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Unix Shells Exercise

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1. The three Unix shells covered in the slides are the C Shell, Korn Shell, and BASH.

a. What was the main goal in creating the C Shell?

To have syntax similar to the C programming language, also added: Command History, Aliases, Command Completion, and Job Control

b. How is the major difference between the C Shell and the Korn Shell/BASH?

Korn took all the improvements that C Shell made and made them backwards compatible with Bourne Shell

c. How is BASH different than the Korn Shell?

Bash added ALL new features created since Bourne Shell and made them backwards compatible with Bourne. BASH = Bourne Again SHell

2. What is the purpose of regular expressions?

It is similar to a wildcard but with more options

3. Open the bash-example.txt file.

a. In the get\_files function, what is stored in the files variable?

A list of file names with the .ch extension

b. In the count\_lines functions, "wc -l" returns the number of lines in the file specified by $f."

How is this value passed back to the script below?

with sed saved to a file

c. What does the line "for f in $files" perform?

It is the variable that holds the iterattion through the list of files

d. The variables l, n, and s are all initialized to 0. What do these variables represent in the for loop?

‘l’ = counts the lines; ‘n’ = the number of files; ‘s’ = the total number of lines

e. What are the steps performed in the for loop?

Count lines, increase counter, increase sum of total

4. Open the cshell-example.txt file.

a. What arguments are required for this script to run?

Names for ‘dir1’ and ‘dir2’

b. What does this script do if directory 2 already exists?

It prints that the directory name ‘already exists’ and exits

c. What does the command "foreach file ($dir1/\*)" perform?

Begins the loop through of files in $dir1

d. What happens to directories in the foreach loop?

They are not copied – output is printed to the screen stating ‘Skipping var (is a directory)’

e. What value is returned if the script exits with an error?

‘exit 1’ = error