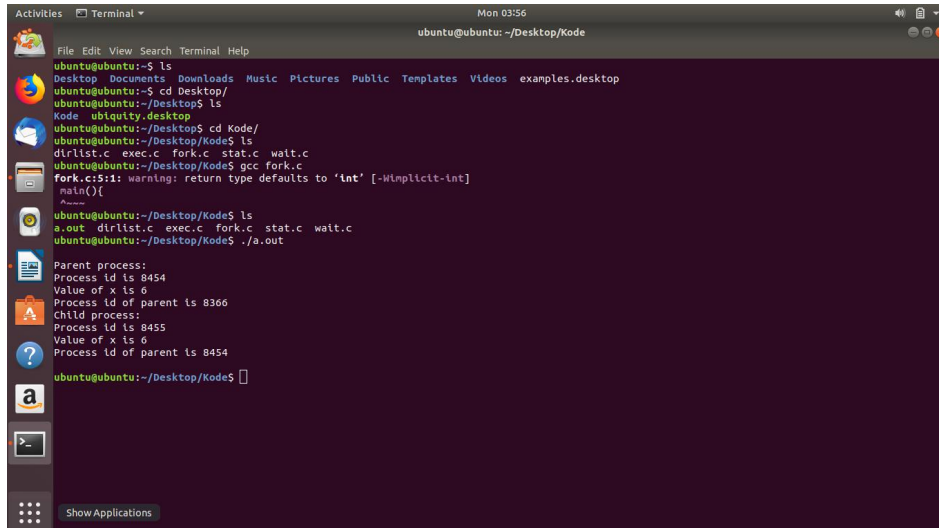


Laporan

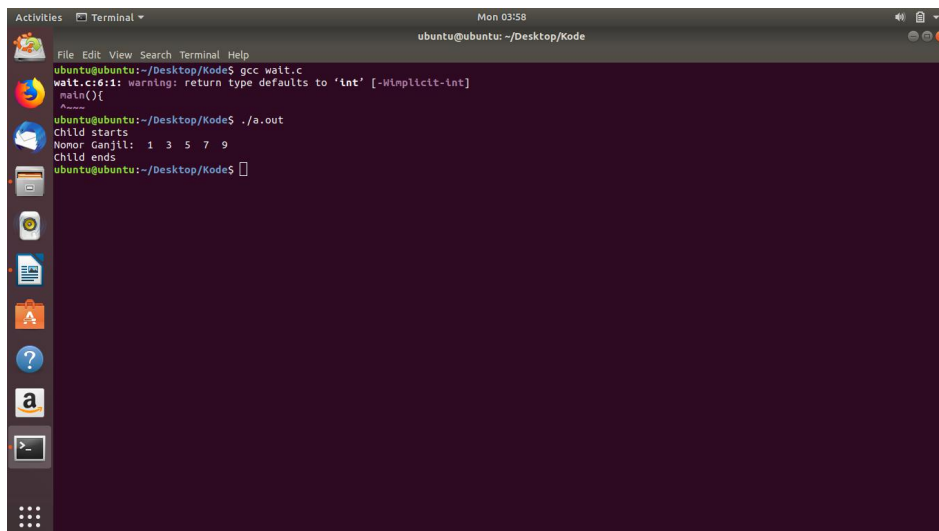
Modul 8. System Call

1. Membuat sebuah 'child process' (proses baru) dengan menggunakan system call 'fork'.



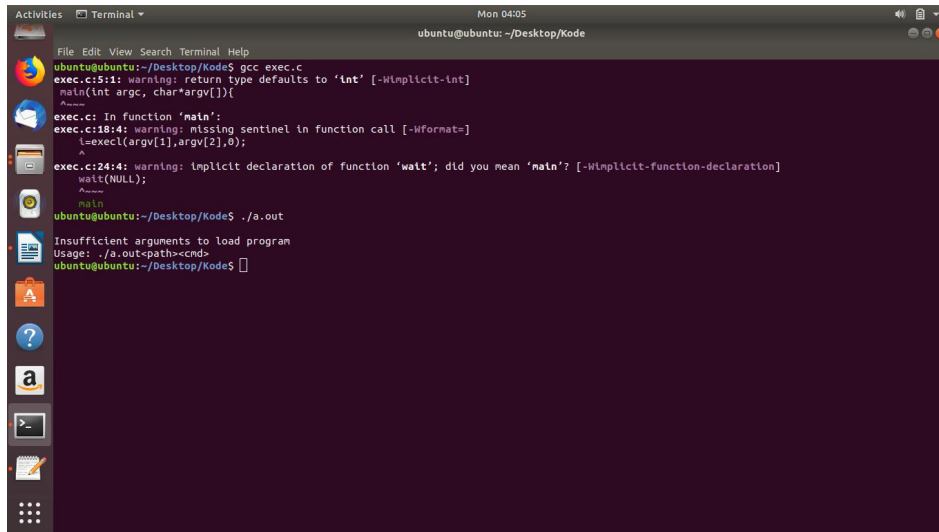
```
ubuntu@ubuntu:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos  examples.desktop
ubuntu@ubuntu:~$ cd Desktop/
ubuntu@ubuntu:~/Desktop$ ls
Kode  ubiquity.desktop
ubuntu@ubuntu:~/Desktop$ cd Kode/
ubuntu@ubuntu:~/Desktop/Kode$ ls
dirlist.c  exec.c  fork.c  stat.c  wait.c
ubuntu@ubuntu:~/Desktop/Kode$ gcc fork.c
fork.c:5:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(){
^~~~~~
ubuntu@ubuntu:~/Desktop/Kode$ ls
a.out  dirlist.c  exec.c  fork.c  stat.c  wait.c
ubuntu@ubuntu:~/Desktop/Kode$ ./a.out
Parent process:
Process id is 8454
Value of x is 6
Process id of parent is 8366
Child process:
Process id is 8455
Value of x is 6
Process id of parent is 8454
ubuntu@ubuntu:~/Desktop/Kode$
```

2. Menghentikan sementara (block) proses parent sampai dengan proses child selesai, menggunakan perintah system call 'wait'.



```
ubuntu@ubuntu:~/Desktop/Kode$ gcc wait.c
wait.c:6:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(){
^~~~~~
ubuntu@ubuntu:~/Desktop/Kode$ ./a.out
Child starts
Nomor Ganjil: 1 3 5 7 9
Child ends
ubuntu@ubuntu:~/Desktop/Kode$
```

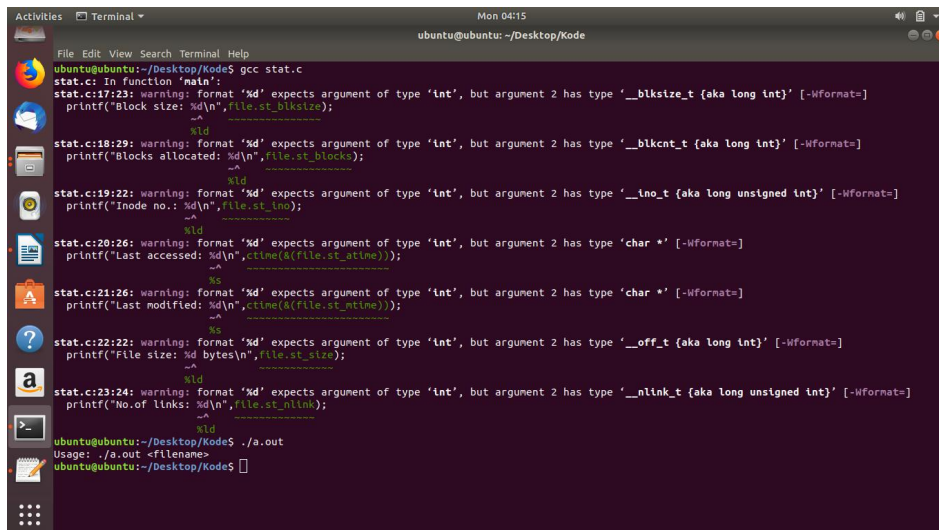
3. Loading program yang dapat dieksekusi dalam sebuah 'child' proses menggunakan perintah system call 'exec'.



```
Mon 04:05
ubuntu@ubuntu: ~/Desktop/Kode

File Edit View Search Terminal Help
ubuntu@ubuntu:~/Desktop/Kode$ gcc exec.c
exec.c:15:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(int argc, char*argv[]){
^~~~~
exec.c: In function 'main':
exec.c:18:4: warning: missing sentinel in function call [-Wformat=]
    execl(argv[1],argv[2],0);
    ^
exec.c:24:14: warning: implicit declaration of function 'wait'; did you mean 'main'? [-Wimplicit-function-declaration]
    wait(NULL);
               ^
               main
ubuntu@ubuntu:~/Desktop/Kode$ ./a.out
Insufficient arguments to load program
Usage: ./a.out<path><cmd>
ubuntu@ubuntu:~/Desktop/Kode$
```

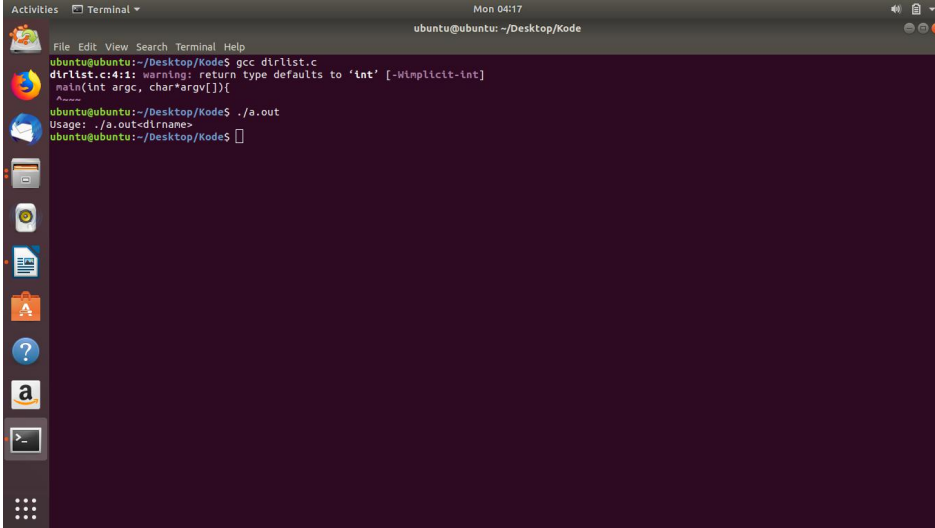
4. Menampilkan status file menggunakan perintah system call 'stat'.



```
Mon 04:15
ubuntu@ubuntu: ~/Desktop/Kode

File Edit View Search Terminal Help
ubuntu@ubuntu:~/Desktop/Kode$ gcc stat.c
stat.c: In function 'main':
stat.c:17:23: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blksize_t {aka long int}' [-Wformat=]
    printf("Block size: %d\n",file.st_blksize);
                        ^
                        %ld
stat.c:18:29: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blkcnt_t {aka long int}' [-Wformat=]
    printf("Blocks allocated: %d\n",file.st_blocks);
                            ^
                            %ld
stat.c:19:22: warning: format '%d' expects argument of type 'int', but argument 2 has type '__ino_t {aka long unsigned int}' [-Wformat=]
    printf("Inode no.: %d\n",file.st_ino);
                        ^
                        %ld
stat.c:20:26: warning: format '%d' expects argument of type 'int', but argument 2 has type 'char *' [-Wformat=]
    printf("Last accessed: %d\n",ctime(&(file.st_atime)));
                            ^
                            %s
stat.c:21:26: warning: format '%d' expects argument of type 'int', but argument 2 has type 'char *' [-Wformat=]
    printf("Last modified: %d\n",ctime(&(file.st_mtime)));
                            ^
                            %s
stat.c:22:22: warning: format '%d' expects argument of type 'int', but argument 2 has type '__off_t {aka long int}' [-Wformat=]
    printf("File size: %d bytes\n",file.st_size);
                        ^
                        %ld
stat.c:23:24: warning: format '%d' expects argument of type 'int', but argument 2 has type '__nlink_t {aka long unsigned int}' [-Wformat=]
    printf("No. of links: %d\n",file.st_nlink);
                        ^
                        %ld
ubuntu@ubuntu:~/Desktop/Kode$ ./a.out
Usage: ./a.out <filename>
ubuntu@ubuntu:~/Desktop/Kode$
```

5. Menampilkan isi direktori menggunakan perintah system call 'readdir'.



```
Activities Terminal Mon 04:17
ubuntu@ubuntu: ~/Desktop/Kode
File Edit View Search Terminal Help
ubuntu@ubuntu:~/Desktop/Kode$ gcc dirlist.c
dirlist.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(int argc, char*argv[]){
^~~~~~
ubuntu@ubuntu:~/Desktop/Kode$ ./a.out
Usage: ./a.out<dirname>
ubuntu@ubuntu:~/Desktop/Kode$
```