

POSTGRESQL - EXPRESSIONS

http://www.tutorialspoint.com/postgresql/postgresql_expressions.htm

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An expression is a combination of one or more values, operators, and PostgreSQL functions that evaluate to a value.

PostgreSQL EXPRESSIONs are like formulas and they are written in query language. You can also use to query the database for specific set of data.

Syntax:

Consider the basic syntax of the SELECT statement as follows:

```
SELECT column1, column2, columnN
FROM table_name
WHERE [CONTION | EXPRESSION];
```

There are different types of PostgreSQL expressions, which are mentioned below:

PostgreSQL - Boolean Expressions:

PostgreSQL Boolean Expressions fetch the data on the basis of matching single value. Following is the syntax:

```
SELECT column1, column2, columnN
FROM table_name
WHERE SINGLE VALUE MATCHTING EXPRESSION;
```

Consider the table [COMPANY](#) having records as follows:

```
testdb# select * from COMPANY;
 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
(7 rows)
```

Here is the simple example showing usage of PostgreSQL Boolean Expressions:

```
testdb=# SELECT * FROM COMPANY WHERE SALARY = 10000;
```

Above PostgreSQL statement will produce the following result:

```
 id | name  | age | address  | salary
----+-----+----+-----+-----
  7 | James | 24  | Houston  | 10000
(1 row)
```

PostgreSQL - Numeric Expression:

These expressions are used to perform any mathematical operation in any query. Following is the syntax:

```
SELECT numerical_expression as OPERATION_NAME
[FROM table_name WHERE CONDITION] ;
```

Here numerical_expression is used for mathematical expression or any formula. Following is a simple examples showing usage of SQL Numeric Expressions:

```
testdb=# SELECT (15 + 6) AS ADDITION ;
```

Above PostgreSQL statement will produce the following result:

```
addition
-----
         21
(1 row)
```

There are several built-in functions like avg, sum, count, etc., to perform what is known as aggregate data calculations against a table or a specific table column.

```
testdb=# SELECT COUNT(*) AS "RECORDS" FROM COMPANY;
```

Above PostgreSQL statement will produce the following result:

```
RECORDS
-----
         7
(1 row)
```

PostgreSQL - Date Expressions:

Date Expressions return current system date and time values and these expressions will be used in various data manipulations.

```
testdb=# SELECT CURRENT_TIMESTAMP;
```

Above PostgreSQL statement will produce the following result:

```
          now
-----
2013-05-06 14:38:28.078+05:30
(1 row)
```

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