PROGRAMMING FUNDAMENTALS

Assignment No# 02

Student Name: ABDUL RAFEH

Student ID: CSC-20S-104

Section: I-C

Dept: Computer Science

Instructor: Ameen Khowaja

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Q1. Discuss the reason(s) of following errors occur in the C programs, also give the solution to fix it.

Answer:

1. Error: undefined reference to 'main'

The error undefined reference to 'main' in C program is a mistake by the programmer, it occurs when the main() function does not exist in the program. If you used main() function and still the error is there, you must check the spelling of the main() function.

Example, here I wrote **mian()** instead of **main()**, see the spelling of **main()** which is not correct in the program.

Solution: To fix this error, correct the spelling of the **main()** function.

2. Error: missing terminating (") character

The Error missing terminating (") character is occurred, when a constant string or text is not closed in double quotes either you missed closing quotes or using singe quote instead of double quote while closing the string/text.

Example 1: ("SMI University); Example 2: ("SMI University');

Solution: In the first example, closing double quote is missing, and in the second example, text is closing by single quote instead of double quote.

To fix this error, use double quote to close the string/text.

Example: ("SMI University");

3. Error: expected declaration or statement at end of input in C

The main cause of this error is – missing closing curly brace (}) of the main() block.

For Example:

```
void main()
{
printf("SMI University");
getch();
```

In this program, closing brace of the main() block is missing.

Solution: To fix this and such errors, please take care of curly braces, they are properly opened and closed.

For Example:

```
void main()
{
printf("SMI University");
getch();
}
```

4. Error: Assignment of read-only variable in C | Common C program Errors

Error "assignment of read-only variable in C" occurs, when we try to assign a value to the read-only variable i.e. constant. In this program, a is a read-only variable or we can say a is an integer constant, there are two mistakes that we have made.

1. While declaring a constant, value must be assigned – which is not assigned.
2. We cannot assign any value after the declaration statement to a constant – which we are trying to assign.

For Example: const int a;
a=500;

Solution: Assign value to the variable while declaring the constant and do not reassign the variable.

For Example: const int a = 500;

5. Error: case label does not reduce to an integer constant in C
This is an example of switch case in C programming. In the switch case statement, a case can only have integral constant values i.e. integer or character type constant value. We cannot use any variable as case value.

```
Example: void  main()
         {
         int  a,b;
         a=2;
         b=2;
         switch(a){
         case  1:
         printf("SMIU\n");
         break;
         case  b:
         printf("SMI  University\n");
         break;
         }
         getch();
         }
```

Solution: To fix the error case label does not reduce to an integer constant, use value **2** instead of variable **b**. The correct statement will be case 2.

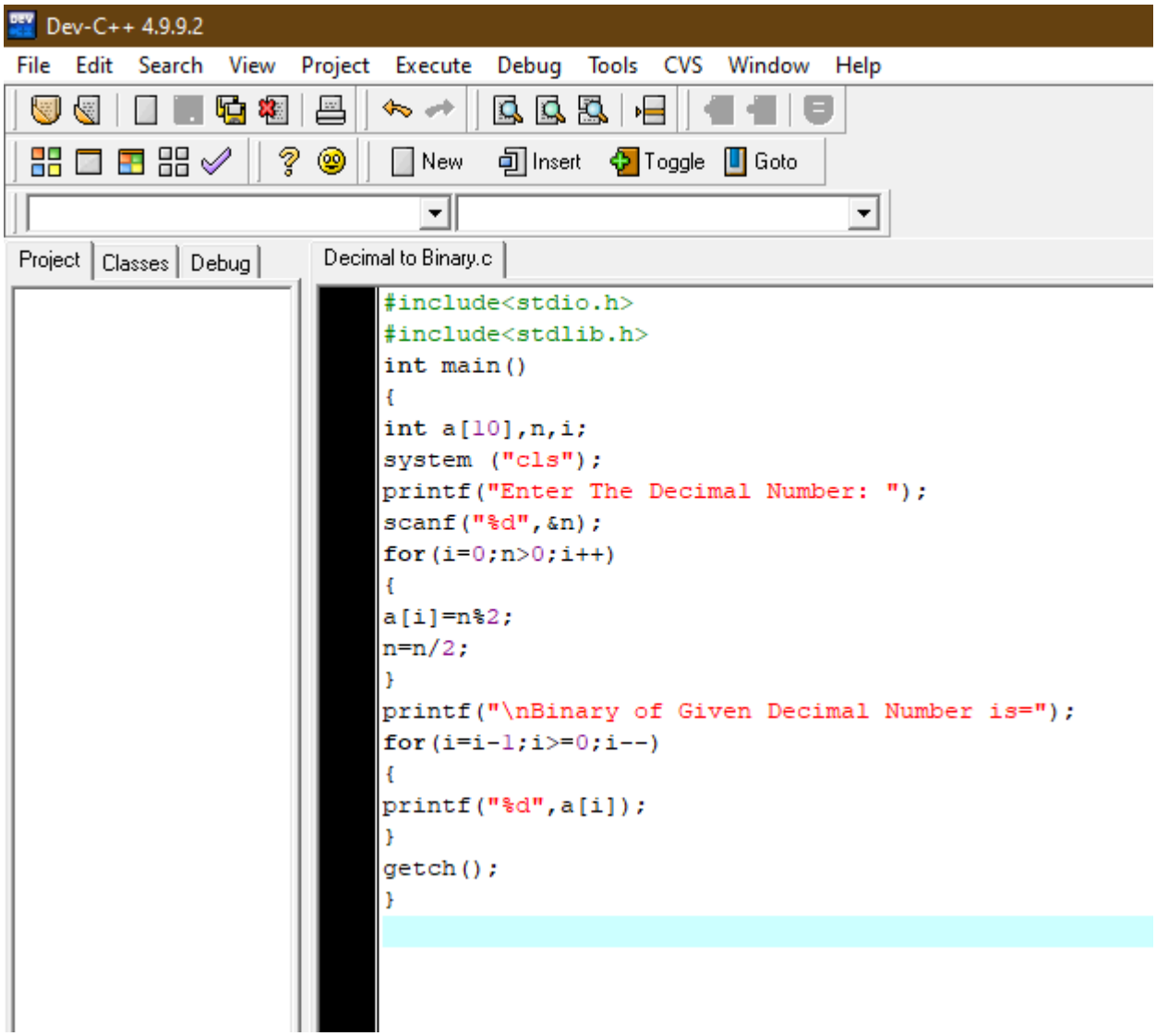
```
Example: void  main()
         {
         int  a,b;
         a=2;
         b=2;
```

```
switch(a)
{
case 1:
printf("SMIU\n");
break;
case 2:
printf("SMI University\n");
break;
}
getch();
}
```

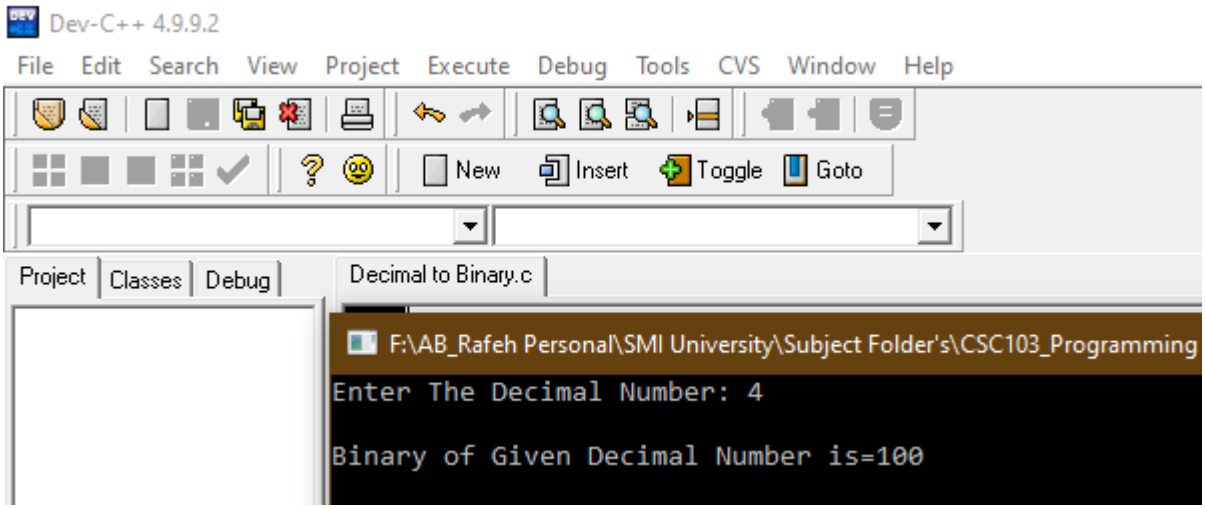
Q2. Develop following programs

1. Write a program to convert decimal number into binary.

Answer:

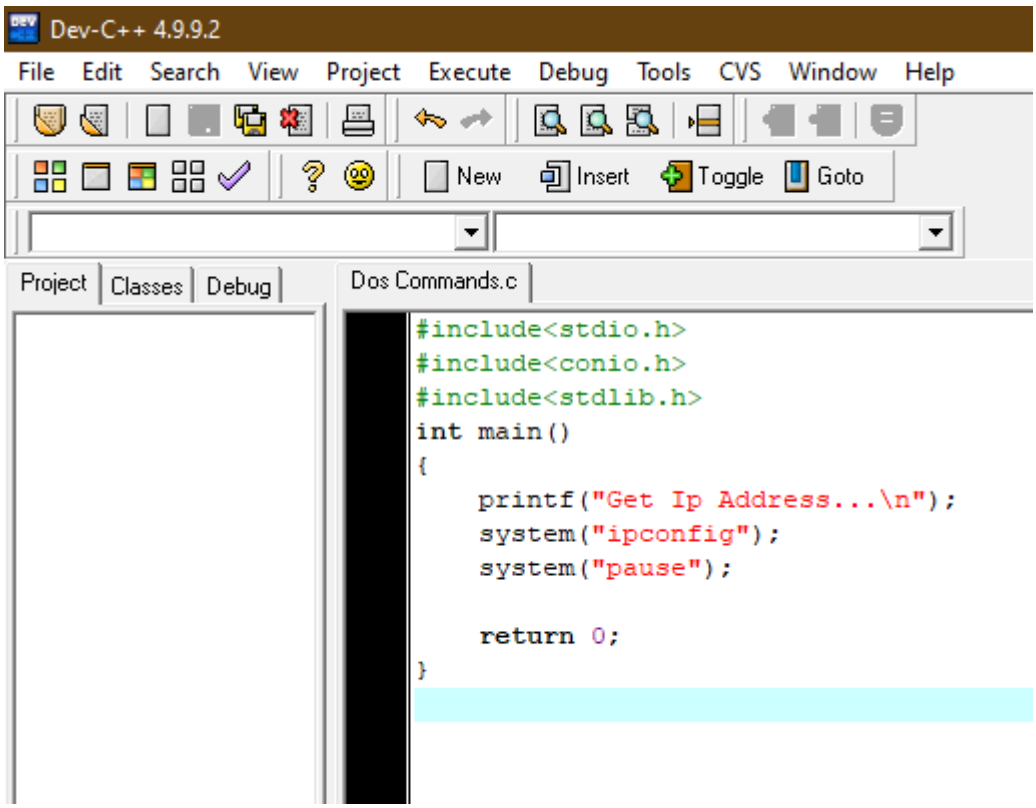


Output:

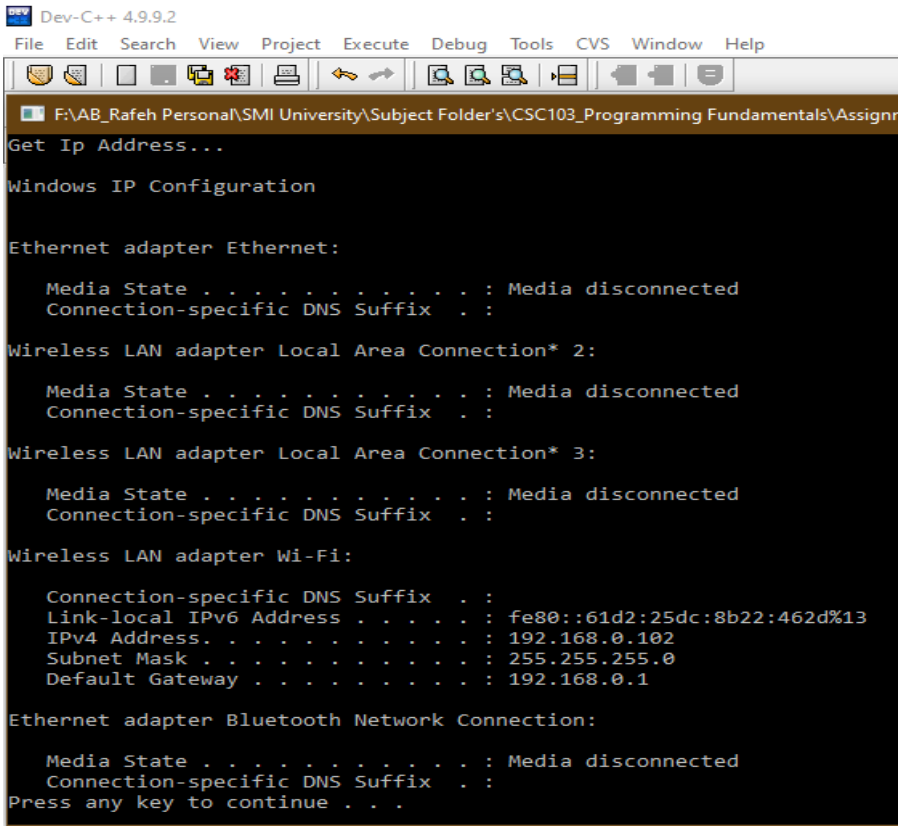


2. Program to run dos commands in C
a) Get System IP Address
b) Delete a file
c) Delete a folder
d) Clearing the Screen on DOS mode
e) Exit from DOS mode

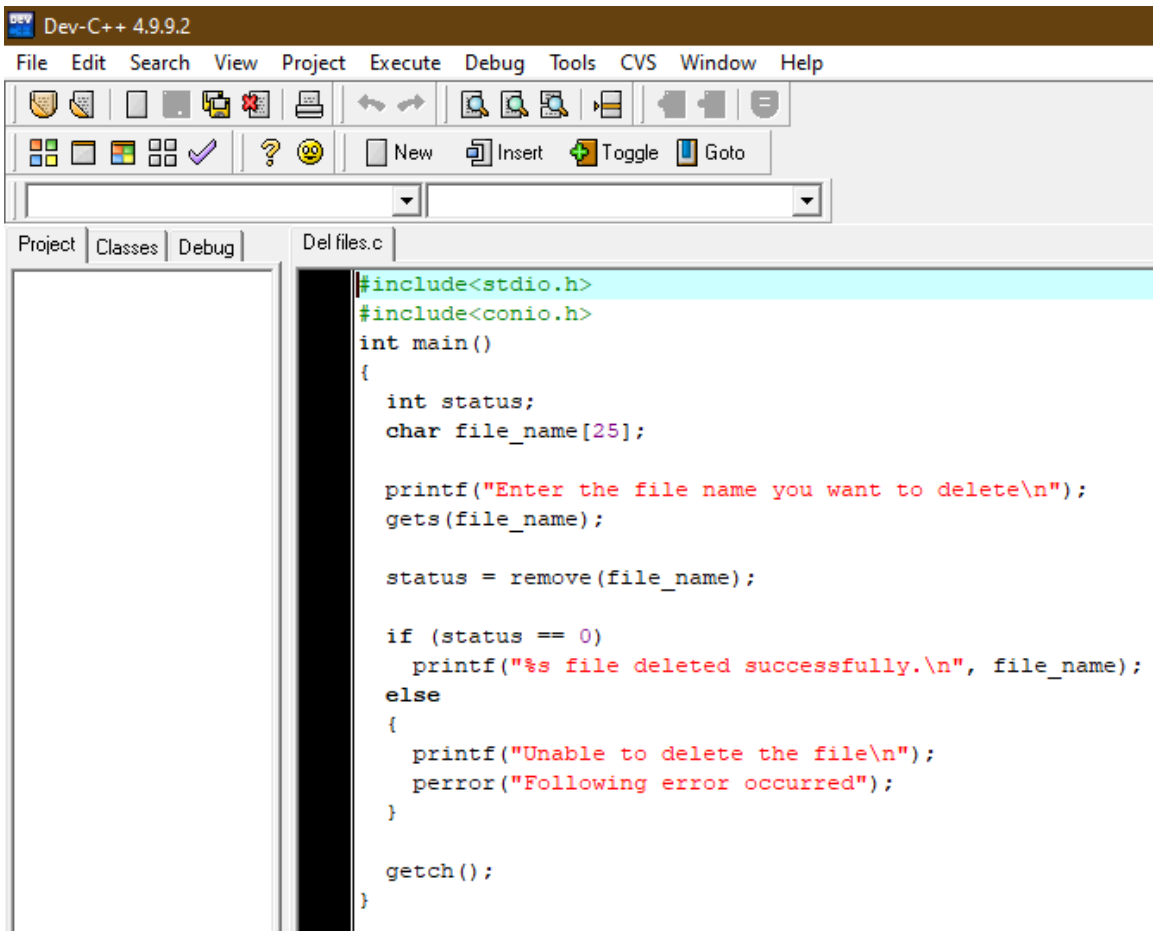
Answer: Part A



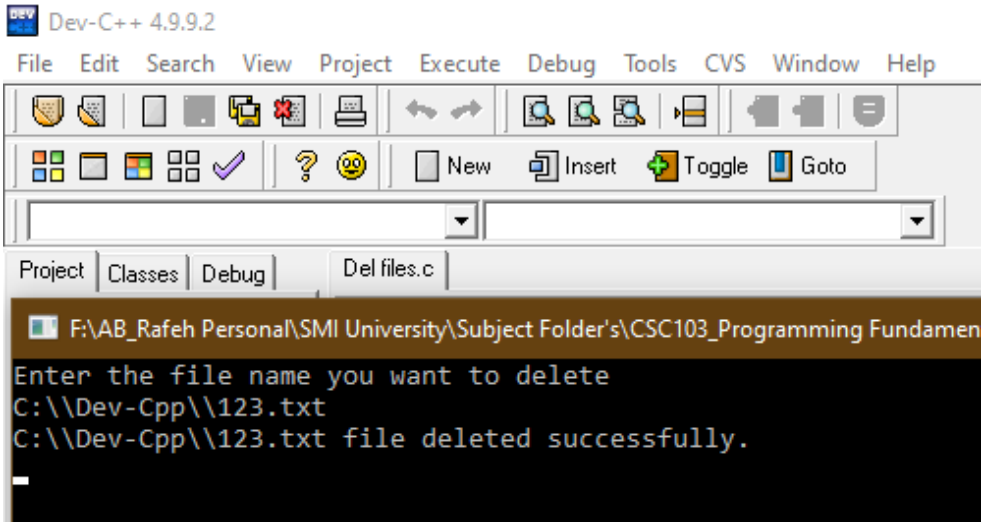
Output:



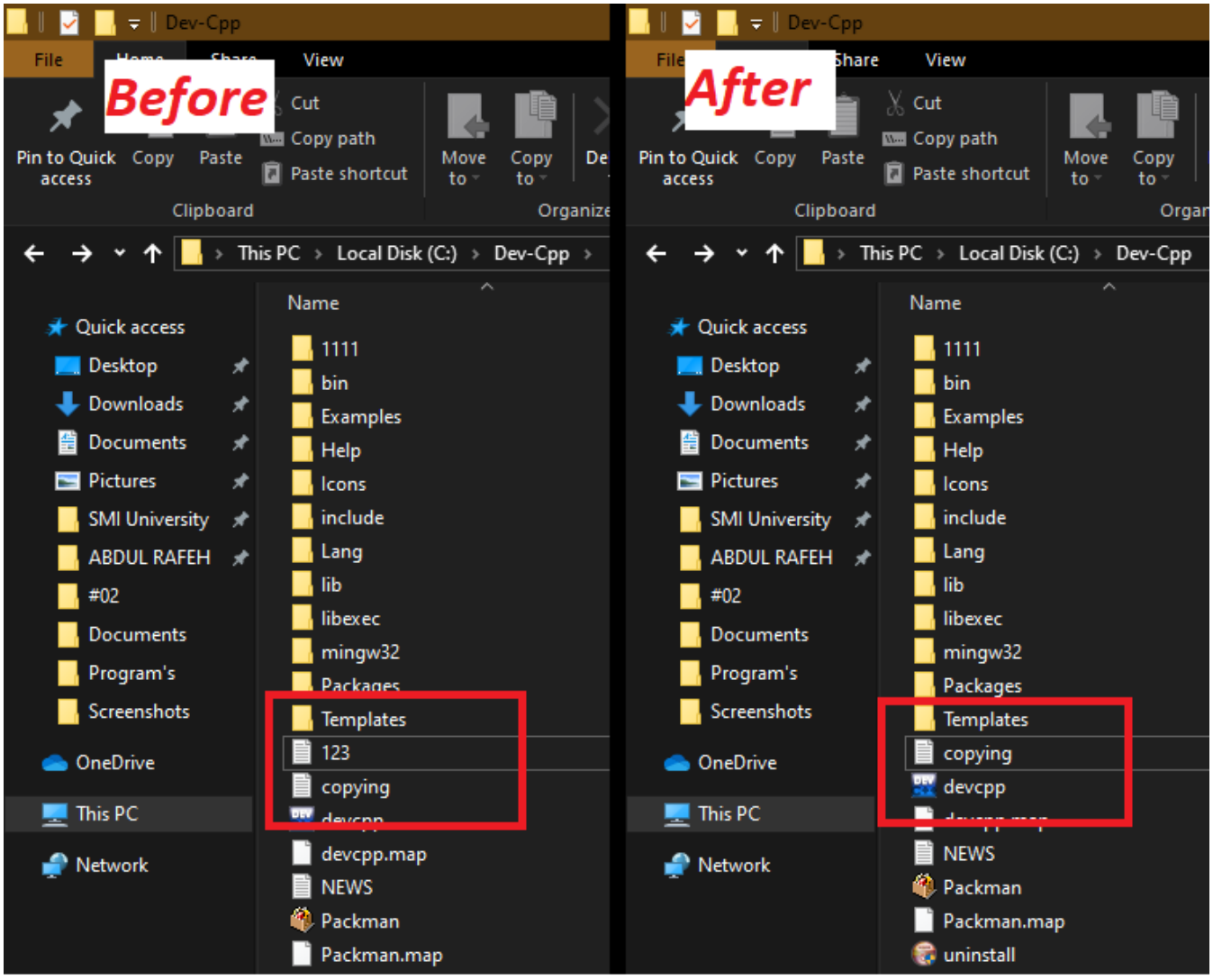
Part B



Output:



File location before and after SS Attached.



Part C

Dev-C++ 4.9.9.2

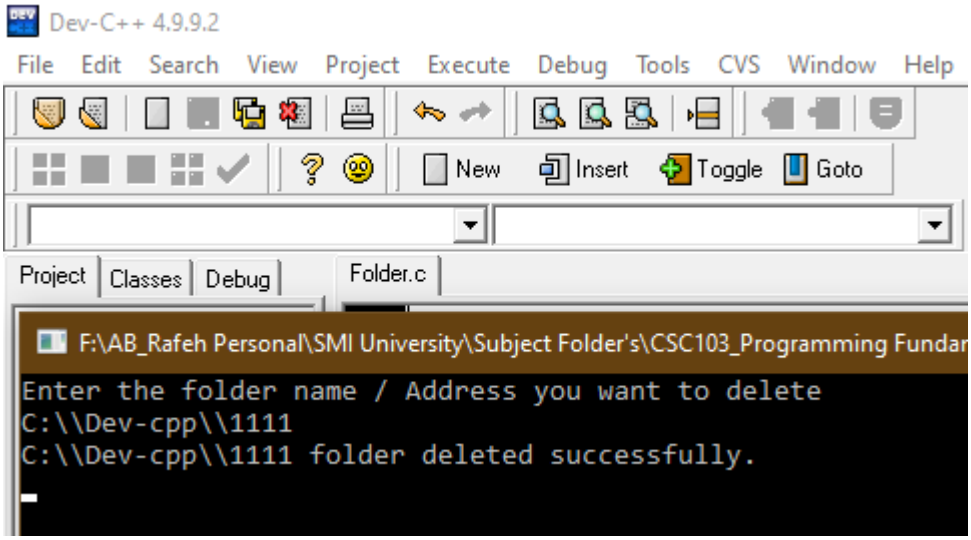
File Edit Search View Project Execute Debug Tools CVS Window Help

New Insert Toggle Goto

Project Classes Debug | Folder.c

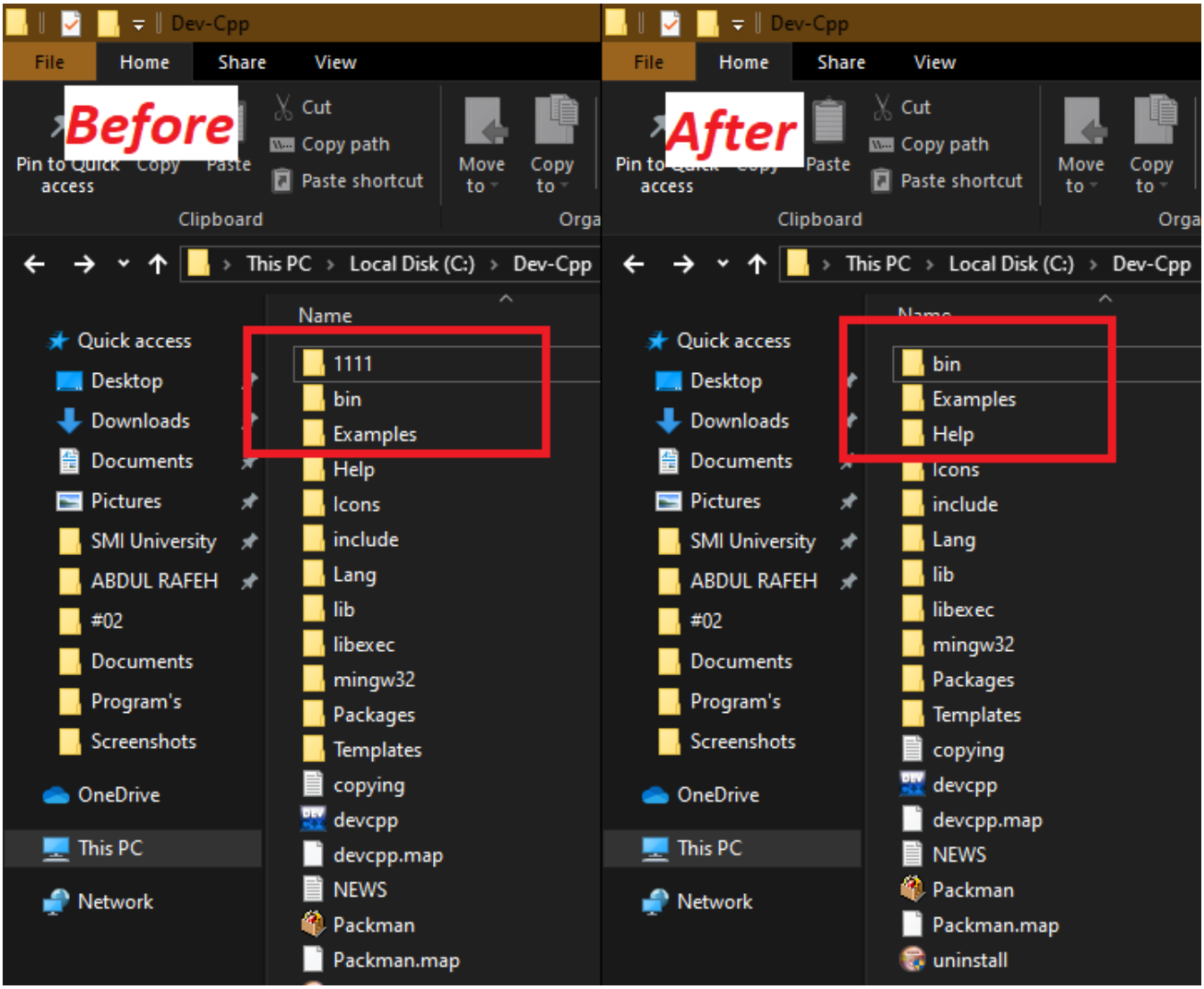
```
#include<stdio.h>
#include<conio.h>
int main()
{
  int status;
  char folder_name[25];

  printf("Enter the folder name / Address you want to delete\n");
  gets(folder_name);

  status = rmdir(folder_name);

  if (status == 0)
    printf("%s folder deleted successfully.\n", folder_name);
  else
  {
    printf("Unable to delete the folder\n");
    perror("Following error occurred");
  }

  getch();
}
```

Output:

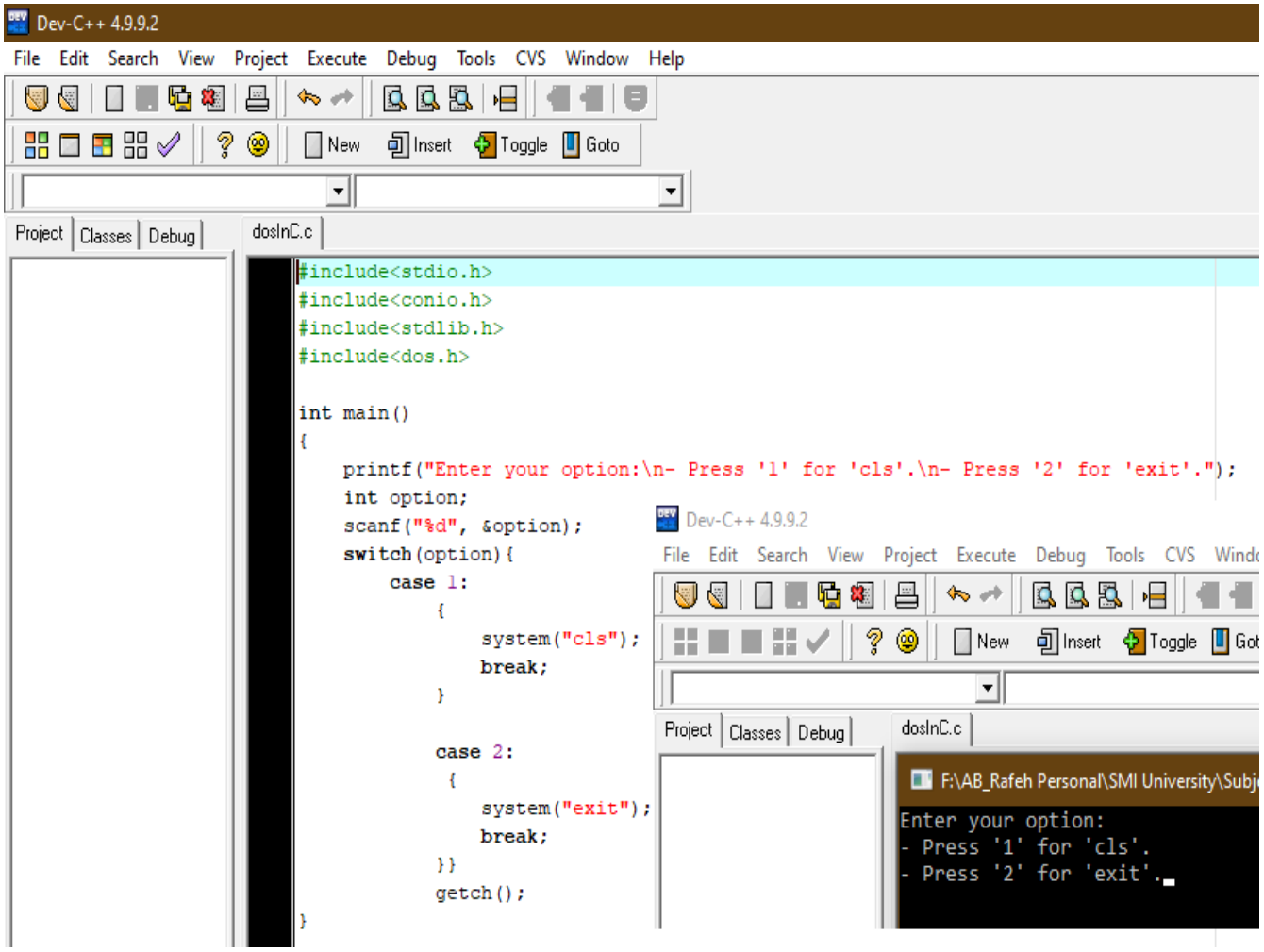


Folder location before and after SS Attached Below.

1885 SMI UNIVERSITY



Part D & E


Dev-C++ 4.9.9.2
File Edit Search View Project Execute Debug Tools CVS Window Help
New Insert Toggle Goto
Project Classes Debug
dosInC.c
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<dos.h>
int main()
{
printf("Enter your option:\n- Press '1' for 'cls'.\n- Press '2' for 'exit'.");
int option;
scanf("%d", &option);
switch(option){
case 1:
{
system("cls");
break;
}
case 2:
{
system("exit");
break;
}}
getch();
}
Dev-C++ 4.9.9.2
File Edit Search View Project Execute Debug Tools CVS
New Insert Toggle
Project Classes Debug
dosInC.c
F:\AB_Rafeh Personal\SMI University\
Enter your option:
- Press '1' for 'cls'.
- Press '2' for 'exit'.