

IT 330

Assignment 2

Spring 2016

Due 4/17/2016 by 11:59pm

Point Totals: 100 Points

Summary

Convert your Project 1 to a WPF application that calculates the monthly payment for a loan based on the principal, number of years, and interest rate.

Requirements

- **Include labels and instructions** to make the user interface clear to the user.
- **Detailed Specs:**
 1. Input the principal in a TextBox control.
 2. Change the default font to any font of your choosing.
 3. Input the number of years by using RadioButton controls. There should be three radio buttons with text "15 Years", "30 Years", "Other", with a textbox to enter the number of years if Other is checked. If "15 Years" or "30 Years" are checked, the textbox for "Other" should be grayed out.
 4. Input the interest rate using a Slider control. Give a reasonable selection of interest rates. See the online documentation for Slider about Tick Marks and values:
[https://msdn.microsoft.com/en-us/library/ms743587\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/ms743587(v=vs.85).aspx)
 5. Obtain each of the three variables from the controls, Prompt the user to reenter any illegal input where applicable.
 6. Compute the monthly payment using this formula:

$$m = \frac{p r / 1200.0}{1 - (1.0 + r / 1200.0)^{-12.0 n}}$$

7. p = principal (dollars), n = number of years, r = interest rate (percent), m = monthly payment (dollars). Use the .Net function call `Math.pow(x, y)` to compute x^y (x raised to the y power).
8. Output the amount of the monthly payment into a Label.

Hints

- 1) TempConv1 in the Class 1 examples and Homework 1. See Class 2 WPF Examples.
- 2) Test your calculation/output here : <https://www.easycalculation.com/mortgage/loan-payment-amount.php>

Deliverable

Submit a zip file of your .Net Solution file on D2L using this naming convention: Proj2-Smith.zip (replace Smith by your last name). **Grading Breakdown**

- 80 points – Functionality
- 10 points – Code Structure / Comments
- 10 points – Submitted Correctly