CSC209 Week 2 Notes

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May 10, 2020

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

```
>>> if [ 0 -eq 0 ] && [ 1 -eq 1 ]
if> then
then> echo 'hello'
then> fi
hello
```