**Minimum of 15 Bash Script Operators**

**Arithmetic Operators**:

1. **+** (Addition): Adds two numbers.
2. **-** (Subtraction): Subtracts the right operand from the left operand.
3. **\*** (Multiplication): Multiplies two numbers.
4. **/** (Division): Divides the left operand by the right operand.
5. **%** (Modulus): Returns the remainder of the division of the left operand by the right operand.

**Comparison Operators**:

1. **=** (Equal): Checks if two values are equal (for strings).
2. **!=** (Not Equal): Checks if two values are not equal (for strings).
3. **-eq** (Equal): Checks if two integers are equal.
4. **-ne** (Not Equal): Checks if two integers are not equal.

**-lt** (Less Than): Checks if an integer is less than another.

1. **-le** (Less Than or Equal): Checks if an integer is less than or equal to another.
2. **-gt** (Greater Than): Checks if an integer is greater than another.
3. **-ge** (Greater Than or Equal): Checks if an integer is greater than or equal to another.

**String Operators**:

1. **=** (Equal): Checks if two strings are equal.
2. **!=** (Not Equal): Checks if two strings are not equal.
3. **-z** (Zero Length): Checks if a string has zero length (empty).
4. **-n** (Non-Zero Length): Checks if a string has a non-zero length.

**Logical Operators**:

1. **&&** (Logical AND): Performs an AND operation between two commands or conditions.
2. **||** (Logical OR): Performs an OR operation between two commands or conditions.
3. **!** (Logical NOT): Negates the result of a condition.

**Assignment Operators**:

1. **=** (Assignment): Assigns a value to a variable.

**Bitwise Operators** (for integer values):

1. **&** (Bitwise AND): Performs a bitwise AND operation.
2. **|** (Bitwise OR): Performs a bitwise OR operation.
3. **^** (Bitwise XOR): Performs a bitwise XOR operation.
4. **~** (Bitwise NOT): Inverts the bits of a number.
5. **<<** (Left Shift): Shifts bits to the left.
6. **>>** (Right Shift): Shifts bits to the right.

**Other Operators**:

1. **:** (Colon): Placeholder or null command.
2. **,** (Comma): Separates commands in a command list.
3. **;** (Semicolon): Separates commands on the same line.
4. **&** (Ampersand): Executes a command in the background.
5. **()** (Parentheses): Groups commands together for execution.

These operators can be used in combination with variables, conditionals, loops, and other constructs to perform various tasks in Bash scripts. Depending on your scripting needs, you can choose the appropriate operator to achieve the desired functionality.

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