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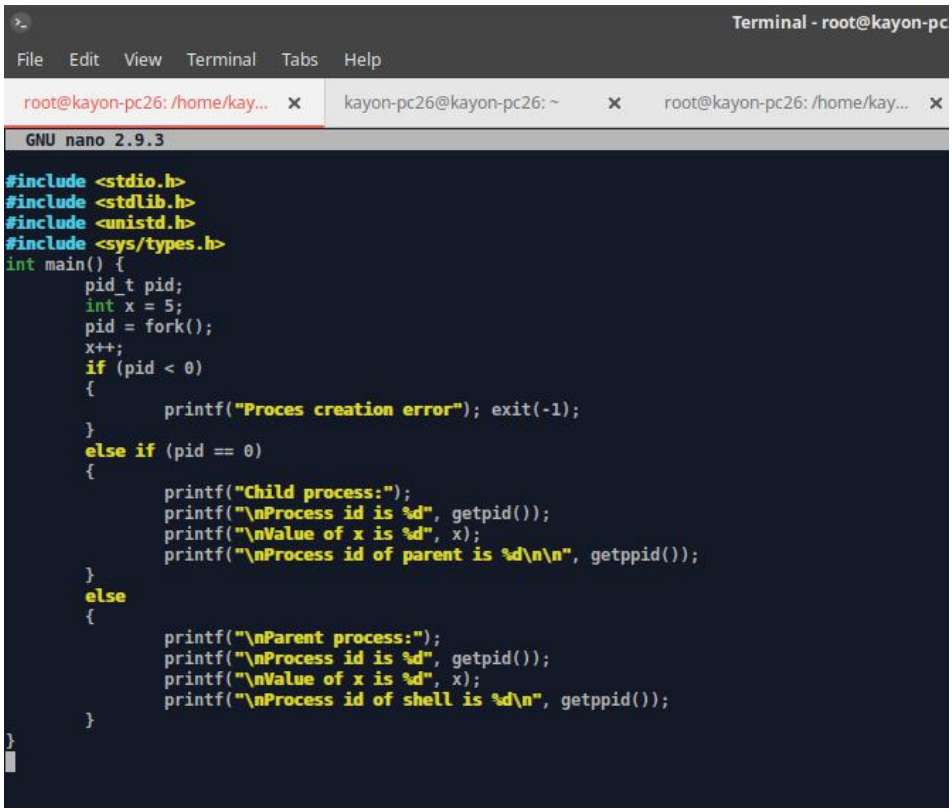
NIM : L200180026

MODUL 8

Fork.c



wait.c

Terminal - root@kayon-pc26:

File Edit View Terminal Tabs Help

root@kayon-pc26: /home/kay... | kayon-pc26@kayon-pc26: ~ | root@kayon-pc26: /home/kay...

GNU nano 2.9.3

```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>
int main() {
        int i, status;
        pid_t pid;
        pid = fork();

        if (pid < 0) {
                printf ("\nPembuatan proses gagal\n");
                exit(-1);
        }
        else if(pid > 0)
        {
                wait(NULL);
                printf ("\nParent starts\nNomor Genap:");
                for (i=2;i<=10;i+=2)
                        printf("%3d",i);
                printf ("\nParent ends\n");
        }
        else if (pid == 0)
        {
                printf ("Child starts\nNomor Ganjil:");
                for (i=1;i<10;i+=2)
                        printf("%3d",i);
                printf ("\nChild ends\n");
        }
}
```

```
kayon-pc26@kayon-pc26:~$ gcc wait.c
kayon-pc26@kayon-pc26:~$ ./a.out
Child starts
Nomor Ganjil:  1  3  5  7  9
Child ends

Parent starts
Nomor Genap:  2  4  6  8 10
Parent ends
kayon-pc26@kayon-pc26:~$
```

Untitled 1 - LibreOffice Writer | Terminal - kayon-pc26@kayo...

Exec.c

Terminal - root@kayon-pc26: /home/kayon-

File Edit View Terminal Tabs Help

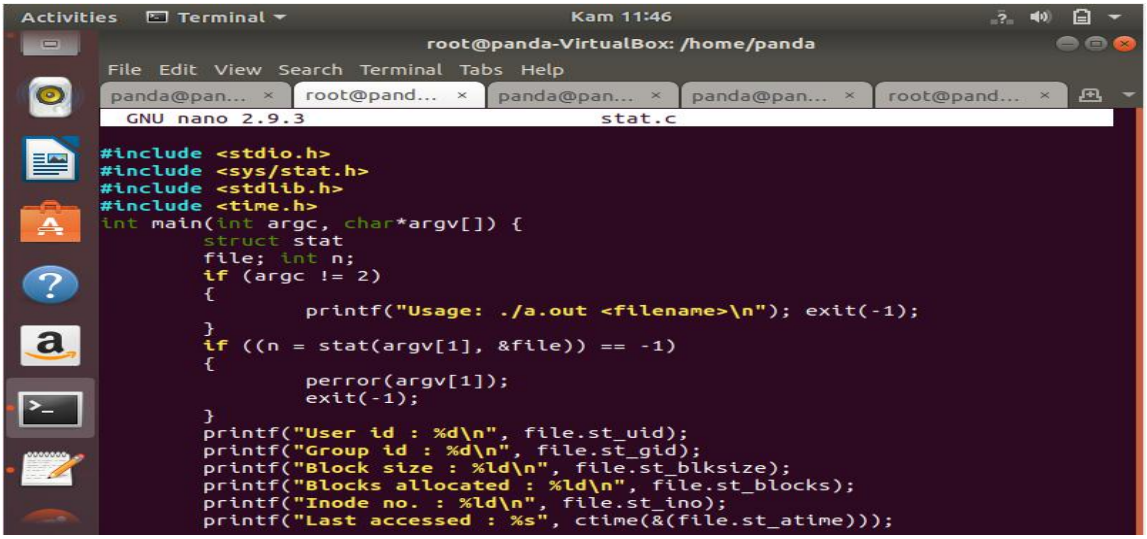
root@kayon-pc26: /home/kay... | kayon-pc26@kayon-pc26: ~ | root@kayon-pc26: /home/kay... | kayon-pc26@

GNU nano 2.9.3 exec.c

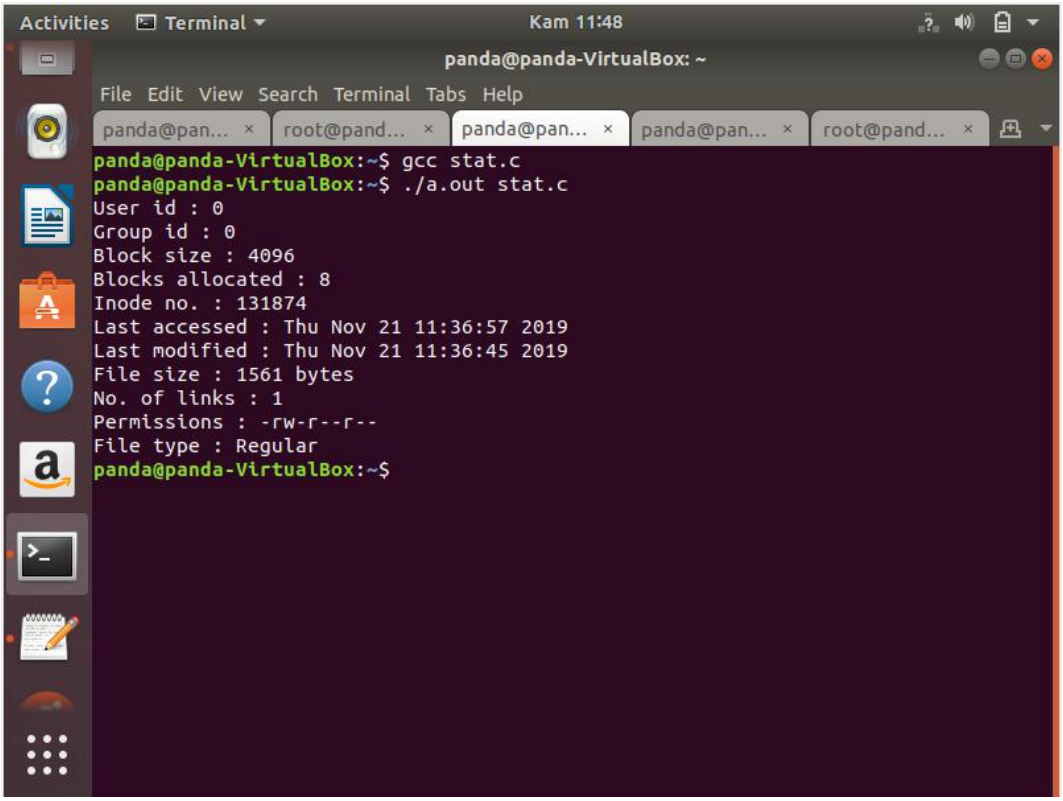
```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>
#include <stdlib.h>
#include <sys/wait.h>
int main(int argc, char*argv[]) {
        pid_t pid;
        int i;

        if (argc != 3)
        {
                printf("\nInsufficient arguments to load program");
                printf("\nUsage: ./a.out <path> <cmd>\n"); exit(-1);
        }
        switch(pid = fork())
        {
        case -1:
                printf("Fork failed");
                exit(-1);
        case 0:
                printf("Child process\n");
                i = execl(argv[1], argv[2], NULL);
                if (i < 0)
                {
                        printf("%s program not loaded using exec system call\n", argv[2]);
                        exit(-1);
                }
        default:
                wait(NULL);
                printf("Child Terminated\n");
                exit(0);
        }
}
```

kayon-pc26@kayon-pc26:~$ gcc exec.c
kayon-pc26@kayon-pc26:~$ ./a.out /bin/ls ls
Child process
a.out Desktop Documents Downloads exec.c fork.c 'Modul 5 Prak_SO' Music Pictures Public Templates Videos wait.c
Child Terminated
kayon-pc26@kayon-pc26:~$
Untitled 1 - LibreOffice Writer
gcc

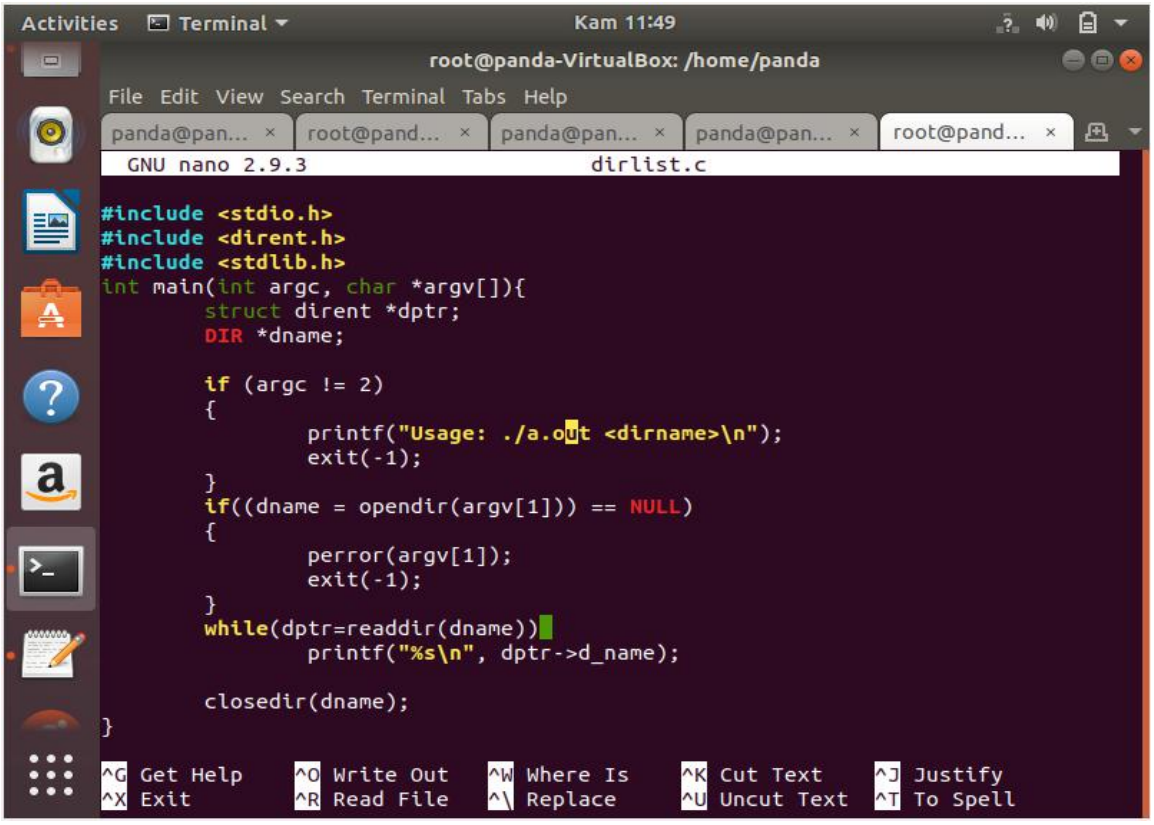
stat.c

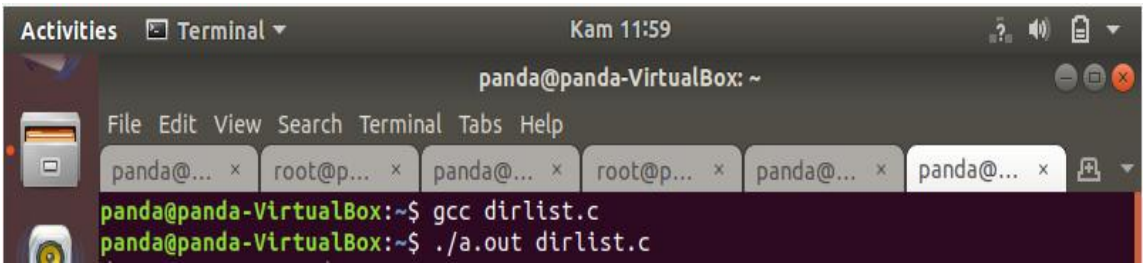

Activities
Terminal
Kam 11:46
root@panda-VirtualBox: /home/panda
File Edit View Search Terminal Tabs Help
panda@pan...
root@pand...
panda@pan...
panda@pan...
root@pand...
GNU nano 2.9.3
stat.c
#include <stdio.h>
#include <sys/stat.h>
#include <stdlib.h>
#include <time.h>
int main(int argc, char*argv[]) {
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 : %ld\n", file.st_blksize);
printf("Blocks allocated : %ld\n", file.st_blocks);
printf("Inode no. : %ld\n", file.st_ino);
printf("Last accessed : %s", ctime(&(file.st_atime)));

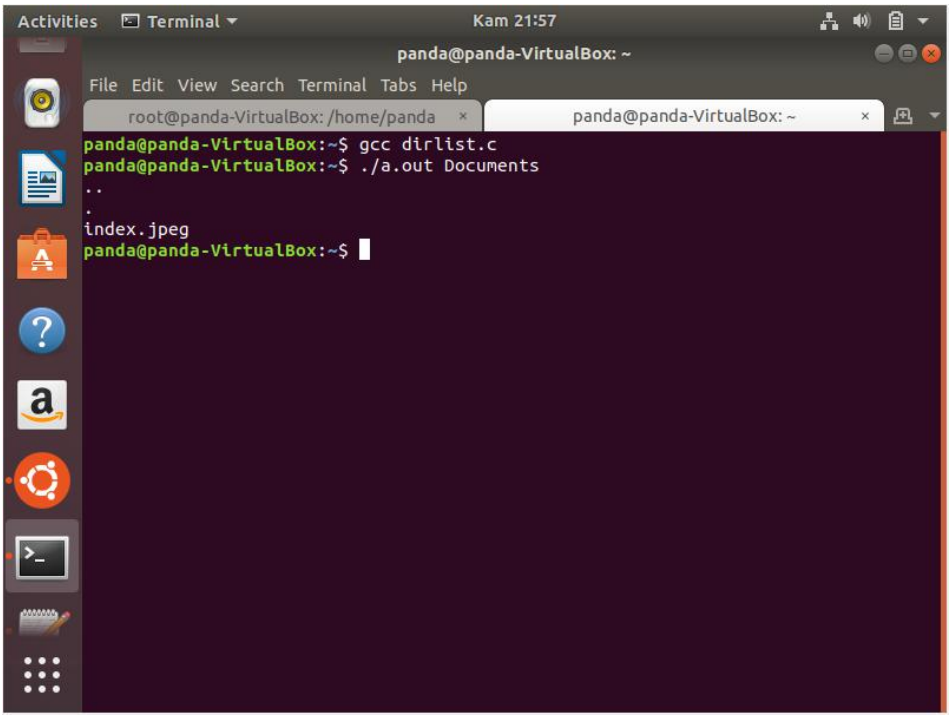
printf("Last modified : %s", ctime(&(file.st_mtime)));
printf("File size : %ld bytes\n", file.st_size);
printf("No. of links : %ld\n", file.st_nlink);
printf("Permissions : ");
printf((S_ISDIR(file.st_mode)) ? "d" : "-");
printf((file.st_mode & S_IRUSR) ? "r" : "-");
printf((file.st_mode & S_IWUSR) ? "w" : "-");
printf((file.st_mode & S_IXUSR) ? "x" : "-");
printf((file.st_mode & S_IRGRP) ? "r" : "-");
printf((file.st_mode & S_IWGRP) ? "w" : "-");
printf((file.st_mode & S_IXGRP) ? "x" : "-");
printf((file.st_mode & S_IROTH) ? "r" : "-");
printf((file.st_mode & S_IWOTH) ? "w" : "-");
printf((file.st_mode & S_IXOTH) ? "x" : "-");
printf("\n");
if(file.st_mode & S_IFREG)
printf("File type : Regular\n");
if(file.st_mode & S_IFDIR)
printf("File type : Directory\n");
}
^G Get Help
^X Exit
^O Write Out
^R Read File
^W Where Is
^\ Replace
^K Cut Text
^U Uncut Text
^J Justify
^T To Spell


Activities
Terminal
Kam 11:48
panda@panda-VirtualBox: ~
File Edit View Search Terminal Tabs Help
panda@pan... × root@pand... × panda@pan... × panda@pan... × root@pand... ×
panda@panda-VirtualBox:~$ gcc stat.c
panda@panda-VirtualBox:~$ ./a.out stat.c
User id : 0
Group id : 0
Block size : 4096
Blocks allocated : 8
Inode no. : 131874
Last accessed : Thu Nov 21 11:36:57 2019
Last modified : Thu Nov 21 11:36:45 2019
File size : 1561 bytes
No. of links : 1
Permissions : -rw-r--r--
File type : Regular
panda@panda-VirtualBox:~$

dirlist.c


Activities
Terminal
Kam 11:49
root@panda-VirtualBox: /home/panda
File Edit View Search Terminal Tabs Help
panda@pan... × root@pand... × panda@pan... × panda@pan... × root@pand... ×
GNU nano 2.9.3 dirlist.c
#include <stdio.h>
#include <dirent.h>
#include <stdlib.h>
int main(int argc, char *argv[]){
struct dirent *dptr;
DIR *dname;
if (argc != 2)
{
printf("Usage: ./a.out <dirname>\n");
exit(-1);
}
if((dname = opendir(argv[1])) == NULL)
{
perror(argv[1]);
exit(-1);
}
while(dptr=readdir(dname))
printf("%s\n", dptr->d_name);
closedir(dname);
}
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell


Activities
Terminal
Kam 11:59
panda@panda-VirtualBox: ~
File Edit View Search Terminal Tabs Help
panda@... root@p... panda@... root@p... panda@... panda@...
panda@panda-VirtualBox:~$ gcc dirlist.c
panda@panda-VirtualBox:~$ ./a.out dirlist.c


Activities
Terminal
Kam 21:57
panda@panda-VirtualBox: ~
File Edit View Search Terminal Tabs Help
root@panda-VirtualBox: /home/panda
panda@panda-VirtualBox: ~
panda@panda-VirtualBox:~$ gcc dirlist.c
panda@panda-VirtualBox:~$ ./a.out Documents
..
.
index.jpeg
panda@panda-VirtualBox:~$