

## PostgreSQL - ALTER TABLE Command

The PostgreSQL **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 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 ALTER COLUMN column_name TYPE 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 are 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 are using MySQL, the code is as follows –

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

## Example

Consider our COMPANY table has the following records –

id	name	age	address	salary
1	Paul	32	California	20000
2	Allen	25	Texas	15000
3	Teddy	23	Norway	20000
4	Mark	25	Rich-Mond	65000
5	David	27	Texas	85000
6	Kim	22	South-Hall	45000
7	James	24	Houston	10000

The following is the example to ADD a new column in an existing table –

```
testdb=# ALTER TABLE COMPANY ADD GENDER char(1);
```

Now, COMPANY table is changed and the following would be the output from SELECT statement –

id	name	age	address	salary	gender
1	Paul	32	California	20000	
2	Allen	25	Texas	15000	
3	Teddy	23	Norway	20000	
4	Mark	25	Rich-Mond	65000	
5	David	27	Texas	85000	
6	Kim	22	South-Hall	45000	
7	James	24	Houston	10000	

(7 rows)

The following is the example to DROP gender column from existing table –

```
testdb=# ALTER TABLE COMPANY DROP GENDER;
```

Now, COMPANY table is changed and the following would be the output from SELECT statement –

id	name	age	address	salary
1	Paul	32	California	20000
2	Allen	25	Texas	15000
3	Teddy	23	Norway	20000
4	Mark	25	Rich-Mond	65000
5	David	27	Texas	85000
6	Kim	22	South-Hall	45000
7	James	24	Houston	10000