IT 230 Final Project II

Mod 7 WPFRegisterStudent

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using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WPFRegisterStudent

{

/// <summary>

/// Interaction logic for MainWindow.xaml

/// </summary>

public partial class MainWindow : Window

{

Course choice;

private int totalCreditHours = 0;

public MainWindow()

{

InitializeComponent();

}

private void Window\_Loaded(object sender, RoutedEventArgs e)

{

Course course1 = new Course("IT 145");

Course course2 = new Course("IT 200");

Course course3 = new Course("IT 201");

Course course4 = new Course("IT 270");

Course course5 = new Course("IT 315");

Course course6 = new Course("IT 328");

Course course7 = new Course("IT 330");

this.comboBox.Items.Add(course1);

this.comboBox.Items.Add(course2);

this.comboBox.Items.Add(course3);

this.comboBox.Items.Add(course4);

this.comboBox.Items.Add(course5);

this.comboBox.Items.Add(course6);

this.comboBox.Items.Add(course7);

this.textBox.Text = "";

}

private void button\_Click(object sender, RoutedEventArgs e)

{

choice = (Course)(this.comboBox.SelectedItem);

// TO DO - Create code to validate user selection (the choice object)

// and to display an error or a registation confirmation message accordinlgy

// Also update the total credit hours textbox if registration is confirmed for a selected course

if (choice == null)

{

MessageBox.Show("Please select a course first.");

return;

}

if (choice.IsRegisteredAlready())

{

MessageBox.Show($"Error: You are already registered for {choice.getName()}");

return;

}

if (totalCreditHours + 3 > 9)

{

MessageBox.Show("Error: Cannot register for more than 9 credit hours (3 courses)");

return;

}

choice.SetToRegistered();

totalCreditHours += 3;

this.listBox.Items.Add(choice.getName());

this.textBox.Text = totalCreditHours.ToString();

MessageBox.Show($"Successfully registered for {choice.getName()}");

}

}

}

A computer screen with text and a box

AI-generated content may be incorrect.

A computer screen with text and a box

AI-generated content may be incorrect.

After reviewing the requirements and files, I found that the WPF interface components (ComboBox, ListBox, TextBox, and registration button) and Course class with its core methods were already set up. The main task was implementing the button\_Click event handler with three key business rules: preventing duplicate registrations, limiting total credits to 9 hours, and validating user selections.

In MainWindow, while the Course variable 'choice' existed, I added 'totalCreditHours' initialized to 0 at the class level to track cumulative credits between registrations. The button\_Click handler implements validation in logical order: checking for course selection, verifying no duplicate registration, and ensuring the credit limit isn't exceeded.

The implementation uses ListBox.Items.Add() to display registered courses and MessageBox alerts to provide immediate feedback on all registration attempts, whether successful or not.