

Punjab University College of Information and Technology
System Programming

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SP Lab # 9

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Solution:

```
If ( youWant() == true) {  
    youCan();  
} else { youCant(); }
```

Instructions

First, solve the problem.
Then, write the code.

QUESTION 1 (10)

Write a code to open “/etc/passwd” file and copy the file descriptor using dup(). Then using that new file descriptor read the file and print data on screen.

QUESTION 2 (10)

Open an existing text file with some data written in it and copy it's descriptor. If file opening error gives and error then error should go into the text file name “errorAndoutput.txt” and if open doesn't return error then print that data of that text file into same “errorAndoutput.txt”.

Note: must use dup() to print error and output into the file.

QUESTION 3 (10)

Implement following assuming you have f1.txt, f2.txt and f3.txt saved and have some data in them.

- 1) cat 1>f1.txt 2>&1 0<f1.txt
- 2) cat 2>&1 1 > f2.txt 0<f1.txt
- 3) cat 0<f1.txt 2>&1 1>f2.txt

QUESTION 4(10)

Write a code that accepts command line arguments (file names or directories) as much as user can give. And print that which one of them are files and directories.

If it is a file print Message with it's name (“shan.txt” is a file) then print their inode number , access time , modifies time and size;

If it is directory print Message with it's name (it is a directory)then print it's user ID.

QUESTION 5(10)

Write a code that takes a file name as input and print that whether you have reading , writing and executing permissions or not.

Note: use access()