**Course**
# JavaScript Programming Language and jQuery

**Module 1**

TOPIC: INTRODUCTION TO JAVASCRIPT

## Task

You need to decide which loop it is better to use for which task: WHILE, DO WHILE or FOR.

1. Calculate the sum of all numbers in a range specified by the user.

2. Ask for 2 numbers and find only the greatest common divisor.

3. Ask the user for a number and output all the divisors of that number.

4. Determine the number of digits in the entered number.

5. Ask the user for 10 numbers and calculate how many of them are positive, negative, and zeroes. Also count amount of even and odd numbers. Display statistics. Note that one variable (not 10) is enough for the user to enter numbers.

6. Loop the calculator. Ask the user for 2 numbers and a sign, solve the problem, print the result, and ask if they wants to solve one more problem. And so on until the user refuses.

7. Ask the user for a number and how many digits to shift it to. Shift the digits of the number and output the result (if the number is 123456, shift it by 2 digits, then you get 345612).

8. Loop the output of days of the week like this: "Day of the week. Do you want to see the next day?" And so on as long as the user clicks OK.

9.  Display the multiplication table for all numbers from 2 to 9. Each number must be multiplied by numbers from 1 to 10.

10. The game "Guess the number." Ask the user to think of a number from 0 to 100 and guess it in the following way: each iteration, divide the range of numbers by half, write the result in *N* and ask the user "Is this your number > *N*, <*N* or == *N*?". Depending on what the user indicates, reduce the range. The initial range from 0 to 100 is divided by half and you get 50. If the user indicates that their number is > 50, then change the range from 51 to 100. And so on until the user chooses == *N*.