

## INT222 -Lab 1 [10 marks]

**Due: Section A - Thursday Sep 24, 2015, 23:59 [Late submission up to: Oct 1, 2015, 23:59]**

**Section B - Sunday Sep 27, 2015, 23:59 [Late submission up to: Oct 4, 2015, 23:59]**

**Section C - Wednesday Sep 23, 2015, 23:59 [Late submission up to: Sep 30, 2015, 23:59]**

- **Objective:**

Practice JavaScript Basics

- **Specifications:**

Create an Income Tax Calculator using JavaScript.

The income tax will be calculated as follows:

1. The **income tax** for a person is the total of the base tax and the extra tax.
2. The Tax Calculator **repeatedly** asks user to input and report the corresponding information until user inputs "N" or "n" to stop inputting next income.
3. The **input** includes:
  - base tax. Everybody pays a base tax. Validate base tax in the range of [0.00 .. 1000.00].
  - yearly income. Need to validate the yearly income in the range of [0.00 .. 10000000].
  - Note: you also need to validate the input that is not a number.
4. The extra tax is calculated based on the yearly income of the person applying the following rules:
  - a. For the first \$40000 (inclusive) of the yearly income, the extra tax is 15%.
  - b. For the yearly income over \$40000 but less than \$80000 (inclusive), the extra tax is 30%.
  - c. For the yearly income over \$80000, the extra tax is 50%.
5. Your program **reports** the base tax, extra tax, and the total tax of a person.
6. **Note**: please refer carefully to the sample run. The result is correct. You are supposed to test with the sample data and get the same result.
7. **Evaluation:**
  - Define one validation function for both inputs [2 marks]
  - Provide correct prompt information & error message [1 mark]
  - Repeated input and proper termination condition [1 mark]
  - Calculation correct [4 marks]
  - Report in specified format [2 marks]

Sample run:

<p>Enter Base Tax</p> <p>-89</p>	<p>ERROR! Enter Base Tax in the range [ 0.00 , 1000.00 ]:</p> <p>100</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p>
<p>OK Cancel</p>	<p>OK Cancel</p>
<hr/>	
<p>Enter Income</p> <p>abc</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p>	<p>ERROR! Enter Income in the range [ 0.00 , 10000000.00 ]:</p> <p>20000</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p>
<p>OK Cancel</p>	<p>OK Cancel</p>
<hr/>	
<p>income is \$20000.00, The base tax is \$100.00, extra tax is \$3000.00, total tax is \$3100.00</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p> <p>OK</p>	<p>Enter next income? [Y/N]</p> <p>Y</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p> <p>OK Cancel</p>
<hr/>	
<p>Enter Income</p> <p>-7777</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p> <p>OK Cancel</p>	<p>ERROR! Enter Income in the range [ 0.00 , 10000000.00 ]:</p> <p>60000</p> <p><input type="checkbox"/> Prevent this page from creating additional dialogs</p> <p>OK Cancel</p>

income is \$60000.00,  
The base tax is \$100.00,  
extra tax is \$12000.00,  
total tax is \$12100.00

☐ Prevent this page from creating additional dialogs

OK

Enter next income? [Y/N]

Y

☐ Prevent this page from creating additional dialogs

OK Cancel

Enter Income in the range [ 0.00 , 10000000.00 ]:

100000

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OK Cancel

income is \$100000.00,  
The base tax is \$100.00,  
extra tax is \$28000.00,  
total tax is \$28100.00

☐ Prevent this page from creating additional dialogs

OK

Enter next income? [Y/N]

N

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OK Cancel

program terminates

- **Submission:**

Submit on Balckboard (MySeneca). Go to "Assignment" -> Lab1, attach your files.

You need to submit 2 files:

(1) the source code of javascript (lab1.js), and

(2) a file with the screenshots as your program runs with input and output, like the sample run in this document.

- **Academic Policy:**

Seneca's Academic Policy will be strictly enforced. <http://www.senecacollege.ca/academic-policy/index.html>

This is an individual lab. Please do not try to convince me that any two of you may have the same code.

- **Student Oath:**

A signed declaration of honesty must be included in your submission. Put the following declaration as comment in the beginning of your JavaScript program.

I declare that the attached assignment is wholly my own work in accordance with Seneca Academic Policy. No part of this assignment has been copied manually or electronically from any other source (including web sites) or distributed to other students.

Name \_\_\_\_\_ Student ID \_\_\_\_\_