



Lab 6: PHP and Forms

Student Learning Objectives

After completion of this lab, students should be able to

- Design and implement interactive Web applications that use an XHTML Form and PHP scripting to process user input
- Develop a XHTML Form for accepting user input
- Develop a PHP page to process user input
- Use JavaScript to provide client-side error checking
- Use an externally linked style sheet to specify the presentation of your Web pages
- Use comments, meta tags, and Tidy within HTML-Kit to create HTML and PHP code that conforms to the [CS 250 Coding Standards](#)

Work collaboratively as a pair programming team

CS 250 in-class labs will be done using **pair programming**. Your partner for today's lab is listed in the table below:

Hebeler 204

Grader: John Wright II

Team 1 Abundiz, Sergio Burton, Henry	Team 2 Bajwa, Deepinder Strom, Brandt	Team 3 Burley, Jonathan Chandler, Alan	Team 4 Byars, Frank Dickerson, Andrew	Team 5 Carpenter, Daniel Juarez, Adrian
Team 6 Crockett, Jordan Plitkins, Kristofer	Team 7 Hansen, Christopher Prescott, Brandon	Team 8 Kinkade, Kyle Canada, Justin	Team 9 Porter Jr, Anthony Ahmady, Temourshah	Team 10 Rozelle, William Belfiglio, Alexander
Fill in: Taing, Pokuy				

You may wish to review basic [pair programming](#) guidelines before you begin.

- One team member (the **driver**) has control of the keyboard/mouse and actively implements the program
- The other team member (the **navigator**) continuously observes the work of the driver to identify tactical defects (such as syntactic and spelling errors, etc.) and also thinks strategically about the direction of the work

You should **change roles** about every ten minutes during lab.

Assignment

Use a combination of XHTML and PHP to create an *simple* interactive Mortgage calculator. A *minimalist* [screen snapshot](#) is provided below.

Save your pages as **lab6.html**, **lab6.php**, in folder `u:\htdocs\labs\lab6` in your cs250 account.

- On `lab6.html` Web page, use an **XHTML Form** with input widgets to allow the user to
 - Enter the **price of the home** (e.g. 295000.00)
 - Enter the **down payment amount** (e.g. 30000.00)
 - Click the **duration** to repay the loan (either 10, 20, or 30 years). Make 30 years the default duration of the loan.
 - Select the **interest rate** (either 8%, 8.5%, 9%, 9.5%, or 10%). Let 9.5% be the default interest rate.
 - **Submit button** to call the `lab6.php` page to perform the calculations
 - **Reset button** to clear the form
- Use `lab6.php` to calculate and display the
 - **total simple interest** paid over the total number of years
 - $$\text{interest} = (\text{priceOfHome} - \text{downPayment}) * \text{interestRate} * \text{years}$$
 - **total price** of the home
 - $$\text{totalPrice} = \text{priceOfHome} + \text{interest}$$
 - **monthly payments**
 - Assume the total amount is paid back evenly distributed over the entire number of months
 - **Tip:** use PHP's [number_format\(\)](#) function to format floating point values as currency

- Note: you do **not** need to perform error-checking in the PHP code for this assignment
 - **Validate** your code (both `lab6.html` and XHTML code generated by `lab6.php`) to XHTML Strict 1.0 to remove all errors
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Lab 6 Screen Snapshot

Note: All HTML elements are laid out using the default browser styling. Inline elements are enclosed inside paragraphs `<p>`

`lab6.html` `lab6.php`

Lab 6

Mortgage Interest Calculator

Price of Home:

Down Payment:

Duration of Loan

- ☐ 10 Years
☐ 20 Years
☒ 30 Years

Interest Rate:

Calculate

Clear

Lab 6

Price of Home: \$100,000.00

Down Payment: \$10,000.00

Duration: 10 years

Interest Rate: 10%

Total Simple Interest: \$90,000.00

Total Price of Home: \$190,000.00

Monthly Payments: \$1,583.33

To Receive Credit

Labs are graded by the student teaching assistant using the [lab's scoring rubric](#) [PDF].

Pair programming teams will receive the scoring rubric sheet at the start of lab. Write both

names on the sheet to turn in the sheet in when you finish. Name 1 should be the student who saved the pair work in their CS 250 account.

- If you **finish during lab**, turn in to your grader the **Lab's scoring rubric sheet**.
 - If you have **not** yet satisfied all criteria to the level of 4, you need to continue working on the lab outside of class time
 - Your saved solution should be stored in the CS 250 account listed under Name 1
 - Your solution will be checked by the grader using the scoring rubric and both students will receive the same score for the lab assignment
- If you are **unable** to complete the solution during the lab period
 - Leave lab with both students having a copy of the partially completed solution
 - Agree to finish the lab together (establish a time) or independently
 - Turn in the [lab's scoring rubric](#) [PDF] at the **start of next Lab**
 - Use one rubric for teams finishing together or two rubrics for students finishing independently
 - Keep track of and include the **total completion time** (rounded to closest half-hour) it took to complete the lab assignment and include the time on the rubric
 - Write a score **0 . . 4** in the rubric's **self assessment column** representing your completion status
 - Make sure your work is stored in your CS 250 account in folder
U:\htdocs\labs\lab6

Lab 6 is due at the start of lab of the next Lab. **No** late lab assignments will be accepted without prior approval. Your lowest lab score will be dropped.