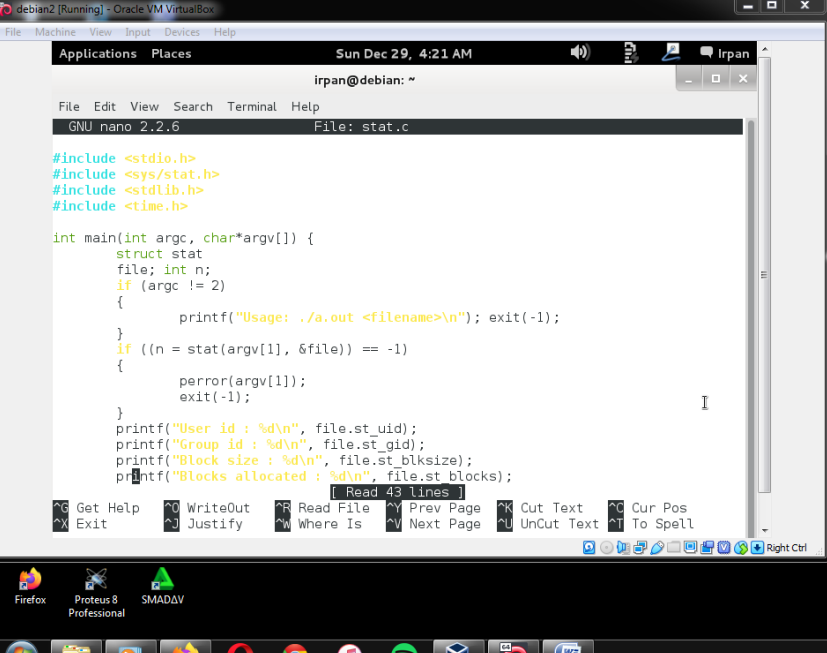


Nama : Irvan Rifa'i
NIM : L200180214
kelas : E

Modul 8 System Call

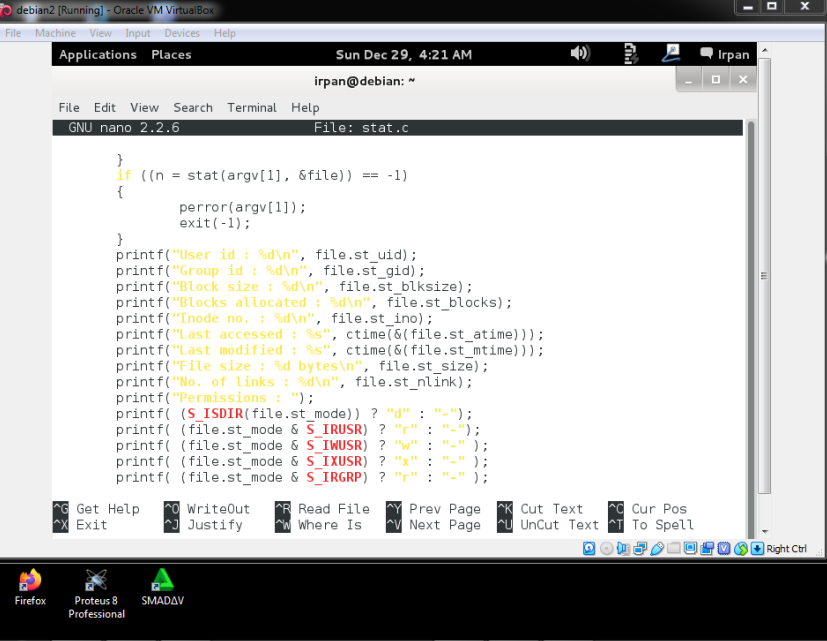
1. stat.c



The screenshot shows a terminal window titled "irpan@debian: ~" with the GNU nano 2.2.6 editor open to the file "stat.c". The code visible is the beginning of the program, including header files and the start of the main function.

```
#include <stdio.h>
#include <sys/stat.h>
#include <stdlib.h>
#include <time.h>

int main(int argc, char*argv[]) {
    struct stat
    file; int n;
    if (argc != 2)
    {
        printf("Usage: ./a.out <filename>\n"); exit(-1);
    }
    if ((n = stat(argv[1], &file)) == -1)
    {
        perror(argv[1]);
        exit(-1);
    }
    printf("User id : %d\n", file.st_uid);
    printf("Group id : %d\n", file.st_gid);
    printf("Block size : %d\n", file.st_blksize);
    printf("Blocks allocated : %d\n", file.st_blocks);
    Read 43 lines
```



The screenshot shows the continuation of the stat.c program in the terminal window. The code includes various printf statements to display file statistics and permissions.

```
}
if ((n = stat(argv[1], &file)) == -1)
{
    perror(argv[1]);
    exit(-1);
}
printf("User id : %d\n", file.st_uid);
printf("Group id : %d\n", file.st_gid);
printf("Block size : %d\n", file.st_blksize);
printf("Blocks allocated : %d\n", file.st_blocks);
printf("Inode no. : %d\n", file.st_ino);
printf("Last accessed : %s", ctime(&(file.st_atime)));
printf("Last modified : %s", ctime(&(file.st_mtime)));
printf("File size : %d bytes\n", file.st_size);
printf("No. of links : %d\n", file.st_nlink);
printf("Permissions : ");
printf(" (%s %s %s) ? "d" : "-";
printf(" (file.st_mode & S_IRUSR) ? "r" : "-";
printf(" (file.st_mode & S_IWUSR) ? "w" : "-";
printf(" (file.st_mode & S_IXUSR) ? "x" : "-";
printf(" (file.st_mode & S_IRGRP) ? "r" : "-";
```

The screenshot shows a terminal window titled 'debian2 [Running] - Oracle VM VirtualBox'. The terminal prompt is 'irpan@debian: ~'. The file 'stat.c' is open in the nano 2.2.6 editor. The code in the file is as follows:

```
printf("Last accessed : %s", ctime(&(file.st_atime)));
printf("Last modified : %s", ctime(&(file.st_mtime)));
printf("File size : %d bytes\n", file.st_size);
printf("No. of links : %d\n", file.st_nlink);
printf("Permissions : ");
printf(" (%s) ", file.st_mode);
printf(" (%s) ", file.st_mode & S_IRUSR);
printf(" (%s) ", file.st_mode & S_IWUSR);
printf(" (%s) ", file.st_mode & S_IXUSR);
printf(" (%s) ", file.st_mode & S_IRGRP);
printf(" (%s) ", file.st_mode & S_IWGRP);
printf(" (%s) ", file.st_mode & S_IXGRP);
printf(" (%s) ", file.st_mode & S_IROTH);
printf(" (%s) ", file.st_mode & S_IWOTH);
printf(" (%s) ", file.st_mode & S_IXOTH);
printf("\n");
if(file.st_mode & S_IFREG)
    printf("File type : Regular\n");
if(file.st_mode & S_IFDIR)
    printf("File type : Directory\n");
}
```

The terminal window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The status bar at the bottom shows 'Sun Dec 29, 4:22 AM' and 'Right Ctrl'.

The screenshot shows the same terminal window as above, but the code in 'stat.c' has been modified. The code is as follows:

```
printf(" (%s) ", file.st_mode & S_IXGRP);
printf(" (%s) ", file.st_mode & S_IROTH);
printf(" (%s) ", file.st_mode & S_IWOTH);
printf(" (%s) ", file.st_mode & S_IXOTH);
printf("\n");
if(file.st_mode & S_IFREG)
    printf("File type : Regular\n");
if(file.st_mode & S_IFDIR)
    printf("File type : Directory\n");
}
```

The terminal window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The status bar at the bottom shows 'Sun Dec 29, 4:22 AM' and 'Right Ctrl'.

2. dirlist.c

