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Description: This program, counts the total amount of gas dispended, the cost, and the cost per liter.

This program also has a built in control, and allows the user to stop the pump at any time by pressing the left

Mouse click. the user can then continue to pump gas by pressing enter on the keyboard.

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#include <iomanip>

#include <iostream>

using namespace std;

//Declare Globabl Constants

const double COSTPERGALLON = 2.25;

//Declare Class GasPump

class GasPump

{

public:

void Calculate\_Values(double, double);

//Pre-condition: two double variables are already defined and initlialized

//Post-condition: No values are returned. The function calculates and outputs the results

//Declare class variables;

double amountdispensed;

double amountcharged;

double cost;

};

int main()

{

//Declare variables

GasPump Gas;

int n = 0;

double gallons = 0;

double cost = 0;

//Output for user to control program

cout << "In order to stop the pump, click with the mouse. If you wish to continue pumping gas hit enter. " << endl;

//Continually Loop calling the function Calculate\_Values to get output as variables increment up

while (n != 1)

{

Gas.Calculate\_Values(gallons, cost);

gallons += 0.01;

}

return 0;

}

//Description:This function uses the class GasPump,calculates the metrics of pumping gas, and then outputs the results onto the same line

void GasPump::Calculate\_Values(double gallons, double cost)

{

//Calculate cost of Gas

cost = gallons\*COSTPERGALLON;

//Output cost per gallon, # of gallons, and total cost of gas on one single line.

cout << "\r" << "Cost Per Gallon: $"<<COSTPERGALLON<<" Total Gallons: " << setprecision(4) << gallons << " Total Cost: $" << setprecision(4) << cost;

}