**16(+) OPERATORS.**

1. **Arithmetic Operators:** These operators are used to perform normal arithmetics/mathematical operations. There are seven arithmetic operators:

> Addition (+): Binary operation used to add two operands.

> Subtraction (-): Binary operation used to subtract two operands.

> Multiplication (\*): Binary operation used to multiply two operands.

> Division (/): Binary operation used to divide two operands.

> Modulus (%): Binary operation used to find remainder of two operands.

> Increment Operator (++): Unary operator used to increase the value of operand by one.

> Decrement Operator (–): Unary operator used to decrease the value of a operand by one

2. **Relational Operators:** Relational operators are those operators which define the relation between two operands. They give either true or false depending upon the relation. There are six types:

a) ‘==’ Operator: Double equal to operator compares the two operands. It returns true if they are equal otherwise returns false.

b) ‘!=’ Operator: Not equal to operator returns true if the two operands are not equal otherwise it returns false.

c) ‘<' Operator: Less than operator returns true if first operand is less than second operand otherwise returns false.

d) ‘<=' Operator: Less than or equal to operator returns true if first operand is less than or equal to second operand otherwise returns false

e) ‘>’ Operator: Greater than operator returns true if the first operand is greater than the second operand otherwise returns false.

f) ‘>=’ Operator: Greater than or equal to operator returns true if first operand is greater than or equal to second operand otherwise returns false.

3. **Logical Operators:** They are also known as boolean operators. These are used to perform logical operations. There are three types:

> Logical AND (&&): This is a binary operator, which returns true if both the operands are true otherwise returns false.

> Logical OR (||): This is a binary operator, which returns true if either of the operands is true or both the operands are true and returns false if none of them is false.

> Not Equal to (!): This is a unary operator which returns true if the operand is false and returns false if the operand is true.

4. **File Test Operator**: These operators are used to test a particular property of a file.

a) -b operator: This operator checks whether a file is a block special file or not. It returns true if the file is a block special file, otherwise returns false.

b) -c operator: This operator checks whether a file is a character special file or not. It returns true if it is a character special file otherwise returns false.

c) -d operator: This operator checks if the given directory exists or not. If it exists then operators returns true otherwise returns false.

d) -e operator: This operator checks whether the given file exists or not. If it exists this operator returns true otherwise returns false.

e) -r operator: This operator checks whether the given file has read access or not. If it has read access then it returns true otherwise returns false.

f) -w operator: This operator checks whether the given file has write access or not. If it has write then it returns true otherwise returns false.

g) -x operator: This operator checks whether the given file has execute access or not. If it has execute access then it returns true otherwise returns false.

h) -s operator: This operator checks the size of the given file. If the size of given file is greater than 0 then it returns true otherwise it returns false.