COL 100

Sep 24, 2018

Last Class :- ↳

Streams (Input)

Trivia ?= Equinox
Jan 14 ? Tropic
of Capricorn
Makar Sankvanti?

#include <iostream>

This class is really ~~boring~~ interesting

#include <sstream>

#include <fstream>

Console/standard input

C[]

strings
istringstream input ("—");

file
ifstream infile;
infile.open
("file.txt");

"../file.txt" ← complete path   ↳ filename
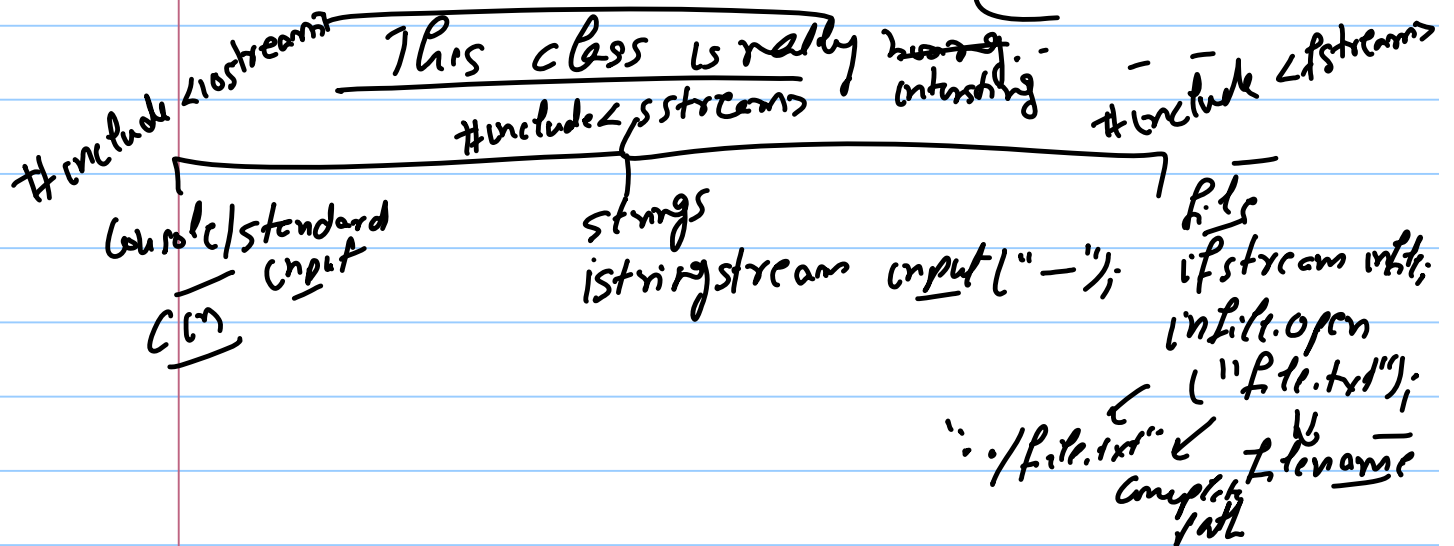
```cpp
istringstream input ("Hello, how are you?");
string word, line;
char ch;
```
① `cin`
```cpp
while (input >> word) {
    ;
    :
}
```

②
```cpp
while (getline (input, line)) {
    /
    ;
}
```

③
```cpp
while (input.get(ch)) {
    ;
}
```

Note:- should not mix them up

file- `filetxt:`

Hello I am really enjoying CoL160.
What a wonderful course this is.
I am glad that I chose IIT Delhi.

I am sure this will help me in future.

Line 1: 34 chars, 6 words
Line 2: 32 chars, 5 words
Line 3: 37 chars, 8 word
Line 4: 0 chars, 0 words
Line 5: 37 chars, 9 words

```cpp
int countWords (string str){
    istringstream input (str);
    int wordcnt = 0; string word;
    while( input >> word)
        wordcnt ++;
3   return wordcnt;
}
```

```cpp
void inputstats (string filename){
    ifstream infile;              HW
    infile.open(filename);
    string line;      int longest=0;
    int lincnt = 0;
    while( getline(infile, line)){
        linecnt ++;
        cout<<"Line "<< lincnt <<chars:cnt
            << " Chars" << WordCount(line)
            << "words" << endl;
3   infile.close();
}
    → Longest: 37 chars, avg:27 chas
```

#include <iostream> output streams

#include <sstream>

#include <fstream>

Console
cout

ostringstream out;

ofstream outfile
outfile.open("out.txt");

outfile.close();

string str = " Hi, put me on the stream";

outfile

(out) (cout) <<str;

string mystr = out.str();

extract the string
written on out string stream

inbuilt in built → C++

ifstream infile;
infile.open ("file.txt");

→ Standard Library

ifstream infile;
prompt User for file
(infile, "Enter the file name");

returns a string which is the name of the file

$ > file.txt   file2345.txt

Program to print squares of first 2 natural number to a file each line