FILE HANDLING / FILE OPERATIONS /DATA FILES

File is the name of physical memory location within secondary storage area that is hard disk.

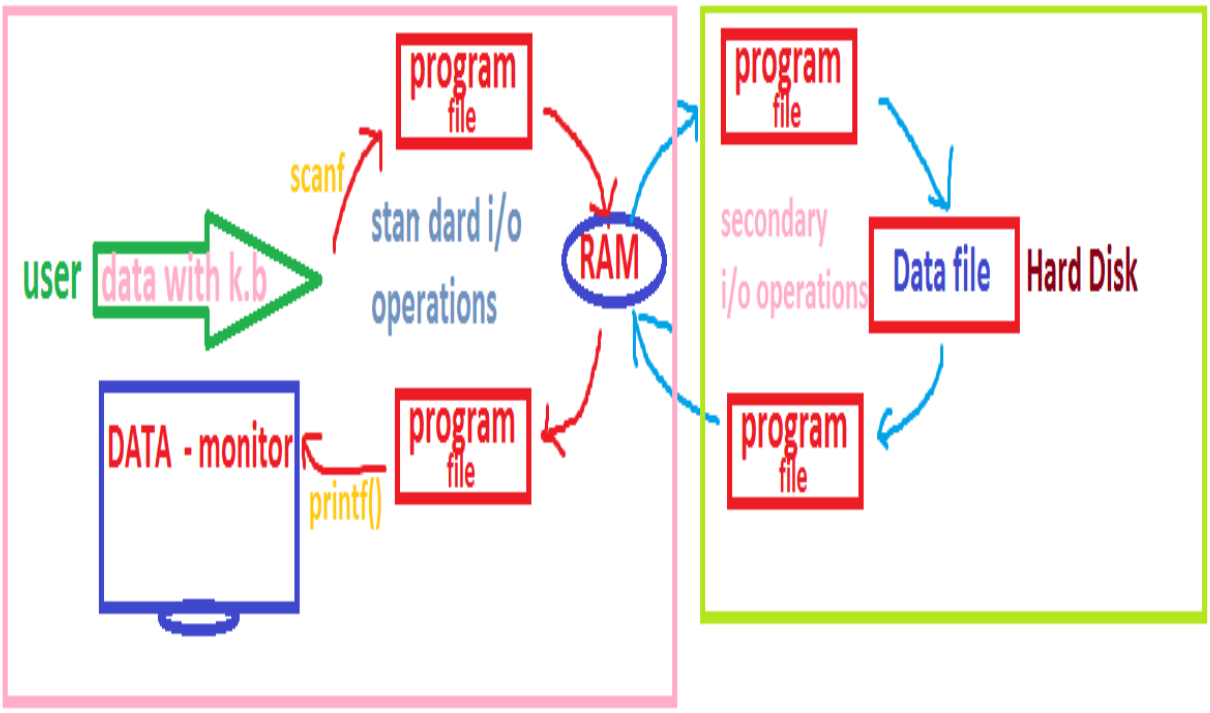
In implementation, when we need to read or write the data from the secondary storage area, then go for file operations. By using file operations related data can be stored permanently in the secondary storage area. Whenever we want to load this information from secondary storage area then also we can use file operations.

I/O operations are classified into 2 types.

1. Standard I/O operations.
2. Secondary I/O operations

   When we are interacting with standard I/O devices then it is called standard I/O operations. when we are interacting with secondary I/O devices, then it is called secondary I/O operations.

   Standard I/O and Secondary I/O related operations are controlled by **<stdio.h>**



In C, to control file operations, we are using predefined structure called **FILE.**

FILE structure size is **16 bytes.**

It need pointer structure variable.

fopen(): It is used to open a file in specified mode. If file is not opened, it returns NULL.

Syntax: fopen(filename, mode);

fputc(): It is used to write a character into the file.

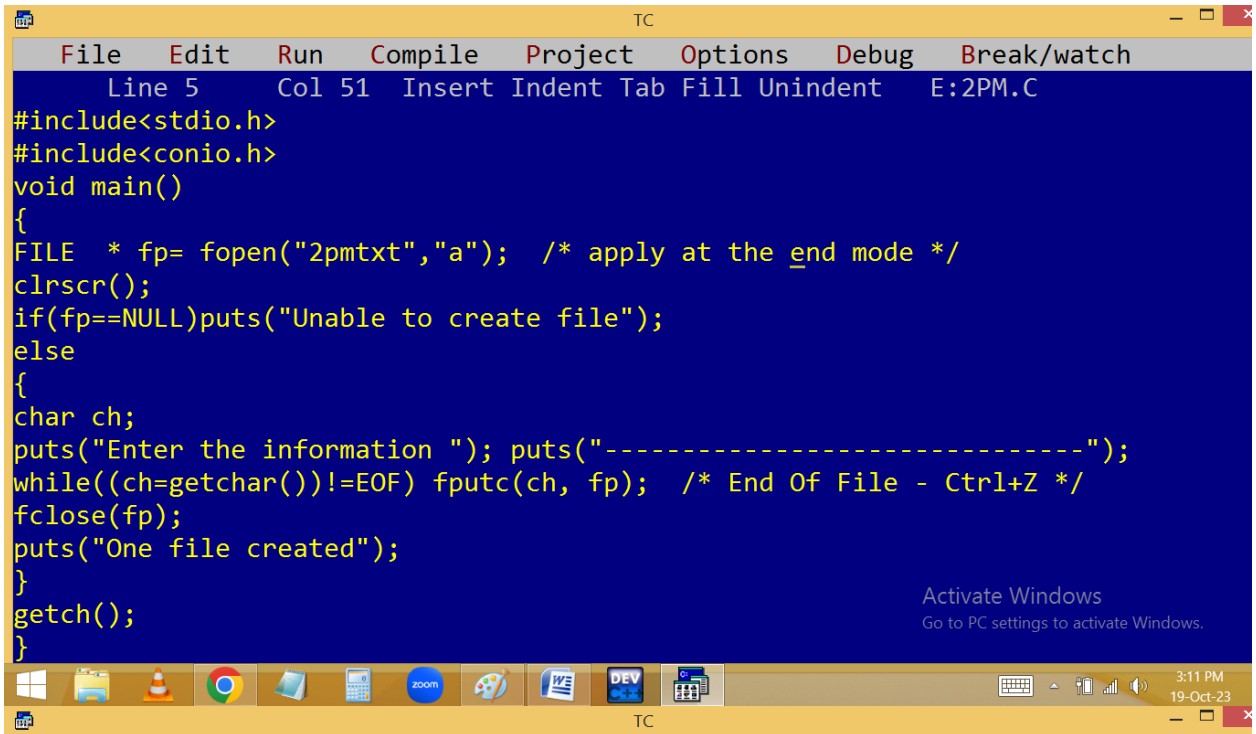
Syntax: fputs(ch, fileptr);

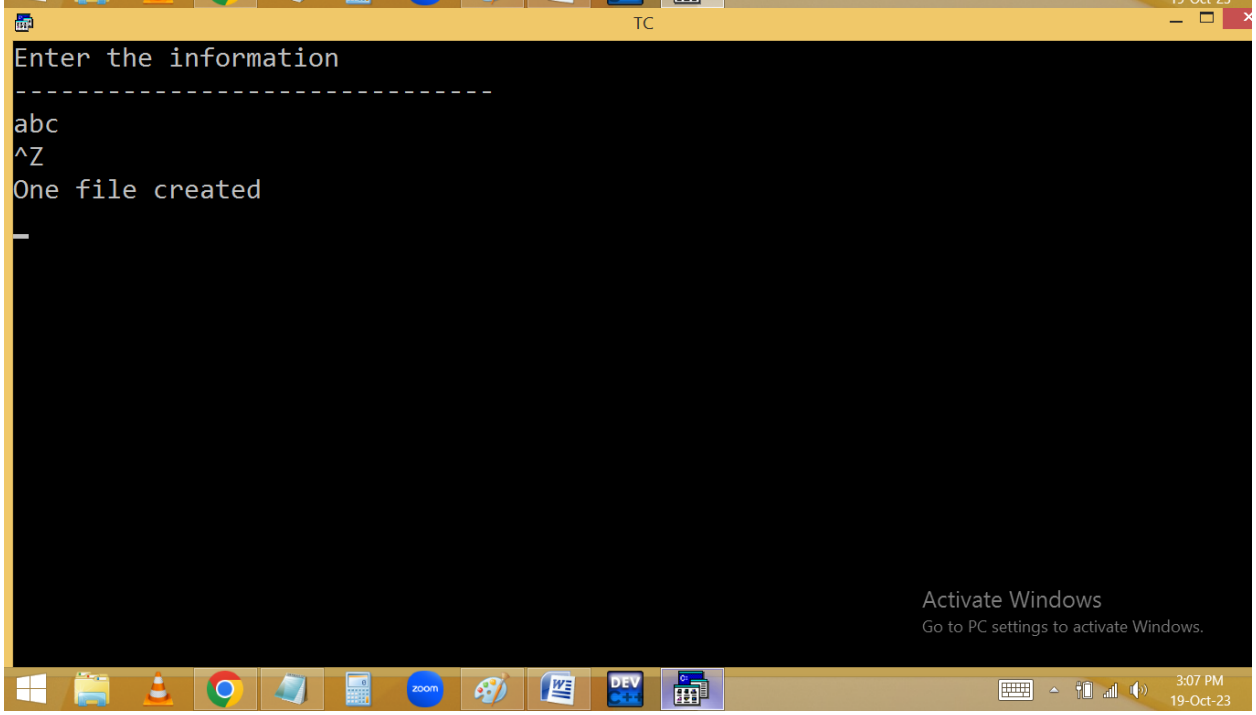
fgetc(): It reads a character from file.
Syntax: fgetc(fileptr);
fwrite(): It is used to write the data into a data file.
Syntax: fwrite(&var,noofbytes,nooftimes, fileptr);
fread(): It is used to read the data from a data file.
Syntax: fread(&var,noofbytes,nooftimes, fileptr);
fclose(): It closes the currently opened data file.
Syntax: fclose(fileptr);
fseek(): It is used to move the file pointer to a specified position.
Syntax: fseek(fileptr,position, from);
ftell(): It returns the current file pointer position.
Syntax: ftell(fileptr);
rename(): It is used to change the filename.
Syntax: rename(oldfilename, newfilename);
remove(): It deletes a file.
Syntax: remove(filename);

We are conducting two types of file operations.

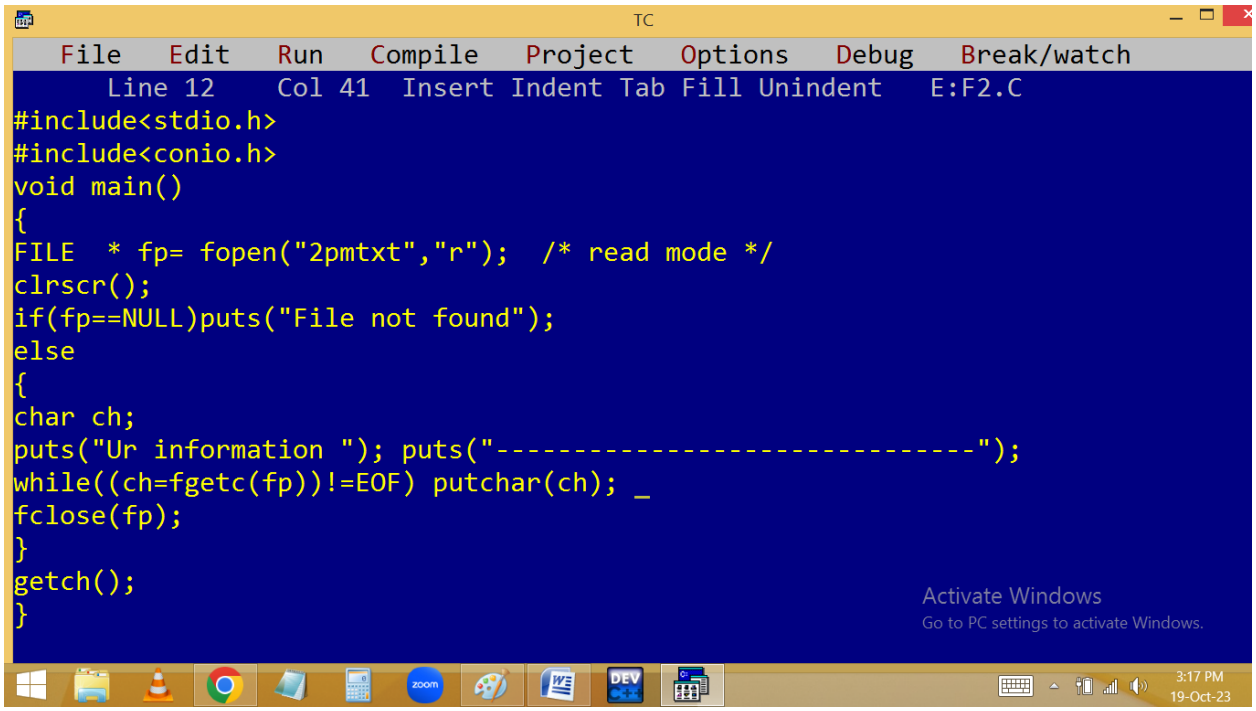
1. Text file operations, where our data stored in the form of characters.
2. Binary file operations, where our data stored based on the data types.

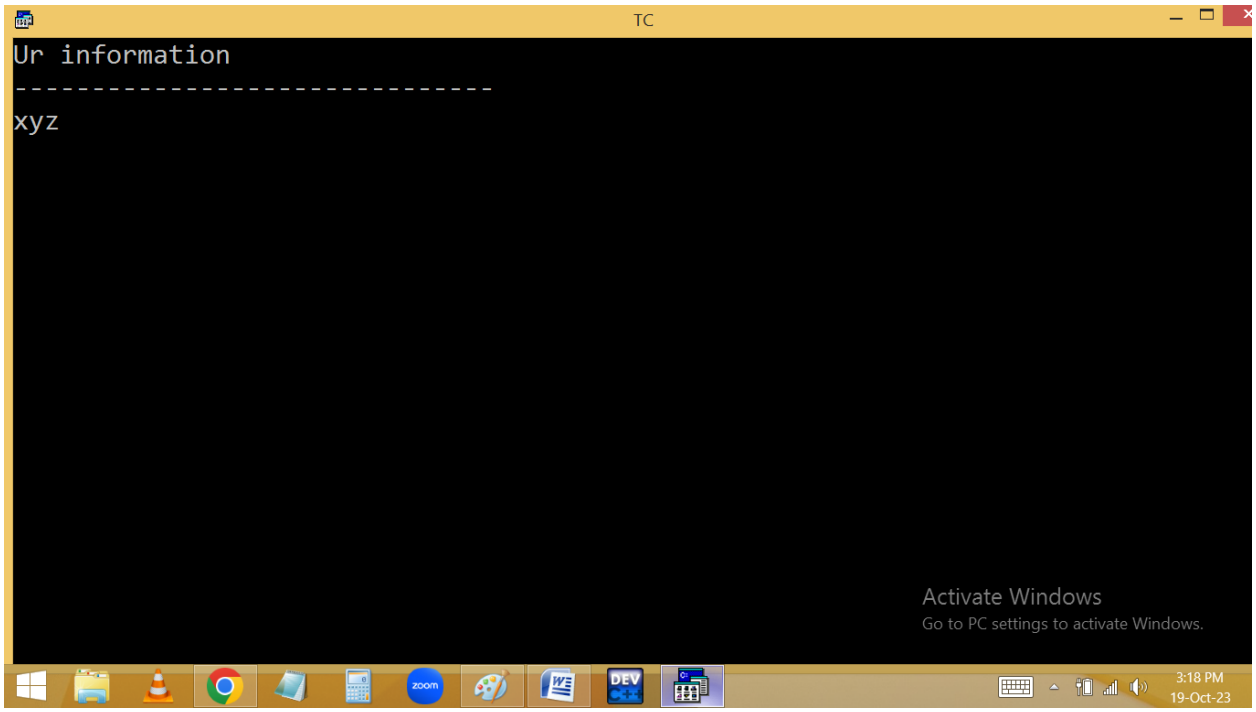
Creating a text file:

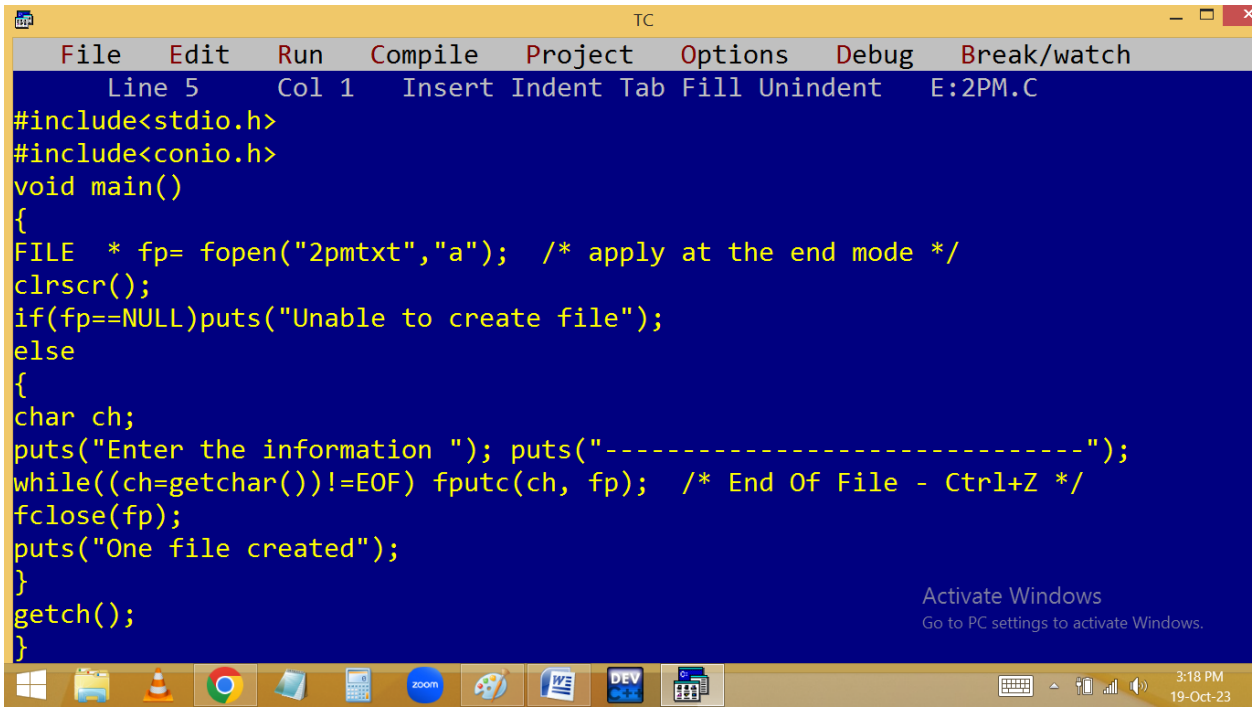


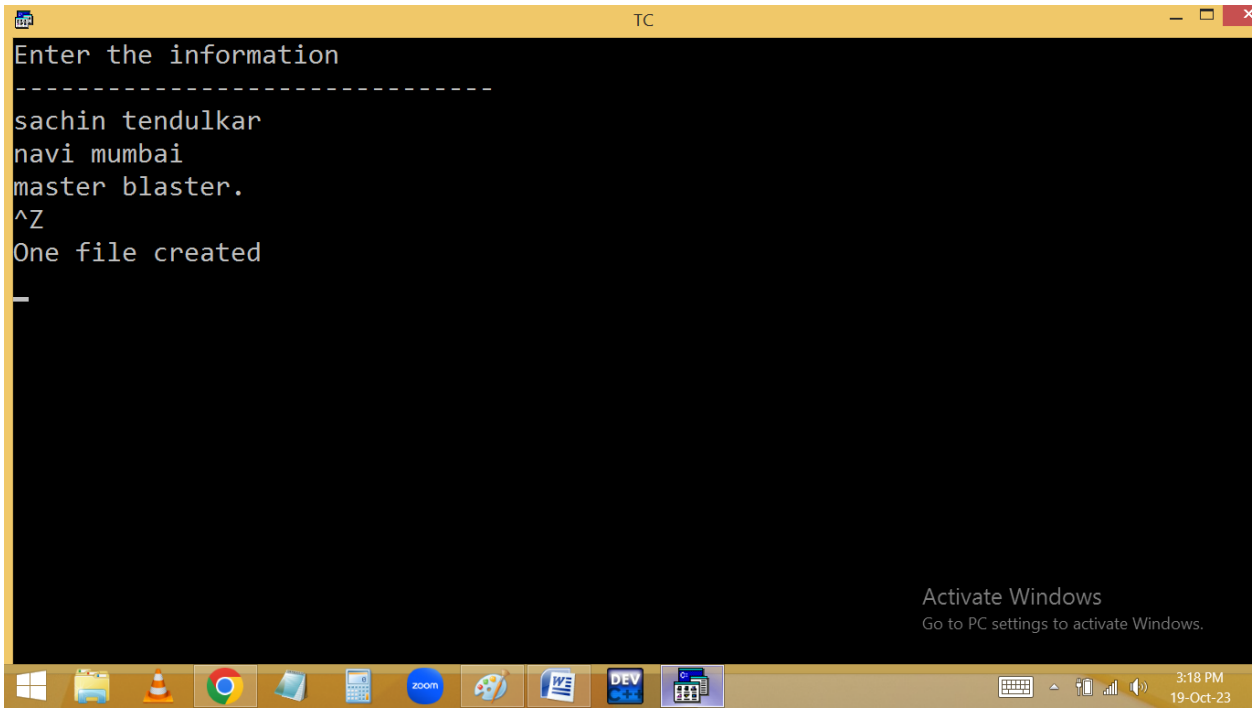


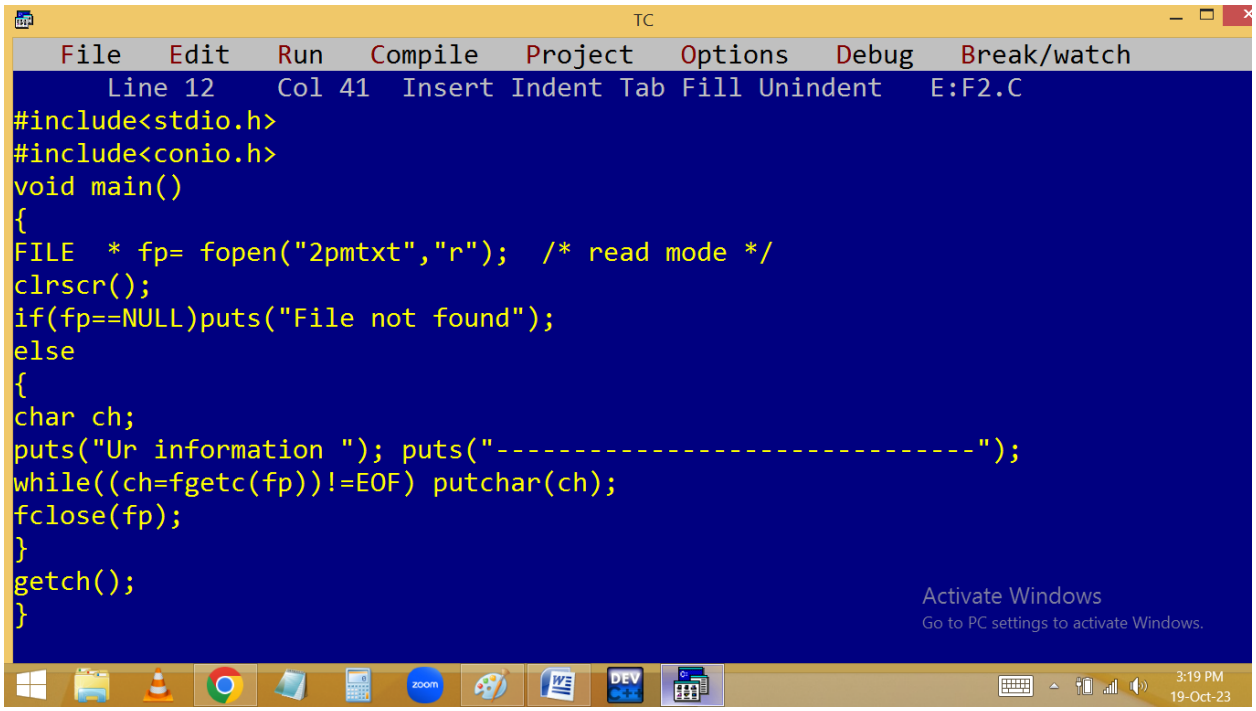
Reading text file content:

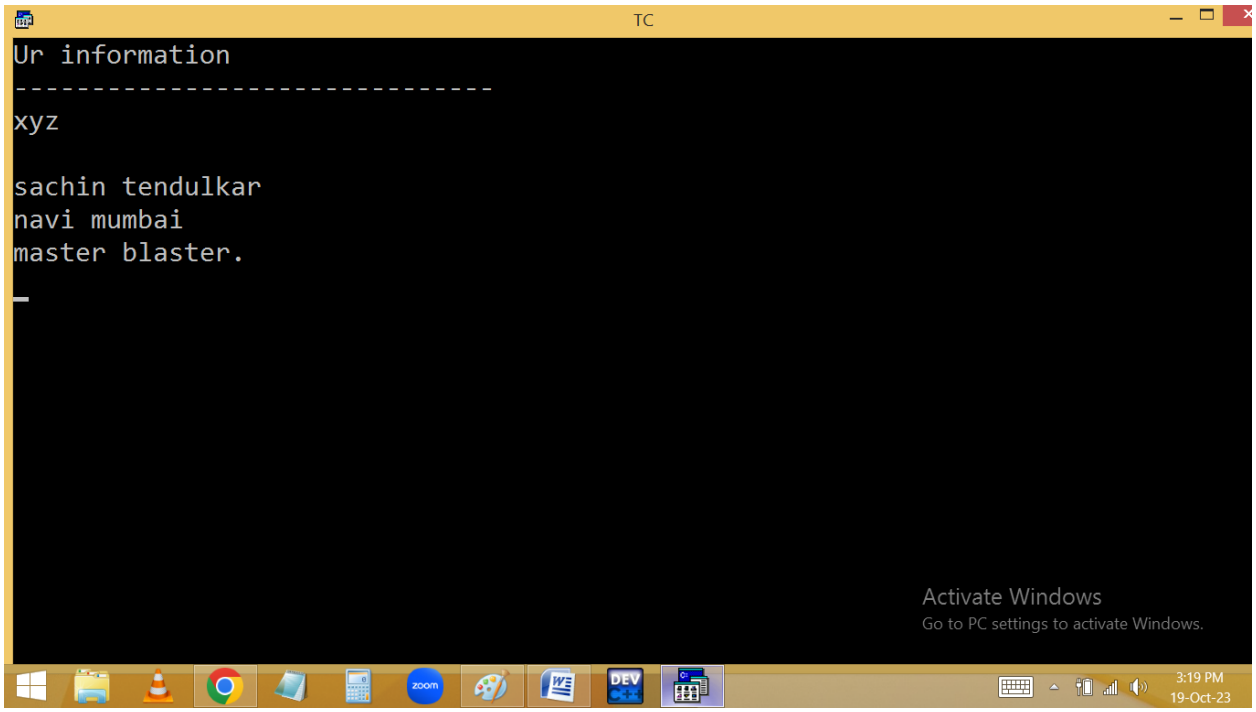

TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 41 Insert Indent Tab Fill Unindent E:F2.C
#include<stdio.h>
#include<conio.h>
void main()
{
FILE * fp= fopen("2pmtxt","r"); /* read mode */
clrscr();
if(fp==NULL)puts("File not found");
else
{
char ch;
puts("Ur information "); puts("------------------------------");
while((ch=fgetc(fp))!=EOF) putchar(ch); _
fclose(fp);
}
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:17 PM
19-Oct-23


TC
Ur information
----
xyz
Activate Windows
Go to PC settings to activate Windows.
3:18 PM
19-Oct-23

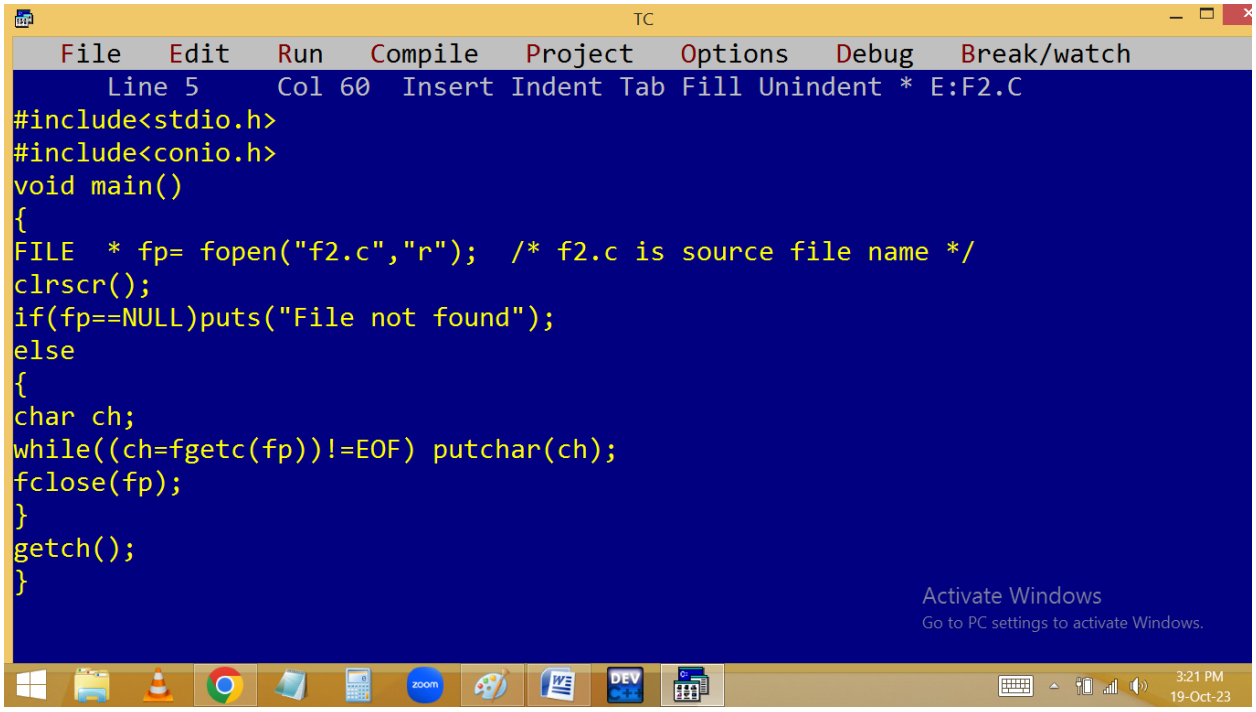

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 1 Insert Indent Tab Fill Unindent E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
FILE * fp= fopen("2pmtxt","a"); /* apply at the end mode */
clrscr();
if(fp==NULL)puts("Unable to create file");
else
{
char ch;
puts("Enter the information "); puts("------------------------------");
while((ch=getchar())!=EOF) fputc(ch, fp); /* End Of File - Ctrl+Z */
fclose(fp);
puts("One file created");
}
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:18 PM
19-Oct-23

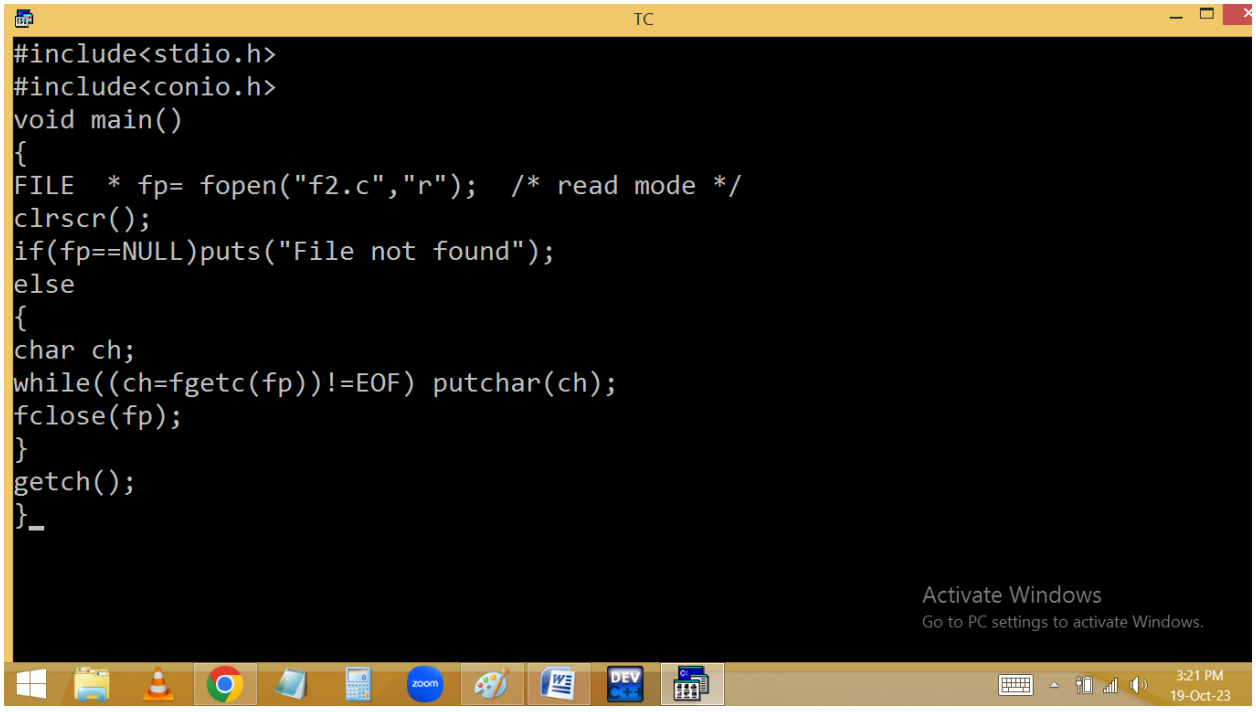

TC
Enter the information
----
sachin tendulkar
navi mumbai
master blaster.
^Z
One file created
Activate Windows
Go to PC settings to activate Windows.
3:18 PM
19-Oct-23


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 41 Insert Indent Tab Fill Unindent E:F2.C
#include<stdio.h>
#include<conio.h>
void main()
{
FILE * fp= fopen("2pmtxt","r"); /* read mode */
clrscr();
if(fp==NULL)puts("File not found");
else
{
char ch;
puts("Ur information "); puts("------------------------------");
while((ch=fgetc(fp))!=EOF) putchar(ch);
fclose(fp);
}
getch();
}
Activate Windows
Go to PC settings to activate Windows.
3:19 PM
19-Oct-23

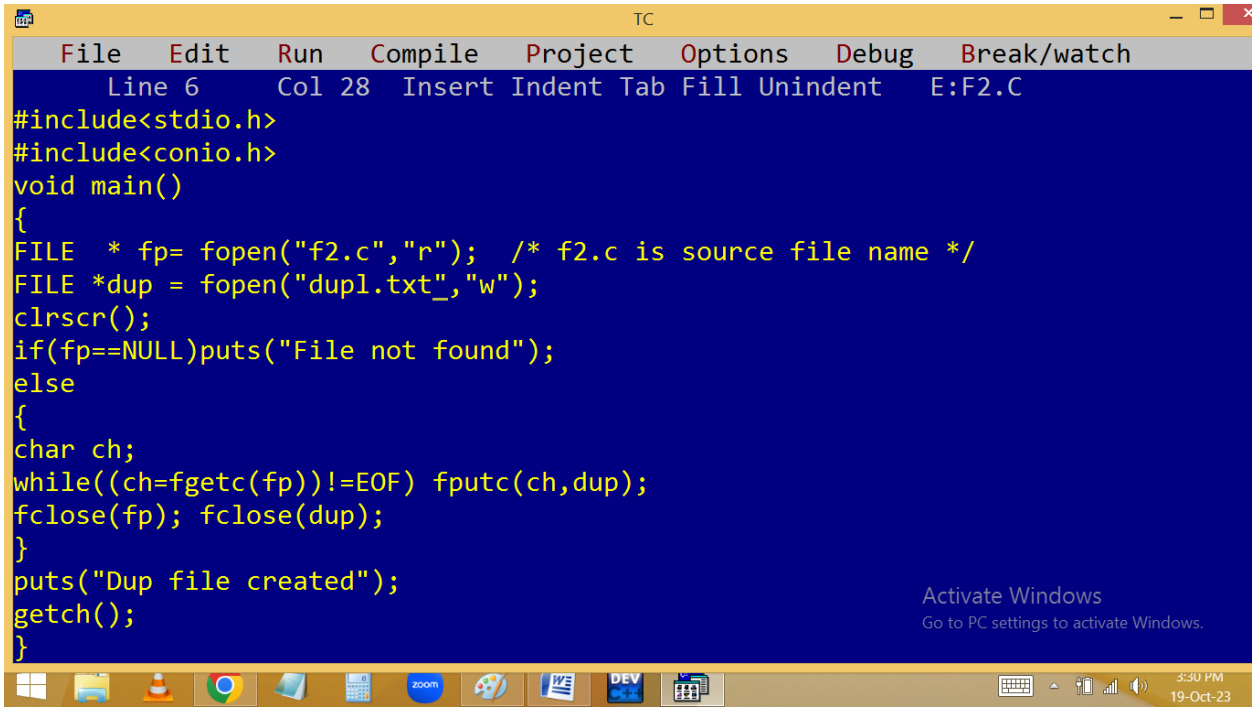

TC
Ur information
----
xyz
sachin tendulkar
navi mumbai
master blaster.
Activate Windows
Go to PC settings to activate Windows.
3:19 PM
19-Oct-23

Printing source code as output:

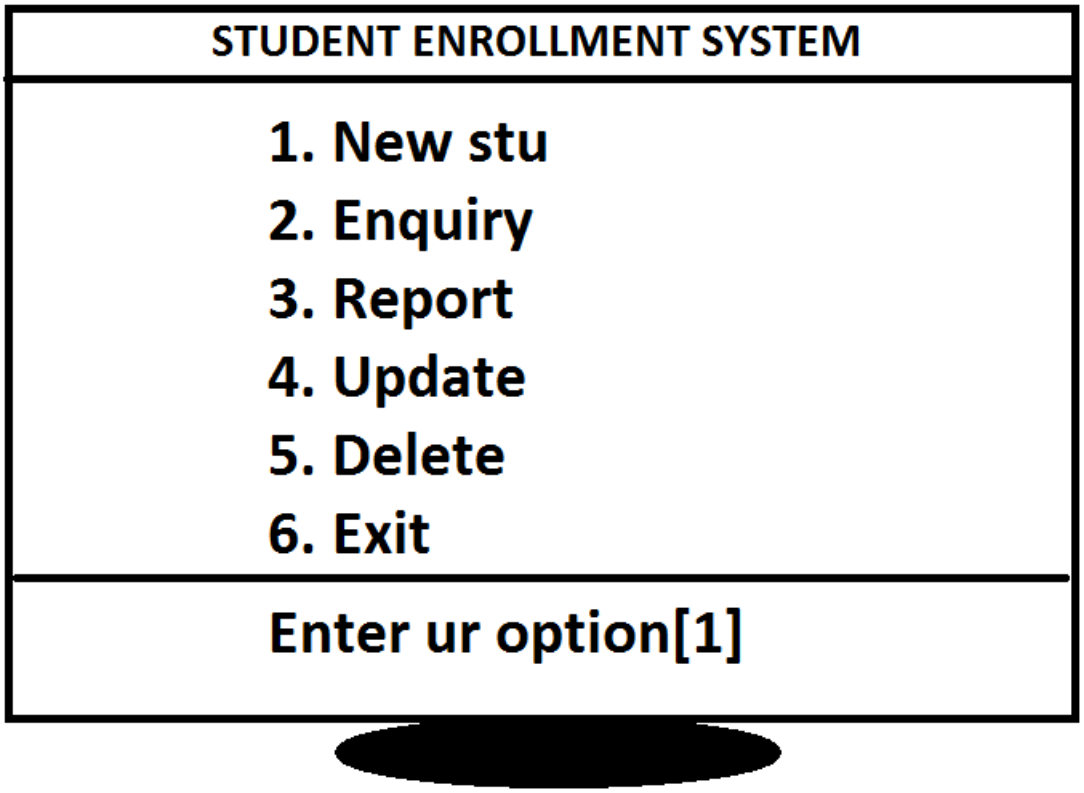




Text file to text file copy:



Binary files with project:


STUDENT ENROLLMENT SYSTEM
1. New stu
2. Enquiry
3. Report
4. Update
5. Delete
6. Exit
Enter ur option[1]