

15-123: Effective Programming in C and Unix

With Hunter Pitelka

Advanced Shell Scripting and Lab 1

Recitation 3
Wednesday September 10th, 2008

TODO:

- OMG emails.
- Finish talking about shell example from last week.
- Discuss Lab 1
- Advanced Shell Stuff

Email

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Can You?

Write me a shell script!:

- count the number of lines, in all files in a given directory that have the extension .ext, that contain or match the first line of the file, with the first line not counting.
- If no path is given as the first argument, then use the current working directory
- output each file on a line as
 - filename.ext:#matchingLines
 - extra credit if you can get rid of the .ext part in filename when you print it out.

File Edit View Terminal Go Help

#!/bin/bash

```
if [ -n ${1} ]; then
    search=${1};
else
    search=`pwd`;
fi

wd=`pwd`;

cd ${search};

ls *.ext | while read file
do
    if [ -r "${file}" ]; then
        if [ `cat "${file}" | wc -l` -gt 0 ]; then
            firstLine=`head -n1 "${file}"`;
            numMatches=`cat "${file}" | grep "$firstLine" | wc -l`;
            fileName=${file};
            finalMatches=`expr $numMatches - 1`;

            echo "${fileName}:${finalMatches}";

        else
            echo ${file}:0;
        fi
    fi
done

cd ${wd};
```

1,1

All

Lab 1 – Document Index

- Due Tomorrow, Thursday September 11th at 11:59pm
- Submit to
`/afs/andrew/course/15/123-kesden/handin/lab1/[andrewid]/`
- You can submit as many times as you like, just append a `.#` to your andrewID and increment the digit.
 - First submit: `/afs/andre....lab1/hpitelka/[filename]`
 - Second submit: `/afs/andr....lab1/hpitelka.1/[filename]`
 - Third submit: `/afs/andre...lab1/hpitelka.2/[filename]`
 -

Questions about the Lab?

Advanced Shell Scripting

- Pipes
- Concurrency
 - File Locks
 - umask
- Signup scripts

Advanced Unix Commands

- find
- tar/gzip
- sort, uniq
- zephyr (zfind, zstart, zwrite..... including owl)
- /dev filesystem

Thanks for coming!

- Office Hours: Monday-Thursday 7-10pm WeH 5419
- Lab 1 is due Thursday September 11th, 11:59pm

Remember: We're here to help!