

CS100: Software Tools & Technologies Lab I

Lab-1: Practice Problems (Linux Commands)

Date: 18-March-2023

Instructions:

1. You must solve the below problems only on the Linux terminal to make yourself familiar with linux commands and start getting good practice.
2. Try to complete lab problems during the lab hour and submit it through canvas. If you can't complete it within the lab time, you can submit it by the end of today. There will be a penalty if you don't submit on the same day.
3. Prepare all your solution files in a zip file and name it as <ROLLNO.zip> and submit on canvas.

Problems:

1. Create a directory in the desktop with your roll no as directory name.
2. Enter the directory and create an empty file named "Grade.c" in the folder you created.
3. Use **VIM Editor ONLY** to write a program in Grade.c that takes input a letter grade A, B, C, D, E, or F and prints the student performance as below. For this problem, make use of the VIM commands (copy, paste, navigation keys, different modes). Also, set line numbers and set auto indentation mode.

Input	Output
A	Your performance is excellent
B	Your performance is good
C	Your performance is fair
D	Your performance is poor
E	Your grade is not complete
F	You are failed
<Any other character>	Invalid character

4. Compile your program using gcc
5. Write a linux command to change the permissions of the generated executable to 777
6. Write a linux command to compute the total number of words in your program

7. Write the linux command to print the lines along with line numbers containing the text "You" in your program
8. Write a linux command using grep command to list all the C keywords (such as char, int, unsigned, main, void, switch, etc) that you are using in your program.
9. Write a linux command that prints the number of times the character '{' appears in the first 15 lines of your program.
10. Write a linux command that every time your program is executed it should append the output to "output.txt" file.