

Unix System Monitoring

Please do all assignments using the basic Unix tools, such as Bourne shell, sed, awk, and other commands in the directories `/bin`, `/etc`, and `/sbin`. You are also allowed to use commands from `/usr/bin` and `/usr/sbin`. Make sure that your projects run on both Solaris (hoare/arch) and Linux (machines in lab) without any modification. Also, make sure that the output is nicely formatted.

1. Write a script to monitor the disk usage. The script should send an alert to system admin (the person who runs the script) via email to specify when a partition is over capacity.

Additionally, include a report on the users who are using the maximum amount of space. The script should take a number as an argument (default: 5) and print the usernames and amount of disk used (MB as well as percentage).

```
mon [-h] [-l p] [-n nusers] -p partition] [user]
```

All the arguments are optional. The defaults are given by

-h Print a help message on how to use the command.

-l p Maximum allowed capacity for any partition.

-n nusers Number of users who are the heaviest users of disk.

-p partition Partition containing all user files. [Default: depends on system, set as one of the first things in script].

user User to whom we send the email. [Default: user who runs script].

While running this script, you may get errors that are due to insufficient privileges. I can test your code with root privileges. So, make sure that as a user, the errors are ignored.

What to handin

Handin a hardcopy of all the sources, README, and results. Create your programs in a directory called *username.1* where *username* is your user name on hoare. Once you are done with everything, issue the following commands:

```
% cd
% ~sanjiv/bin/handin cs5780 1
```