

12 a) a) Write a C program to display the contents of a file to standard output device.

<https://onlinegdb.com/MfyLzooCC>

```
#include<stdio.h>
void main ()
{
    FILE *fp;
    char ch;
    char name[20];
    printf ("\nEnter File Name:");
    scanf ("%s", name);
    fp = fopen (name, "r");
    while ((ch = fgetc (fp)) != EOF)
    {
        printf ("%c", ch);
    }
    fclose (fp);
}
```

Input File: sample.txt

Welcome to C Programming  
This is a test File.

**Output:**

Enter File Name: sample.txt

Welcome to C Programming

This is a test File.

12 b) Write a C program which copies one file to another, replacing all lowercase characters with their uppercase equivalents

<https://onlinegdb.com/BXZ6uH-ao>

```
#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
void main ()
{
    FILE *f1;
    FILE *f2;
    char ch;
    f1 = fopen ("sample1.txt", "r");
    if (f1 == NULL)
    {
        printf ("\nFile not found");
        exit (0);
    }
    f2 = fopen ("sample2.txt", "w");
    while ((ch = fgetc (f1)) != EOF)
    {
        ch = toupper(ch);
        fputc (ch, f2);
    }
    printf("\nFile Copied Successfully");
    fclose (f1);
    fclose (f2);
}
```

Input File:sample1.txt

This is sample text for copying file

**Output:**

File Copied Successfully

sample2.txt

THIS IS SAMPLE TEXT FOR COPYING FILE

13.a) Write a C program to count the number of times a character occurs in a text file. The file name and the character are supplied as command-line arguments

<https://onlinegdb.com/GjT2ma2XQ>

```
#include<stdio.h>
#include<string.h>
void main (int argc,char *argv[])
{
    FILE *fp;
    int count = 0;
    char c;
    fp = fopen(argv[1],"r");
    while ((c = fgetc(fp))!= EOF)
    {
        if (c==argv[2][0])
            count++;
    }
    printf("character %c occurs %d times",argv[2][0],count);
    fclose (fp);
}
```

**Input File:**sample.txt

this is sample text file for counting character

Commandline arguments:sample.txt i

**Output:**

character i occurs 4 times

13 b) Write a C program to compare two files, printing the first line where they differ.

<https://onlinegdb.com/6kCPiptQW>

```
#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>
void main ()
{
    FILE *f1;
    FILE *f2;
    char ch1, ch2;
    int i = 0;
    f1 = fopen ("sample1.txt", "r");
    if (f1 == NULL)
    {
        printf ("\nFile1 not found");
        exit (0);
    }
    f2 = fopen ("sample2.txt", "a");
    if (f2 == NULL)
    {
        printf ("\nFile2 not found");
        exit (0);
    }
    ch1 = fgetc (f1);
    ch2 = fgetc (f2);
    while (ch1 == ch2)
    {
        i++;
        ch1 = fgetc (f1);
        ch2 = fgetc (f2);
    }
    printf ("\nfile1 is differ from file2 at %dth character", i);

    fclose (f1);
    fclose (f2);
}
```

**Input Files:**

sample1.txt

this text for copying

sample2.txt

this text for comparision

**Output:**

file1 is differ from file2 at 17th character

14.a) Write a C program to change the nth character (byte) in a text file. Use fseek function.

<https://onlinegdb.com/Z9jV0PSii>

```
#include<stdio.h>
void main ()
{
    FILE *fp;
    char ch, x;
    int pos;
    printf ("Enter the position: ");
    scanf ("%d", &pos);
    printf ("Enter your replacement character:");
    scanf (" %c", &x);
    fp = fopen ("file1.txt", "w");
    if (fp == NULL)
    {
        printf ("File Doesn't Exist!!!!");
    }
    else
    {
        fseek (fp, pos, SEEK_SET);
        fputc (x, fp);
        fclose (fp);
    }
    fp = fopen ("file1.txt", "r");
    while ((ch = fgetc (fp)) != EOF)
    {
        printf ("%c", ch);
    }
    fclose (fp);
}
```

Input File:

**file1.txt**

this is sample text week14

**Output:**

Enter the position: 0

Enter your replacement character:A

Ahis is sample text week14

14 b) Write a C program to reverse the first n characters in a file. The file name and n are specified on the command line. Use f seek function.

<https://onlinegdb.com/0j8Q0Fjpn>

```
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
void main (int argc, char *argv[])
{
    FILE *fp;
    int n, i;
    char ch;
    char s[20];
    fp = fopen (argv[1], "r+");
    n = atoi (argv[2]);
    i = 0;
    while (i < n)
    {
        ch = fgetc (fp);
        s[i] = ch;
        i++;
    }
    fseek (fp, 0, SEEK_SET);
    i--;
    while (i >= 0)
    {
        fputc (s[i], fp);
        i--;
    }
    fclose (fp);
}
```

Command Line Arguments:file1.txt 4

**Input File:**file1.txt

isht is sample text

**Output:**

file1.txt

this is sample text

15.a) Write a C program to merge two files into a third file (i.e., the contents of the first file followed by those of the second are put in the third file).

<https://onlinegdb.com/Eo8Gz2Ydn>

```
#include <stdio.h>
#include <stdlib.h>
void
main ()
{
    FILE *fp1 = fopen ("file1.txt", "r");
    FILE *fp2 = fopen ("file2.txt", "r");
    FILE *fp3 = fopen ("file3.txt", "w");
    char c;
    if (fp1 == NULL || fp2 == NULL || fp3 == NULL)
    {
        puts ("Could not open files");
        exit (0);
    }
    while ((c = fgetc (fp1)) != EOF)
    {
        fputc (c, fp3);
    }
    while ((c = fgetc (fp2)) != EOF)
    {
        fputc (c, fp3);
    }
    printf ("Merged file1.txt and file2.txt into file3.txt");
    fclose (fp1);
    fclose (fp2);
    fclose (fp3);
}
```

**Input Files:**

**file1.txt:**

this is C Programming

**file2.txt**

this is sample text

**Output:**

Merged file1.txt and file2.txt into file3.txt

file3.txt

this is C Programmingthis is sample text

15 b) Define a macro that finds the maximum of two numbers. Write a C program that uses the macro and prints the maximum of two numbers.

<https://onlinegdb.com/V7GPolUUdo>

```
#include<stdio.h>
#define MAX(x,y) (x)<(y)?(y):(x)
void main()
{
    int a,b,big;
    printf("\nEnter a and b values:\n");
    scanf("%d%d",&a,&b);
    big=MAX(a,b);
    printf("big is :%d",big);
}
```

Output:

Enter a and b values:

10 20

big is :20