

MANAN CHUGH
2021335
CSD'25

CD:

```
Welcome to MANAN's SHELL
[/home/os_demo/OASS2]$ cd manan
[/home/os_demo/OASS2/manan]$
```

1) Handled -L and -P

```
[/home/os_demo/OASS2/manan]$ cd -L
[/home/manan]$
```

```
[/home/os_demo/OASS2/manan]$ cd -P
[/home/manan]$
```

2) No difference in -L and -P

ECHO:

```
Welcome to MANAN's SHELL
[/home/os_demo/OASS2]$ echo "manan"
manan
```

```
[/home/os_demo/OASS2]$ echo manan
manan
```

1) Handled -n and -E

2) -n : do not append a new line

```
[/home/os_demo/OASS2]$ echo -n manan
manan[/home/os_demo/OASS2]$
```

3) -E : explicitly suppress interpretation of backslash escapes

```
[/home/os_demo/OASS2]$ echo -E manan
manan
[/home/os_demo/OASS2]$
```

PWD:

```
[/home/os_demo/OASS2]$ pwd
/home/os_demo/OASS2
```

1) Handled -L and -P

2) No difference in -L and -P

```
[/home/os_demo/OASS2]$ pwd -L
/home/os_demo/OASS2
```

```
[/home/os_demo/OASS2]$ pwd -P
/home/os_demo/OASS2
```

CAT:

```
[/home/os_demo/OASS2]$ cat CAT_code.c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <unistd.h>
#include <sys/stat.h>
#include <sys/types.h>
char currdir[1000];

int main(int argc , char *argv[]){
    char *token = argv[0];
    char *rest = argv[1];
    if(strcmp(token , "at")==0){
        printf("Invalid Command\n");
    }
    else if(strcmp(token , "-n")==0){
        struct stat flag;
        char* f_name=strtok(rest , " ");
        if(strcmp(f_name , "cat") == 0){
            f_name=strtok(NULL," ");
            if(strcmp(f_name , "-n") == 0){
                f_name=strtok(NULL , "\n");
            }
        }
    }
}
```

- 1) Handled -n and -E
- 2) -n : number all output lines

```
[/home/os_demo/OASS2]$ cat -n CAT_code.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <sys/stat.h>
6 #include <sys/types.h>
7 char currdir[1000];
8
9 int main(int argc , char *argv[]){
10     char *token = argv[0];
11     char *rest = argv[1];
12     if(strcmp(token , "at")==0){
13         printf("Invalid Command\n");
```

- 3) -E : display \$ at end of each line

```
WELCOME TO LINUX 3 SHELL
[/home/os_demo/OASS2]$ cat -E CAT_code.c
CAT_code.c
#include <stdio.h> $
#include <stdlib.h> $
#include <string.h> $
#include <unistd.h> $
#include <sys/stat.h> $
#include <sys/types.h> $
char currdir[1000]; $
```

LS:

```
[/home/os_demo/OASS2]$ ls
SHELL SHELL.c LS_code.c makefile DATE_code.c a.out RM_code CAT_code CAT_code.c DATE_code manan MKDIR_code MKDIR_code.c LS_code RM_code.c
```

- 1) Handled -r and -a
- 2) -r : reverse order while sorting

```
[/home/os_demo/OASS2]$ ls -r
manan makefile a.out SHELL.c SHELL RM_code.c RM_code MKDIR_code.c MKDIR_code LS_code.c LS_code DATE_code.c DATE_code CAT_code.c CAT_code
```

3) -a : do not ignore entries starting with .

```
[/home/os_demo/OASS2]$ ls -a
SHELL SHELL.c LS_code.c makefile DATE_code.c a.out RM_code CAT_code .. CAT_code.c DATE_code manan MKDIR_code .vscode MKDIR_code.c . LS_code RM_code.c
```

DATE:

```
[/home/os_demo/OASS2]$ date
Mon Oct 31 16:38:01 2022
```

- 1) Handled -u and -R
- 2) -u : print or set Coordinated Universal Time (UTC)

```
[/home/os_demo/OASS2]$ date -u
UTC : Mon Oct 31 16:38:17 2022
```

- 3) -R : output date and time in RFC 5322 format

```
[/home/os_demo/OASS2]$ date -R
Mon, 31 Oct 2022 16:38:35 +0000
```

RM:

- 1) Handled -f and -i
- 2) -f : ignore nonexistent files, never prompt

```
[/home/os_demo/OASS2]$ rm -f hola
[/home/os_demo/OASS2]$
```

- 3) -i : prompt before every removal

```
[/home/os_demo/OASS2]$ rm -i manan
Do you want to remove the file (Yes -> 1 , No -> 2) : 1
[/home/os_demo/OASS2]$
```

MKDIR:

```
[/home/os_demo/OASS2]$ mkdir lol
[/home/os_demo/OASS2]$
```

- 1) Handled -m and -v
- 2) -m : set file mode (as in chmod), not a=rwx - umask

```
[/home/os_demo/OASS2]$ mkdir -m=0400 hell
[/home/os_demo/OASS2]$
```

- 3) -v : print a message for each created directory

```
[/home/os_demo/OASS2]$ mkdir -v hola
directory created
```

Errors and edge cases handled :

- 1) If any invalid command if given

- 2) If the command is fine but due to some reason it is not working (example file name is given wrong)
- 3) If wrong flag is passed
- 4) Directory not found