LINUX PROGRAMMING
PRE CAT1 PRACTICE- 3.3.21

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SLOT : B1 + TB1
COURSE CODE : SWE4009

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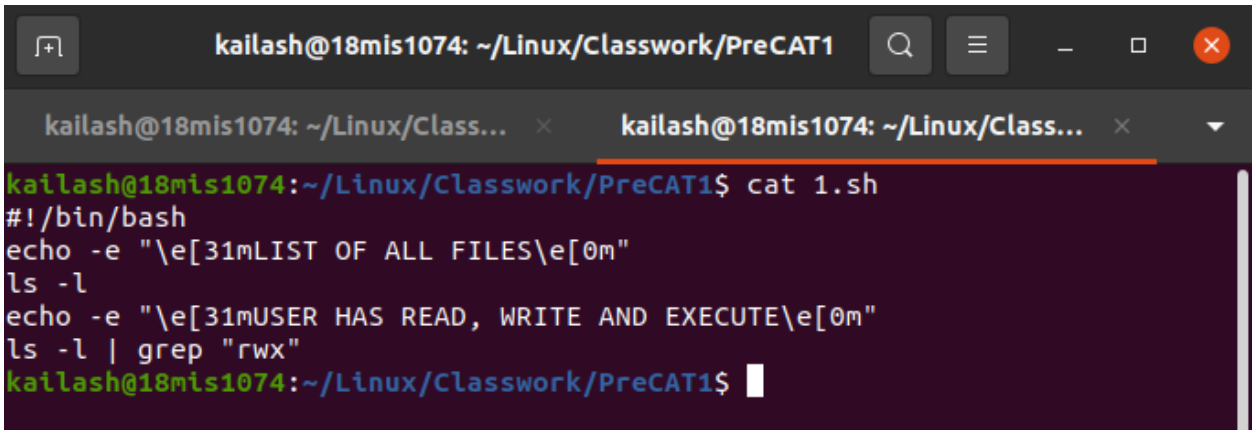
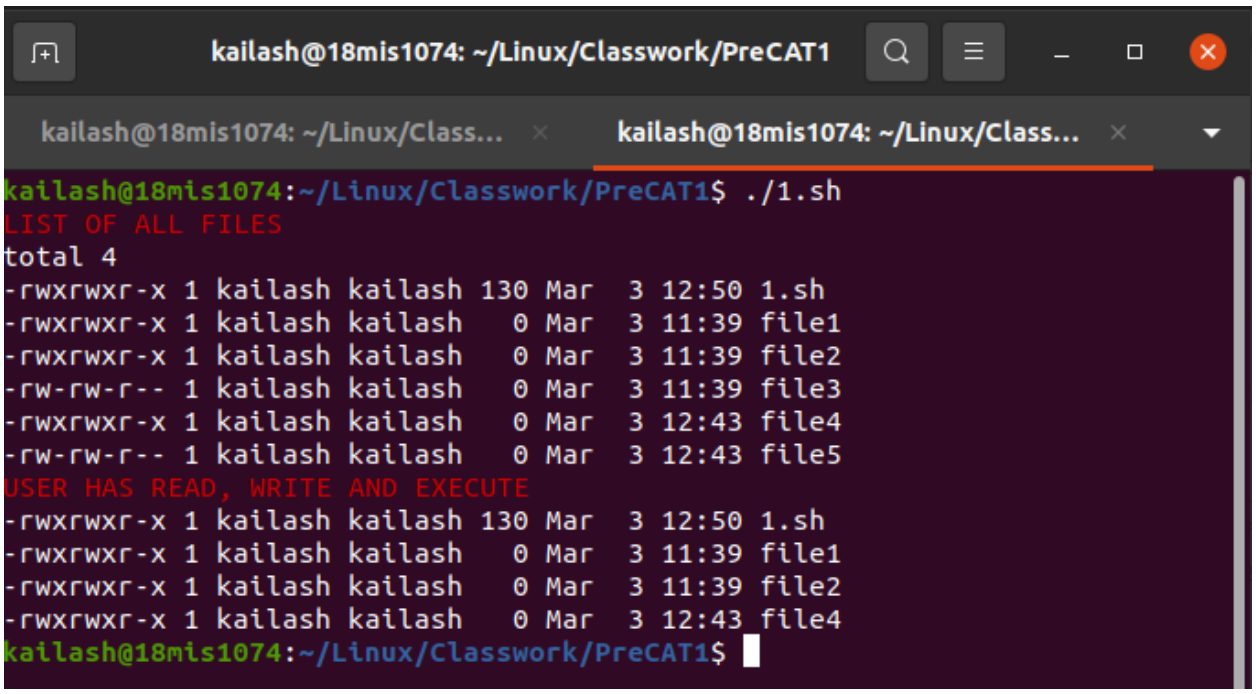
1. Write a Shell script that displays the list of all the files in the current directory to which the user has read, write and execute permissions.

PROGRAM:

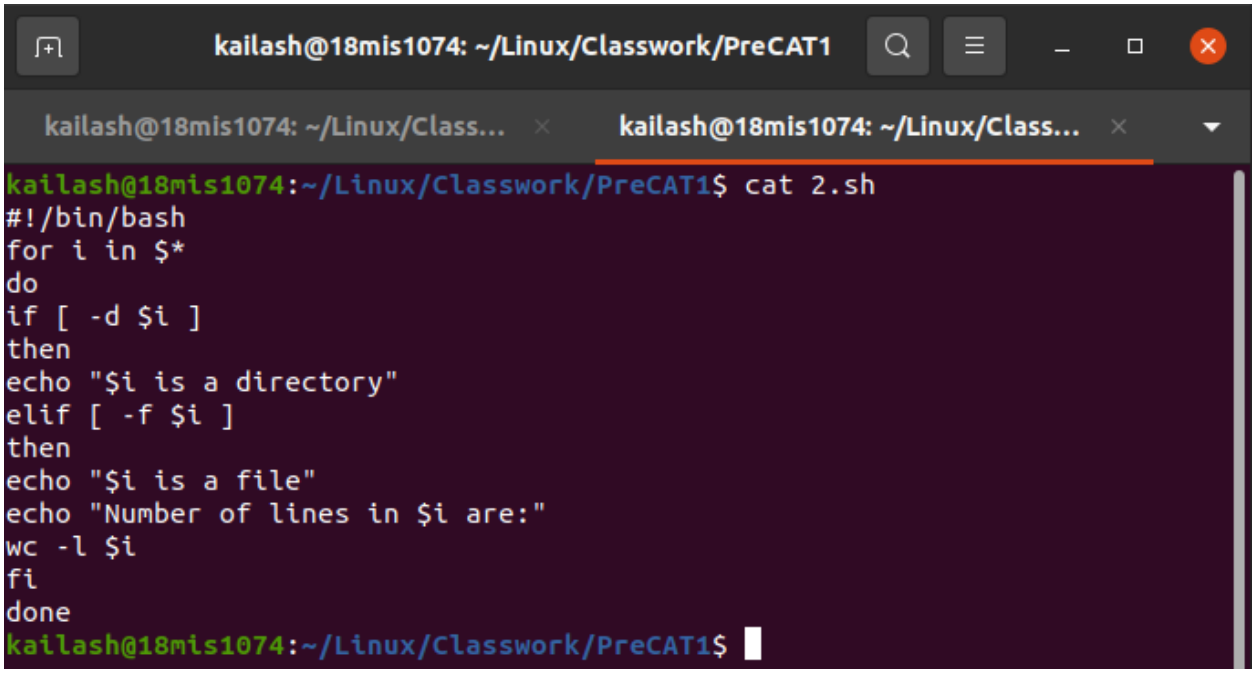


OUTPUT:

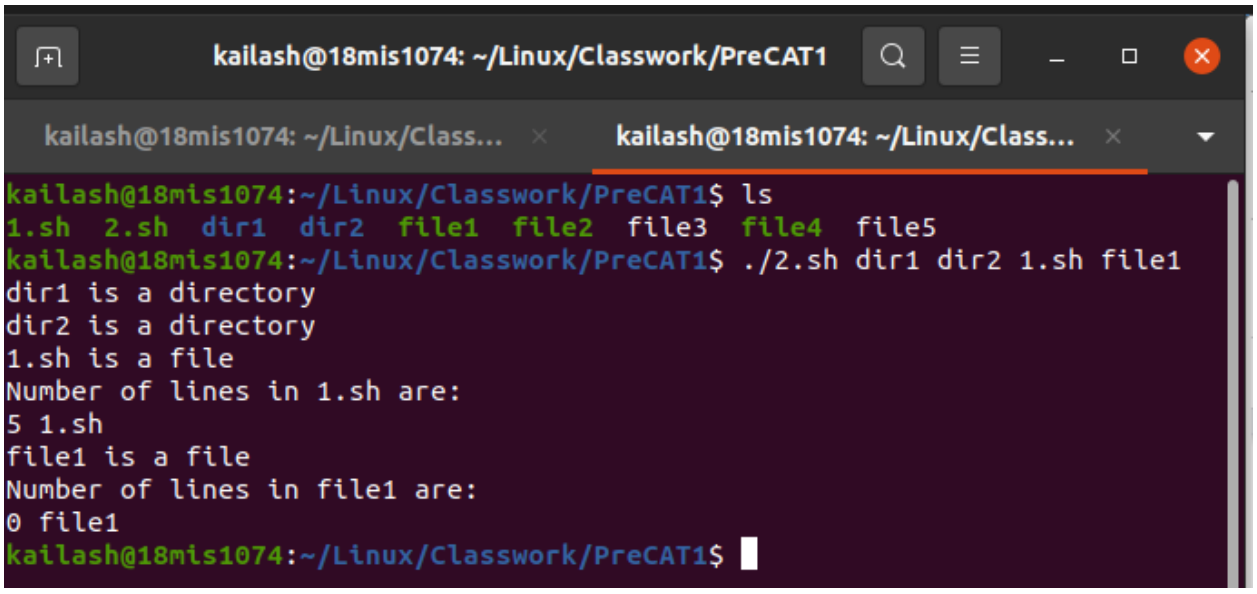


2. Write a Shell script that receives any number of file names as arguments checks if every argument supplied is a file or a directory and reports accordingly. Whenever the argument is a file, the number of lines on it is also reported?

PROGRAM:

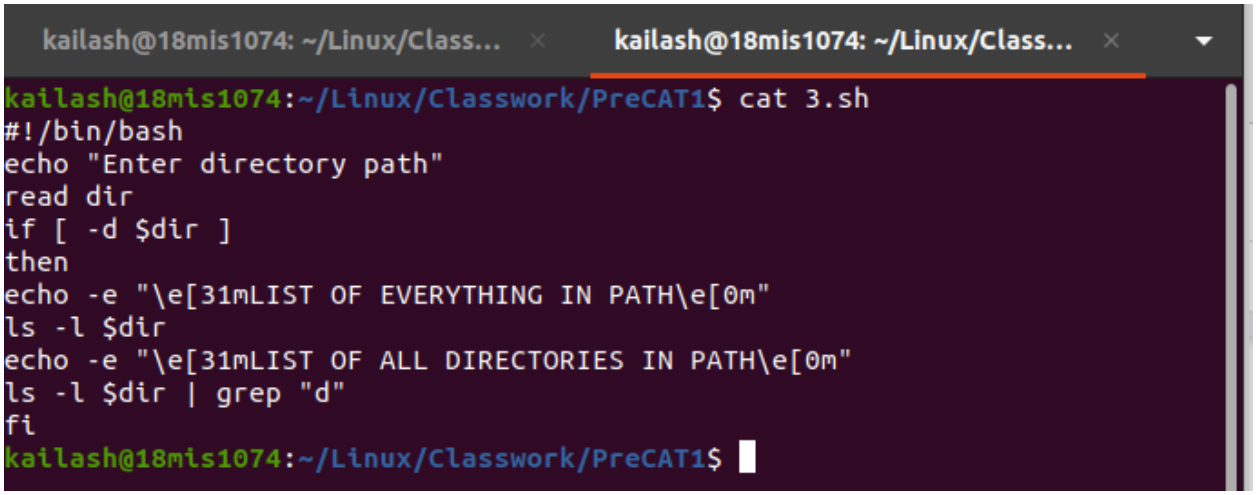


OUTPUT:

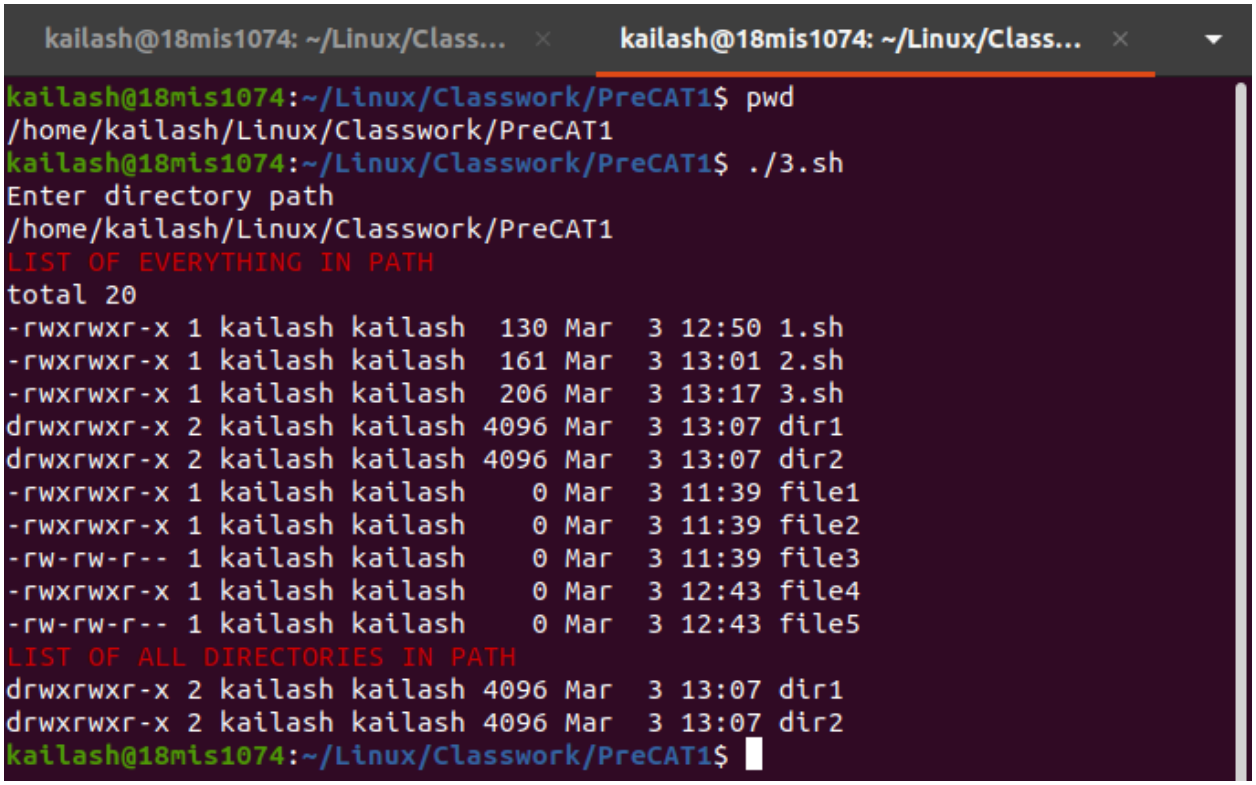


3. Write a Shell script to list all of the directory files in a directory.

PROGRAM:

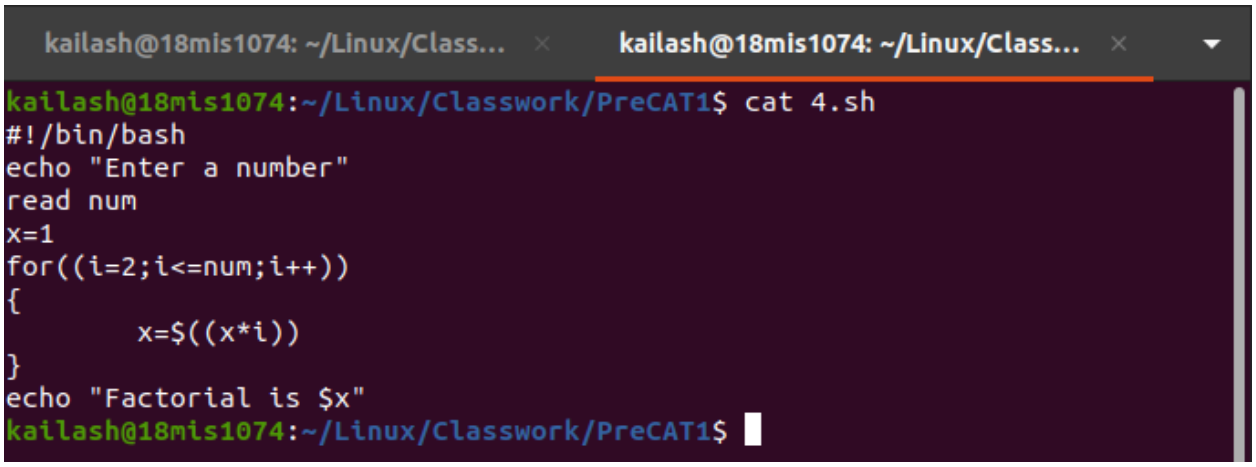


OUTPUT:

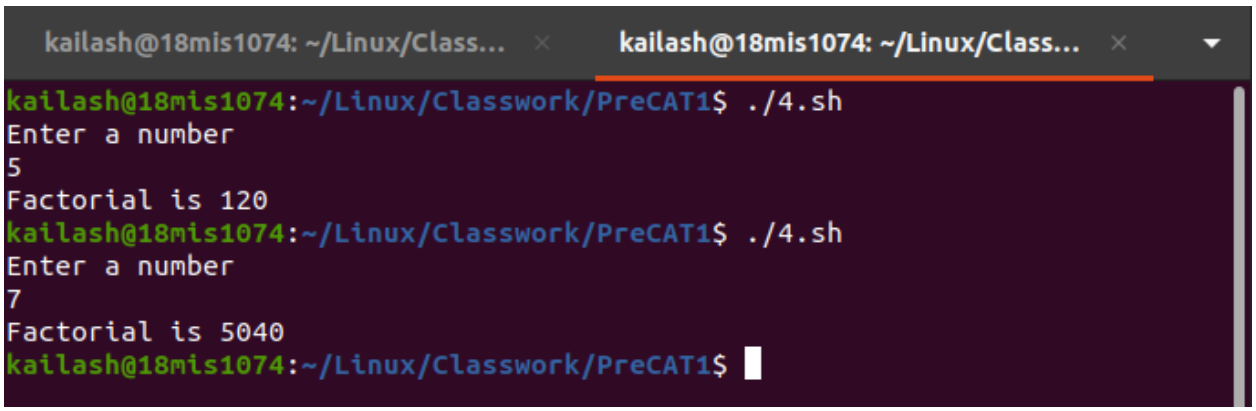


4. Write a Shell script to find the factorial of a given integer?

PROGRAM:



OUTPUT:



5. Write a C program to list for every file in a directory,its inode number and file name.?

PROGRAM:

```
kailash@18mis1074: ~/Linux/Class...   kailash@18mis1074: ~/Linux/Class...
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ cat 5.c
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int main(int argc, char *argv[]){
        char dir[50];
        if(argc==2){
                bzero(dir,sizeof(dir)); //making the string dir as zero
                strcat(dir,"ls -l ");   //concat ls -l
                strcat(dir,"-i ");              //concat -i
                strcat(dir,argv[1]);    //concat filename argument
                system(dir);//execute the string using system() function
        }
        else{
                printf("Invalid inputs");
        }
}
kailash@18mis1074:~/Linux/Classwork/PreCAT1$
```

OUTPUT:

```
kailash@18mis1074: ~/Linux/Classwork/PreCAT1
kailash@18mis1074: ~/Linux/Class...   kailash@18mis1074: ~/Linux/Class...
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ ./5.out /home/kailash/Linux/C
lasswork/PreCAT1
total 48
11276112 -rwxrwxr-x 1 kailash kailash   130 Mar  3 12:50 1.sh
11276113 -rwxrwxr-x 1 kailash kailash   161 Mar  3 13:01 2.sh
11276114 -rwxrwxr-x 1 kailash kailash   206 Mar  3 13:17 3.sh
11276115 -rwxrwxr-x 1 kailash kailash   108 Mar  3 13:29 4.sh
11276116 -rw-rw-r-- 1 kailash kailash   402 Mar  3 13:45 5.c
11276117 -rwxrwxr-x 1 kailash kailash 16832 Mar  3 13:43 5.out
11276109 drwxrwxr-x 2 kailash kailash  4096 Mar  3 13:07 dir1
11276110 drwxrwxr-x 2 kailash kailash  4096 Mar  3 13:07 dir2
11276046 -rwxrwxr-x 1 kailash kailash     0 Mar  3 11:39 file1
11276068 -rwxrwxr-x 1 kailash kailash     0 Mar  3 11:39 file2
11276069 -rw-rw-r-- 1 kailash kailash     0 Mar  3 11:39 file3
11276107 -rwxrwxr-x 1 kailash kailash     0 Mar  3 12:43 file4
11276108 -rw-rw-r-- 1 kailash kailash     0 Mar  3 12:43 file5
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ ./5.out
Invalid inputskailash@18mis1074:~/Linux/Classwork/PreCAT1$
```

6. Write a C Program that demonstrates redirection of standard output to a file ls>f1.?

PROGRAM:

```
kailash@18mis1074: ~/Linux/Class...   kailash@18mis1074: ~/Linux/Class...
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ cat 6.c
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int main(int argc, char *argv[]){
        char dir[100];
        if(argc==2){
                bzero(dir,sizeof(dir)); //make dir as zero
                strcat(dir,"ls ");              //concat ls
                strcat(dir,"> ");               //concat > redirection
                strcat(dir,argv[1]);    //attach path of file
                system(dir);    //execute using system() command
        }
        else{
                printf("\nInvalid input\n");
        }
}
kailash@18mis1074:~/Linux/Classwork/PreCAT1$
```

OUTPUT:

```
kailash@18mis1074: ~/Linux/Class...   kailash@18mis1074: ~/Linux/Class...
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ gcc -o 6.out 6.c
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ cat file5
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ ./6.out file5
kailash@18mis1074:~/Linux/Classwork/PreCAT1$ cat file5
1.sh
2.sh
3.sh
4.sh
5.c
5.out
6.c
6.out
dir1
dir2
f1
file1
file2
file3
file4
file5
kailash@18mis1074:~/Linux/Classwork/PreCAT1$
```