**Intro to JS**

**DEADLINE:** 24/12/2019

**FOLDER STRUCTURE**

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| --- | --- |
| FL12\_HW6/\*     └─ task/      └─ FL12\_HW6.docx  └─ homework/\*  └─ js/\*  └─ task1.js\*  └─ task2.js\*  └─ task1.html\*  └─ task2.html\*  └─ .eslintrc.js\* | \*   – required  https://docs.google.com/drawings/d/sacr32sj3QL4ynvXOijYsjg/image?w=21&h=21&rev=1&ac=1&parent=1Wtv1WPeniXS7OF4sZ_WL11aF6vRJn3Xa7liFYB9Uvgg    – not needed |

**TASK**

**Task 1**. Implement app for solve Quadratic equation.

App workflow:

1. User input 3 values (*a, b, c*) for quadratic equation (*ax2 + bx + c = 0*).
2. If input data not valid show message in console (‘Invalid input data’).
3. If possible, find Discriminant.
4. Use console.log to show result, variants:

* *x = 0*;
* *x1 = ‘value1’* and *x2 = ‘value2’*;
* no solution (when Discriminant < 0);

**Task 2**. Identify triangle type.

App workflow:

1. User input 3 numbers (a, b, c) for triangle sides length.
2. Check type of inputs. If type of inputs ( a **OR** b **OR** c ) is: empty string, undefined - show modal window with message ( *input values should be* ***ONLY*** *numbers* )
3. Check values of input values. If one of the value ( a OR b OR c ) equal to 0 - show modal window with message ( *A triangle must have 3 sides with a positive definite length* )
4. Check such triangle can exist. If it can’t exit show modal window with message - *‘Triangle doesn’t exist’.*
5. If triangle exist check its type:

* equivalent (every side is equal)
* isosceles (two sides are equal)
* scalene (no sides are equal)

1. Use console.log to show result, variants:  
   * If such triangle can’t exist: ‘Triangle doesn’t exist’
   * If triangle has three equal sides: ‘Equilateral triangle’
   * If triangle has two equal sides, third differs: ‘Isosceles triangle’
   * If triangle has three different sides: ‘Scalene triangle’

**RESTRICTIONS**

* No requirements for browser support (should correct work in Google Chrome last version).
* Use prompt for handle user input and alert for error message.
* JS functions are forbidden.

**BEFORE SUBMIT**

* Read requirements and compare to your homework result
* Format the code (remove unnecessary lines of code)
* Remove all unnecessary files that you might have included by mistake
* In order to use npm package manager you should install **nodejs** (https://nodejs.org/ )
* Install **eslint** to check your code (*npm install -g eslint*)
* Open a terminal(or cmd)
* Go to ‘homework’ folder
* Run **eslint** (i.e. *eslint ./js/task1.js*), code should be without ‘errors’
* Please note, that one js file should contain one task

**SUBMIT**

* The folder should be uploaded to github repository “**FL12**” into **master** branch

**USEFUL LINKS**

* <https://developer.mozilla.org/en-US/docs/Web/API/Window/prompt>
* <https://en.wikipedia.org/wiki/Quadratic_equation>
* <https://developer.mozilla.org/en-US/docs/Web/API/Window/alert>
* <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/parseInt>
* <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/parseFloat>
* <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math>
* <https://en.wikipedia.org/wiki/Triangle>