//Demo program to demonstrate reading from a file by line as well as by character. The file is originally //populated with random integers and random strings.

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#include <iostream>

#include <string>

#include <ctime> //for random number generation

#include <cstdlib> //for random number generation

#include <fstream> //for file input and output

using namespace std;

int main()

{

ofstream outfile;

ifstream infile;

int index;

char ch, dummy;

string line;

string names[] = {"Joe", "Mary", "Fred", "Alice"};

srand(time(NULL)); //initialize random number generator

//Create a file with some stuff in it

outfile.open("testfile.txt");

//Write 10 random numbers to the file

for (int i = 0; i < 10; i++)

{

outfile << rand();

outfile << endl;

}

//Write some random names to the file

for (int i = 0; i < 20; i++)

{

index = rand() % 4;

outfile << names[index];

outfile << endl;

}

outfile.close();

//Read and display a file one line at a time

cout << "The file contents a line at a time" << endl;

infile.open("testfile.txt");

while (!infile.eof())

{

getline(infile, line); //read a line

cout << line << endl; //output the line

}

infile.close();

//Read and display a file one character at a time

cout << "The file contents a character at a time" << endl;

infile.open("testfile.txt"); //open the text file

while (!infile.eof()) //check for end of file

{

infile >> ch; //read character

cout << ch; //write character

}

infile.close();

cout << endl;

return 0;

}