# Web 3 Practical – JavaScript

1. Write a JavaScript function using regular expressions that finds the substrings “color” or “colour” in strings such as "My favorite color is yellow” "My favorite colour is yellow”. Use the String match method. Observe the return value of the match method when the pattern defined in the regular expression is present in the string and when it is not present.
2. Repeat exercise number 1 but this time using the string “My favorite color is yellow. I don't like the colour green”. How can you alter the regular expression definition so that the usage of the match method in the string object returns a match to the 1st and the 2nd instance of the word color/colour?
3. Create a regular expression that searches for a floating-point number (x.x) in the following string: “my height is 1.85 metes”. Using the search method of the string object find the index of the match in the string. What value is returned by the search method if the string “my height is 2 metes” is provided?
4. Split the string "1,2;3.4-5,6.7" into the array ["1", "2", "3", "4", "5", "6", "7"] using regular expressions.
5. Repeat exercise number 1, but this time use the correct attribute character so you can recognize both instances of the color word in the string: “My favorite color is yellow. I don't like the Colour green”
6. repeat exercise number 1, but this time use the correct position character to recognize the word color only at the beginning of the string. So for instance the string “color the box” should return match but the string “box the color” shouldn’t.
7. Write a JavaScript function using regular expressions that finds the substrings “random” in the string “choose a random number“ but fails to find a match in the string “the randomness increased”.
8. Write a JavaScript function that is able to detect numbers in a string containing characters and numbers like for instance “aa 1 bb 2“. Use those matched numbers later in the code using the RegExp.$x notation.
9. Write a JavaScript function that using regular expressions checks whether a string input by the user is a valid email address.
10. Write a JavaScript script that checks the content of the email input in the html form upon the user clicking on the submit button. If the email entered is invalid, an error message is output to the span element in the HTML as illustrated in the following figure.



1. Study the p11.html file. It contains a HTML form. Create a function in JavaScript that validates that each of the 4 input sections have been input by the user. You need sophisticated form validation here, just check that the user enter a name (any name), chose a gender, chose and age and agreed with the terms and conditions by clicking on the checkbox. Create your functionality step-by-step. If the user has input data correctly, you should inject a message in the div element with id=output in the HTML file, greeting the user by the entered name. Hint: the preventDefault() method of the event object might come in handy for this exercise.
2. Complete the missing code in the file p12.js to achieve the desired functionality of the script, i.e. display the local time and a remote time in one the cities selected from the list. Your output should look similar to:

