

File Input/Output

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Recap of IO

- Using stream classes `ofstream`, `ifstream`, `fstream`
- `open()` and `close()` functions
- File modes (`ios::in`, `ios::out`, `ios::app`)
- State flags (`bad()`, `fail()`, `eof()`, `good()`)
- Handling multiple files within one program

Yet Another Stream Class

String Stream

- **stringstream**: stream class to operate on strings
`#include <sstream>`
`using std::stringstream;`
- Can use **getline**(source, dest) to grab string from file
- Store dest string into stringstream variable
- Parse output into several variables

Usage within C++ program

```
#include <iostream>
#include <string>
#include <sstream>
using std::string; using std::stringstream;
using std::cout; using std::endl;

int main(){
    string line = "Hey Y'all";
    stringstream ss(line);
    string s1,s2;
    ss >> s1 >> s2;
    cout << "String1 = " << s1 << ", String2 = " << s2 << endl;
    return 0;
}
```

Exercise 01

Write a code that asks the user for their first and last name (one input), and then prints out the message:

```
Hello Mr/Ms/Mrs <LastName>. Can I call you <FirstName>?
```

Exercise 02

Create a data file with two lines containing the following:

```
John Smith May 22
```

```
Captain Crunch February 03
```

Write a code that reads this text and prints a message:

```
<FirstName> <LastName>'s birthday is <Month> <Day>!
```