**Example 1: Write to a file**

// This program writes user input to a file.

#include<iostream>

#include<fstream>

using namespace std;

int main()

{

ofstream outputFile;

int number1, number2, number3;

// Open an output file.

outputFile.open("Numbers.txt");

// Get three numbers from the user.

cout << "Enter a number: ";

cin >> number1;

cout << "Enter another number: ";

cin >> number2;

cout << "One more time. Enter a number: ";

cin >> number3;

// Write the numbers to the file.

outputFile << number1 << endl;

outputFile << number2 << endl;

outputFile << number3 << endl;

cout << "The numbers were saved to a file.\n";

// Close the file.

outputFile.close();

cout << "Done.\n";

return 0;

}

**Example 2: Read from a file**

(This program requires NumericData.txt, which should be placed in the same directory of your .cpp file. The text file is provided on Canvas.)

// This program reads numbers from a file.

#include <iostream>

#include <fstream>

using namespace std;

int main()

{

ifstream inFile;

int value1, value2, value3, sum;

// Open the file.

inFile.open("NumericData.txt");

// Read the three numbers from the file.

inFile >> value1;

inFile >> value2;

inFile >> value3;

// Close the file.

inFile.close();

// Calculate the sum of the numbers.

sum = value1 + value2 + value3;

// Display the three numbers.

cout << "Here are the numbers:\n"

<< value1 << " " << value2

<< " " << value3 << endl;

// Display the sum of the numbers.

cout << "Their sum is: " << sum << endl;

return 0;

}

**Example 3: Read from a file (with loop)**

(This program requires ListOfNumbers.txt, which should be placed in the same directory of your .cpp file. The text file is provided on Canvas.)

// This program reads data from a file.

#include <iostream>

#include <fstream>

using namespace std;

int main()

{

ifstream inputFile;

int number;

// Open the file.

inputFile.open("ListOfNumbers.txt");

// Read the numbers from the file and

// display them.

while (inputFile >> number)

{

cout << number << endl;

}

// Close the file.

inputFile.close();

return 0;

}

**Example 4: Entering a filename**

// This program lets the user enter a filename.

#include <iostream>

#include <string>

#include <fstream>

using namespace std;

int main()

{

ifstream inputFile;

string filename;

int number;

// Get the filename from the user.

cout << "Enter the filename: ";

cin >> filename;

// Open the file.

inputFile.open(filename);

// If the file successfully opened, process it.

if (inputFile)

{

// Read the numbers from the file and

// display them.

while (inputFile >> number)

{

cout << number << endl;

}

// Close the file.

inputFile.close();

}

else

{

// Display an error message.

cout << "Error opening the file.\n";

}

return 0;

}