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// Header file of class Fraction

#include<iostream>

class Fraction {

public:

void input();

// User inputs the fraction

void print();

// Prints fraction to console

Fraction(int, int);

// Program inputs the fraction

int top();

// Returns the value of the top

int bottom();

// Returns the value of the bottom

double fraction();

// Returns the value of the fraction

Fraction();

// Default constructor to keep the compiler happy

private:

int numerator;

int denominator;

};

// Implementation file of class Fraction.h

#include<iostream>

#include "Fraction.h"

using namespace std;

void Fraction::input() {

// User inputs the fraction

char input;

bool success = 0;

while (!success) {

cout << endl << "Please enter the numerator. ";

cin >> input;

if (input >= '0' && input < 255)

success = 1;

}

numerator = (int)input - 48;

success = 0;

while (!success) {

cout << endl << "Please enter the denominator. ";

cin >> input;

if (input > '0' && input < 255)

success = 1;

}

denominator = (int)input - 48;

}

void Fraction::print() {

// Prints fraction to console

cout << numerator << '/' << denominator;

}

Fraction::Fraction(int num, int denom) {

// Program inputs the fraction

numerator = num;

denominator = denom;

}

Fraction::Fraction() {

// Default constructor to keep the compiler happy

numerator = 1;

denominator = 1;

input();

}

int Fraction::top() {

// Returns the value of the top

return numerator;

}

int Fraction::bottom() {

// Returns the value of the bottom

return denominator;

}

double Fraction::fraction() {

// Returns the value of the fraction

return ((double)numerator / (double)denominator);

}

#include<iostream>

#include "Fraction.h"

using namespace std;

int main() {

Fraction stuff(4,7);

stuff.print();

cout << endl << "Numerator: " << stuff.top() << endl

<< "Denominator: " << stuff.bottom() << endl

<< "Fraction: " << stuff.fraction() << endl << endl;

Fraction moar;

moar.print();

cout << endl << "Numerator: " << moar.top() << endl

<< "Denominator: " << moar.bottom() << endl

<< "Fraction: " << moar.fraction() << endl << endl;

return 0;

}