

Lab.1 : Linux Commands:

A. Basic linux commands

\$ ls (list short)

this command is used for finding out what is in the current directory. It list the contents of the current working directory.

\$ ls a : used for listing all files including hidden

\$ ls l : used for listing all files in details excluding hidden files

\$ ls list* : used for listing the files that names start with list in the current workng director

\$ ls *list : used for listing the files that names ends with list in the current working directory

\$ ls ~/betul : used for listing the contents of your betul directorywhich isunder your home directory

\$ mkdir (make directory)

this command is used for creating a new directory into the present working directory.

\$ mkdir betul : used for creating a directory called betul into the current working directory.

\$ cd (change directory)

this command is used for changing the current working directory to a different directory.

\$ cd betul : changes the current working directory to the directory called betul

\$ cd : used for returning the home directory

\$ cd .. :used for taking one directory up in the hierarchy

Note: In unix and linux there are two special directories called `.(dot)` and `..(two dot or double dot)`. `.` means the current directory and `..` means the parent of the current directory

\$ pwd (print working directory)

this command is used for finding out the absolute pathname of your present working directory.

\$ cp (copy)

this command used for copying files.

\$ cp *filename copy-filename* : is used for copying a file with another name at the same directory

\$ cp *filename directoryname* : is used for copying a file from the current directory to another subdirectory. In this case the file is copied with the same name

\$ cp *filename directoryname/new-filename* : is used for copying a file from the current directory to another subdirectory. In this case the file is copied with different name.

\$ cp *../filename* : is used for copying the file from the directory above (represented by `..`) to the current directory

\$ mv (move)

this command is used for renaming or moving files.

\$ mv *old-filename new-filename* : renames original file with new-filename

\$ mv *filename directory-name/filename* : moves file to another directory with keeping the same filename

\$ mv *filename directory-name/new-filename* : moves file to another directory with giving another filename

\$ rm (remove)

this command is used for deleting files.

\$ rm *filename* : removes file from the current directory

\$ rm *director-name* : removes the file from another directory

\$ rm *../filename* : removes file from directory above

\$ rmdir (remove directory)

this command is used for removing directory. Note that unix will not allow removing non-empty directories.

\$ rm -r *directory-name* : is used for removing a directory with files. (-r means recursive)

\$ clear (clear screen)

this command clears all text and leave \$ prompt at the top of the window.

\$ find

this command is used for finding files. It is used with name flag. The directory must be specified.

\$ find . name *myfile* : searches the file called myfile in the current directory

\$ find directory/ -name *myfile* : seaches the file called my file in the given directory

B. File Operations

B1. Displaying the contents of a file on the screen

\$ less

this command is used for displaying the contents of a file on the screen. It wites the contents of a file onto the screen a page at a time.

\$ less *filename*

\$ head

this command is used for displaying the contents of a file on the screen. By deafult it displays first ten lines of a file.

\$ head 6 myfile : displays the first 6 lines of the file

\$ tail

this command is used for displaying the contents of a file on the screen. By default it displays last ten lines of a file.

\$ tail 6 myfile : displays the last 6 lines of the file

\$ wc (word count)

this command is used for finding out how many lines the file has.

\$ wc l science.txt

\$ cat (concatenate)

this command is used for displaying the contents of a file on the screen. If the file is longer than the size of the window, it scrolls past making it unreadable

\$ cat *filename*

If the *cat* command is written without specifying a file to read, it reads the standard input and on receiving the end of file (^D), copies it to the standard output.

Ex1.

```
$ cat
```

```
bir
```

```
iki
```

```
uc
```

```
^D
```

```
bir
```

```
iki
```

```
uc
```

```
$
```

Ex.2

```
$ cat
```

```
bir
```

```
bir
```

```
iki
```

```
iki
```

```
uc
```

```
uc
```

```
^D
```

```
$
```

The > symbol is used for redirecting the output of a command.

[IMAGE] \$ cat > list1

```
apple
```

Creates a list1 file that contains a list of fruit

```
banana
```

```
pear
```

```
^D
```

The >> symbol is used for appending standard output to a file.

Adds more items to the file list1

[IMAGE]

```
$ cat >>list1
```

```
grape
```

```
pineapple
```

```
^D
```

`$ cat list1 list2 >biglist` : writes the contents of the list1 and list2 into the file called biglist respectively.

B2. Searching the contents of a file

\$ grep

this command is used for searching files for specified words or patterns. It is case sensitive.

`$ grep science science.txt` : search science word in the science.txt file and print out each line containing the word science.

`$ grep i spinning top science.txt` : search spinning top pattern in the science.txt file with ignoring upper*lower case distinctions

options of grep command:

`-v` : displays those lines that do not match

`-n` : precede each matching line with the lin number

-c: prints only the total count of matched lines

\$ grep -ivc science science.txt : displays the number of lines without the words science or Science

\$ sort

this command is used for sorting alphabetically or numerically sorts a list.

\$ sort

carrot

beetroot

artichoke

^D

artichoke

beetroot

carrot

\$ sort < biglist (\$ sort biglist) : outputs the sorted list to the screen

\$ sort < biglist > sortedlist : writes the output of the sorted list into the file called sortedlist