

## IT 330

### Assignment 4

Spring 2016

Due 5/8/2016 by 11:59pm

Point Totals: 100 Points

#### Summary

Convert your Project 1 and 2 desktop applications that calculates the monthly payment for a loan based on the principal, number of years, and interest rate into an ASP.NET Web Forms Application.

#### 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. Input the number of years by using RadioButtonList control. 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.
  3. Grab the interest rate using a DropDownList. Give a reasonable selection of interest rates.
  4. Obtain each of the three variables from the controls, Prompt the user to reenter any illegal input where applicable.
  5. Compute the monthly payment using this formula:

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

6.  $p$  = 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).
7. Output the amount of the monthly payment into a Label.

#### Hints

- 1) Test your calculation/output here : <https://www.easycalculation.com/mortgage/loan-payment-amount.php>
- 2) Limit the events to a Button Click event. You don't want web apps to be "chatty".
- 3) All calculations must be done using server side C# code.

#### Deliverable

Submit a zip file of your .Net Solution file on D2L using this naming convention: Proj4-Smith.zip (replace Smith by your last name). **Grading Breakdown**

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