**Unix and C Programming 01**

Here is a summary of what we covered:

* Homepage for the course: <http://pirate.shu.edu/~wachmut/> (click on CSAS 2213)
* Download SSHWin client to connect to Unix host
* Connect to host “sciris.shu.edu” with username as usual and password as given in class. If you need to reset your password, please contact me.

We then discussed the following Command Line Interface (CLI) commands:

* passwd to change a password
* whoami, who, w, finger, id to get info about yourself and other users
* talk username to “talk” to another user (like chat)

We discussed using pico, a simple text editor, to create and edit text files. We also talked about “file name completion” (via TAB key) and “command recall” (UP and DOWN arrows). We then talked about file and directory permissions and listings:

* cd is the “change directory” command:
  + cd by itself changes to user’s home directory
  + cd .. goes “up” one level (a single dot . would stand for “current directory”)
* pwd prints the working directory
* mkdir makes a new directory
* ls lists files in current directory; ls -l lists files in “long” format. \* can be used as wildcard character. Typical output is:

bash-3.00$ ls -l hello

-rw-rw-rw- 1 wachsmut wachsmut 54 Jan 19 16:52 hello

Permissions are specified by the first 10 slots of letters

* Slot 1: type (- for file, d for directory, l for link)
* Slots 2-4: r (read), w (write), x (execute) permissions for user (u)
* Slots 5-7: r (read), w (write), x (execute) permissions for group (g)
* Slots 8-10: r (read), w (write), x (execute) permissions for all (a)

In addition, the letter o can be used for “others”, i.e. all except current owner

* chmod change permissions. Typical use is, for example

chmod u+rw,o-rwx,g-wx hello

which sets permissions for “hello” to read, write for user, all others remove read, write, and execute, and remove write and execute from members of the group

Finally we created a publically available web page by:

|  |  |
| --- | --- |
| cd | Change to home directory |
| chmod a+rx . | Make current directory readable and executable to all |
| mkdir public\_html | Create new directory |
| chmod a+rx public\_html | Make new directory readable and executable to all |
| cd public\_html | Change to new directory |
| pico index.html | Create file “index.html” |

The new web page should be available via your favorite web browser at the URL <http://sciris.shu.edu/~username>

**Homework**

1. Read up on details for the above commands using the index available through “Unix Help” from our web page.
2. In my home directory is a directory named 00\_outbox. Edit the file contained in that directory according to the instructions in that file. Then save it to your own home directory and give it the name username.txt, where username is your 8-letter user name. Finally, change permissions to that file to readable by everyone, not executable to anyone, and writable only by yourself.
3. The cp source target command copies files from source to target. Use the cp command to copy the file you just created to the directory 00\_inbox inside my home directory. Note that you can copy files to that directory but you cannot list the files contained in it (check the permissions for that directory). Thus, you need to assume that the copy command worked properly if you do not get an error.
4. Create a directory named private in your home directory that is accessible only to yourself. Create a text file with a secret message inside that directory.
5. Double-check that your Sciris web page is working. It does not matter what it displays as long as it shows something.