it238 Assignments for Spring 2013

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May 17, 2013

General Ramarks

- These are individual assignments. You can discuss them with your colleagues but you cannot collaborate on the solution.
- Submit your assignments in one of the following ways: 1) a ZIP file in D2L; 2) a W2P file in D2L; 3) post your code online and post a link to it in D2L.
- Your solutions will be cross checked using turn-it-in.
- Late assignments are not accepted under any condition.
- All programs must be indented and commented
- The total is 100 points
- You can get extra points by helping reporting errors, bugs and typos.
- Points will be converted to letter grades based on this scale:

A	95-100
A-	92-94
B+	88-91
B	85-87
B-	82-84
C+	78-81
C	75-77
C-	72-74
D+	68-71
D	65-67
D-	62-64
F	0-55

1 Assignment 1 (due April 17, 15 points)

Implement a mortgage calculator which asks for start date, loan amount, interest rate, term in years and computes the monthly payment and an amortization table.

2 Assignment 2 (due May 1, 15 points)

Implement a math calculator in Javascript. It should provide buttons corresponding to digits (0-9), decimal point, reset (CE), four operations (+-*/) and equal (=).

3 Assignment 3 (due May 15, 15 points)

Implement a program that can compute your taxes (assume year 2012, assume a form 1040EZ). The form should ask for your filing status (single, married), income, deductions and credits and will estimate your total taxes for 2012. Example:

`http://www.bankrate.com/calculators/tax-planning/1040-form-tax-calculator.aspx`

4 Assignment 4 (due May 29, 15 points)

Implement a simple one page web store. It should list two products, each showing one button to buy it. It should use the Stripe.js API.

5 Final Project (due June 13, 40 points)

Implement a more complex one page web store. Your page should list at least 4 products with description and price. It should be possible to search for products by name. Users add products the to the shopping cart by literally dragging and dropping the picture products on the picture of the cart. Users purchase the products in the shopping cart by using the Stripe.js API.

`https://stripe.com/docs/stripe.js`