

National University of Computer and Emerging Sciences



Lab Manual 01 Operating Systems Lab

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Section	BCS-E1, H1
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Lab Instructions:

- ❖ Attempt your lab within 2 hours and 30 mins. Last 30 mins are dedicated towards evaluations. No extra time will be given. Be ready for viva.
- ❖ Absent meant ZERO in the lab evaluation too.
- ❖ Code sharing is not allowed either via email or whatsapp.
- ❖ Use of laptops is not allowed. Penalty will be imposed, if found.
- ❖ You are not allowed to charge cell phones/laptops in the lab. Eatables are also prohibited.

Objective:

Getting familiar with linux commands. Learn writing a c++ program in linux Ubuntu.

Exercise 1: (Using Linux Commands)

The task has the following parts

- 1) Create a directory inside your home directory named os_391.
- 2) Download our file hw1.zip and save it into your new os_391 directory. (Use command to download) url is
<https://courses.cs.washington.edu/courses/cse391/21sp/homework/hw1/hw1.zip>
- 3) Unzip the hw1.zip file's contents into your hw1 folder.

If you did everything correctly, you should now have several files and directories within a hw1 directory, such as java/, website/, animals.txt, Burrot.java, numbers.txt, and song1.txt

- 4) List the files in the current directory, in "long listing format".
- 5) List all files, including hidden files, in the /var directory, in reverse alphabetical order and long listing format. (Notice the slash in the directory!)
- 6) Rename the file Burrot.java to Borat.java
- 7) Delete the files diff.html and diff.css. Note that your answer must be a single command and not multiple commands.
- 8) The diff command outputs the differences between two files. Output the differences between lyrics.txt and lyrics2.txt (take screenshot)
- 9) From the hw1 directory, how do you open animals.txt in the text editor of your choice? (hint: Use nano)
- 10) Bring the cursor to the end of the file and append your roll number along the name there and save the contents of your file. Exit the editor and come back to the terminal.
- 11) Compressed the modified contents of the folder into new folder (named YOUR_ROLL_NUMBER__FIRST__NAME.zip)

Exercise 2: (Run C++ Program)

- 1) Move to Desktop
- 2) Create new folder “Home”
- 3) Move to the folder “Home”
- 4) Create a file “test.cpp”
- 5) Create an “input.txt” file in Home Directory and write some data in it.
- 6) Write a simple program that reads a text file “input.txt” and add space after removing non-Alphabetic characters and copy text in “output.txt” file.
- 7) Execute program using “g++” command
- 8) Read the ‘input.txt’ file and read integers from it and find the maximum value between them and print on the screen.

The contents of input.txt are;

12 ABC 43 DEF 56 YTR DFT 67 32 21 WE BGH 32 45

The output.txt file contents are:

12 43 56 67 32 21 32 45

Use either c++ or c to program. Create your own text file.