

FILE MANAGEMENT

- touch, mv, rm
- chmod: permission bits
 - umask
- ln: symbolic/hard link

HOMEWORK 2

Write down commands to do the following:

1. can you use "rm" instead of "rmdir" to remove an empty directory? what parameters do you need to make it work?
2. what permissions are needed for a user to be able to change the name of a directory?
3. create directory with name 'dir_cis342'
4. copy all the files in the current directory that are c programs (their name ends with .c) to 'dir_cis342'
5. create symbolic links to 'dir_cis342'? (verify your link is working, by cd your link).

SHELL PROGRAMMING

INTRODUCTION

- Script: save commands in a file

BASICS: #!, IF, VARIABLES

- demo:

1. `#!/bin/bash echo 'hello world';`

2. `#!/bin/bash a=1; b=2; a=$((a+b)); echo $a;`

3. `if [$a -gt $b]; then echo 'a is greater than b';`

- exercise:

1. write a script to initialize variables a and b and then swap the values of a and b.

2. write a script to initialize three variables a and b and c and then calculate the sum of them.

PASSING ARGUMENTS

- demo:

```
#!/bin/bash echo $1; echo $2; echo $#;
```

- exercise:

1. write a script to get 3 integers from the shell command and prints the sum of them.
 1. what happens if you do not pass the 3 required integers when executing the bash script?
2. write a script to take two numbers as arguments and create a file with the name of the larger number. For example if a equals 3 and b equals 4, it should create a file named 4.
3. write a script to get two file names and swaps the filenames. For example if we input file1 which contains Alice and file2 which contains Bob, after the execution, file1 should contain Bob and file2 should contain Alice.

EXIT VALUES:

- demo:
 - `echo alice; echo $?; rm filenameedttt; echo $?`
- exercise:
 1. `touch file111; rm file111; echo $?` what is the output?
 2. what do you need to do so that `echo $?` prints 1
 3. write a script by using `touch` and exit value to test if a file (with name `AAA`) exist?

COMMENTING

- `#` is used to comment in bash

HOMEWORK 3

1. `mkdir fff; echo $?; mkdir fff; echo $?;`
why is output different?
2. can exit code have any other value than 0 and 1? read the man page for "exit".
 - write a program that gets 3 integers and prints the sum of them. Test the exit code when the number of arguments provided are not valid (<>3).
3. we want to use the `rm` command but we don't want to get errors. Write a script to get a file name as a parameter and removes it. If the file does not exist, it should not give an error.