CPSC 2125 Introduction to Web Development
Fall 2016
Final Exam
Wednesday, December 7th

The Final Exam is a timed, take-home, problem-solving exam. The duration of the Final Exam is four (4) hours. The beginning of the exam is the time stamp of downloading the exam text and the end of the exam is the time stamp of submitting your final exam in the Final Exam Dropbox. The exam text will be open on the class CougarView Web site at 8:00 a.m. on Wednesday, December 7th and closed at 11:59 p.m. on the same date. During this period, you can open and save the Final Exam text, read it, and then work on the Final Exam problem.

The duration of your exam must be less than four (4) hours: (time stamp of your files saved in the dropbox – time stamp of downloading the exam files <= 4 hours). Final Exam files submitted with a time stamps after the end of the Final Exam (dropbox time stamp - download exam time stamp > 4) will not be graded.

You have to solve a problem writing HTML, CSS, and JavaScript code. Your HTML, CSS, JavaScript codes have to be developed on your local machine. Your Final Exam solution has to be zipped and submitted in the Midterm Exam Dropbox before the deadline.

The exam is open textbook, you can use the course notes (slides), assignment files, student data files, W3Schools tutorials, and Internet resources. **No make-up Final Exam will be given unless the exam was missed due to a documented emergency.**

Take-home exams are expected to be private work of each individual student. Under no circumstances may there be any discussion of the exam during the examination period (even if you finish before the end of the allotted period). The student HTML, CSS, and JavaScript code will be checked for plagiarism (unauthorized collaboration, identical submission in whole or parts). Please refer to the Academic Integrity section of the class syllabus.

Problem.
Use a tabular layout to create a centered Web order form that displays (see a sample form below):
- Textbox labeled "Price" with default value 5.49
- Drop-down menu labeled "Quantity" with five option values – 1, 2, 3, 4, 5
- Drop-down menu labeled "State" with three options – Alabama, Florida, and Georgia
- Drop-down menu labeled "Delivery Method" with four options – Standard UPS, Book Rate, Overnight, and Next Day Air
- Textbox labeled "Cost"

- Textbox labeled "Shipping Cost"
- Textbox labeled "Tax Amount"
- Textbox labeled "Your Total is:"
- Button labeled "Calculate My Order"

Enhance the form with your favorite headers, colors, fonts, background, size, and borders.

The user selects options from the Quantity, State, and Delivery Method drop-down menus and clicks on the Calculate My Order button. When the user clicks on the button, a JavaScript function is executing and calculates:

a. the cost of the order (Price*Quantity) and assigns the cost value to the Cost textbox

b. the shipping cost (cost of order * shipping rate) and assigns the shipping cost to the Shipping Cost textbox. Use the following shipping rates: Standard UPS – 0.15, Book Rate – 0.10, Overnight – 0.3, and Next Day Air – 0.6.
Hint. In the <option> tags use value attribute with shipping rate values.
   Ex. <option value="0.02">Standard UPS</option>

c. the tax amount (cost of order * tax rate) and assigns it to the Tax Amount textbox. Use the following tax rates: Alabama – 0.085, Florida – 0.075, Georgia – 0.08.
Hint. In the <option> tags use value attribute with tax rate values.
   Ex. <option value="0.08">Georgia</option>

d. the total as a sum of the cost of order, shipping cost and sale tax; the total value is displayed in the "Your Total is" textbox.

You can use the toFixed(n) method of a Number object to round the values to two decimal positions (n=2; for toFixed() method description, see the JS Reference on W3Schools.com).

Markers! Markers! Markers!

Markers on Sale!

Calculate Your Order

Price:	7.99
Quantity:	2 ▼
State:	Florida ▼
Delivery Method:	Standard UPS ▼
Cost (P * Q)	15.98
Shipping Cost:	2.40
Tax Amount:	1.12
Your Total is:	
	19.50
Calculate My Order	

Grading:

HTML and CSS		30
Headers	3	
Form element	2	
Table development	10	
Form elements: labels, text boxes, select lists, input button	15	
JavaScript		50
Variable definitions	5	
Retrieving form values and assigning to variables	8	
Cost of the order and assigning to a textbox	8	
Shipping cost and assigning to a textbox	8	
Tax and assigning to a textbox	8	
Total and assigning to a textbox	8	
Number formatting	5	
HTML, CSS, and JavaScript execution and output		20
Correct calculation of order cost	5	
Correct calculation of shipping cost	5	
Correct calculation of tax	5	
Correct calculation of total	5	