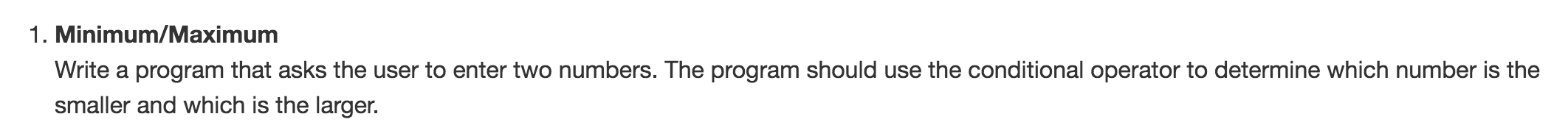
COMSC-110 Due: June-21 at 11:59 PM Lab-3 Name: Isaac Romarri

Answer the following questions in this word document.

Copy the source code after each problem statement.

Make screen shot of the result and past it after the source code.

Chapter-4 problems



Answer:

#include <iostream>

using namespace std;

int main() {

int firstNumber, secondNumber;

cout << "Enter an integer please:" << endl;

cin >> firstNumber;

cout << "Enter a second integer please" << endl;

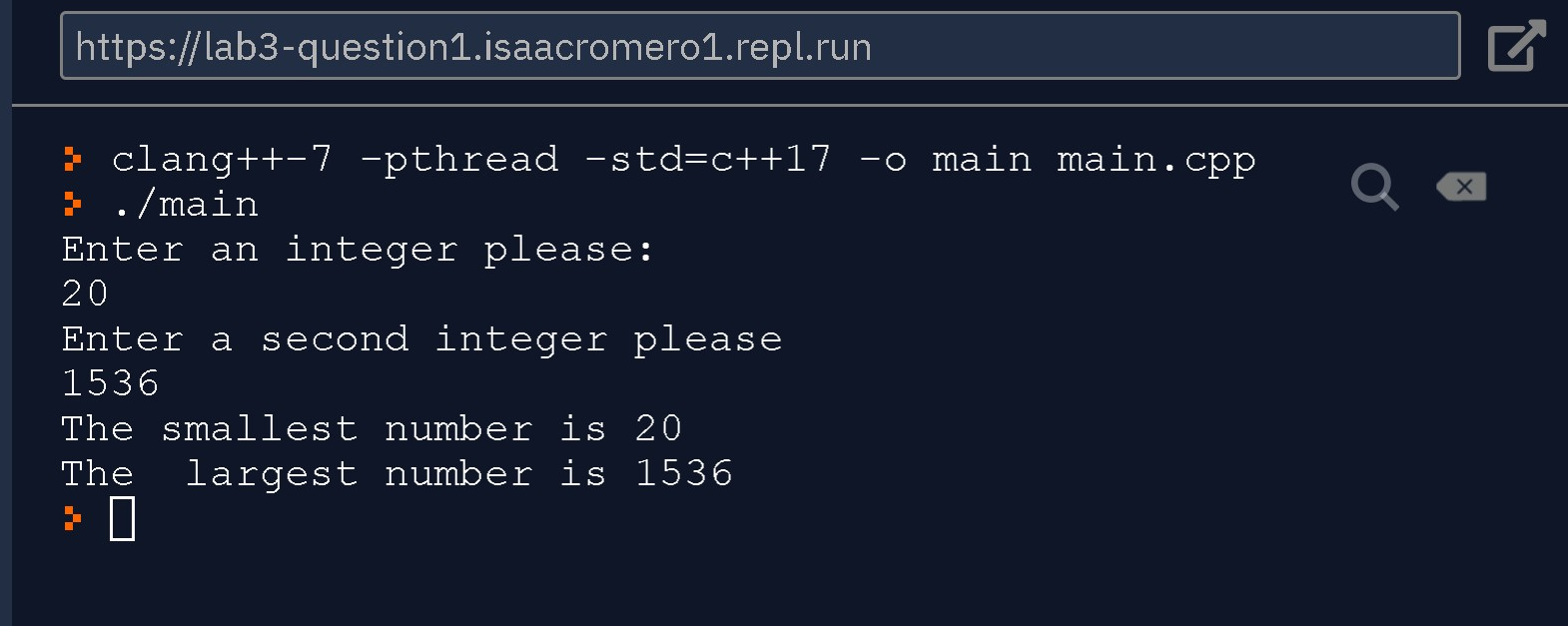
cin >> secondNumber;

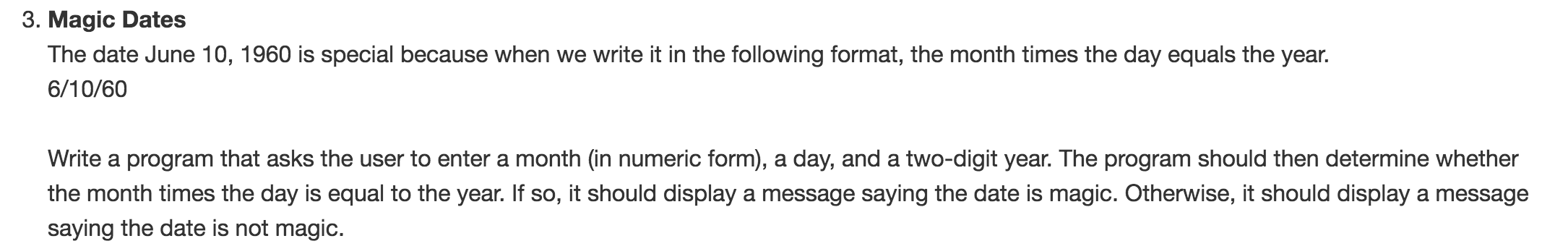
(firstNumber < secondNumber) ? cout << "The smallest number is " << firstNumber << endl : cout << "The largest number is " << firstNumber << endl;

(firstNumber > secondNumber) ? cout << "The smallest number is " << secondNumber << endl : cout << "The largest number is " << secondNumber << endl;

return 0;

}





Answer:

#include <iostream>

using namespace std;

int main() {

int month;

int day;

int year;

cout << "Enter a number for a month ( 1- January, 2-February, etc)" << endl;

cin >> month;

cout << "Enter a day? " << endl;

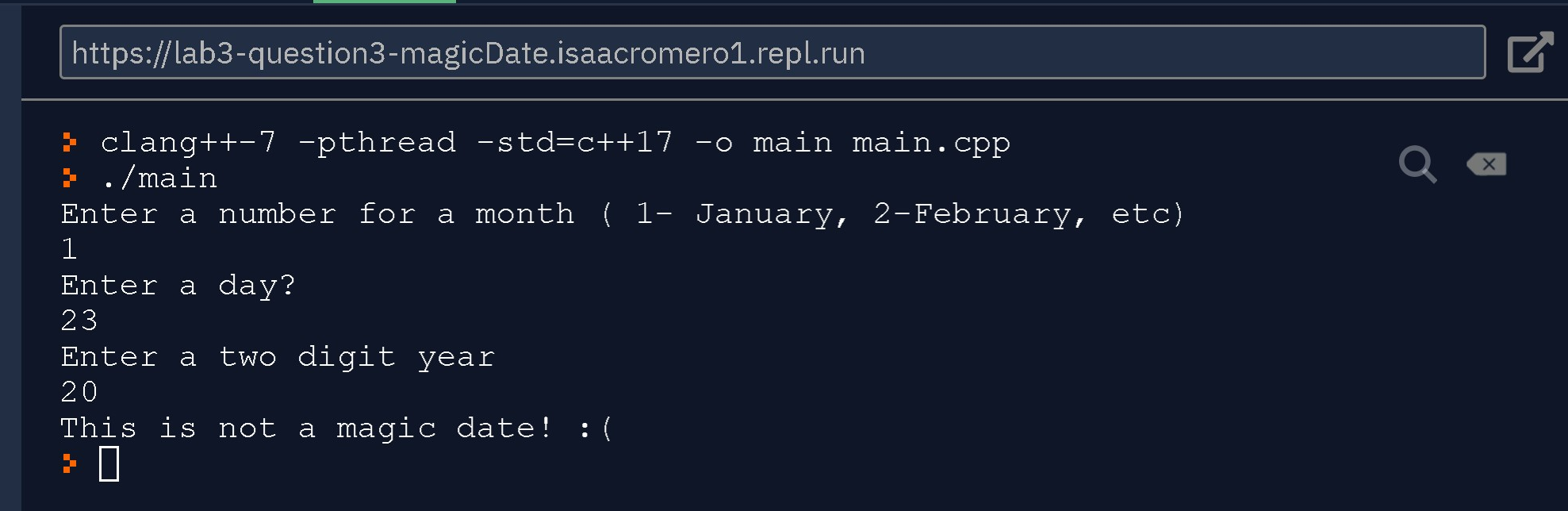
cin >> day;

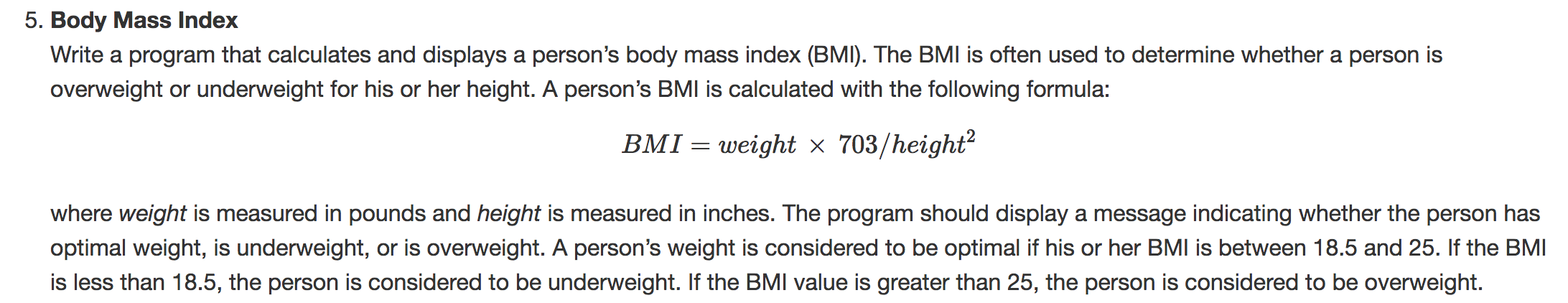
cout << "Enter a two digit year" << endl;

cin >> year;

(month\*day == year) ? cout << "This is a magic date! :)" << endl : cout << "This is not a magic date! :( " << endl;

}





Answer:

#include <iostream>

#include <math.h>

using namespace std;

int main() {

float weight, height, BMI;

cout << "What is your weight? " << endl;

cin >> weight;

cout << "What is your height?" << endl;

cin >> height;

BMI = weight \* 703 / pow(height, 2);

cout << "Your BMI is " << BMI << endl;

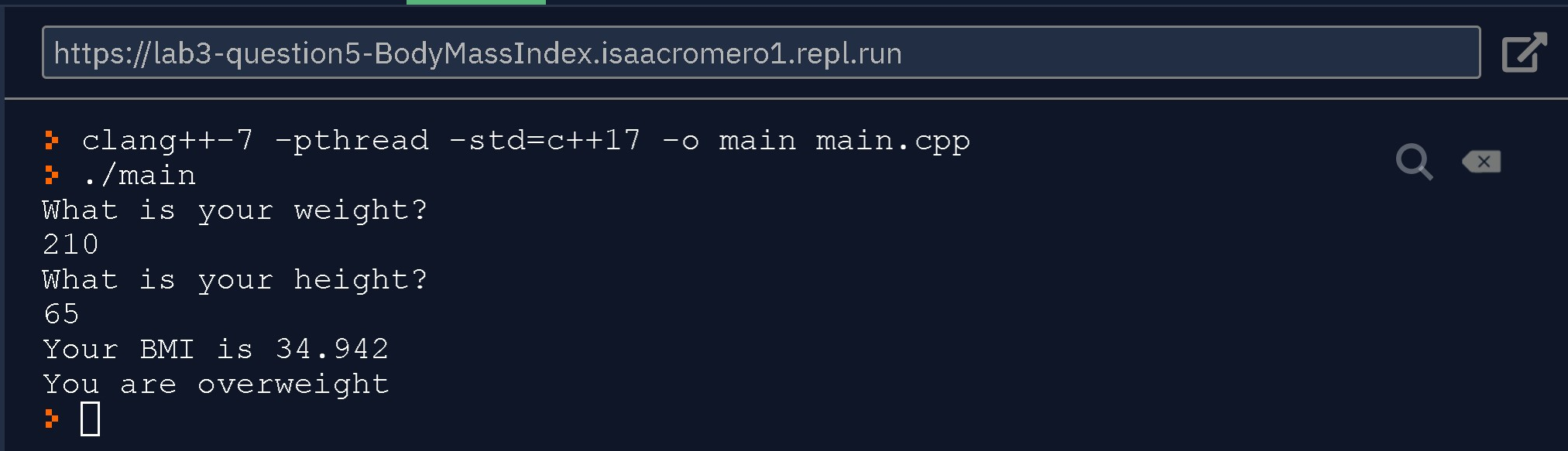
if ( BMI > 25) cout << "You are overweight" << endl;

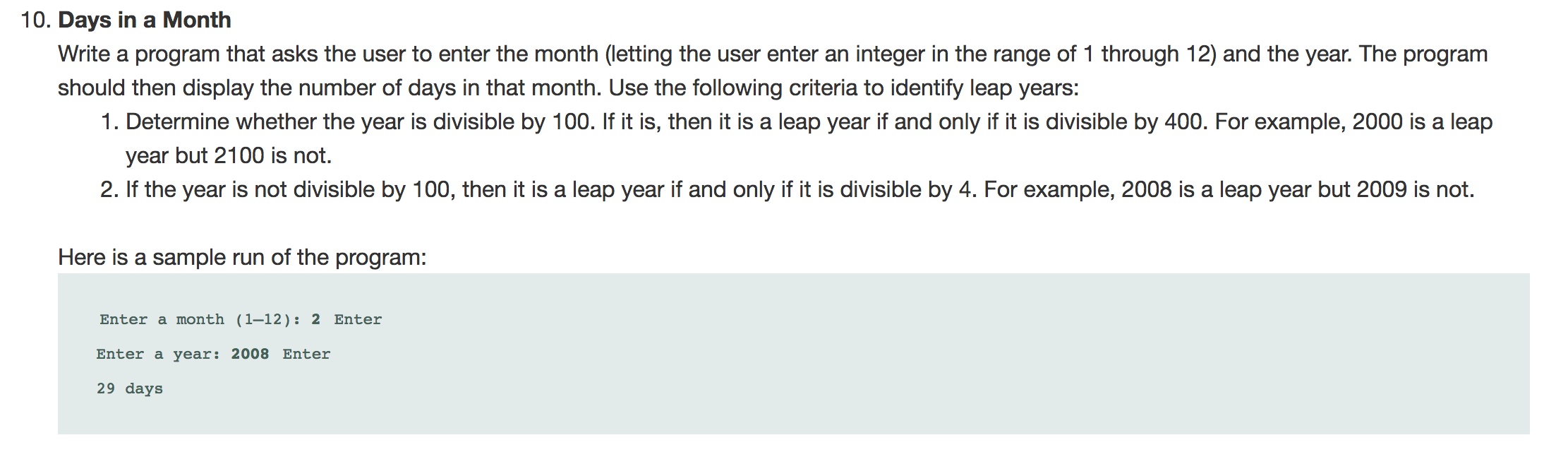
else if(BMI < 18.5) cout << "You are underweigth" << endl;

else cout << "Your weight is optimal" << endl;

return 0;

}





Answer:

#include <iostream>

using namespace std;

int main() {

int month, year, days;

cout << "Enter a month (1-12):" << endl; cin >> month;

cout << "Enter a year: " << endl;

cin >> year;

// 1-7 odd months have 31day exept February

// 8 -12 evens have 31day

if (month != 2) {

// if it is not February , we compute days as follow:

if (month <= 7) days=30 + month%2;

else days=30 + !(month%2);

}else{

// it is February and we need to check if it is a leap year.

if ( year% 100 == 0 ) {

if ( year % 400 == 0 ) days = 29;

else days =28;

}

else{

if ( year % 4 == 0) days = 29;

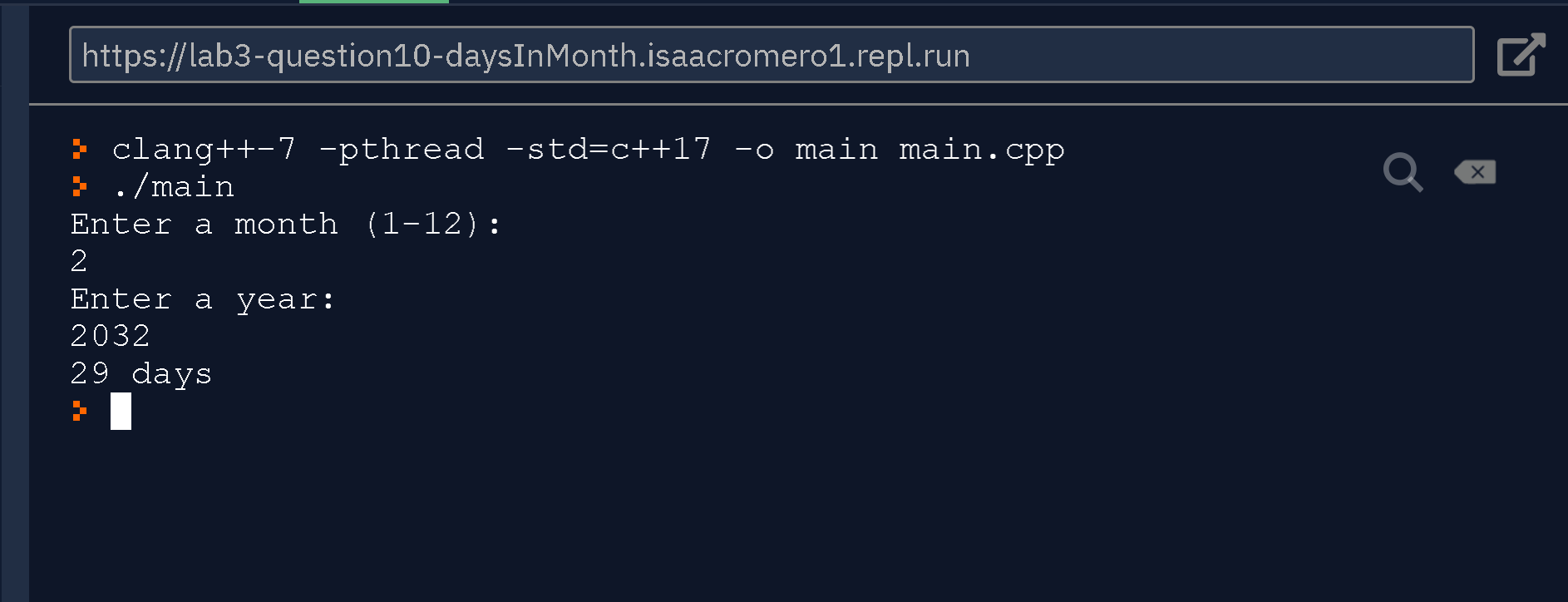
else days =28;

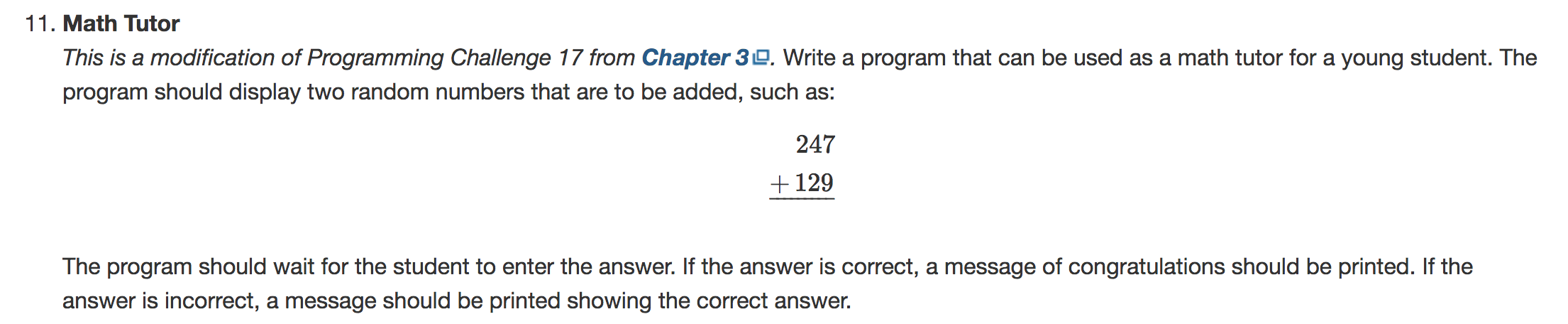
}

}

cout << days << " days" << endl;

}





Answer:

#include <iostream>

#include <cstdlib>

using namespace std;

int main( ) {

int total;

srand (time(NULL));

int firstNumber = rand() % 999;

int secondNumber = rand() % 999;

bool next = false;

cout << "If your are done press 0."<< endl << endl;

cout << " " << firstNumber << endl;

cout << " " << secondNumber << endl;

cout << "+\_\_\_\_\_\_\_" << endl;

cin >> total;

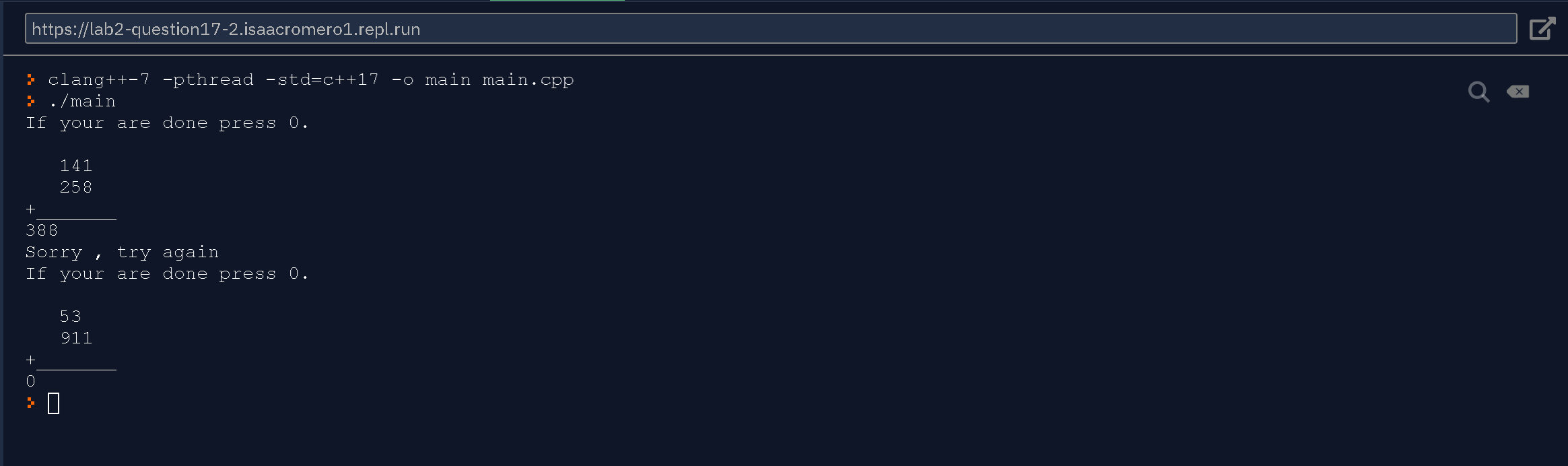
if (total == 0) return 0;

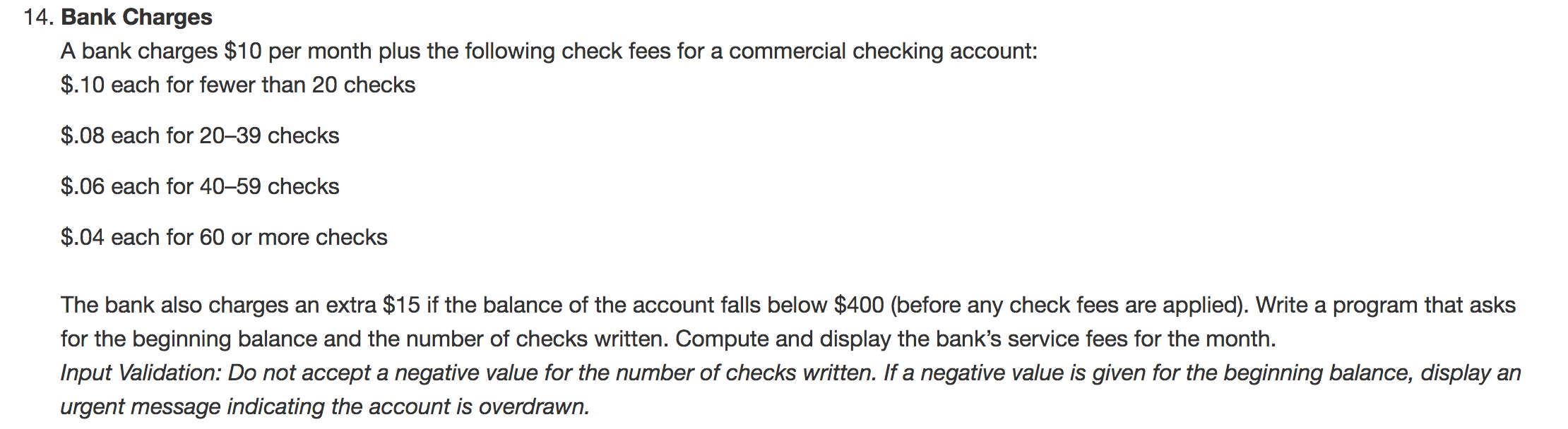
if (total == firstNumber + secondNumber) cout << "You got it! " << endl;

else cout << "Sorry , try again" << endl;

main();

}





Answer:

#include <iostream>

#include <iomanip>

using namespace std;

int main() {

float balance;

int numberOfChecks = 0;

float bankFees = 0;

cout << "What is your beginning balance:" << endl;

cin >> balance;

if (balance < 0) cout << "Your account is overdrawn." << endl;

cout << "How many checks did you write? " << endl;

cin >> numberOfChecks;

while(numberOfChecks < 0) {

cout << "Number of check must not be negative. How many checks did you write? " << endl;

cin >> numberOfChecks;

}

if( numberOfChecks >= 60) bankFees+=numberOfChecks\*.04;

else if (numberOfChecks < 20) bankFees+=numberOfChecks\*.10;

else if( numberOfChecks >= 20 && numberOfChecks < 40) bankFees+=numberOfChecks\*.08;

else bankFees=+numberOfChecks\*.06;

if ( balance < 400) bankFees+= 15;

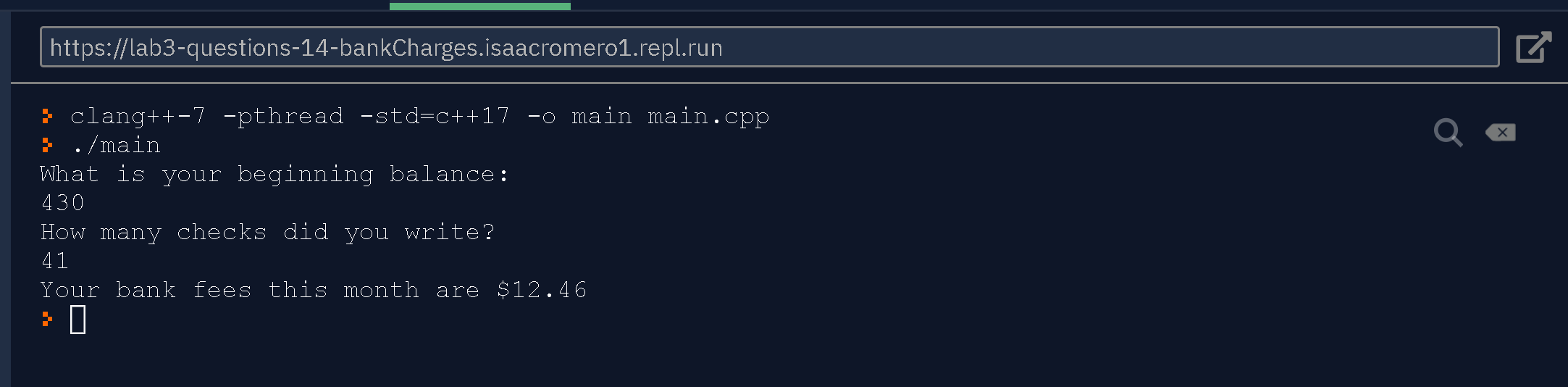
bankFees+= 10; // monthly feed

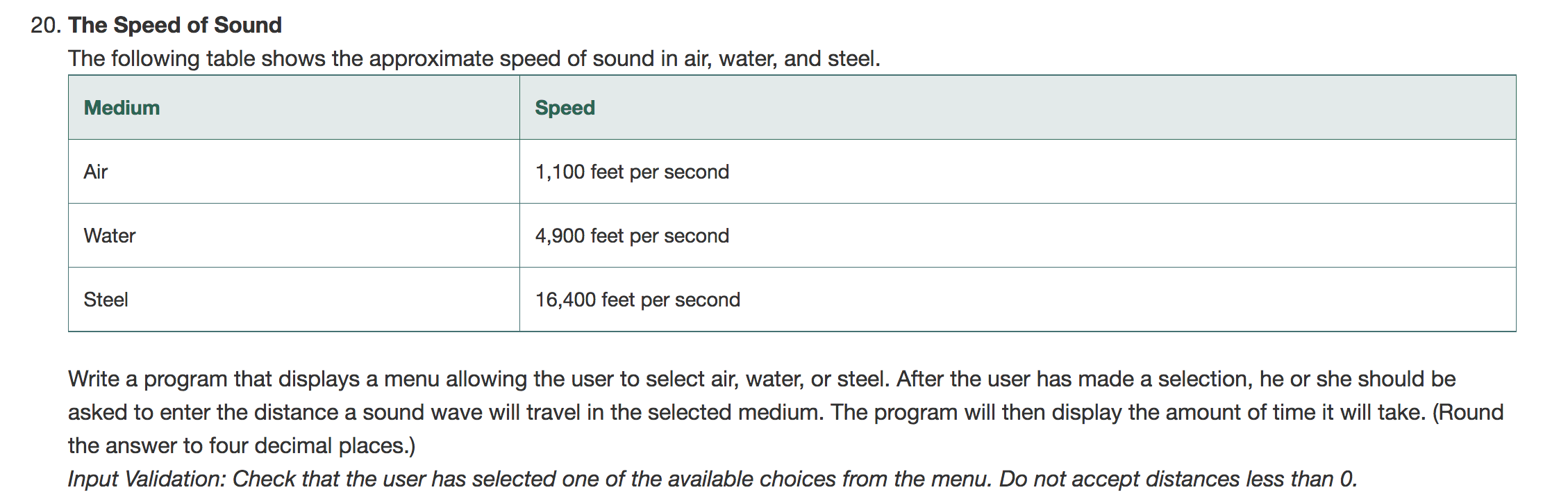
cout << setprecision(2) << fixed;

cout << "Your bank fees this month are $" << bankFees << endl;

return 0;

}





Answer:

#include <iostream>

#include <iomanip>

using namespace std;

int main() {

int option;

double distance;

int speed[3] = {1100, 4900, 16400};

cout << "1. Air for 1,100 feet per second" << endl;

cout << "2. Water for 4,900 feet per second" << endl;

cout << "3. Steel for 16,400 feet per second" << endl;

cout << "Select an item from the list" << endl;

cin >> option;

while (option >= 4 || option < 0){

cout << "Select a vaild option" << endl;

cin >> option;

}

cout << setprecision(4) << fixed;

cout << "What is the distance travel (in feet) ? " << endl;

cin >> distance;

while(distance <= 0 ){

cout << "Please enter a non zero distance" << endl;

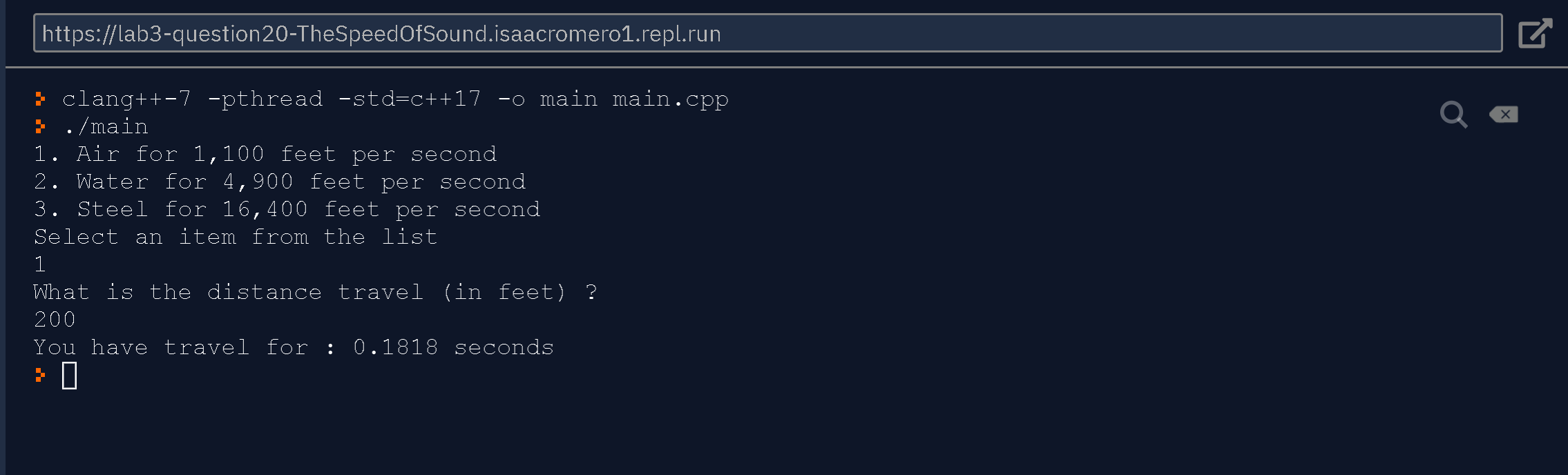
cin >> distance;

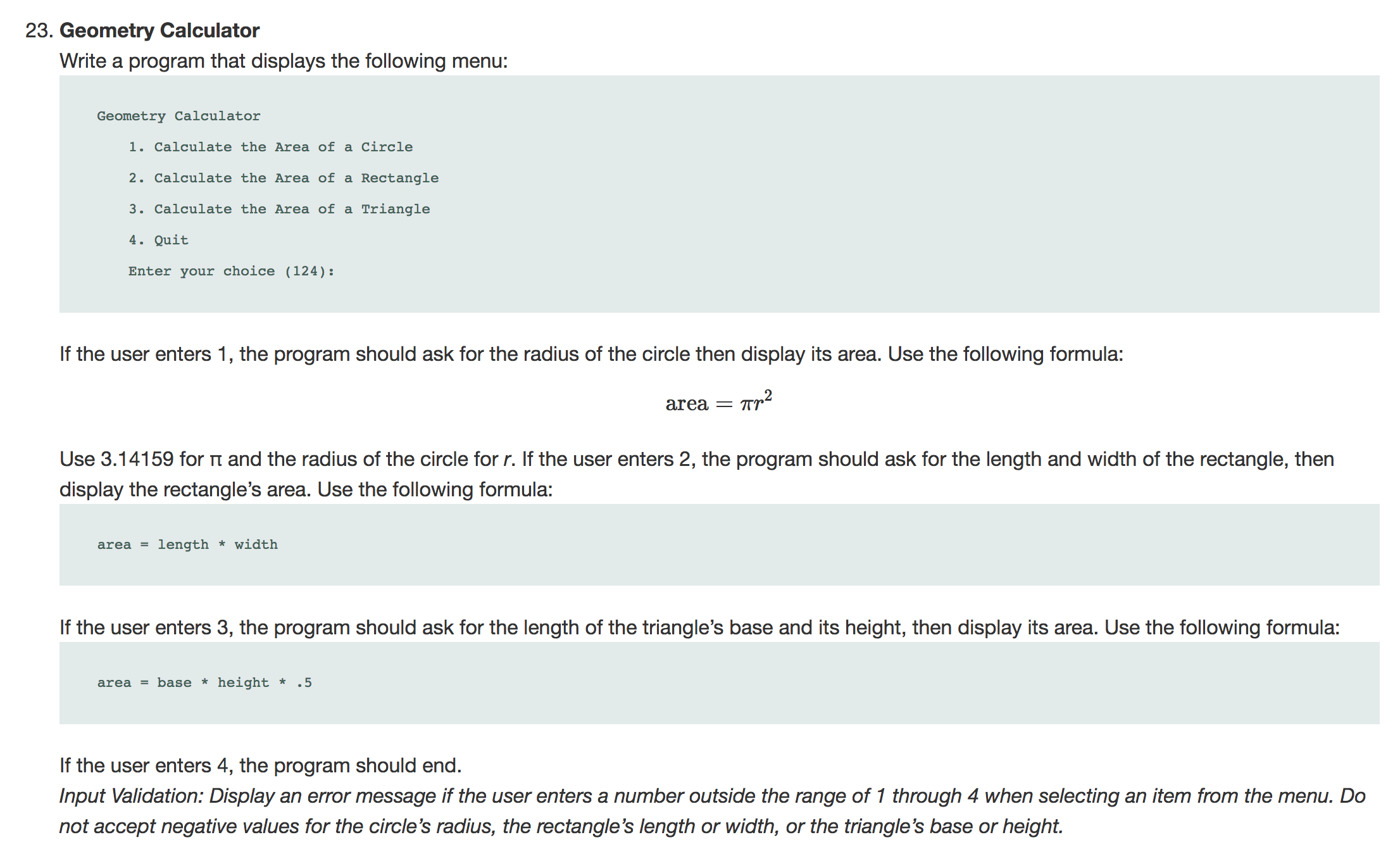
}

cout << "You have travel for : " << distance/speed[option-1] << " seconds" << endl;

return 0;

}





Answer:

#include <iostream>

#include <string>

using namespace std;

int main() {

int option;

double dimension, dimension2, dimention3;

string shape[3] = {"Circle", "Rectangle", "Triangle"};

cout << "Geometry Calculator" << endl;

for (int i = 0 ; i < 3; i++){

cout << "\t" << i+1 <<". Calculate the Area of a " << shape[i] << endl;

}

cout << "\t4. Quit" << endl;

cout << "Enter your choice (1234):" << endl;

cin >> option;

switch(option){

case 1:

cout << "What is the radius?" << endl;

cin >> dimension;

while (dimension <= 0){

cout << "radius must not be below zero, enter a new radius" << endl;

cin >> dimension;

}

cout << "The Area is :" << 3.14159\*dimension\*dimension;

break;

case 2:

cout << "What is the length? " << endl;

cin >> dimension;

cout << "What is the width?" << endl;

cin >> dimension2;

while (dimension <= 0 || dimension2 <= 0){

cout << "Length/Width must not be below zero, enter a new radius" << endl;

cout << "New length" << endl;

cin >> dimension;

cout << "New width" << endl;

cin >> dimension2;

}

cout << "The Area is :" << dimension\*dimension2;

break;

case 3:

cout << "What is base length of the triangle?" << endl;

cin >> dimension;

cout << "What is the height of the triangle?" << endl;

cin >> dimension2;

while (dimension <= 0 || dimension2 <= 0){

cout << "Base length/height must not be below zero, enter a new radius" << endl;

cout << "New length" << endl;

cin >> dimension;

cout << "New width" << endl;

cin >> dimension2;

}

cout << "The Area is : " << .5\*dimension\*dimension2;

break;

case 4:

break;

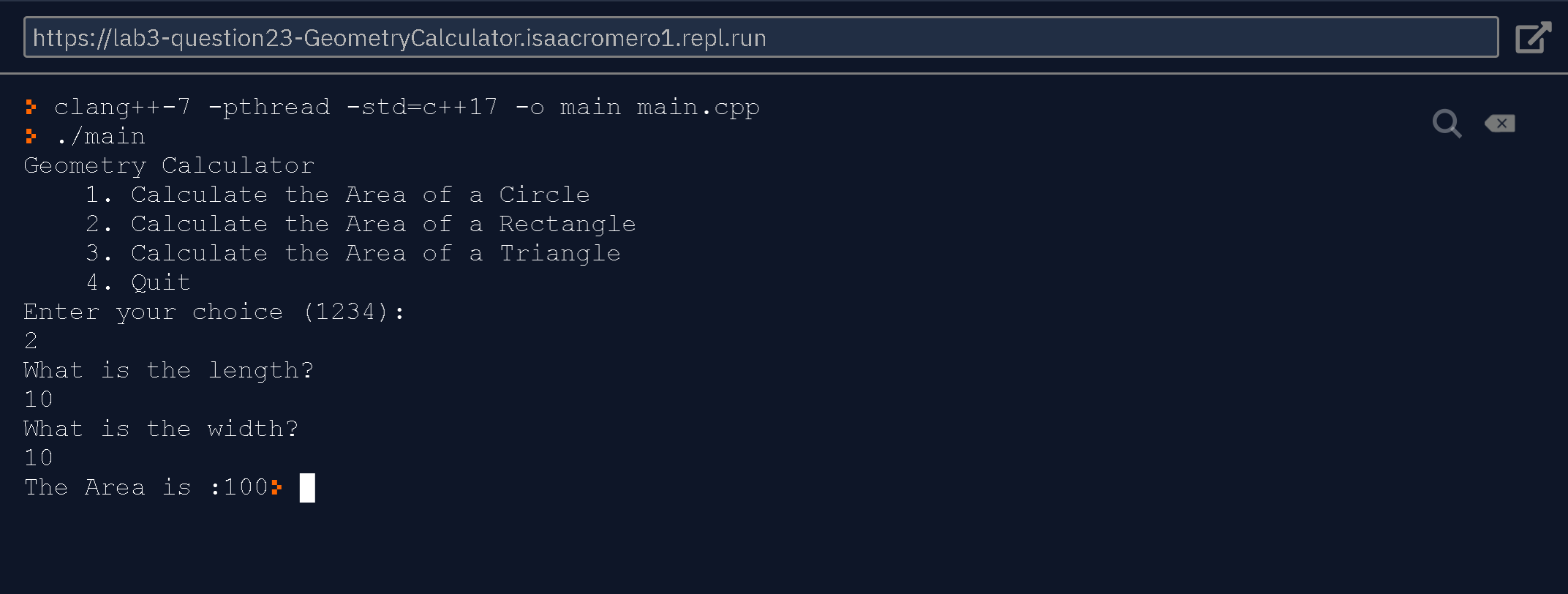
default:

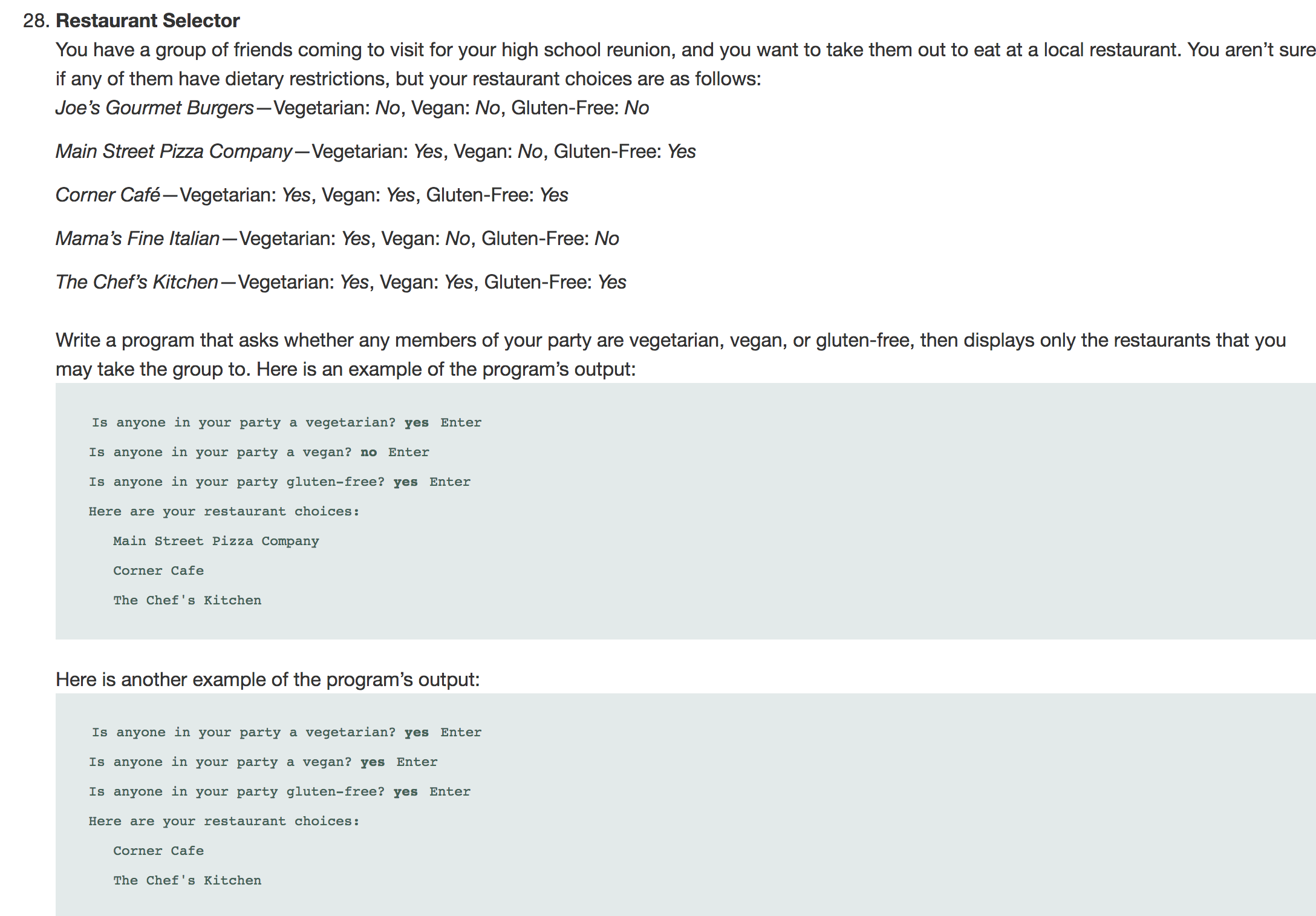
cout << "That was not a valid option" << endl;

main();

}

}





Answer:

#include <iostream>

#include <string>

#include <string>

using namespace std;

int main() {

string names[5]= {"Joe's Gourment Burgers","Main Street Pizza","Corner Cafe","Mama's Fine Italian", "The Chef's Kitchen"};

int restaurants[5][4] = {{0,0,0,0},{1,0,1,1},{1,1,1,2},{1,0,0,3}, {1,1,1,4} };

char veggie,vegan, glutenFree;

cout << "Is anyone in your party a Vegetarian? (y or n)" << endl;

cin >> veggie;

cout << "Is anyone in your party a Vegan? (y or n) " << endl;

cin >> vegan;

cout << "Is anyone in your party gluten-free? (y or n)" << endl;

cin >> glutenFree;

int selection[3];

int counter = 0;

(veggie == 'y') ? selection[0]=1 : selection[0]=0;

(vegan == 'y') ? selection[1]=1 : selection[1]=0;

(glutenFree == 'y') ? selection[2]=1 : selection[2]=0;

for (int row = 0 ; row < 5; row++){

for (int col = 0; col < 3; col++){

if( selection[col] == 1 && restaurants[row][col] == 0){

}

else{

counter++;

}

}

if (counter == 3) {

cout << names[restaurants[row][3]] << " its good" << endl;

}

counter = 0;

}

}

