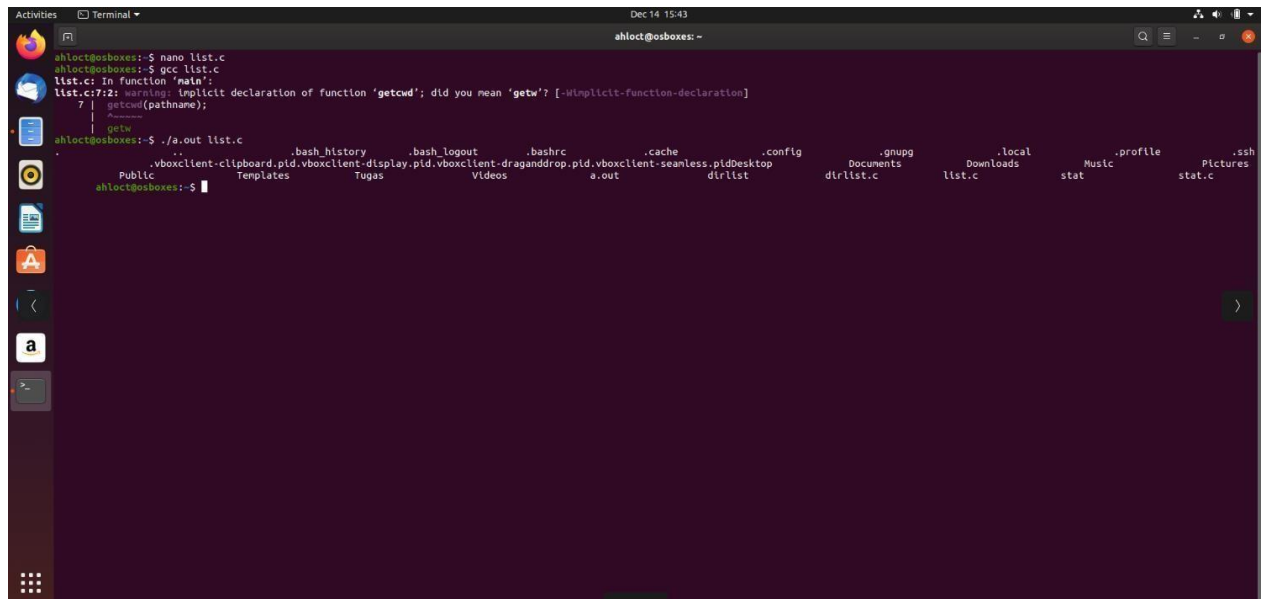


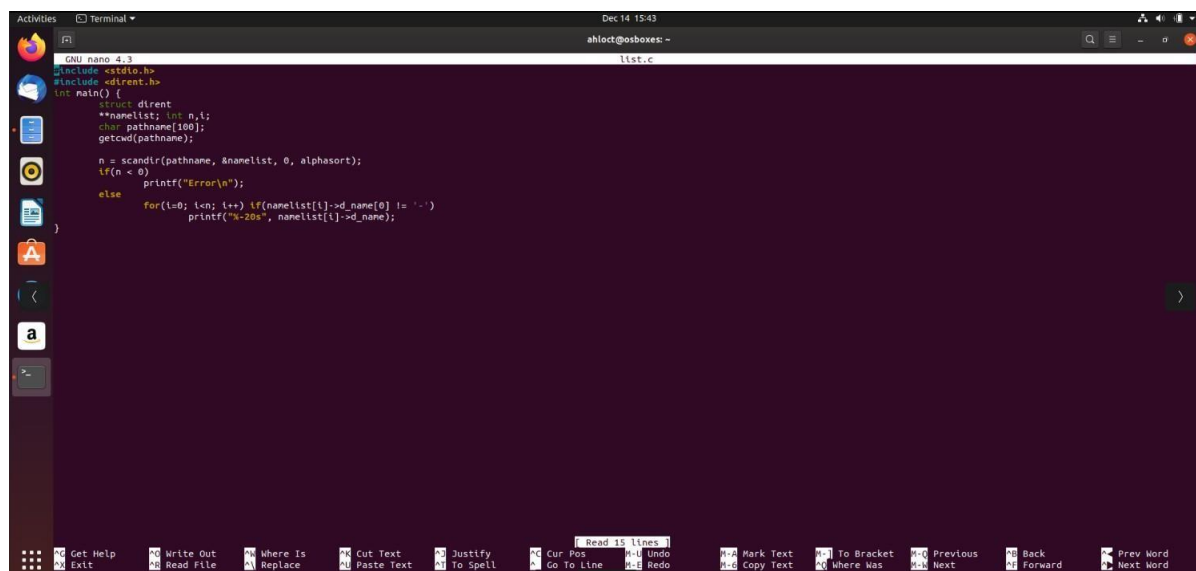
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Kelas : C

Modul 10

1. List



```
ahloct@osboxes:~$ nano list.c
ahloct@osboxes:~$ gcc list.c
list.c: In function 'main':
list.c:7:2: warning: implicit declaration of function 'getcwd'; did you mean 'getw'? [-Wimplicit-function-declaration]
7 |   getcwd(pathname);
  |   ^~~~~~
ahloct@osboxes:~$ ./a.out list.c
Public
Templates
Tugas
Videos
a.out
dirlist
dirlist.c
Downloads
list.c
local
Music
profile
Pictures
ssh
stat
stat.c
```



```
GNU nano 4.3 list.c
#include <stdio.h>
#include <dirent.h>

int main() {
    struct dirent
    **namelist; int n,i;
    char pathname[100];
    getcwd(pathname);

    n = scandir(pathname, &namelist, 0, alphasort);
    if(n < 0)
        printf("Error\n");
    else
        for(i=0; i<n; i++) if(namelist[i]->d_name[0] != '.')
            printf("%-20s", namelist[i]->d_name);
}
```

2. Mygrep

```
ahloct@osboxes:~$ nano mygrep.c
ahloct@osboxes:~$ gcc mygrep.c -o mygrep
ahloct@osboxes:~$ ./mygrep
Usage: gcc mygrep.c -o mygrep
Usage: ./mygrep <search_text> <filename>
ahloct@osboxes:~$ ./mygrep break mygrep.c
ahloct@osboxes:~$
```

```
GNU nano 4.3 mygrep.c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>

int main(int argc, char *argv[]) {
    FILE *fd;
    char str[100];
    char c;
    int i, flag, j, n, k;
    char temp[30];

    if (argc != 3)
    {
        printf("Usage: gcc mygrep.c -o mygrep\n");
        printf("Usage: ./mygrep <search_text> <filename>\n");
        exit(-1);
    }

    fd = fopen(argv[2], "r");
    if (fd == NULL)
    {
        printf("File is not exist\n", argv[2]);
        exit(-1);
    }

    while (!feof(fd))
    {
        i = 0;
        while (1)
        {
            c = fgetc(fd);
            if (feof(fd))
            {
                str[i++] = '\0'; break;
            }
            if (c == '\n')
            {
                str[i++] = '\0'; break;
            }
            str[i++] = c;
        }

        if (strlen(str) >= strlen(argv[1]))
        for (k=0; k<strlen(str)-strlen(argv[1]); k++)
        {
            for (n=0; n<strlen(argv[1]); n++)
            {
                temp[n] = str[k+n];
                if (strcmp(temp, argv[1]) == 0)
                {
                    printf("%s\n", str);
                    break;
                }
            }
        }
    }
}
```

```
ahloct@osboxes:~$ nano mygrep.c
GNU nano 4.3 mygrep.c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>

int main(int argc, char *argv[]) {
    FILE *fd;
    char str[100];
    char c;
    int i, flag, j, n, k;
    char temp[30];

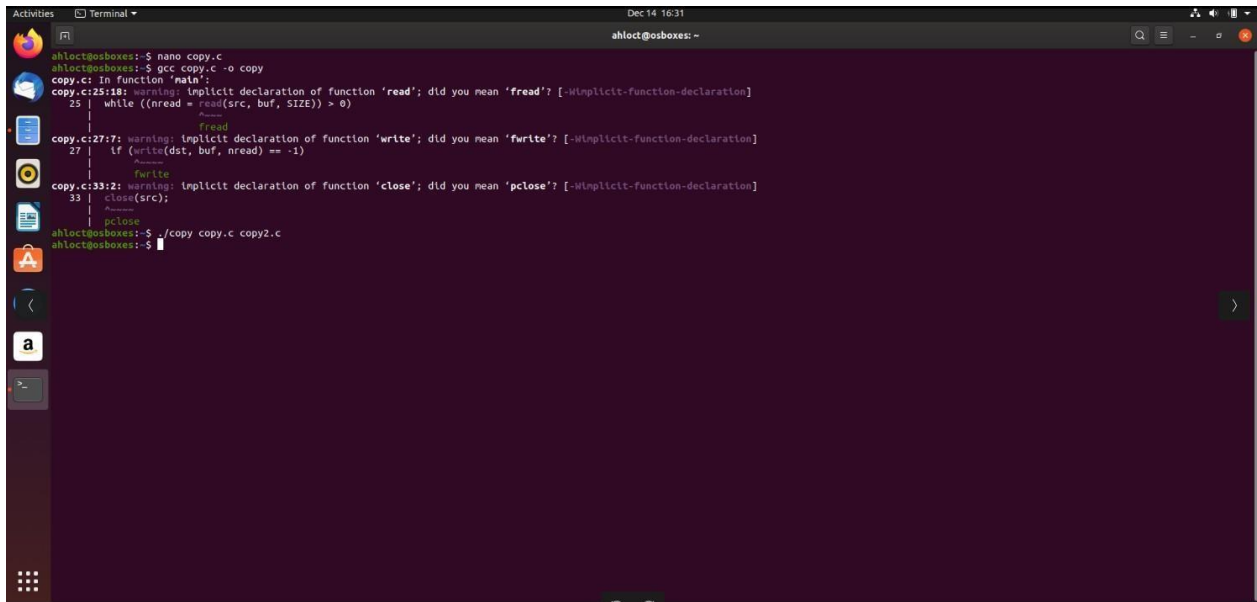
    if (argc != 3)
    {
        printf("Usage: gcc mygrep.c -o mygrep\n");
        printf("Usage: ./mygrep <search_text> <filename>\n");
        exit(-1);
    }

    fd = fopen(argv[2], "r");
    if (fd == NULL)
    {
        printf("File is not exist\n", argv[2]);
        exit(-1);
    }

    while (!feof(fd))
    {
        i = 0;
        while (1)
        {
            c = fgetc(fd);
            if (feof(fd))
            {
                str[i++] = '\0'; break;
            }
            if (c == '\n')
            {
                str[i++] = '\0'; break;
            }
            str[i++] = c;
        }

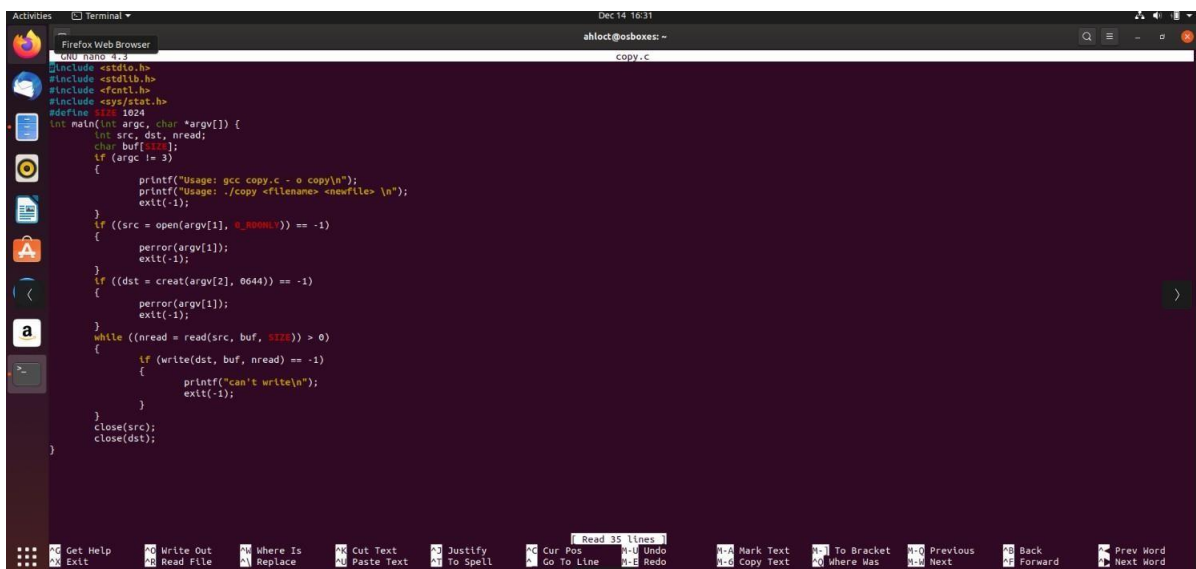
        if (strlen(str) >= strlen(argv[1]))
        for (k=0; k<strlen(str)-strlen(argv[1]); k++)
        {
            for (n=0; n<strlen(argv[1]); n++)
            {
                temp[n] = str[k+n];
                if (strcmp(temp, argv[1]) == 0)
                {
                    printf("%s\n", str);
                    break;
                }
            }
        }
    }
}
```

3. Copy



A terminal window titled "ahloct@osboxes: -" showing the compilation of a C program. The user runs `ahloct@osboxes:~$ nano copy.c` and then `ahloct@osboxes:~$ gcc copy.c -o copy`. The terminal displays warnings for implicit declarations of `read`, `write`, and `close` functions. The user then runs `ahloct@osboxes:~$./copy copy.c copy2.c`.

```
ahloct@osboxes:~$ nano copy.c
ahloct@osboxes:~$ gcc copy.c -o copy
copy.c: In function 'main':
copy.c:25:18: warning: implicit declaration of function 'read'; did you mean 'fread'? [-Wimplicit-function-declaration]
   25 |     while ((nread = read(src, buf, SIZE)) > 0)
      |                  ^~~~~
      |                  fread
copy.c:27:7: warning: implicit declaration of function 'write'; did you mean 'fwrite'? [-Wimplicit-function-declaration]
   27 |     if (write(dst, buf, nread) == -1)
      |         ^~~~~
      |         fwrite
copy.c:33:2: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
   33 |     close(src);
      |     ^~~~~
      |     pclose
ahloct@osboxes:~$ ./copy copy.c copy2.c
ahloct@osboxes:~$
```

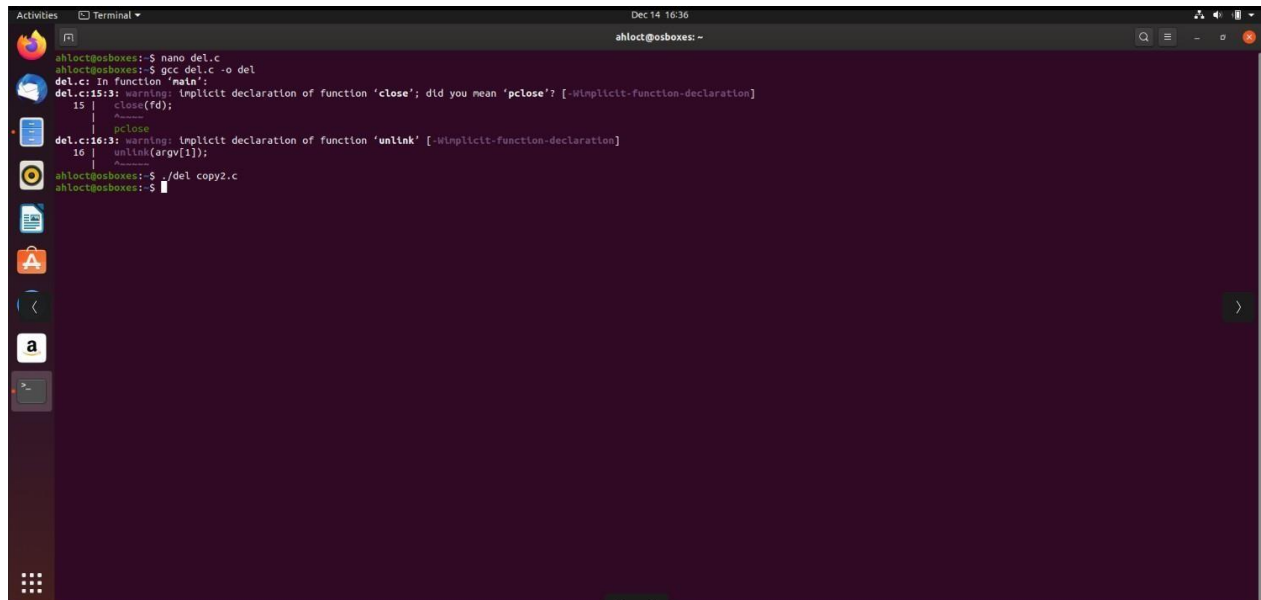


A terminal window titled "ahloct@osboxes: -" showing the source code of `copy.c`. The code includes headers `<stdio.h>`, `<stdlib.h>`, `<fcntl.h>`, and `<sys/stat.h>`. It defines `SIZE` as 1024 and implements a `main` function that takes command-line arguments, opens source and destination files, and copies data from source to destination using `read` and `write` functions.

```
copy.c
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
#include <sys/stat.h>
#define SIZE 1024

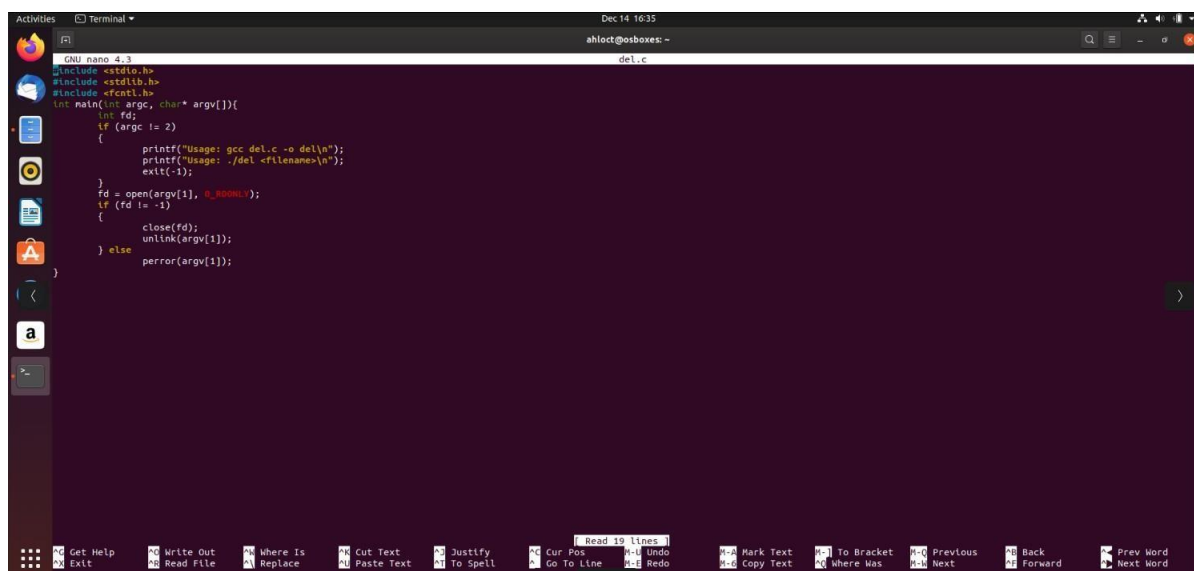
int main(int argc, char *argv[]) {
    int src, dst, nread;
    char buf[SIZE];
    if (argc != 3) {
        printf("Usage: gcc copy.c -o copy\n");
        printf("Usage: ./copy <filename> <newfile> \n");
        exit(-1);
    }
    if ((src = open(argv[1], O_RDONLY)) == -1) {
        perror(argv[1]);
        exit(-1);
    }
    if ((dst = creat(argv[2], 0644)) == -1) {
        perror(argv[1]);
        exit(-1);
    }
    while ((nread = read(src, buf, SIZE)) > 0) {
        if (write(dst, buf, nread) == -1) {
            printf("can't write\n");
            exit(-1);
        }
    }
    close(src);
    close(dst);
}
```

4. Del



A terminal window titled 'Terminal' with the date 'Dec 14 16:36' and the user 'ahloct@osboxes:'. The user runs the following commands:

```
ahloct@osboxes:~$ nano del.c
ahloct@osboxes:~$ gcc del.c -o del
del.c: In function 'main':
del.c:15:3: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
    15 |     close(fd);
        |     ~~~~~
        |     pclose
del.c:16:3: warning: implicit declaration of function 'unlink' [-Wimplicit-function-declaration]
    16 |     unlink(argv[1]);
        |
ahloct@osboxes:~$ ./del copy2.c
ahloct@osboxes:~$
```



A terminal window titled 'Terminal' with the date 'Dec 14 16:35' and the user 'ahloct@osboxes:'. The user has opened the file 'del.c' in the nano editor. The source code is as follows:

```
GNU nano 4.3 del.c
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>

int main(int argc, char* argv[]){
    int fd;
    if (argc != 2)
    {
        printf("Usage: gcc del.c -o del\n");
        printf("Usage: ./del <filename>\n");
        exit(-1);
    }
    fd = open(argv[1], O_RDONLY);
    if (fd != -1)
    {
        close(fd);
        unlink(argv[1]);
    } else
        perror(argv[1]);
}
```