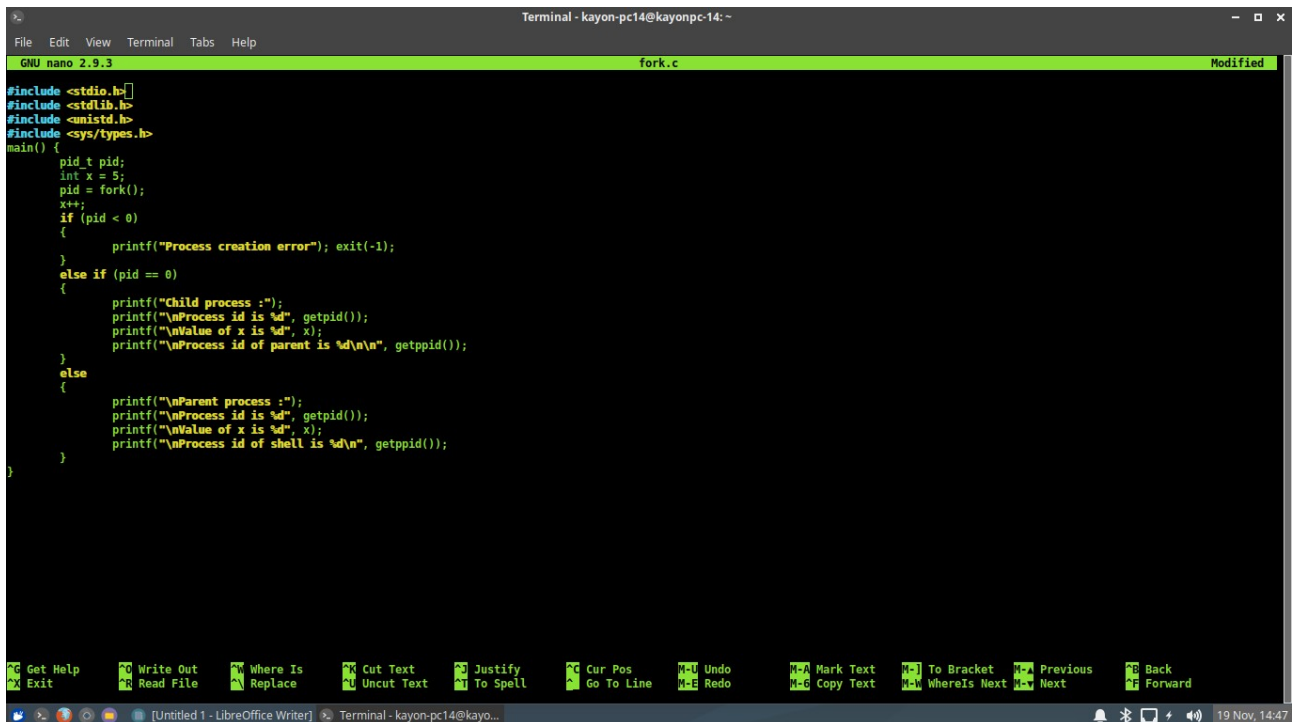
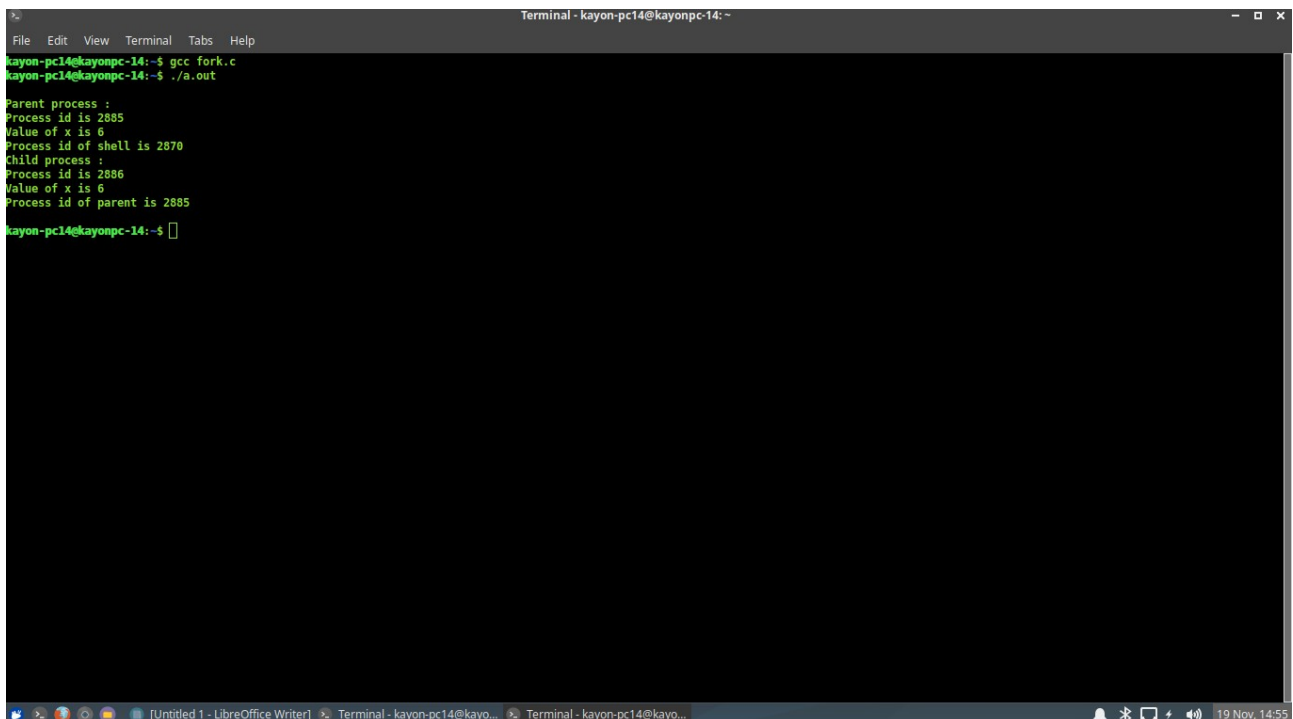


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Kelas : A
Nim : L200180030

Praktikum modul 8



```
GNU nano 2.9.3 fork.c Modified
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>
main() {
    pid_t pid;
    int x = 5;
    pid = fork();
    x++;
    if (pid < 0)
    {
        printf("Process creation error"); exit(-1);
    }
    else if (pid == 0)
    {
        printf("Child process :");
        printf("\nProcess id is %d", getpid());
        printf("\nValue of x is %d", x);
        printf("\nProcess id of parent is %d\n", getppid());
    }
    else
    {
        printf("\nParent process :");
        printf("\nProcess id is %d", getpid());
        printf("\nValue of x is %d", x);
        printf("\nProcess id of shell is %d\n", getppid());
    }
}
```



```
Terminal - kayon-pc14@kayonpc-14: ~
kayon-pc14@kayonpc-14:~$ gcc fork.c
kayon-pc14@kayonpc-14:~$ ./a.out
Parent process :
Process id is 2885
Value of x is 6
Process id of shell is 2870
Child process :
Process id is 2886
Value of x is 6
Process id of parent is 2885
kayon-pc14@kayonpc-14:~$
```

```
Terminal - kayon-pc14@kayonpc-14: ~
File Edit View Terminal Tabs Help
GNU nano 2.9.3 wait.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");
    }
}

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Exit      Read File  Replace  Uncut Text  To Spell  Go To Line  M-R Redo  M-C Copy Text  M-W WhereIs Next  M-_ Next  F Forward

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```

```
Terminal - kayon-pc14@kayonpc-14: ~
File Edit View Terminal Tabs Help
kayon-pc14@kayonpc-14:~$ gcc wait.c
kayon-pc14@kayonpc-14:~$ ./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-pc14@kayonpc-14:~$
```

```
Terminal - kayon-pc14@kayonpc-14: ~
File Edit View Terminal Tabs Help
GNU nano 2.9.3                                exec.c

#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>
#include <stdlib.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], 0);
        if (i < 0)
        {
            printf("\ns program not loaded using exec system call\n", argv[2]);
            exit(-1);
        }
    default:
        wait(NULL);
        printf("Child Terminated\n");
        exit(0);
    }
}

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```

```
Terminal - kayon-pc14@kayonpc-14: ~
File Edit View Terminal Tabs Help
kayon-pc14@kayonpc-14:~$ gcc exec.c
exec.c: in function 'main':
exec.c:22:3: warning: missing sentinel in function call [-Wformat=]
     i = execl(argv[1], argv[2], 0);
     ^
exec.c:29:3: warning: implicit declaration of function 'wait'; did you mean 'main'? [-Wimplicit-function-declaration]
     wait(NULL);
     ^~~~~
main
kayon-pc14@kayonpc-14:~$ ./a.out /bin/ls ls
Child process
a.out cobra3 Downloads info1200180002.sh latihan7 Pictures Videos
cobra1 Desktop exec.c info1200180002.sh Music Public wait.c
cobra2 Documents fork.c latihan nano.save Templates
Child Terminated
kayon-pc14@kayonpc-14:~$
```

```
badakhitam: nano - Konsole
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 : %d\n", file.st_blksize);
    printf("Block allocated : %d\n", file.st_blocks);
    printf("Inode no. : %d\n", file.st_ino);
    printf("Last accessed : %s\n", ctime(&(file.st_atime)));
    printf("Last modified : %s\n", 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_I%SDIR(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");
}

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Wrote 43 lines
Get Help Write Out Where Is Cut Text Justify Cur Pos Mark Text To Bracket Previous Back
Exit Read File Replace Uncut Text To Spell Go To Line Undo Redo Copy Text WhereIs Next Next Forward
```

```
badakhitam: bash - Konsole
File Edit View Bookmarks Settings Help
badakhitam@badakhitam:~$ gcc stat.c
stat.c: In function 'main':
stat.c:19:24: 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);
                           ^~
stat.c:20:29: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blkcnt_t {aka long int}' [-Wformat=]
    printf("Block allocated : %d\n", file.st_blocks);
                           ^~
stat.c:21:23: 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);
                           ^~
stat.c:24:23: 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);
                           ^~
stat.c:25:26: 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);
                           ^~
badakhitam@badakhitam:~$ ./a.out stat.c
User id : 1000
Group id : 1000
Block size : 4096
Block allocated : 8
Inode no. : 1052563
Last accessed : Thu Nov 21 23:51:41 2019
Last modified : Wed Nov 20 20:39:38 2019
File size : 1373 bytes
No. of links : 1
Permissions : -rw-rw-r--
File type : Regular
badakhitam@badakhitam:~$
```

```
badakhitam: nano - Konsole
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);
}

I

badakhitam: nano
Get Help Write Out Where Is Cut Text Justify Cur Pos Undo Mark Text To Bracket Previous Back
Exit Read File Replace Uncut Text To Spell Go To Line Redo Copy Text WhereIs Next Next Forward
```

```
badakhitam: bash - Konsole
badakhitam@badakhitam:~$ gcc dirlist.c
badakhitam@badakhitam:~$ ./a.out Downloads
Downloads: Success
badakhitam@badakhitam:~$

I

badakhitam: bash
Downloads - Dolphin badakhitam: nano - Konsole badakhitam: bash - Konsole fix.odt - LibreOffice Writer Speed Dial - Opera 00.22
```