

UNIVERSITY OF ENGINEERING AND TECHNOLOGY, TAXILA



SOFTWARE ENGINEERING

LAB-16 SOLUTION

SUBMITTED TO : ENGR.SABA AWAN

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REG NO : 20-SE-56

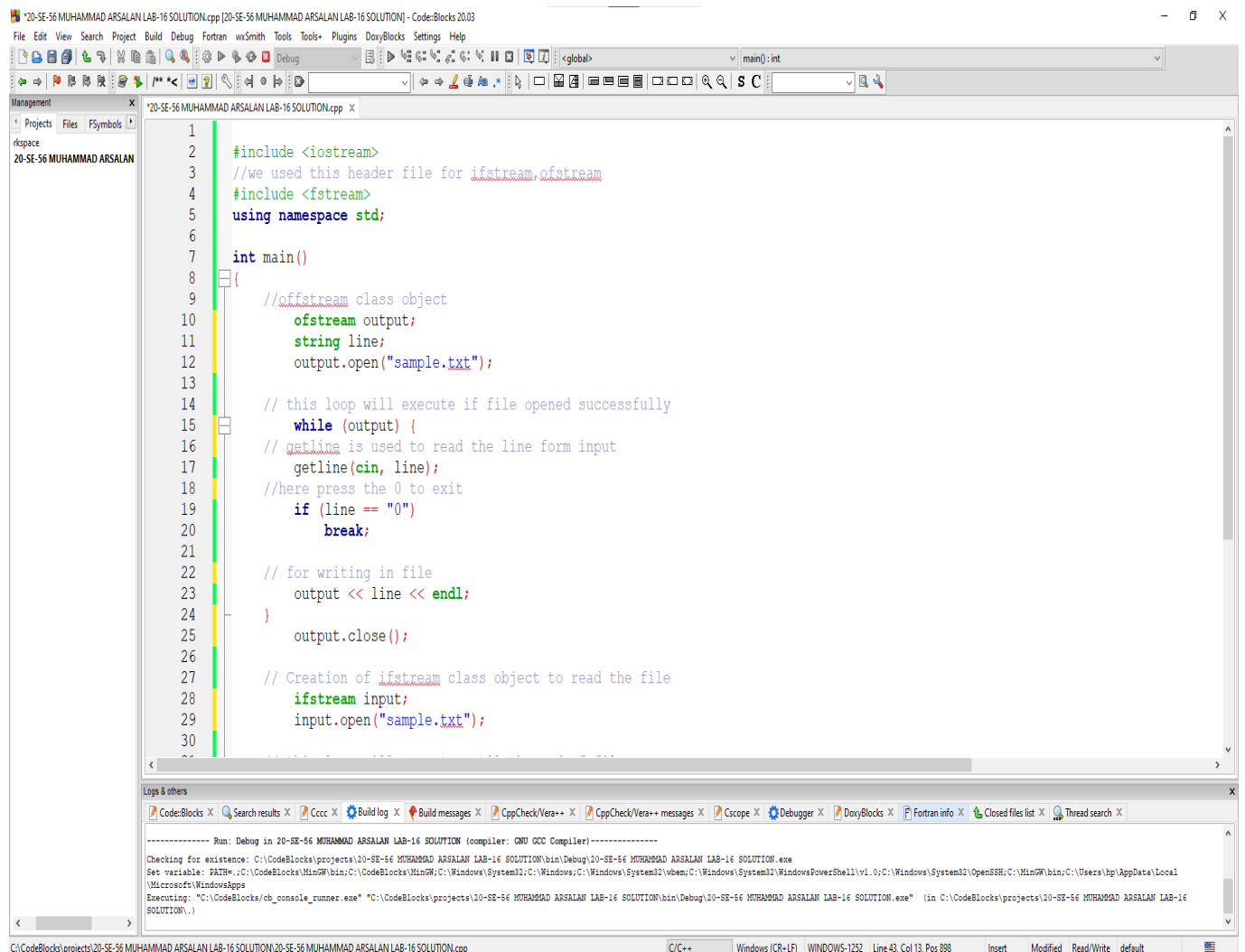
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TASK-1

Write a C++ program using File Handling concept with using ifstream & ofstream class object*/ that creates a file and write multiple lines in that file by taking input from user on screen, then read that content from that file and display the content of file on screen.

SOLUTION

CODE



```
1  #include <iostream>
2
3  //we used this header file for ifstream, ofstream
4  #include <fstream>
5  using namespace std;
6
7  int main()
8  {
9      //ofstream class object
10     ofstream output;
11     string line;
12     output.open("sample.txt");
13
14     // this loop will execute if file opened successfully
15     while (output) {
16         // getline is used to read the line form input
17         getline(cin, line);
18         //here press the 0 to exit
19         if (line == "0")
20             break;
21
22         // for writing in file
23         output << line << endl;
24     }
25     output.close();
26
27     // Creation of ifstream class object to read the file
28     ifstream input;
29     input.open("sample.txt");
30 }
```

----- Run: Debug in 20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION (compiler: GNU GCC Compiler)-----
Checking for existence: C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\bin\Debug\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.exe
Set variable: PATH=.;C:\CodeBlocks\MinGW\bin;C:\CodeBlocks\MinGW\bin\Debug;C:\Windows\System32;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\MinGW\bin;C:\Users\hp\AppData\Local\Microsoft\WindowsApps
Executing: "C:\CodeBlocks\ch_console_runner.exe" "C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\bin\Debug\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.exe" (in C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\.)

The screenshot shows the Code::Blocks IDE with a C++ project named "20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION". The main window displays the source code for "20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.cpp". The code is as follows:

```
16 // getline is used to read the line form input
17 getline(cin, line);
18 //here press the 0 to exit
19 if (line == "0")
20     break;
21
22 // for writing in file
23 output << line << endl;
24 }
25 output.close();
26
27 // Creation of ifstream class object to read the file
28 ifstream input;
29 input.open("sample.txt");
30
31 // this loop will execute until the end of file
32 while (input) {
33
34     getline(input, line);
35
36     // for displaying line on console
37     cout << line << endl;
38 }
39
40 //file close
41 input.close();
42
43 return 0;
44 }
45
```

The bottom panel shows the "Logs & others" window with the following output:

```
----- Run: Debug in 20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION (compiler: GNU GCC Compiler)-----
Checking for existence: C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\bin\Debug\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.exe
Set variable: PATH=.;C:\CodeBlocks\MinGW\bin;C:\CodeBlocks\MinGW\C;\Windows\System32;C:\Windows\C;\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\MinGW\bin;C:\Users\hp\AppData\Local\Microsoft\WindowsApps
Executing: "C:\CodeBlocks\ch_console_runner.exe" "C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\bin\Debug\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.exe" (in C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\.)
```

OUTPUT

The screenshot shows the output window of the program. The output is as follows:

```
"C:\CodeBlocks\projects\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION\bin\Debug\20-SE-56 MUHAMMAD ARSALAN LAB-16 SOLUTION.exe"
this is a new file
i am writing to that
now i am going to quit by pressing
0
this is a new file
i am writing to that
now i am going to quit by pressing

Process returned 0 (0x0)   execution time : 107.100 s
Press any key to continue.

```