

CD LAB 1

Name: Rhea Adhikari

Reg No: 190905156

Roll No: 23

1. To count the number of lines and characters in a file.

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    FILE *fptr1, *fptr2;

    char filename[100], c;

    printf("Enter the filename to open for reading: \n");
    scanf("%s", filename);

    fptr1 = fopen(filename, "r");

    // Open one file for reading
    if (fptr1 == NULL)
    {
        printf("Cannot open file %s \n", filename);
        exit(0);
    }

    c = fgetc(fptr1);
    // printf("%c\n",c);

    int lines=1, characters=1;

    // Read contents from file
    while (c != EOF)
    {
        c = fgetc(fptr1);
        // printf("%c\n",c);

        if(c=='\n'){
            lines++;
        }

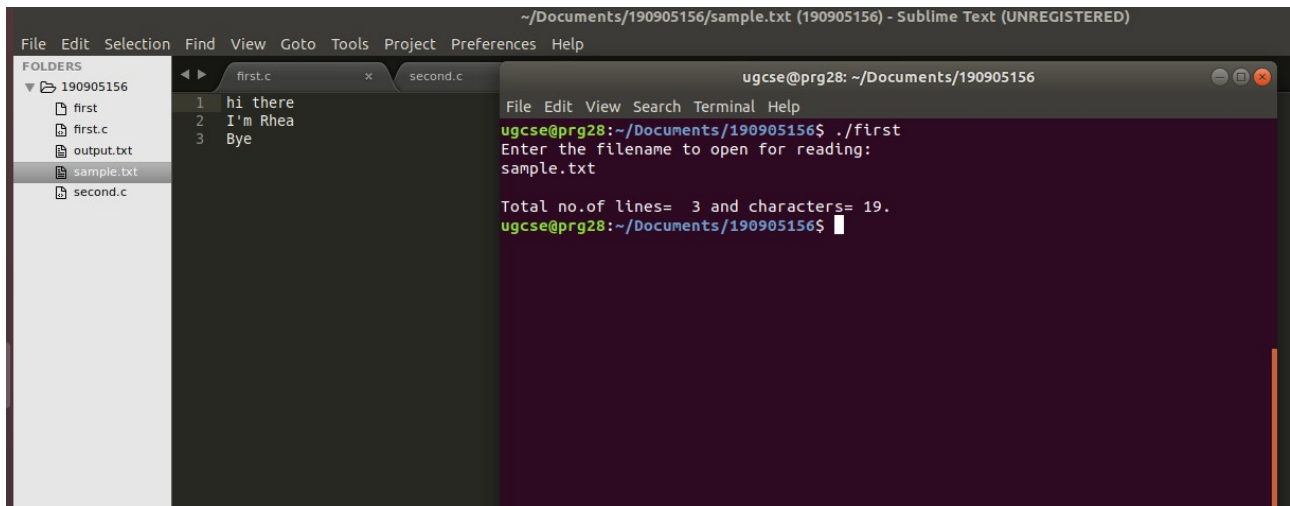
        if(c!=EOF && c!='\n')
            characters++;
    }

    printf("\nTotal no.of lines= %d and characters= %d.\n", lines, characters);
    fclose(fptr1);
}
```

```

    return 0;
}

```



2. To reverse the file contents and store in another file. Also display the size of file using file handling function.

```

#include <stdio.h>
#include <stdlib.h>

int main()
{
    FILE *fptr1, *fptr2;

    char filename[100], c;

    printf("Enter the filename to open for reading: \n");
    scanf("%s", filename);
    fptr1 = fopen(filename, "r");

    // Open one file for reading
    if (fptr1 == NULL)
    {
        printf("Cannot open file %s \n", filename);
        exit(0);
    }

    printf("Enter the filename to open for writing: \n");
    scanf("%s", filename);
    fptr2 = fopen(filename, "w+"); // Open another file for writing

    //Store in arr
    char arr[100];
    int i=0;

    c = fgetc(fptr1);

    // Read contents from file

```

```

while (c != EOF)
{
    arr[i++]=c;
    c = fgetc(fp1);
}

for(int j=i-1;j>=0;j--){
    c=arr[j];
    fputc(c,fp2);
}

printf("\nContents copied to %s in reverse order\n", filename);

long int res = ftell(fp1);

printf("Size of the file is %ld bytes \n", res);

fclose(fp1);
fclose(fp2);

return 0;
}

```

```

ugcse@prg28:~/Documents/190905156$ gcc second.c -o second
ugcse@prg28:~/Documents/190905156$ ./second
Enter the filename to open for reading:
input.txt
Enter the filename to open for writing:
output.txt

Contents copied to output.txt in reverse order
Size of the file is 18 bytes
ugcse@prg28:~/Documents/190905156$ cat input.txt
Hi there I'm Rhea.ugcse@prg28:~/Documents/190905156$ cat output.txt
.aehR m'I ereht iHugcse@prg28:~/Documents/190905156$

```

3. That merges lines alternatively from 2 files and stores it in a resultant file.

```

#include <stdio.h>
#include <stdlib.h>

int main(){

    FILE *fp1,*fp2,*res;

    char c,c1,c2;
    char filename[100];

    printf("Enter the first filename to open for reading: \n");
    scanf("%s", filename);
    fp1 = fopen(filename, "r");

    // Open one file for reading

```

```

if (fptr1 == NULL)
{
    printf("Cannot open file %s \n", filename);
    exit(0);
}

printf("Enter the second filename to open for reading \n");
scanf("%s", filename);
fptr2 = fopen(filename, "r");

// Open one file for reading
if (fptr2 == NULL)
{
    printf("Cannot open file %s \n", filename);
    exit(0);
}

printf("Enter the filename to open for writing: \n");
scanf("%s", filename);
res = fopen(filename, "w+"); // Open another file for writing


c1=fgetc(fptr1);
c2=fgetc(fptr2);

int toggle=0;

while(c1!=EOF && c2!=EOF){
    if(toggle==0){
        c=c1;
        c1=fgetc(fptr1);
        if(c1=='\n'){
            toggle=1;
        }
    }
    else{
        c=c2;
        c2=fgetc(fptr2);
        if(c2=='\n'){
            toggle=0;
        }
    }
    fputc(c,res);
}

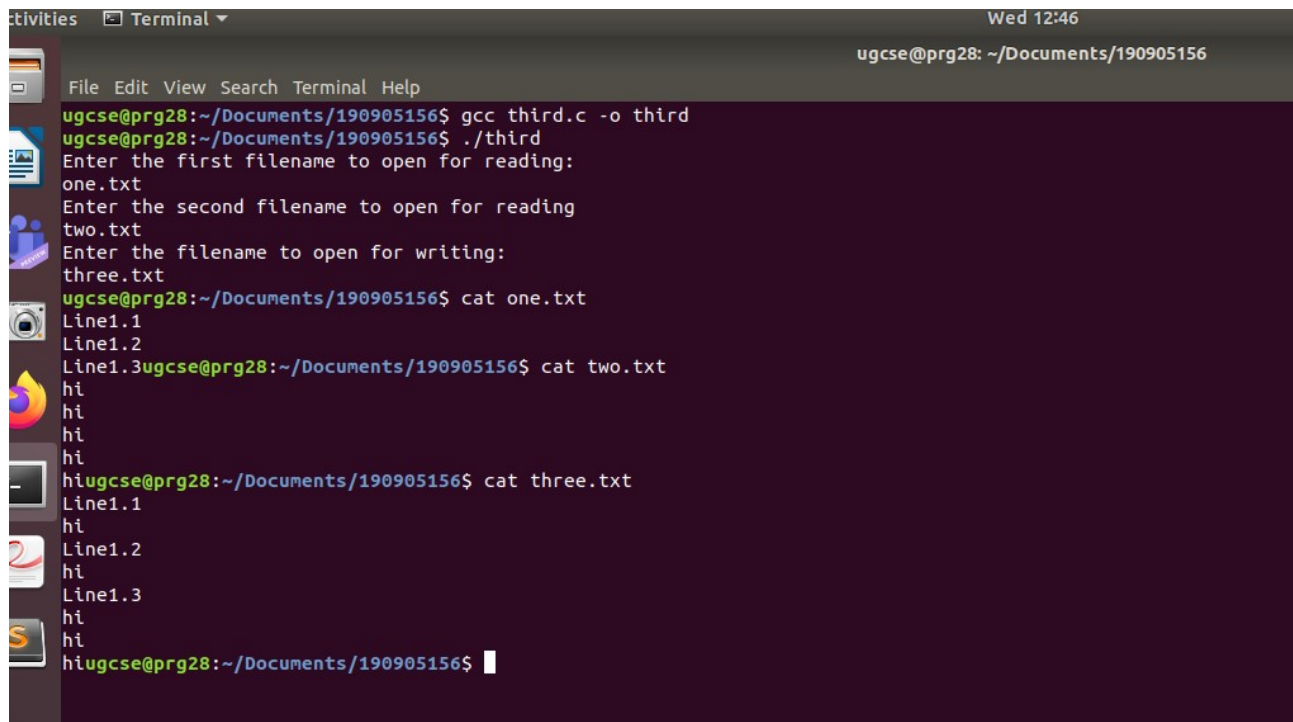
while(c1!=EOF){
    fputc(c1,res);
    c1=fgetc(fptr1);
}
while(c2!=EOF){
    fputc(c2,res);
    c2=fgetc(fptr2);
}

```

```
}
```

```
return 0;
```

```
}
```



```
activities Terminal Wed 12:46
ugcse@prg28: ~/Documents/190905156
File Edit View Search Terminal Help
ugcse@prg28:~/Documents/190905156$ gcc third.c -o third
ugcse@prg28:~/Documents/190905156$ ./third
Enter the first filename to open for reading:
one.txt
Enter the second filename to open for reading:
two.txt
Enter the filename to open for writing:
three.txt
ugcse@prg28:~/Documents/190905156$ cat one.txt
Line1.1
Line1.2
Line1.3
ugcse@prg28:~/Documents/190905156$ cat two.txt
hi
hi
hi
hi
hi
ugcse@prg28:~/Documents/190905156$ cat three.txt
Line1.1
hi
Line1.2
hi
Line1.3
hi
hi
hi
ugcse@prg28:~/Documents/190905156$
```