

# BASH LOGIC-CONDITIONS

Tuesday, 20 April 2021

5:51 PM

## Conditional Tests Using [ ]

- POSIX compliant
- Works with older shells including Bourne
- Are commands that then test the condition
- File name expansion and word splitting happen
- Parameter expansion happens
- &&, ||, <, and > operators get interpreted by the shell

## Conditional Tests Using [[ ]]

- Specific to bash and ksh
- Does not work on older shells
- No file name expansion between brackets
- No word splitting between brackets
- Parameter expansion between brackets
- Command substitution between brackets
- Supports &&, ||, <, and > operators
- Automatic arithmetic evaluation of octal/hexadecimal
- Supports extended regular expression matches

SWITCH CASE IN BASH:



```
case $AGE in
    [1-9]) echo "You are quite young" ;;
    [5-9]) echo "Time for elementary school" ;;
    1[0-9]) echo "Time for middle school" ;;
    [2-9][0-9]) echo "You are an adult" ;;
    *) echo "That doesn't seem to be an age"
esac
```

NUMERIC COMPARISON OPTS:

## Numeric Comparison Operators

```
if [[ 1 -lt 5 ]]
if [[ 1 -gt 5 ]]
if [[ 1 -eq 5 ]]
if [[ 1 -le 5 ]]
if [[ 1 -ge 5 ]]
```

Not numeric comparison operators

```
if [[ 1 > 5 ]]
if [[ 1 < 5 ]]
if [[ 1 = 5 ]]
```

FILE CONDITIONS

## File Conditions



- -e if the file exists
- -f if a file exists and is a file
- -d if a file exists and is a directory
- -c if a file exists and is a character device
- -b if a file exists and is a block device
- -p if a file exists and is a pipe
- -S if a file exists and is a socket

## File Conditions

- -L if a file exists and is a symbolic link
- -g if a file exists and has the SGID bit set
- -u if a file exists and has the SUID bit set
- -r if a file exists and is readable by the current user
- -w if a file exists and is writable by the current user
- -x if a file exists and is executable by the current user
- -s if a file exists and has a size larger than 0 bytes



## File Conditions

- `-nt` if a file is newer than another
- `-ot` if a file is older than another
- `-ef` if two files have the same inode numbers

