** command is used to add, delete or modify columns in an existing table.

You would also use ALTER TABLE command to add and drop various constraints on a an existing table.

Syntax:

The basic syntax of **ALTER TABLE** to add a new column in an existing table is as follows:

```
ALTER TABLE table_name ADD column_name datatype;
```

The basic syntax of ALTER TABLE to **DROP COLUMN** in an existing table is as follows:

```
ALTER TABLE table_name DROP COLUMN column_name;
```

The basic syntax of ALTER TABLE to change the **DATA TYPE** of a column in a table is as follows:

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

The basic syntax of ALTER TABLE to add a **NOT NULL** constraint to a column in a table is as follows:

```
ALTER TABLE table_name MODIFY column_name datatype NOT NULL;
```

The basic syntax of ALTER TABLE to **ADD UNIQUE CONSTRAINT** to a table is as follows:

```
ALTER TABLE table_name  
ADD CONSTRAINT MyUniqueConstraint UNIQUE(column1, column2...);
```

The basic syntax of ALTER TABLE to **ADD CHECK CONSTRAINT** to a table is as follows:

```
ALTER TABLE table_name  
ADD CONSTRAINT MyUniqueConstraint CHECK (CONDITION);
```

The basic syntax of ALTER TABLE to **ADD PRIMARY KEY** constraint to a table is as follows:

```
ALTER TABLE table_name  
ADD CONSTRAINT MyPrimaryKey PRIMARY KEY (column1, column2...);
```

The basic syntax of ALTER TABLE to **DROP CONSTRAINT** from a table is as follows:

```
ALTER TABLE table_name  
DROP CONSTRAINT MyUniqueConstraint;
```

If you're using MySQL, the code is as follows:

```
ALTER TABLE table_name  
DROP INDEX MyUniqueConstraint;
```

The basic syntax of ALTER TABLE to **DROP PRIMARY KEY** constraint from a table is as follows:

```
ALTER TABLE table_name  
DROP CONSTRAINT MyPrimaryKey;
```

If you're using MySQL, the code is as follows:

```
ALTER TABLE table_name
DROP PRIMARY KEY;
```

Example:

Consider the CUSTOMERS table having the following records:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

Following is the example to ADD a new column in an existing table:

```
ALTER TABLE CUSTOMERS ADD SEX char(1);
```

Now, CUSTOMERS table is changed and following would be output from SELECT statement:

ID	NAME	AGE	ADDRESS	SALARY	SEX
1	Ramesh	32	Ahmedabad	2000.00	NULL
2	Ramesh	25	Delhi	1500.00	NULL
3	kaushik	23	Kota	2000.00	NULL
4	kaushik	25	Mumbai	6500.00	NULL
5	Hardik	27	Bhopal	8500.00	NULL
6	Komal	22	MP	4500.00	NULL
7	Muffy	24	Indore	10000.00	NULL

Following is the example to DROP sex column from existing table:

```
ALTER TABLE CUSTOMERS DROP SEX;
```

Now, CUSTOMERS table is changed and following would be output from SELECT statement:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Ramesh	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	kaushik	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00