CONTROL FLOW

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SWITCH CASE PATTERN:

The Case Statement

```
case $ans in
yes|YES|y|Y|y.x ) echo "Will do!";;
n*|N*) echo "Will NOT do!";;
*) echo "Oops!";;
esac
```

IF-ELSE:

The If-Then-Else Statement

```
if
grep -q important myfile
then
    echo myfile has important stuff
else
    echo myfile does not have important
stuff
fi
```

TEST COMMAND IN BASH:

Tests in Bash

- The builtin `test` is used to check various conditions and set the return code with the result.

- Loops and conditionals often use the result of `test`.

- An alternative to test is `[[  ]]` or `(( ))`.

Test Examples

- `if`
  `test -f afile`

- `if [[ -f bfile ]]`

- `if`
  `test $x -gt 5`

TEST OPERATORS:

Test Operators

```
[[ ex1 -eq ex2 ]]  [[ ex1 -ne ex2 ]]
[[ ex1 -lt ex2 ]] [[ ex1 -gt ex2 ]]
[[ ex1 -le ex2 ]] [[ ex1 -ge ex2 ]]
```

OR

Test Operators

```
((ex1 == ex2))   ((ex1 != ex2))
((ex1 < ex2))    ((ex1 > ex2))
((ex1 <= ex2))   ((ex1 >= ex2))
((ex1 && ex2))   ((ex1 || ex2))
```

MORE USAGE OF TESTS IN IF-ELSE STATEMENTS

More Tests

```
test -d X
# success if X is a directory
test -f X
# success if X is a regular file
test -s X
# success if X exists and not empty
```

More Tests

```
test -x X
# success if you have x permission on X
test -w X
# success if you have w permission on X
test -r X
# success if you have r permission on X
```