

## PostgreSQL - AUTO INCREMENT

PostgreSQL has the data types *smallserial*, *serial* and *bigserial*; these are not true types, but merely a notational convenience for creating unique identifier columns. These are similar to AUTO\_INCREMENT property supported by some other databases.

If you wish a *serial* column to have a unique constraint or be a primary key, it must now be specified, just like any other data type.

The type name *serial* creates an *integer* columns. The type name *bigserial* creates a *bigint* column. *bigserial* should be used if you anticipate the use of more than  $2^{31}$  identifiers over the lifetime of the table. The type name *smallserial* creates a *smallint* column.

### Syntax

The basic usage of **SERIAL** datatype is as follows –

```
CREATE TABLE tablename (  
    ... colname SERIAL  
);
```

### Example

Consider the COMPANY table to be created as follows –

```
testdb=# CREATE TABLE COMPANY(  
    ID SERIAL PRIMARY KEY,  
    NAME TEXT NOT NULL,  
    AGE INT NOT NULL,  
    ADDRESS CHAR(50),  
    SALARY REAL  
);
```

Now, insert the following records into table COMPANY –

```
INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)  
VALUES ( 'Paul', 32, 'California', 20000.00 );  
  
INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)  
VALUES ( 'Allen', 25, 'Texas', 15000.00 );  
  
INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)
```

```
VALUES ( 'Teddy', 23, 'Norway', 20000.00 );

INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)
VALUES ( 'Mark', 25, 'Rich-Mond ', 65000.00 );

INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)
VALUES ( 'David', 27, 'Texas', 85000.00 );

INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)
VALUES ( 'Kim', 22, 'South-Hall', 45000.00 );

INSERT INTO COMPANY (NAME,AGE,ADDRESS,SALARY)
VALUES ( 'James', 24, 'Houston', 10000.00 );
```

This will insert seven tuples into the table COMPANY and COMPANY will have 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