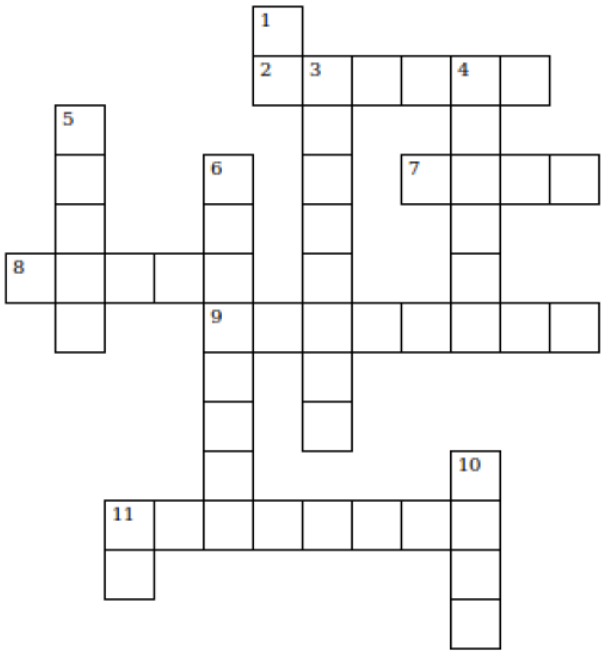
CS242
System Programming Lab No. - 4

Objective
In this lab you will explore the systems calls used to manipulate the file system.

Exercise
1. This is a fun exercise to test your knowledge of Linux commands. You need to solve the given crossword



ACROSS
2 File which stores user account names and their settings
7 UNIX system administrator
8 Command that lets you delete empty directories
9 Process of adding a storage device to a file system
11 Path name which starts with the current directory

DOWN
1 Command that lets you copy files
3 Path name that starts with the root directory
4 Displays your user name
5 Command which displays system characteristics
6 Name of a program which runs a shell
10 Command that lets you see a file one screen at a time
11 Allows you to delete files

2. Write a C program to emulate the `ls -l` UNIX command that prints all files in a current directory and lists access privileges etc. DO NOT simply `exec ls -l` from the program.

   [Hint: Checkout the system calls - scandir(), stat, fstat, lstat, etc]

3. Write a program to print the lines of a file which contain a word given as the program argument

Deliverables
Create a pdf document containing the output of your program. Next create an archive file by the name <roll number>.tar that contains the pdf document and the C program.
Mail the document to cs242@iitp.ac.in with subject “Lab 1”.

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