

FILE I/O BASICS: Chapter-9.2

# Teach yourself C++, Herbert Schildt

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# File I/O Basics

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- ❑ 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.

# File I/O Basics

---

```
#include <iostream>
```

```
#include <fstream>
```

```
using namespace std;
```

```
int main () {
```

```
    ofstream myfile("example.txt");
```

```
    myfile << "Writing this to a file.\n";
```

```
    myfile.close();
```

```
    return 0;
```

```
}
```

# File I/O Basics

---

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using namespace std;
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int main () {
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    myfile << "Writing this to a file.\n";
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    myfile.close();
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```
    return 0;
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```
}
```

This code creates a file called example.txt and inserts a sentence into it in the same way we are used to do with cout, but using the file stream myfile instead.

# File I/O Basics

---

```
#include <iostream>
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using namespace std;
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int main () {
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```
    ofstream myfile("example.txt");
```

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    myfile << "Writing this to a file.\n";
```

```
    myfile.close();
```

```
    return 0;
```

```
}
```

This code creates a file called example.txt and inserts a sentence into it in the same way we are used to do with cout, but using the file stream myfile instead.

Here,

ofstream is the class name.

myfile is the object name.

# Closing a file

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- ❑ When we are finished with our input and output operations on a file we shall close it so that the operating system is notified.
- ❑ For that, we call the stream's member function `close()`. This member function closes the file:  
**`myfile.close();`**

# Example: Writing on a file

---

```
// writing on a text file
```

```
#include <iostream>
```

```
#include <fstream>
```

```
using namespace std;
```

```
int main () {
```

```
    ofstream myfile ("example.txt");
```

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

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

```
    myfile.close();
```

```
return 0;
```

```
}
```

[file example.txt]

This is a line.

This is another line.

# Example: Reading from a file

---

```
// reading a text file
#include <iostream>
#include <fstream>
using namespace std;

int main () {
    int a;
    ifstream myfile ("example.txt");
    myfile>>a;
    cout<<a;
    myfile.close();

    return 0;
}
```



# Practice

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Suppose you have a text file named as input.txt stored in your PC.

In that file you have your name and age.

Write a C++ program to read the information from the text File and output into DOS.

Suppose the file looks like this:

Shahrukh Khan 50
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# Solution:

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```
// reading a text file and showing in dos
#include <iostream>
#include <fstream>
using namespace std;

int main () {
    string a;
    int age;
    ifstream myfile ("example.txt");
    getline(myfile, a);
    myfile>>age;
    cout<<a<<endl<<age;
    myfile.close();

    return 0;
}
```