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CSCI323.25 Designs and Analysis of Algorithms (Spring 2023)

Project2

Simple I/O file in C++

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Algorithm Steps:

Step 0: inFile2 open from argv[1] outFile2 open from argv[2]

Step 1: processString (inFile2, outFile2) // see below

Step 2: close all files.

Illustrations:**Source code:**

```
#include <fstream>

std::string data;
int total = 0;
int count = 0;

void processString(std::ifstream& inFile2, std::ofstream& outFile2)
{
    if (outFile2.is_open())
    {
        outFile2 << "in processString method \n";
    }
    total = 0;
    count = 0;

    while (inFile2 >> data)
    {
        outFile2 << data << " ";
        total++;
        count++;
        if (count >= 5)
        {
            outFile2 << "\n";
            count = 0;
        }
    }

    outFile2 << "\n";
    outFile2 << "the total string count is " << total;
}
```

```
int main(int argc, char** argv)
{

    std::ifstream inFile2(argv[1]);
    std::ofstream outFile2(argv[2]);

    processString(inFile2, outFile2);

    inFile2.close();
    outFile2.close();
}
```

Program output:

in processString method
On the eighty fifth day
of his unlucky streak, Santiago
takes his skiff into the
Gulf Stream, sets his lines
and by noon, has his
bait taken by a big
fish that he is sure
is a marlin. Unable to
haul in the great marlin,
Santiago is instead pulled by
the marlin, and two days
and nights pass with Santiago
holding onto the line. Though
wounded by the struggle and
in pain, Santiago expresses a
compassionate appreciation for his adversary,
often referring to him as
a brother. He also determines
that, because of the fish's
great dignity, no one shall
deserve to eat the marlin.
On the third day, the
fish begins to circle the
skiff.
the total string count is 116