

IO Labs -I

1. write a program to open a file descriptor in read only mode on a data file and perform following
 - a. initiate a read operation on the file for page size
 - b. enable write mode
 - c. initiate page size write operation
 - d. reposition file offset to beginning of the file data
 - e. initiate read till the end of the file (without using loops)
2. write a program that creates a new file (in PWD) and opens file descriptor in non blocking mode.
3. write a program to provide file copy functionality
 - a. copy source file to create a target file
 - b. do not use read/write operations to transfer data b/w source and destination files
4. write a program that transfers data read from a pipe into a persistent file
 - a. use named pipe
 - b. check if it is possible to move data b/w pipe and file without using read/write ops
5. write a program to list files in current directory
6. write a program to store following structure instances into a persistent file

```
struct msg{
    int id;
    char buf[1024];
    int prio;
};
```

 - a. program should create a file and write at least 10 instances of the above structure.
 - b. have the program read alternate records of a above instances from the file and write to a temporary file
 - c. write another program that extracts message of a specified priority from the file
7. write a program to carry out following tasks
 - a. create a new persistent file of fixed size(1024bytes)
 - b. attempt to write 2048 bytes of data and check the results of write operations

8. write a program that performs read/write on a file without altering file descriptor offsets

hints: man pages (mktemp, fcntl, mkfifo, splice, sendfile, readdir, fcntl, fstat)