Birla Institute of Technology & Science, Pilani, K. K. BIRLA Goa campus
Operating Systems
First Semester 2013-2014
Tutorial 2 Worksheet

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1. Find the path of the parent folder of the current directory.
2. Solve :
    a. List all the files in the current directory.
    b. Sort the files in the order they were created.
    c. Show the details of the files as well for (b).
3. Obtain the disk usage for Current directory in human readable format (in terms of KB, MB or GB) excluding the usage for it's sub directories.
4. You are in Win directory, What will be the output for the following commands:
    a. du
    b. du .
    c. du ../..
5. Find the index of character 'x' in string “Birla”
6. Given a string “WELCOME” display only “COME”
7. Evaluate following expressions:
    a. 11 - 30 + 5
    b. 11 + 30 - 5
    c. 11 % 30 / 5
    d. 11 / 30 % 5
    e. 11 + 30 / 5
    f. 11 / 30 + 5
8. Create a file named “numbers.txt “ under WIN directory and write following contents into it:
   12 23 34 45 56 67 78 89 90
   using appropriate option store the contents of this file into another file “vertical.txt” in following way:
   12
   23
   34
   45
   56
   67
   78
   89
   90
9. Create a file names“input_file” with the following content (output of a ls-l command)

```
drw-r--r-- 3 center william  43 Dec  8 21:39 p1
-rw-r--r-- 1 center william 17 Dec  8 21:15 t1
-rw-r--r-- 1 center william 26 Dec  8 21:38 t2
-rw-r--r-- 2 center william 25 Dec  8 21:38 t3
drw-r--r-- 1 center william 128 Dec  8 21:39 t4
-rw-r--r-- 1 center william 48 Dec  8 21:39 t5
```

Execute the following command and observe the output-

awk '{print $1}' input_file

Write and execute a command that displays username, file size and filename on the screen from “input_file”.

10. Execute the following commands and observe the output-
    - awk 'BEGIN {sum=0} {sum=sum+$5} END {print sum}' input_file
    - awk '{ if($9 == "t4") print $0;}' input_file
    - awk 'BEGIN {FS=":"} {print $2}' input_file
    - awk 'BEGIN {OFS=":"} {print $4,$5}' input_file
    - awk '{print NF}' input_file
    - awk '{print NR}' input_file

11. Write and execute a command to compare two files named “a.txt” and “b.txt” skipping the first 10 and 20 bytes of a.txt and b.txt respectively. (Create the 2 files containing some content)
    a. Use –l option *(cmp -l a.txt b.txt 10 20)*
    b. Use –s option *(cmp -s a.txt b.txt 10 20)*
12. Execute the following command and note the output-

comm -12 a.txt b.txt