

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

College of Business Administration

MIS 211 - Information Systems II

File Processing: Writing and Reading

Program Source Code

```
#include <fstream h>      ← Necessary for file input-output operations
#include <iostream h>     ← Necessary for screen input-output operations
#include <stdlib.h>       ← Standard library
#include <iomanip.h>      ← Character manipulation (formatting)

int main()                ← Beginning of the program
//   Defining variables
{   int count = 0;
    short sample = 0;
    long population = 0;
    double total_cost = 0;
    char input_buffer[50] = "";

//   Defining constants
    const int increment_size = 1;
    const char buffer[50] = "";

    cout << "Count = "
         << count + increment_size
         << "\n";

    cout << setprecision(2)
         << setiosflags(ios::fixed)
         << setiosflags(ios::showpoint)
         << "Total cost = "
         << setw(10)
         << total_cost
         << "\n";
```



```

// Sequentially writing records to a file
    ofstream output_file;           ← Open a file for output mode (ofstream);
                                    logical name "output_file"
    output_file.open("output.dat"); ← Connect (.open) an external file,
                                    "output.dat," to the program via the logical
                                    name "output_file"

    while (count < 5)
    {
        output_file      << setw(5)
                          << "Hello"
                          << setw(5)
                          << count
                          << endl;
        count += increment_size;
    }
    output_file.close();           ← Close the file

// Sequentially reading a file
    ifstream input_file;           ← Open a file for input mode (ifstream);
                                    logical name "input_file"
    input_file.open("output.dat"); ← Connect (.open) an external file,
                                    "output.dat," to the program via the logical
                                    name "input_file"

    while (!input_file.eof())
    {
        input_file >> input_buffer >> count ;
        cout << input_buffer
              << ". "
              << count
              << "\n";
    }

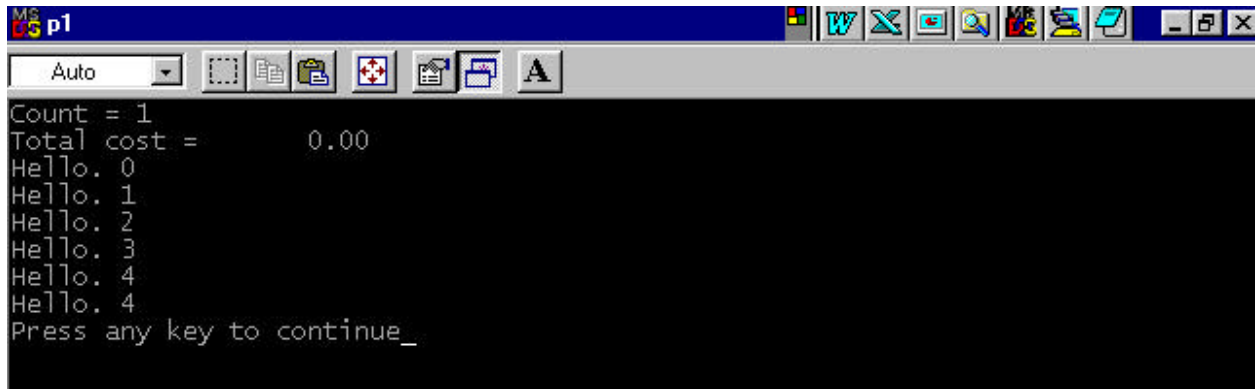
    input_file.close();

    return 0;                       ← Returns control to the operating system
                                    (end the program)
}

```



Output



The image shows a screenshot of a Windows command prompt window. The title bar reads "MS-DOS p1". The window contains the following text output:

```
Count = 1
Total cost =      0.00
Hello. 0
Hello. 1
Hello. 2
Hello. 3
Hello. 4
Hello. 4
Press any key to continue_
```