**Write a C program to find file properties such as inode number, number of hard link, File permissions, File size, File access and modification time and so on of a given file using fstat() system call.**

#include <unistd.h>

#include <fcntl.h>

#include <stdio.h>

#include <sys/stat.h>

#include <sys/types.h>

int main(int argc, char \*\*argv)

{

if(argc != 2)

return 1;

int file=0;

if((file=open(argv[1],O\_RDONLY)) < -1)

return 1;

struct stat fileStat;

if(fstat(file,&fileStat) < 0)

return 1;

printf("Information for %s\n",argv[1]);

printf("---------------------------\n");

printf("File Size: \t\t%d bytes\n",fileStat.st\_size);

printf("Number of Hard Links: \t%d\n",fileStat.st\_nlink);

printf("File inode: \t\t%d\n",fileStat.st\_ino);

//printf("Last file access: %s", ctime(&fileStat.st\_atime));

//printf("Last file modification: %s", ctime(&fileStat.st\_mtime));

printf("File Permissions: \t");

printf( (S\_ISDIR(fileStat.st\_mode)) ? "d" : "-");

printf( (fileStat.st\_mode & S\_IRUSR) ? "r" : "-");

printf( (fileStat.st\_mode & S\_IWUSR) ? "w" : "-");

printf( (fileStat.st\_mode & S\_IXUSR) ? "x" : "-");

printf( (fileStat.st\_mode & S\_IRGRP) ? "r" : "-");

printf( (fileStat.st\_mode & S\_IWGRP) ? "w" : "-");

printf( (fileStat.st\_mode & S\_IXGRP) ? "x" : "-");

printf( (fileStat.st\_mode & S\_IROTH) ? "r" : "-");

printf( (fileStat.st\_mode & S\_IWOTH) ? "w" : "-");

printf( (fileStat.st\_mode & S\_IXOTH) ? "x" : "-");

printf("\n");

close(file);

return 0;

}