

# Form Input Validation

## Exercise: Validating Data Entered into an HTML Form

### Introduction

This exercise will show you how to use JavaScript to perform simple interactive input validation in a browser using the HTML Document Object Model.

### The Exercise

There are a number of tasks required in this exercise. Each task is detailed below.

### Setting Up

Make a new directory for this exercise. Call this directory Valid:

```
C:\> mkdir Valid
C:\> cd Valid
```

All the files that you subsequently create as you do this exercise should be contained in this directory.

### Creating the HTML/Script Source

Create the following in a file called **Input Validation.html**:

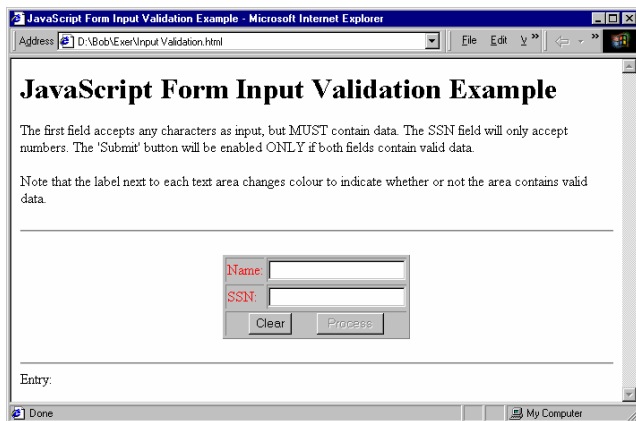
```
<HTML>
<head>
<title>JavaScript Form Input Validation Example</title>
<script language="JavaScript">
function tester()
{
    var ssnOK = testSSN(theForm.SSN.value);
    var nameOK = testName (theForm.name.value);
    theForm.submitter.disabled = ! (ssnOK && nameOK);
}
function testSSN(val)
{
    var isNum = isNumberString (val);
    ssntxt.style.color = isNum ? "" : "red";
    return (isNum);
}
function testName(v)
{
    var isValid = v.length > 0;
    nametxt.style.color = isValid ? "" : "red";
    return (isValid);
}
function isNumberString (s)
{
    if (s.length == 0) return (false);
    for (i = 0; i < s.length; i ++)
```



```
</body>
</HTML>
```

## Executing the Resulting File

Open the Input Validation.html file in IE. You will see the page appear as in the following screenshot:



Play around with the dialog and be sure that you understand what is happening and how JavaScript is allowing you to provide a 'richer' user interface experience than is possible with 'pure' HTML.

## Closing Comment

*You should not attempt this section for this exercise...this is for your information only...*

A form such as this would normally send the resulting validated data to a web server for further use. To keep the requirements for this exercise to a minimum, I have omitted this capability.

The form can be easily adapted to send data to a server. The necessary changes are:

1. Modify the FORM tag to specify that data should be POSTed to the CGI script located at the URL <http://some.host.name/cgi-bin/input.pl>:

```
<form name="theForm" method="post"
      action="http://some.host.address/cgi-bin/input.pl">
```

2. Modify the definition of the "Process" button to become:

```
<input type="submit" id="submitter" disabled="true" value="Process">
```

With these simple changes in place, collected and validated data can be sent across the internet.

A simple CGI script suitable for processing the data transmitted by this script appears below:

```
#!/usr/bin/perl

require './cgi-lib.pl';

print &PrintHeader;

if (&ReadParse(*input))
{
    $name = $input{'name'};
    $SSN = $input{'SSN'};

    print <<EOF
    <HEAD>
    <TITLE>Echoing Entered Data...</TITLE>
    </HEAD>
    <BODY>
        <H1>Data sent to this form</H1>
        Name: <STRONG>$name</STRONG>
        <BR>
        SSN: <STRONG>$SSN</STRONG>
    </BODY>
    EOF
}
```