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| **Name** | **Nazeer ahmed** |
| **CMS ID** | **023-18-0062** |
| **Marks** |  |
| **Date** |  |

C++ provides the following classes to perform output and input of characters to/from files:

• ofstream: Stream class to write on files

• ifstream: Stream class to read from files

• fstream: Stream class to both read and write from/to files.

These classes are derived directly or indirectly from the classes istream and ostream. We have already used objects whose types were these classes: cin is an object of class istream and cout is an object of class ostream. Therefore, we have already been using classes that are related to our file streams. And in fact, we can use our file streams the same way we are already used to use cin and cout, with the only difference that we have to associate these streams with physical files.

**Writing File**

Writing operations on text files are performed in the same way we operated with cout:

// writing on a text file

#include <iostream>

#include <fstream>

using namespace std;

int main () {

ofstream myfile ("example.txt");

if (myfile.is\_open())

{

myfile << "This is a line.\n";

myfile << "This is another line.\n";

myfile.close();

}

else cout << "Unable to open file";

return 0;

}

**Reading File**

Reading from a file can also be performed in the same way that we did with cin:

#include <iostream>

#include <fstream>

#include <string>

using namespace std;

int main () {

string line;

ifstream myfile ("example.txt");

if (myfile.is\_open())

{

while ( getline (myfile,line) )

{

cout << line << '\n';

}

myfile.close();

}

else cout << "Unable to open file";

return 0;

}

**Programming Tasks:**

1. Write a c++ program which read from a file into two dimensional array.

SOURCE CODE

#include<iostream>

#include<conio.h>

#include<iomanip>

#include<fstream>

using namespace std;

int main()

{

ifstream file;

file.open("2d.txt");

int array[2][2];

if(file.is\_open())

{

for(int i=0;i<2;i++)

{

for(int j=0;j<2;j++)

{

file>>array[i][j];

}

}

for(int i=0;i<2;i++)

{

for(int j=0;j<2;j++)

{

cout<<array[i][j]<<" ";

}

cout<<endl;

}

}

else

cout<<"file does not exist"<<endl;

getch();

}



1. Write a c++ program which write to a file from two dimensional array.

SOURCE CODE

#include<iostream>

#include<conio.h>

#include<iomanip>

#include<fstream>

using namespace std;

int main()

{

ofstream file;

file.open("write.txt");

int array[2][2];

if(file.is\_open())

{

for(int i=0;i<2;i++)

{

for(int j=0;j<2;j++)

{

cin>>array[i][j];

}

}

for(int i=0;i<2;i++)

for(int j=0;j<2;j++)

{

file<<array[i][j]<<" ";

cout<<endl;

}

cout<<endl;

//file.close();

}

else

cout<<"file does not exist"<<endl;

getch();

}

1. Write a c++ program that has a function which takes a string as parameter write to the file

#include<iostream>

#include<conio.h>

#include<fstream>

using namespace std;

int read(string name)

{

fstream file;

file.open("read1.txt",ios :: out);

file<<name;

}

int write(string name1)

{

fstream file1;

file1.open("read.txt",ios:: in);

getline(file1,name1);

cout<<name1;

}

int main()

{

string name;

string name1;

getline(cin,name);

read(name);

write(name1);

}

, also make a function read from a text file.

1. Write a c++ program that has a function which calculate area by reading from the text file.

#include<iostream>

#include<conio.h>

#include<iomanip>

#include<fstream>

using namespace std;

int area(float k ,float r)

{

float area;

area=1.0/2\*k\*r;

cout<<area;

}

int main()

{

fstream file;

float k,r;

file.open("area.txt",ios::in);

file>>k>>r;

area(k,r);

return 0;

}

