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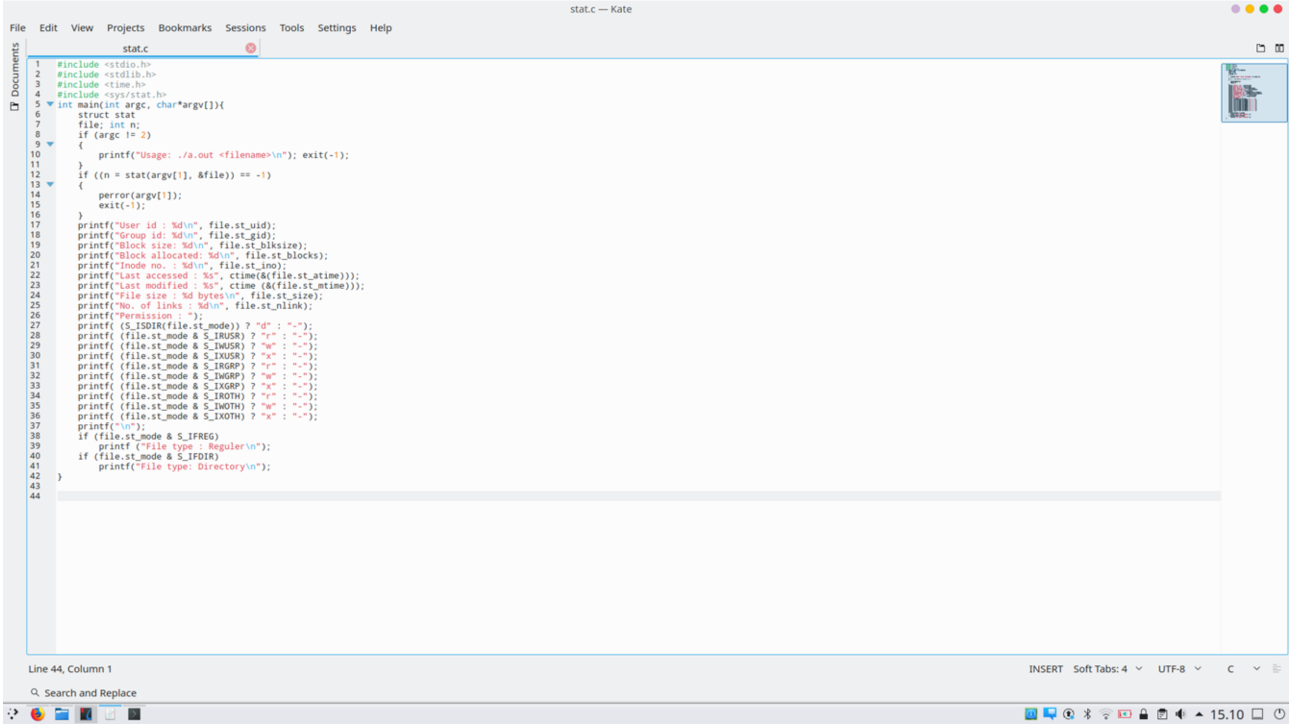
NIM : L200180107

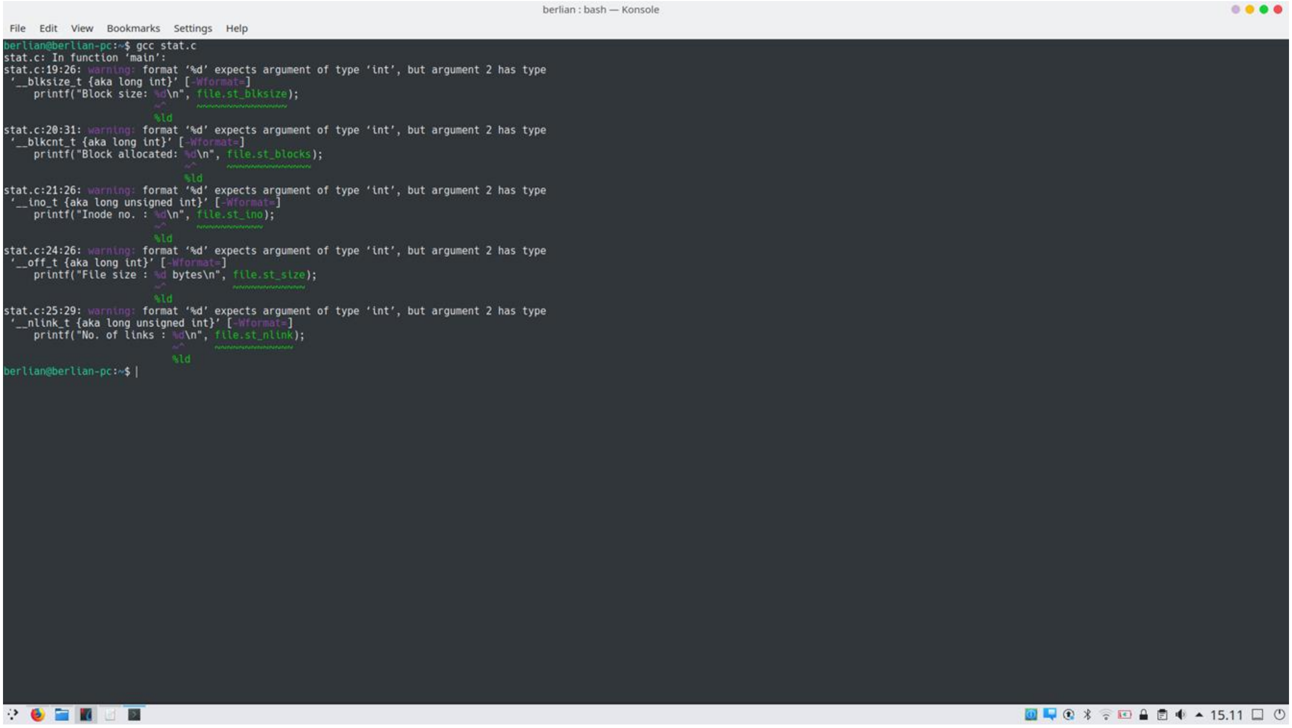
Modul 8
Praktikum Sistem Operasi

4.



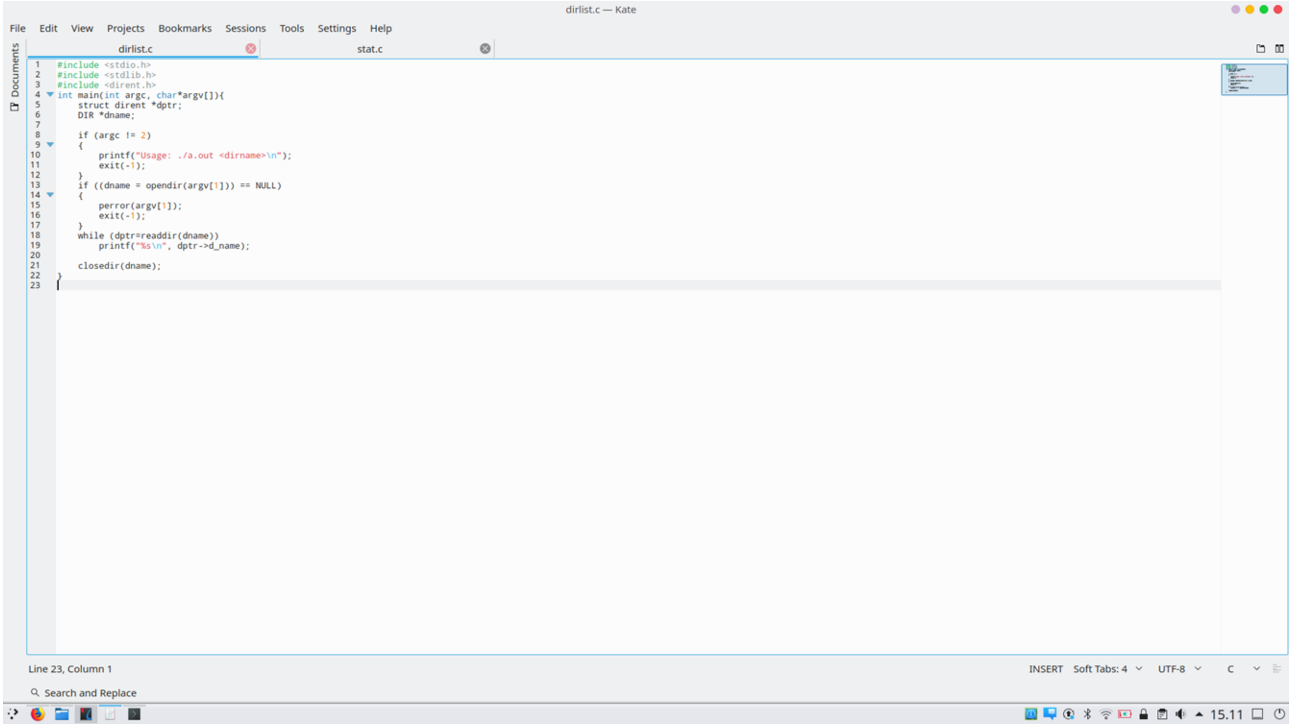
```c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <sys/stat.h>
int main(int argc, char*argv[]){
    struct stat
    file; int n;
    if (argc != 2)
    {
        printf("Usage: ./a.out <filename>\n"); exit(-1);
    }
    if ((n = stat(argv[1], &file)) == -1)
    {
        perror(argv[1]);
        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", ctime(&(file.st_atime)));
    printf("Last modified : %s", ctime (&(file.st_mtime)));
    printf("File size : %d bytes\n", file.st_size);
    printf("No. of links : %d\n", file.st_nlink);
    printf("Permission : ");
    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 : Reguler\n");
    if (file.st_mode & S_IFDIR)
        printf("File type: Directory\n");
}

```



```
berlian@berlian-pc:~$ gcc stat.c
stat.c: In function ‘main’:
stat.c:19:26: 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:20:31: 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);
                              ~^     ~~~~~~~~~~~~~~
                              %ld
stat.c:21:26: 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:24:26: 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:25:29: 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
berlian@berlian-pc:~$ |
```

5.

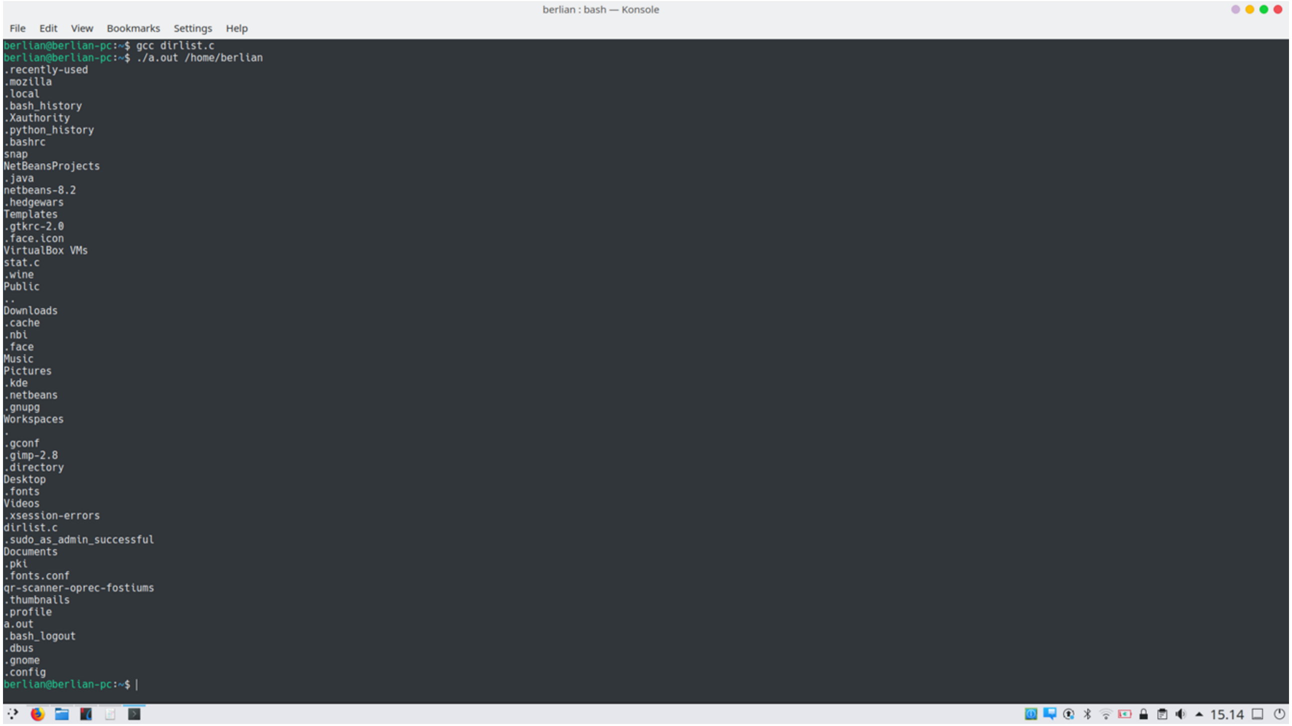


dirlist.c — Kate
File Edit View Projects Bookmarks Sessions Tools Settings Help
Documents
dirlist.c
stat.c
Line 23, Column 1
INSERT Soft Tabs: 4 UTF-8 C
Search and Replace
15.11

```c
#include <stdio.h>
#include <stdlib.h>
#include <dirent.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);
}
```



```
berlian@berlian-pc:~$ gcc dirlist.c
berlian@berlian-pc:~$ ./a.out /home/berlian
.recently-used
.mozilla
.local
.bash_history
.Xauthority
.python_history
.bashrc
snap
NetBeansProjects
.java
netbeans-8.2
.hedgewars
Templates
.gtkrc-2.0
.face.icon
VirtualBox VMs
stat.c
.wine
Public
..
Downloads
.cache
.nbi
.face
Music
Pictures
.kde
.netbeans
.gnupg
Workspaces
.
.gconf
.gimp-2.8
.directory
Desktop
.fonts
Videos
.xsession-errors
dirlist.c
.sudo_as_admin_successful
Documents
.pki
.fonts.conf
qr-scanner-oprec-fostiums
.thumbnails
.profile
a.out
.bash_logout
.dbus
.gnome
.config
berlian@berlian-pc:~$ |
```