

Practical Exercise 1 **UNIX Shell Scripting**

Description

This is an individual exercise in Unix shell scripting using the bash shell. You are asked to create a script called ***uinfo*** that will provide information about users of the system. By default, ***uinfo***, invoked with no arguments, will display information about the user who invoked the program, or the current user.

Supported Options

-a	Show information about all users of the system
-t	Show the total login time for each user to be shown
-g <i>string</i>	Show the information about members of all groups with names that contain <i>string</i>
-u <i>string</i>	Show information about users with login names that contain <i>string</i>
-s <i>login</i> <i>name</i> <i>group</i>	Sorts the output based on the login name, full name, or group name (requires -g, -u, or -a)
-h or -?	Show program options and their descriptions
-o <i>filename</i>	Save the output to a file called <i>filename</i>
-f <i>number</i>	Show only users whose uid is greater than the indicated <i>number</i>

Example Default Output: (current user is *jdacruz*)

```
Login Name : jdacruz
Full Name  : Juan dela Cruz
User ID    : 500
Group      : mktg
Directory  : /home/jdacruz
Shell      : /bin/bash
Last Login : Wed Nov 19 03:21 (PHT) on pts/0 from 10.2.13.1
```

----- Additional output if -t option is used -----

```
Total Time : 11 hours 10 minutes
```

Assumptions

1. Users do not login to the system for more than a day.
2. Options may be combined (e.g. `uinfo -t -g ce2004 -u joe -s name`).
3. The script must display error messages in the event of error. (e.g. `uinfo -u xyz` (print an error message saying that there is no user name that has a substring xyz))
4. For users who have never logged in to the system, the script must display a *Never logged-in* message.

Deadline

12:00 AM Wednesday, 17 December 2003

Early Submission Bonus (+10%) Deadline

12:00 AM Wednesday, 10 December 2003

Submission

1. Place your uinfo script file in a directory called *lastname-firstname* (e.g. amparo-denis).
2. Make a gzipped tarball containing the directory using the filename *lastname-firstname.tar.gz* (e.g. `tar cvzf amparo-denis.tar.gz amparo-denis`)
3. Email the gzipped tarball to damparo@ateneo.edu with the subject *CE 155: uinfo*.

Grading System

- 5 % for help (-h or -?)
- 5 % for output to file (-o)
- 8 % for sorting (-s)
- 8 % for filtering based on uid (-f)
- 10 % for total time option (-t)
- 12 % for list of users (-u)
- 16 % for list of users of each group (-g)
- 16 % for no option/default output
- 20 % for support of multiple command line options