**Austin Tesch**

**Chapter One**

**Date: 04-18-24**

**First program: ch2\_pgm1; A program that adds two integers.**

**Code:**

// Programmer: Austin Tesch

// Purpose: Add together two integers and display their value.

// Date modified: 04-18-24

//Compiler used:  XCODE v. 15.0

#include <iostream>

**using** **namespace** std;

**int** main()

{

**int** integer1 = 75, integer2 = 25, total;

total = integer1 + integer2;

cout << "Total value of the 2 integers is: " << total << endl;

**return** 0;

}

**Output:**

**A screenshot of a phone

Description automatically generated**

**Second program: ch2\_pgm2; A program to determine the total distance this car can travel on a full tank.**

**Code:**

// Programmer: Austin Tesch

// Purpose: A program to determine the total distance this car can travel on a full tank.

// Date modified: 00-00-00

//Compiler used:  XCODE v. 15.0

#include <iostream>

**using** **namespace** std;

**int** main()

{

**int** full\_tank = 10;

**float** mpg\_town = 27.5, mpg\_highway = 32.7,

range\_town, range\_highway;

range\_town = mpg\_town \* full\_tank;

range\_highway = mpg\_highway \* full\_tank;

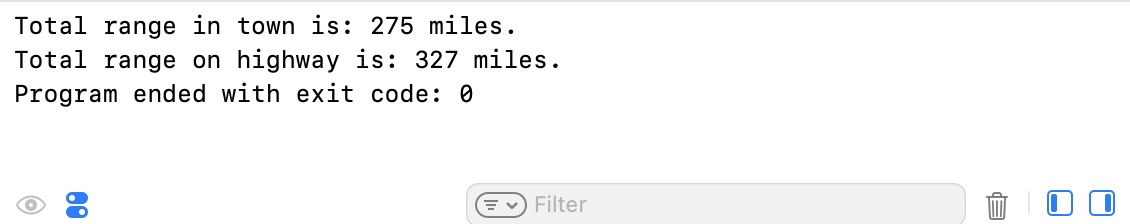
cout << "Total range in town is: " << range\_town << " miles." << endl;

cout << "Total range on highway is: " << range\_highway << " miles." << endl;

**return** 0;

}

**Output:**

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**Third Program: ch2\_pgm3; Convert the average amount of ocean level rise from millimeters to both centimeters and inches.**

**Code:**

// Programmer: Austin Tesch

// Purpose: Convert the average amount of ocean level rise from millimeters to both centimeters and inches.

// Date modified: 04-18-24

//Compiler used:  XCODE v. 15.0

#include <iostream>

**using** **namespace** std;

**int** main()

{

**float** millimeters = 1.8, centimeters, inches;

centimeters = millimeters \* 0.1;

inches = centimeters \* 0.3937;

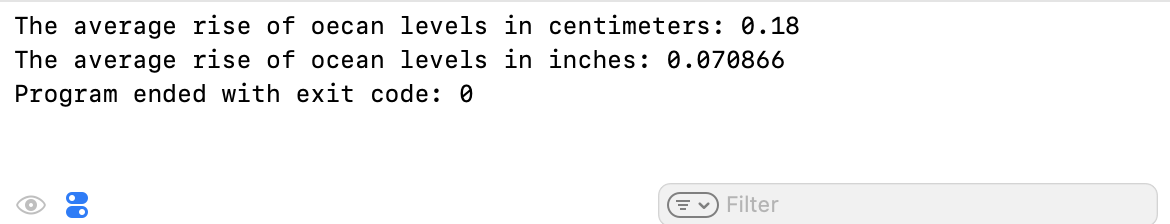
cout << "The average rise of oecan levels in centimeters: " << centimeters << endl;

cout << "The average rise of ocean levels in inches: " << inches << endl;

**return** 0;

}

**Output:**

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**Fourth Program: ch2\_pgm4; Determine the total amount of paint required to cover a surface.**

**Code:**

// Programmer: Austin Tesch

// Purpose: Determine the total amount of paint required to cover a surface.

// Date modified: 04-18-24

//Compiler used:  XCODE v. 15.0

#include <iostream>

**using** **namespace** std;

**int** main()

{

**float** covrage\_gallon = 340, surface\_height, surface\_length, total\_area;

// Get height of surface.

cout << "What is the total height of the surface (in feet)? ";

cin >> surface\_height;

// Get length of surface.

cout << "What is the total lenght/width of the surface (in feet)? ";

cin >> surface\_length;

// Total area of surface; height \* length

total\_area = surface\_height \* surface\_length;

// Determine amout of paint required for first and second coat.

**float** first\_coat = total\_area / covrage\_gallon;

**float** second\_coat = first\_coat \* 2;

// Display amout of paint required.

cout << "You will need " << second\_coat << " gallons of paint to apply 2 coats to your surface." << endl;

**return** 0;

}

**Output:**

**A screenshot of a phone

Description automatically generated**