Ex.No:5	Write a C program to simulate UNIX commands like cp, ls, grep

AIM:

   To write C programs to simulate UNIX commands like cp, ls, grep.

Program for simulation of cp and ls unix commands ALGORITHM:

STEP1: Start the program
STEP2: Declare the variables
STEP3: Create two files, Open the file in write mode and store data into the files
STEP4: Enter name of file to copy
STEP5: Enter name of target file and copy the content to target file
STEP6: Enter the directory name and list the contents
STEP7:Close the file

Program for CP command:

```c
#include<stdio.h>
#include<stdlib.h>
int main()
{
FILE *file1,*file2;
char filename[100],c;
printf("enter the filename for reading");
scanf("%s",filename);
file1=fopen(filename,"r");
if(file1==NULL)
{
printf("cannot open the file %s \n",filename);
exit(0);
}
printf("Enter the filename for writing");
scanf("%s",filename);
file2=fopen(filename,"w");
if(file2==NULL)
{
printf("cannot open the file %s \n",filename);
exit(0);
}
c=fgetc(file1);
while (c != EOF)
{
fputc(c,file2);
c=fgetc(file1);
}
```

```c
printf("The contents are copied to file %s",filename);
fclose(file1);
fclose(file2);
return 0;
}
```

Program for ls COMMAND:

```c
#include<stdio.h>
#include<dirent.h>
#include<stdlib.h>
int main()
{
char dirname[20];
DIR*p;
struct dirent *d;
printf("enter the directory name");
scanf("%s",dirname);
p=opendir(dirname);
        if(p==NULL)
        {
            printf("cannot find the directory");
            exit(-1);
        }
        while(d=readdir(p))
        {
          printf("%s\n",d->d_name);
          }
}
```

PROGRAM FOR SIMULATION OF GREP UNIX COMMANDS ALGORITHM:
STEP1: Start the program
STEP2: Declare the variables filename, search, temp
STEP3: Enter the file name and pattern to be checked.
STEP4: Open the file in read mode.
STEP5: Assign the file in temp array and iterate to end of the file and compare for pattern . If it is found print the content in temp file.
STEP6: Stop the program

PROGRAM:
```c
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
void main()
```

```c
{
FILE *file1;
char filename[100],search[10],temp[10];
printf("ENTER THE FILENAME ");
scanf("%s",filename);
printf("Enter the element to be searched");
scanf("%s",search);
file1=fopen(filename,"r");
while (!feof(file1))
        {
            fgets(temp, sizeof(file1), file1);
          if(strstr(temp,search))
                {
                    printf("%s",temp);
                }
          }
fclose(file1);
}
```

Result: Thus C program to simulate UNIX commands like cp, ls, grep have been executed successfully.