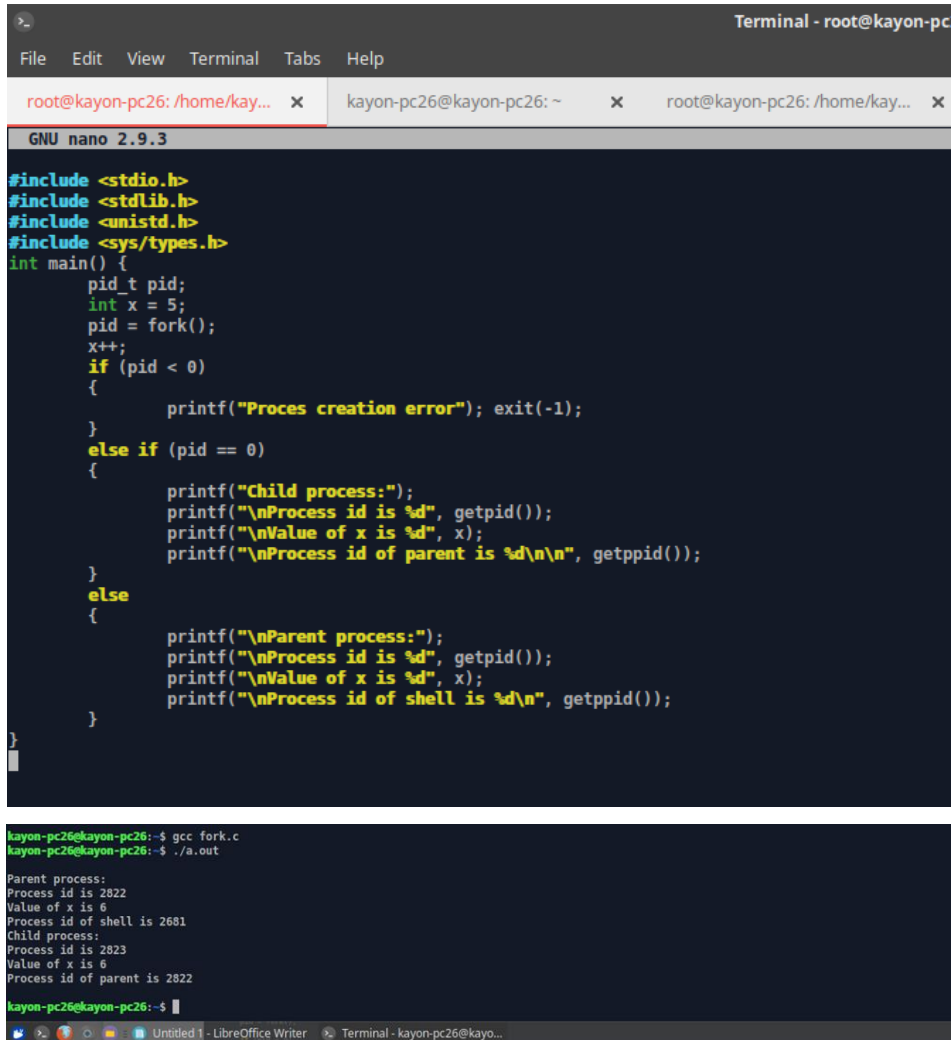NAMA          : DHIYA ULHAQ A

NIM            : L200180009

MODUL 8

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

```c
#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...

---

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

```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

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

```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    ^O Write Out    ^W Where Is    ^K Cut Text    ^J Justify
^X Exit       ^R Read File    ^\ Replace     ^U Uncut Text   ^T To Spell

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:~$
```

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
```