LAB 4

Course Code: CSC 2209 Course Title: Operating Systems

Dept. of Computer Science
Faculty of Science and Technology

Lecturer No:	**04**	**Week No:**	**04**	**Semester:**	
Lecturer:	*Name & email*				

Lecture Outline

1. Man and help
2. Count words, lines and bytes
3. Line Number
4. Sort Command
5. head Command
6. tail Command
7. Cut Command
8. Paste Command

Man and help

- **man & --help** — To know more about a command and how to use it, use the **man** command. It shows the manual pages of the command. **For example**, "**man cd**" shows the manual pages of the **cd** command. Typing in the command name and the argument helps it show which ways the command can be used (e.g., **cd –help**).
- For example, "**man cat**" shows the **manual pages** of the **cat** command.

Count words, lines and bytes (wc)

i. To show number of words, lines and bytes

Syntax: wc filename

ii. To display the **number of characters** in a file

Syntax: $ wc –c filename

Example: $ wc –c ex1

iii. To display the **number of lines**

Syntax: $ wc –l filename

Example: $ wc –l ex3

Line Number

i. To display number of lines with numbers

Syntax: $ nl filename

$ cat -n filename

Example: $ nl ex1

ii. To increment the line number by 5

Syntax: $ nl –i5 filename

Example: $ nl –i5 ex3

Sort command

This command helps in sorting out the contents of a file alphabetically.

i. To reverse and sort the content of file

Syntax: $ sort –r filename

Example: $ sort –r ex1

ii. To sort the content of the file

Syntax: $ sort filename

Example: $ sort ex1

iii. To sort and remove the duplicate

Syntax: $ sort –u filename

Example: $ sort –u ex1

Exercise

- The "sort" command on Solaris has a "**-k**" switch for sorting by a particular field. For example, "**sort -k 2**" will sort by the second field on each line of input. Parts of fields can be further specified with "**-k n.m**", says the man page.
- For example, "**sort -k 2.3**" should sort by the second field, starting with the third character in that field.

head command

i. To display first 10 lines

Syntax: $ head filename

ii. To display first 6 characters

Syntax: $ head -6c filename

iii. To display 5 lines from 2 files

Syntax: $ head -5 file1 file2

tail command

- To display last 10 lines

  Syntax: $ tail filename

  Example: $ tail ex3

Cut Command

- The cut command enables you to extract a column of information from a file. To specify the column that is to be **extracted**, we use the **-c parameter.** This is then followed by the column number. To extract more than one column, a comma separated list can be passed. **Fields** may also be specified by **using the -f.** A delimiter may also be specified with th**e -d parameter.** The default **delimiter** is the tab character unless specified.
- **cat** cutfile.txt

  harry,25,16200

  gill,46,17500

  bill,45,20000

  john,43,100000

  barry,27,42000

  paul,18,26500

Cut Command (cont'd)

- **cut -d, -f 1,3 cutfile.txt**

  harry,16200

  gill,17500

  bill,20000

  john,100000

  barry,42000

  paul,26500

Exercise

- **cut -c 1-4 cutfile.txt**
- Cutting the first 4 letters from the file "cutfile.txt".

Paste Command Examples

- The **paste command is useful for merging files together**. The first line of each file is joined separated by a Tab character. It is possible to specify a different delimiter with the **-d** parameter.

- cat > pastefile1.txt

  One’

  Two

  Three

  cat > pastefile2.txt

  Four

  Five

  Six

- **paste pastefile1.txt pastefile2.txt**

Books

- Unix Shell Programming
  - Written by Yashavant P. Kanetkar