

Computing Basics

chmod

- Who

- u = user
- g = group
- o = others
- a = all three

- Permissions

- r = read
- w = write
- x = execute

- Values

- 0 = - - -
- 1 = - - x
- 2 = - w -
- 3 = - wx
- 4 = r - -
- 5 = r - x
- 6 = rw -
- 7 = rwx

Shell scripts - basics

- Shebang (specify absolute path to bash)

```
#!/bin/bash
```

- Variables

```
myvar="Something"
```

```
mcho ${myvar}
```

Shell scripts - conditionals

```
if [[ <condition> ]]
```

```
then
```

```
<do something>
```

```
elif [[ <another condition> ]]
```

```
then
```

```
<do something else>
```

```
else
```

```
<do a third thing>
```

```
fi
```

- Boolean logic
 - && = AND
 - || = OR
 - != NOT
- Arithmetic
 - -lt = <
 - -gt = >
 - -le = <=
 - -ge = >=
 - -eq = ==
 - -ne = !=
- Files/directories
 - -f "<file>" = check if file exists
 - -d "<dir>" = check if directory exists

Shell scripts - loops

```
for i in {1..5}
do
  echo ${i}
done
```

```
START=1
END=5
```

```
for i in $( eval echo "${START}..$END" )
do
  echo ${i}
done
```

```
START=1
END=5
```

```
for (( i=$START; i<=$END; i++ ))
do
  echo ${i}
done
```

```
START=1
END=5
```

```
i=$START
while [[ $i -le $END ]]
do
  echo ${i}
  ((i = i + 1))
done
```