Help to complete the tasks of this exercise can be found on the chapter 18 ” HTTP and Forms” of our course book “Eloquent JavaScript” (3rd edition) by Marijin Haverbeke. The aims of the exercise are to understand HTTP and Form in JavaScript-context.

Embed your theory answers, drawings, codes and screenshots directly into this document. Always immediately after the relevant question. Return the document into your return box in the Optima platform by the deadline.

It’s also recommendable to use Internet sources to supplement the information provided by the course book.

The maximum number of points you can earn from this exercise is 10.

Tasks:

1. Answer to following questions (2 pts):
   1. List and compare different HTTP *methods*?
   2. When the Get and Post methods should be used
   3. You have seen the HTTP response code 404. What it means and what are the possible reasons for that?
   4. How the values filled in the form by the user can be send over the HTTP protocol?
2. Alternative a: Create a form for data collection. Form should have inputs for: (2 pts)
   1. User contact information
   2. 5 questions where user chooses numeric value between 1-3 using radio input (hint: grouping)
   3. Text area for free feedback

Alternative b: Make the following validations to the form given at the end of this document. (2 pts)

* 1. Check that an email is given.
  2. Check that the email has valid form.
  3. Check that at least one of the radio buttons belonging to the group named doors is selected.
  4. In case there is any problems with the above validations, display an error message and prevent browser sending the form.

1. Explain how you prevent a form submission using JavaScript and why would you do that? Give also a simple code example (1 pts).
2. What means local storage related to JavaScript? How could you use it? Write an example code that (2 pts)
   1. has one input for text
   2. on blur-event writes contents in the local storage
   3. another code reads it when window is loaded
   4. Demonstrate by refreshing window…
3. Form Validation (1 pts)
   1. What is form Validation. (0.5 pts)

It checks if the specific form “slot” is correctly filled, for example it can use RegEx to make sure there is correct characters. It also helps to keep database “clean”.

* 1. Why we should use it (0.5pts)

1. Check the link below and do the following (2 pts)

<https://developer.mozilla.org/en-US/docs/Learn/Forms/Form_validation>

* 1. On the page section **Validate forms using JavaScript,** use the code given in “A more detailed example”, and modify it. So, the email input field has to validate the maxlength of 50 characters. (1pts)
  2. On the page section **Validating forms without a built-in API**, use the code there and also apply the maxlength to the email address. (1pts)

**Code required for Q2**

<!DOCTYPE html>

<html lang="en">

<head>

<title>Search a car</title>

<meta charset="UTF-8">

</head>

<body>

<h2>Search a car</h2>

<form id="carform" action="http://www.donotexists.fi/donotexists" novalidate>

<p><label for="mailaddr">Email:

<input id="mailaddr" name="mailaddr" type="email" size="30" required /> </label></p>

<p><label for="carcolor">Car color:

<select id="carcolor" name="carcolor">

<option value="" selected="selected">Select a color</option>

<option value="b">Blue</option>

<option value="r">Red</option>

</select>

</label></p>

<p>

<label for="sunroof">

<input type="checkbox" id="sunroof" name="sunroof" value="yes" />Sunroof

</label>

<label for="ewindows"><input type="checkbox" id="ewindows" name="sunroof" value="yes" />Electronic win-dows</label> </p>

<p>

<label for="doors">Number of doors&nbsp;&nbsp;

<input type="radio" name="doors" id="door2" value="door2" class="radio" />Two

<input type="radio" name="doors" id="door4" value="door4" class="radio" />Four

</label></p>

<p><label for="zipno">Zip number:

<input id="zipno" name="zipno" type="text" size="5" maxlength="5" /><br/><br />

</label></p>

<input type="submit" value="Send" /> &nbsp;<input type="reset" value="Clear" />

<p id="validationinfo"></p>

</form>

</body>

</html>