**Example 1: File input/output using the fstream type**

// This program writes data to a file, closes the file,

// then reopens the file and appends more data.

#include<iostream>

#include<fstream>

using namespace std;

int main()

{

ofstream dataFile;

cout << "Opening file...\n";

// Open the file in output mode.

dataFile.open("demofile.txt", ios::out);

cout << "Now writing data to the file.\n";

dataFile << "Jones\n"; // Write line 1

dataFile << "Smith\n"; // Write line 2

cout << "Now closing the file.\n";

dataFile.close(); // Close the file

cout << "Opening the file again...\n";

// Open the file in append mode.

dataFile.open("demofile.txt", ios::out | ios::app);

cout << "Writing more data to the file.\n";

dataFile << "Willis\n"; // Write line 3

dataFile << "Davis\n"; // Write line 4

cout << "Now closing the file.\n";

dataFile.close(); // Close the file

cout << "Done.\n";

return 0;

}

**Example 2: passing file streams in functions**

Note: This program uses demofile.txt, which is provided on campus

// This program demonstrates how file stream objects may

// be passed by reference to functions.

#include <iostream>

#include <fstream>

#include <string>

using namespace std;

// Function prototypes

bool openFileIn(fstream &, string);

void showContents(fstream &);

int main()

{

fstream dataFile;

if (openFileIn(dataFile, "demofile.txt"))

{

cout << "File opened successfully.\n";

cout << "Now reading data from the file.\n\n";

showContents(dataFile);

dataFile.close();

cout << "\nDone.\n";

}

else

cout << "File open error!" << endl;

return 0;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// Definition of function openFileIn. Accepts a reference \*

// to an fstream object as an argument. The file is opened \*

// for input. The function returns true upon success, false \*

// upon failure. \*

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

bool openFileIn(fstream &file, string name)

{

file.open(name, ios::in);

if (file.fail())

return false;

else

return true;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// Definition of function showContents. Accepts an fstream \*

// reference as its argument. Uses a loop to read each name \*

// from the file and displays it on the screen. \*

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void showContents(fstream &file)

{

string line;

while (file >> line)

{

cout << line << endl;

}

}