**Tableau – Operators**

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Tableau is the easy-to-use Business Intelligence tool used in data visualization. Its unique feature is, to allow data real-time collaboration and data blending, etc. Through Tableau, users can connect databases, files, and other big data sources and can create a shareable dashboard through them. Tableau is mainly used by researchers, professionals, and government organizations for data analysis and visualization.

In this article, we are going to discuss Tableau Operators and types of Tableau operators.

The symbols which tell the compiler to execute specific mathematical or logical manipulations are known as Operators. Tableau too has a good number of operators, which help in the formation of calculated fields and formulas.

Tableau has 4 basic types of Operators as mentioned below:

* General Tableau Operators
* Arithmetic Tableau Operators
* Relational Tableau Operators
* Logical Tableau Operators

**GENERAL TABLEAU OPERATORS –**

The operator which we generally use in mathematics computation comes under this category, like Addition and Subtraction.

* Addition:    +
* Subtraction:    –

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| --- | --- | --- |
| **General Operator** | **Description** | **Example** |
| **+**  **(Addition)** | It can perform multiple operations like adding numbers, concatenating strings, and adding days to dates. | 2+3=5,  #May 15, 2014# + 17 = #June 1, 2014# |
| **—**  **(Subtraction)** | It can also perform multiple operations like subtracting numbers and subtracting days from dates. | 8-5=3,  #July 16, 2000# — 10 = #July 6, 2000# |

**ARITHMETIC TABLEAU OPERATORS –**

The operators which help to perform arithmetic calculations on different fields of uploaded data source are known as Arithmetic operators.

* Multiply:    \*
* Divide:    /
* Modulation:   %
* Power:   ^

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| **Arithmetic Operator** | **Description** | **Example** |
| **\***  **(Asterisk)** | Numeric Multiplication | 4\*5=20 |
| **/**  **(Forward slash)** | Numeric Division | 50/5=10 |
| **%**  **(Percentage sign)** | A reminder of the numeric division | 25/2=1 |
| **^**  **(Caret)** | Raised to the power | 5^2=25 |

**RELATIONAL TABLEAU OPERATORS –**

A relational operator or comparison operator is a binary operator that takes two operands as input, compare their values and returns the output. A comparison operator is generally used in conditional statements, loops, where the comparison result will decide, whether execution should go ahead or not.

* Equality Operator:   =
* Not Equality Operator:   < >,  !=, ^=
* Greater Than Operator:   >
* Less Than Operator:   <
* Greater Than Equal to Operator:   >=
* Less Than Equal to Operator:   <=

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| **Relational Operator** | **Description** | **Example** |
| **>** | Greater than | 5>8  = False |
| **>=** | Greater than or equal to | 4>=4  = True |
| **<** | Less than | 4<10  = True |
| **<=** | Less than or equal to | 1<=0  = False |
| **==** | Equal to | 8==8  = True |
| **!=** | Not equal to | 7!=7  = False |

**LOGICAL TABLEAU OPERATORS –**

In Logical operator, there are three basic commands –

* Logical conjunction operator or “**AND**” operator
* Logical disjunction operator or “ **OR**” operator
* Logical negation operator or “**NOT**” operator

Logical AND operator: The operator will return True, if both conditions are true. If either condition is false, it will return false else return Null.

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| **AND** | **TRUE** | **FALSE** |
| **TRUE** | TRUE | FALSE |
| **FALSE** | FALSE | FALSE |

Logical OR operator: The operator will return True, if either of the condition is True, else returns False.

|  |  |  |
| --- | --- | --- |
| **OR** | **TRUE** | **FALSE** |
| **TRUE** | TRUE | TRUE |
| **FALSE** | TRUE | FALSE |

Logical NOT operator: The operator will return True if condition is False and vice versa.

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| --- | --- | --- |
| **NOT** | TRUE | FALSE |
| **NOT** | FALSE | TRUE |