**Operators**

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| = | Assigns a value to a variable | name="John" |
| == | Compares two strings for equality | if [ "$var1" == "$var2" ] |
| != | Compares two strings for inequality | if [ "$var1" != "$var2" ] |
| -eq | Checks if two integers are equal | if [ "$num1" -eq "$num2" ] |
| -ne | Checks if two integers are not equal | if [ "$num1" -ne "$num2" ] |
| -lt | Checks if one integer is less than another | if [ "$num1" -lt "$num2" ] |
| -le | Checks if one integer is less than or equal to another | if [ "$num1" -le "$num2" ] |
| -gt | Checks if one integer is greater than another | if [ "$num1" -gt "$num2" ] |
| -ge | Checks if one integer is greater than or equal to another | if [ "$num1" -ge "$num2" ] |
| -z | Checks if a string is empty | if [ -z "$string" ] |
| -n | Checks if a string is not empty | if [ -n "$string" ] |
| ! | Negates the result of a condition | if ! [ -f "$file" ] |
| -a | Logical AND | [ "$cond1" -a "$cond2" ] |
| -o | Logical OR | [ "$cond1" -o "$cond2" ] |
| && | Executes the command on the right if the command on the left succeeds | command1 && command2 |
| ` | ` | Executes the command on the right if the command on the left fails |
| > | Redirects command output to a file | ls > output.txt |
| >> | Appends command output to a file | ls >> output.txt |
| < | Redirects input from a file | sort < input.txt |
| << | Here document, allows input from a specified string or script block | cat << EOF<br>This is a here document.<br>EOF |
| ` | ` | Pipe, redirects output of one command to another |
| & | Executes a command in the background | command & |