6.9.3 Hands-On Practice

PROJECT 1: Simple Login Form Prevalidation

DIFFICULTY LEVEL: Beginner

HANDS-ON EXERCISES

PROJECT 6.1

Overview

You will create JavaScript prevalidation for the form in Chapter06-project01.html. This project builds on Chapter 4 Project 3 (the Photo sharing site upload form).

Instructions

1. You will need to link to an external JavaScript file in the head of the page so that you can write code in its own file.

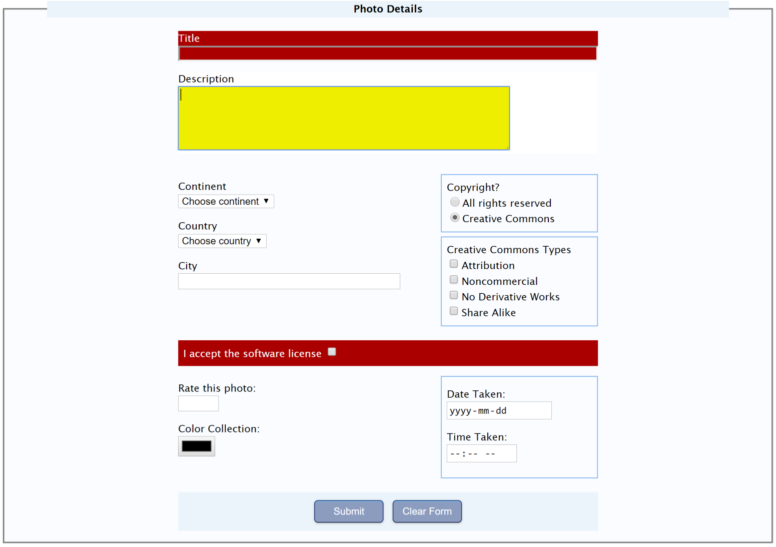

Photo Details

Title

Description

Continent

Choose continent ▾

Country

Choose country ▾

City

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○ All rights reserved

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FIGURE 6.21 Screenshot of the Photo form, being prevalidated to detect blank fields

2. You should define a CSS style to use when highlighting a blank field.
3. Set up a listener on the form's submit event so that the code prevents submission of the form (`preventDefault()`) if the title field is left blank or the accept license box is not checked, but otherwise submits the form.
4. Enhance the JavaScript so that blank fields trigger a change in the appearance of the form (using the style defined earlier).
5. Add another listener to the fields so that when the user types into a field (changed event) JavaScript removes the red color you just added.

Test

1. Test the form in the browser. Try submitting the form with either field blank. You should see the field highlighted and notice the page will not be refreshed as shown in Figure 6.21.
2. Type into one of the highlighted fields, and the error color should be immediately removed.

JavaScript File Outline

```
// function to determine if a field is blank given the inputField argument
function isBlank(…)
{
    if the type of the inputField is a “checkbox”
    {
        if the inputField is checked
            return …;
        return …;
    }
    if the value of inputField is empty
        return …;
    return …;
}

// function to highlight an error through colour by adding css attributes to the div passed in
function makeRed(inputDiv)
{
    …
    …
    …
}

// remove all error styles from the div passed in
function makeClean(inputDiv)
{
    …
    …
}

// the main function must occur after the page is loaded, hence being inside the window.onload event handler.
window.onload = function()
{
    var mainForm = … (hint: getElementById)

    // all inputs with the class required are looped through
    var requiredInputs = … (hint: querySelectorAll)
    for (var i=0; i < requiredInputs.length; i++)
    {
        requiredInputs[i].onfocus = function()
        {
            this…
        }
    }

    // on submitting the form, "empty" checks are performed on required inputs.
    mainForm.onsubmit = function(e)
    {
        var requiredInputs = … (hint: querySelectorAll)
        for (var i=0; i < requiredInputs.length; i++)
        {
            if the input field is blank as determined the function isBlank(requiredInputs[i])
            {
                prevent the default action (i.e. submitting the form);
                call the makeRed function with argument requiredInputs[i]);
            }
            else
                call the makeClean function with argument requiredInputs[i]);
        }
    }
}
```

Project 01 - Useful Hints for JavaScript file

Variables used:

inputField
inputField.type
inputField.checked
inputField.value

mainForm (the id of the **form** tag in html)
requiredInputs (an array)
requiredInputs.length (number of elements in the array)

Boolean values used:

true
false

Property / Method	Value(s) / Argument(s)
inputDiv.style.backgroundColor	#AA0000
inputDiv.parentNode.style.backgroundColor	#AA0000, #FFFFFF
inputDiv.parentNode.style.color	#FFFFFF, #000000
document.getElementById("")	mainForm
document.querySelectorAll("")	.required
this.style.backgroundColor	#EEEE00
e.preventDefault();	Not applicable