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//GradingID: C6163
//Program 1
//CIS199-75
//Due Date: 2/14/17
//The program receives the inputs for total square feet to be painted, number of coats
desired, and
//price of the paint per gallon. From these inputs, it calculates the total square feet
that will
//be painted including
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace Program_1
{
    public partial class Form1 : Form
    {
        // Constant fields
        const int SQFT_OF_WALLSPACE_PER_PAINTGALLON = 330;
        const int HRS_OF_LABOR_PER_PAINTGALLON = 6;
        const double WAGE_PER_HOUR = 10.50;

        public Form1()
        {
            InitializeComponent();
        }
        //Event handler calculates the requires total square feet, number of gallons of
paint required,
        //hours of labor required, paint expense, labor expense, and total expense
        private void calculatebutton_Click(object sender, EventArgs e)
        {
            //Total square feet


            //variables needed to calculate total square feet to be painted
            float totalsquarefeet;
            int numberofcoatsdesired;
            float squarefeetdesired;

           //calculates the total square feet that will be painted for the job
            squarefeetdesired = float.Parse(wallspacepainttextbox.Text);
            numberofcoatsdesired = int.Parse(numberofcoatspaintedtextbox.Text);
            totalsquarefeet = squarefeetdesired * numberofcoatsdesired;
            totalsqftoutputlabel.Text = totalsquarefeet.ToString("n1");



            //Number of gallons required


            //variables needed to calculate the number
            //of gallons required
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            float numberofgallonsrequired;


            //calculate the number of paint gallons to be painted including all coats
            //of paint
            totalsquarefeet = float.Parse(totalsqftoutputlabel.Text);
            numberofgallonsrequired= totalsquarefeet / SQFT_OF_WALLSPACE_PER_PAINTGALLON;
            numberofgallonsoutputlabel.Text =
Math.Ceiling(numberofgallonsrequired).ToString("n0");


            //Hours of Labor Required

            //variables needed to calculate the required hours
            //of labor
            float hoursoflaborrequired;

            //calculate the hours of labor required for the applicaiton
            hoursoflaborrequired = numberofgallonsrequired *
HRS_OF_LABOR_PER_PAINTGALLON;
            hoursoflaboroutputlabel.Text =
Math.Round(hoursoflaborrequired).ToString("n1");


            //Paint Expense

            //variables needed to calculate paint expense
            float paintexpense;
            float priceofthepaintpergallon;

            //calculates the paint expense
            //takes the price of the paint per gallon from the textbox and
            //multiplies it by the number of required gallons of paint
            priceofthepaintpergallon = float.Parse(paintpergallonpricetextbox.Text);
            paintexpense = priceofthepaintpergallon * numberofgallonsrequired;
            paintexepnseoutputlabel.Text = paintexpense.ToString("c");

            //Labor Expense


            //variables needed for the Labor Expense
            double laborexpense;

            //Calculates the Labor Expense by multiplying
            //the required hours of labor and wage per hour (10.50)
            laborexpense = hoursoflaborrequired * WAGE_PER_HOUR;
            laborexpeseoutputabel.Text = laborexpense.ToString("c");


            //Total Expense

            //variables needed for total expense
            double totalexpense;

            //calculates the total expense by adding the labor expense
            //and the paint expense
            totalexpense = paintexpense + laborexpense;
            totalexpenseoutputlabel.Text = totalexpense.ToString("c");
```

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            }
        }
    }
```