

# CSC209 Week 2 Notes

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## Shell Programming 1 of 6

- `*.<EXTENSION>`

- returns all items under the extension

```
1 # computer-science-notes folder
2 >>> echo *.pdf
3 common_mistakes_in_proofs.pdf sample.pdf
4
```

- `read`

- store values in variable interactively“

```
1 >>> read x y
2 >>> hello world 2
3 >>> echo $x
4 hello
5 >>> echo $y
6 world 2
7
```

- “

- store commands in variable

```
1 >>> i = `expr 4 + 1`
2 >>> echo $i
3 5
4
```

## Shell Programming 2 of 6

- *test*

- checks file types and compares values
- used in if and while statement to check condition

```
1 >>> cat
2 >>> echo $?
3 0
4
```

- **test** <EXPRESSION> is equivalent to [ EXPRESSION ]

```
1 >>> if [ 0 -eq 0 ]
2 if> then
3 then> echo 'hello'
4 then> fi
5 hello
6
```

- has the following numeric comparison operators

1. **-lt**: less than
2. **-gt**: greater than
3. **-eq**: equal to
4. **-ne**: not equal
5. **-le**: less than
6. **-ge**: greater than

```
1 >>> test 2 -lt 3
2 >>> echo $?
3 0
4
```

- has the following file testing operators

1. **-f file**: file exists and is a plain file
2. **-d file**: file exists and is a directory
3. **-s file**: file exists and is a plain file of non-zero size

```
1 >>> echo 'hello world' > sample.txt
2 >>> test -s sample.txt
3 >>> echo $?
4 0
5
```

- *if*

- **&&**: chains multiple if conditions

```
1 >>> if [ 0 -eq 0 ] && [ 1 -eq 1 ]
2 if> then
3 then> echo 'hello'
4 then> fi
5 hello
6
```

## Shell Programming 3 of 6

- Switch

```
1 >>> cat switch_example.sh
2 array=("hello" "goodbye" 2)
3 for i in "${array[@]}"
4 do
5     case $i in
6         hello)
7             echo 'hello there'
8             ;;
9         goodbye)
10            echo 'see you later'
11            ;;
12        *)
13            echo "it's a pleasure to meet you"
14            ;;
15    esac
16 done
17 >>> sh switch_example.sh
18 hello there
19 see you later
20 it's a pleasure to meet you
21
```