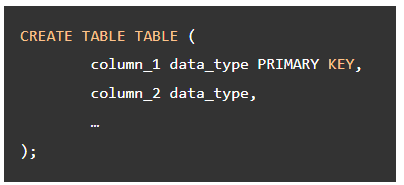
A primary key is a column or a group of columns used to identify a row uniquely in a table.

 primary key constraint is the combination of a [not-null constraint](https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-not-null-constraint/) and [a UNIQUE constraint](https://www.postgresqltutorial.com/postgresql-unique-constraint/).

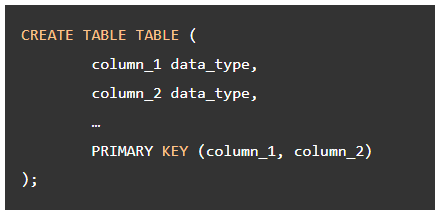
A table can have one and only one primary key. It is a good practice to add a primary key to every table. When you add a primary key to a table, PostgreSQL creates a unique B-tree index on the column or a group of columns used to define the primary key.

Define primary key when creating the table

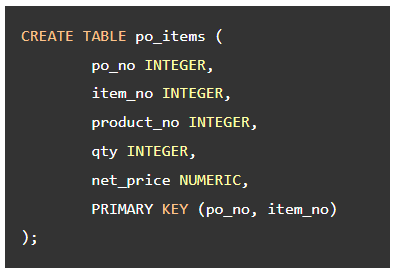
Normally, we add the primary key to a table when we define the table’s structure using CREATE TABLE statement.



In case the primary key consists of two or more columns, you define the primary key constraint as follows:



Example



If you don’t specify explicitly the name for primary key constraint, PostgreSQL will assign a default name to the primary key constraint. By default, PostgreSQL uses table-name\_pkey as the default name for the primary key constraint. In this example, PostgreSQL creates the primary key constraint with the name po\_items\_pkey for the po\_items table.

In case you want to specify the name of the primary key constraint, you use CONSTRAINT clause as follows:



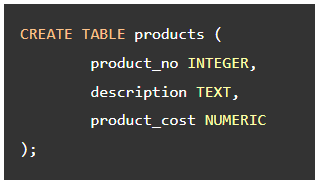
## Define primary key when changing the existing table structure

It is rare to define a primary key for existing table. In case you have to do it, you can use the ALTER TABLE statement to add a primary key constraint.

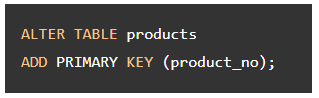


Example

creates a table named products without defining any primary key.



Suppose you want to add a primary key constraint to the products table, you can execute the following statement:



## How to add an auto-incremented primary key to an existing table

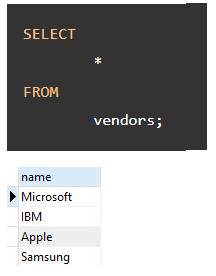
Suppose, we have a vendors table that does not have any primary key.



And we add few rows to the vendors table using [INSERT statement](https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-insert/):



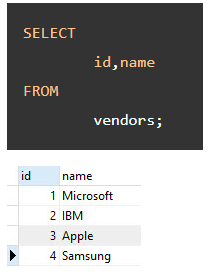
To verify the insert operation, we query data from the vendors table using the following [SELECT](https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-select/) statement:



Now, if we want to add a primary key named **id** into the **vendors**table and the id field is auto-incremented by one, we use the following statement:



Let’s check the vendors table again.

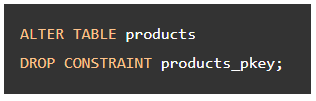


## Remove primary key

To remove an existing primary key constraint, you also use the ALTER TABLE statement with the following syntax:



For example, to remove the primary key constraint of the products table, you use the following statement:



References

https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-primary-key/