Homework–1

Computer Systems Organization, Spring-2019, IIIT-H
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I will keep adding problems to this list. The submission will be through `github`. Although the final due date is February 12th, I will post the intermediate `commits` you have to make.

1. Given a folder, print the file which occupies the highest amount of disk space.

2. Write a shell script which given a folder and date as parameters, moves all the files older than that date to a folder `archive-date`.

3. Print top N memory consuming applications every x second.

4. Write a shell function which launches as tmux session with a horizontally split screen and split the top half vertically. In the top left pane, it should run htop, in the top right, it should display a running clock and in the bottom one, it should run tcpdump at the bottom one, filtered on port 443 and 80 for tcp connections.

5. **Challenge Problem:** Write a shell script which when sourced, starts recording everything you type in the current session and dumps it's output to $\tilde{\ }$/.dump/⟨session-number⟩. Each new session should auto-increment this number. The script should also provide a function, which when called, replays the recorded session for a number passed as argument.

    These problems are suggested by some excellent students among your seniors who worked with me.

    More problems will be added to this list. So start working now!!