C++ Files and Streams

In C++ programming we are using the **iostream** standard library, it provides **cin** and **cout** methods for reading from input and writing to output respectively.

To read and write from a file we are using the standard C++ library called **fstream**. Let us see the data types define in fstream library is:

|  |  |
| --- | --- |
| **Data Type** | **Description** |
| fstream | It is used to create files, write information to files, and read information from files. |
| ifstream | It is used to read information from files. |
| ofstream | It is used to create files and write information to the files. |

C++ FileStream example: writing to a file

Let's see the simple example of writing to a text file **testout.txt** using C++ FileStream programming.

#include <iostream>

#include <fstream>

void main () {

  ofstream filestream("testout.txt");

**if** (filestream.is\_open())

  {

    filestream << "Welcome to \n";

    filestream << "C++ Tutorial.\n";

    filestream.close();

  }

**else** cout <<"File opening is fail.";

getch();

}

Output:

The content of a text file **testout.txt** is set with the data:

Welcome to javaTpoint.

C++ Tutorial.

C++ FileStream example: reading from a file

Let's see the simple example of reading from a text file **testout.txt** using C++ FileStream programming.

#include <iostream>

#include <fstream>

**void** main () {

  string srg;

  ifstream filestream("testout.txt");

**if** (filestream.is\_open())

  {

**while** ( getline (filestream,srg) )

    {

      cout << srg <<endl;

    }

    filestream.close();

  }

**else** {

      cout << "File opening is fail."<<endl;

    }

  getch();

}

**Note:** Before running the code a text file named as **"testout.txt"** is need to be created and the content of a text file is given below:

Welcome to javaTpoint.

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Output:

Welcome to javaTpoint.

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C++ Read and Write Example

Let's see the simple example of writing the data to a text file **testout.txt** and then reading the data from the file using C++ FileStream programming.

#include <fstream>

#include <iostream>

void main () {

**char** input[75];

   ofstream os;

   os.open("testout.txt");

   cout <<"Writing to a text file:" << endl;

   cout << "Please Enter your name: ";

   cin.getline(input, 100);

   os << input << endl;

   cout << "Please Enter your age: ";

   cin >> input;

   cin.ignore();

   os << input << endl;

   os.close();

   ifstream is;

   string line;

   is.open("testout.txt");

   cout << "Reading from a text file:" << endl;

**while** (getline (is,line))

   {

   cout << line << endl;

   }

   is.close();

   getch();

}

Output:

Writing to a text file:

Please Enter your name: Nakul Jain

Please Enter your age: 22

Reading from a text file: Nakul Jain

22