**ITDEV 117**

**Depreciation Program**

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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 Assignment7\_Itdev\_117

{

public partial class Form1 : Form

{

decimal value, avalue; //declare variables

decimal expense;

public Form1()

{

InitializeComponent();

}

private void btnCalc\_Click(object sender, EventArgs e)

{

decimal assetCost = Convert.ToDecimal(this.txtAssetCost.Text); //get inputs from text box

decimal salvageValue = Convert.ToDecimal(this.txtSalvageValue.Text);

int assetLife = Convert.ToInt32(this.txtAssetLife.Text);

if (radStraightLine.Checked == true) //calculation for straight line depreciation method

{

string output = "Year" + " Expense" + " Value" + "\n";

expense = (assetCost - salvageValue) / assetLife;

for (int year = 1; year < assetLife + 1; year++)

{

assetCost = assetCost - expense;

output = output + " " + year.ToString() + " " + expense.ToString() + " " + assetCost.ToString() + "\n";

}

this.richTextBox1.Text = output;

}

else if (radSumYear.Checked == true) //calculation for sum-of-years-digits depreciation method

{

string output = "Year" + "Expense" + "Value" + "\n";

double sumOfDigits;

decimal expense, depreciationCost;

sumOfDigits = ((assetLife \* assetLife) + assetLife) / 2.00;

for (int year = 1, usefulLife = assetLife; year < assetLife + 1 && usefulLife > 0; year++, usefulLife--)

{

depreciationCost = assetCost - salvageValue;

expense = depreciationCost \* (usefulLife / (decimal)sumOfDigits);

avalue = avalue + expense;

value = assetCost - avalue;

output = output + " " + year.ToString() + " " + expense.ToString("f") + " " + value.ToString("f") + "\n";

}

this.richTextBox1.Text = output;

}

else if (radDoubleDecline.Checked == true)//calculation for double declining depreciation method

{

string output = "Year" + " Expense" + " Value" + "\n";

decimal expense;

double rate = 0.4;

for (int year = 1; year < assetLife + 1; year++)

{

expense = (decimal)rate \* assetCost;

assetCost = assetCost - expense;

value = assetCost;

output = output + " " + year.ToString() + " " + expense.ToString("f") + " " + value.ToString("f") + "\n";

}

this.richTextBox1.Text = output;

}

}

}

}

