

CSCI 241.01
Assignment 3
September 12, 2011
Instructor: Xusheng Wang

Objectives:

1. Learn how to create web GUI (Graphics User Interface)
2. Learn how to read and process user data, and how to generate a web page in PHP.

Submission:

1. Upload your website to your account on **infd.birdnest.org** web server, and email me (**wangx@winthrop.edu**) the URL to the first page of your Calculator website.
2. Create a zip file on your Calculator website, and attach the zip file with your email to me.
3. This assignment is **due at 5:30pm on Monday, September 19, 2011**

Requirements:

1. Develop a website that includes a simple integer calculator. This calculator can only do addition, subtraction, multiplication, division and modulus operations on two integers. The website needs to have two pages.
2. The first page is the user interface that includes two Textboxes to enter and display two operands, one Dropdown List to select an operator from five arithmetic operators (+, -, *, / and %), and one equal (=) Button to calculate the solution. This page contains only HTML code. Let's save it as `index.html`. Figure 1 on the other side shows the user interface.
3. Basic rules for the calculator:
 - a. The normal order: enter the first operand, select an operator, enter the second operand, and click the Equal button to get the solution. Before clicking the Equal button, the user can change the first operand, the operator and the second operand.
 - b. If the first or second operand is not a valid integer number, it will be counted as a 0. For the division (/) and modulus (%) operations, the second operand must be a non-zero number. If it is a zero, display "Error: divided by a zero!" as the error message.
 - c. To check which operator is selected in the Dropdown List, read the selected value, and use the **switch** statement to test whether it is "+", "-", "*", "/", or "%".
4. After clicking the Equal button, the second page will be accessed to read user inputs, do the selected arithmetic operation and list the result. We need to use PHP code to process this step. So the second page is a PHP page. Let's call it as `calculate.php`. Figure 2 on the other side shows the result generated by `calculate.php`.
5. Hints:
 - Read user input data (strings) from the `$_GET` array.
 - To convert the input string to an integer, you can do a type-casting with `(int)` in front of the string.
6. Use the **SSH Secure File Transfer** client tool to upload your website to your account on the **infd.birdnest.org** web server.

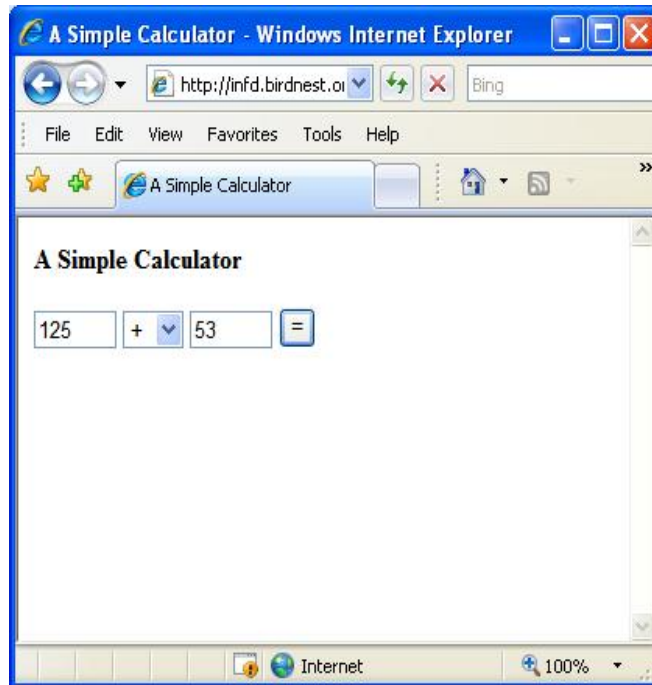


Figure 1: the user interface of the calculator

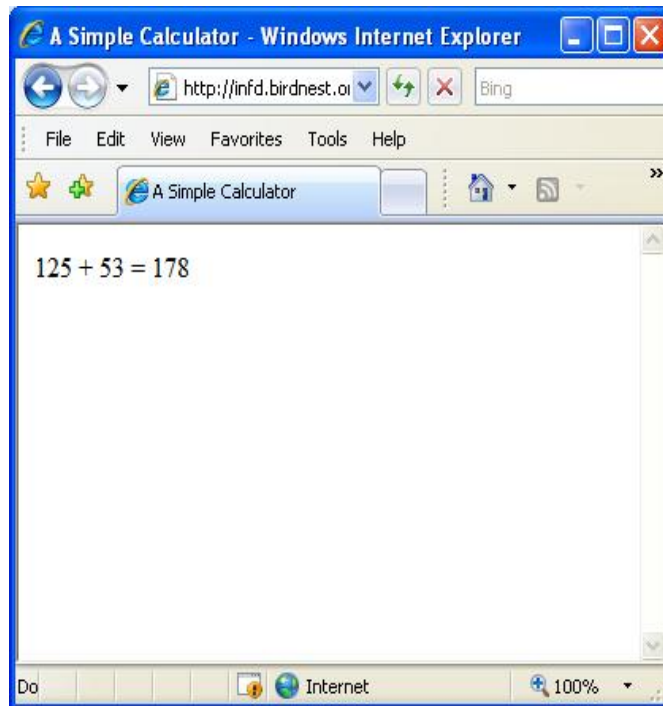


Figure 2: the result after clicking the Equal button