MTCS-205: CS-2(P)

Advanced Programming in Unix Environment

Assignment 3.1 Report
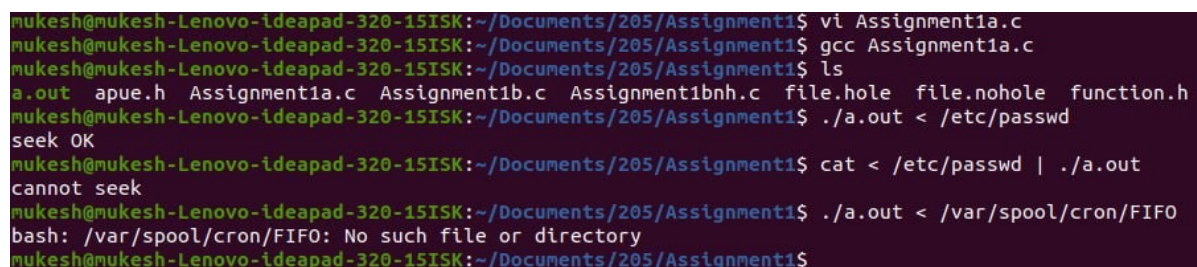
Question1:

Run the program in Figure 3.1 to test whether the standard input is capable of seeking and write your report on it.

> This C file (Asignment1a.c) was compiled and run with required header files and tested whether the standard input is capable of seeking or not. And the program returned "cannot seek". Because the file descriptor refers to a pipe, FIFO, or socket, lseek sets errno to ESPIPE and returns -1 (Cannot seek).

Running this program gives:

Question2:

Run the program in Figure 3.2 to create a file with a hole in it and compare it with a file of the same size with no hole in it, compare the blocks occupied both the files, show the result obtained as a screenshot.

> These C files (Assignment1b.c & Assignment1bnh.c) were compiled and run with required header files and created one file with a hole in it and another file with no hole in it. Both files were compared with each other using

command ls -ls. The file with hole occupied only 8 blocks and the file with no hole occupied 20 blocks.

Running these programs gives:

```
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ vi Assignment1b.c
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ gcc Assignment1b.c
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ ./a.out
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ ls -l file.hole
-rw-rw-r-- 1 mukesh mukesh 16394 Feb 14 10:15 file.hole
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ od -c file.hole
0000000   a   b   c   d   e   f   g   h   i   j  \0  \0  \0  \0  \0  \0
0000020  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0  \0
*
0040000   A   B   C   D   E   F   G   H   I   J
0040012
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ vi Assignment1bnh.c
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ gcc Assignment1bnh.c
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ ./a.out
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ ls -l file.nohole
-rw-rw-r-- 1 mukesh mukesh 16394 Feb 14 10:16 file.nohole
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ od -c file.nohole
0000000   a   a   a   a   a   a   a   a   a   a   a   a   a   a   a   a
*
0040000   a   a   a   a   a   a   a   a   a   a
0040012
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$ ls -ls file.hole file.nohole
 8 -rw-rw-r-- 1 mukesh mukesh 16394 Feb 14 10:15 file.hole
20 -rw-rw-r-- 1 mukesh mukesh 16394 Feb 14 10:16 file.nohole
mukesh@mukesh-Lenovo-ideapad-320-15ISK:~/Documents/205/Assignment1$
```