

Validating User Input with JavaScript

JavaScript can be used to validate the data before submitted to the Web server in correct format such as number, email, postcode, and date.

However, JavaScript validation should be considered an assistance more to your users than to your websites because hackers can quite easily simulate your web forms and submit any data of their choosing.

Another reason you cannot rely on JavaScript to perform all your input validation is that some users disable JavaScript, or use browsers that don't support it.

The following example create a general sign-up form, common on most sites that offer memberships or registered users. The inputs requested will be forename, surname, username, password, age, and email address.

Example:

```
<!DOCTYPE html>
<html>
<head>
<title>An Example Form</title>

<script>
function validate(form)
{
    fail = validateForename(form.forename.value)
    fail += validateSurname(form.surname.value)
    fail += validateUsername(form.username.value)
    fail += validatePassword(form.password.value)
    fail += validateAge(form.age.value)
    fail += validateEmail(form.email.value)
    if (fail == "")
        return true
    else { alert(fail); return false }
}

function validateForename(field) {
    return (field == "") ? "No Forename was entered.\n" :
    ""
}

function validateSurname(field) {
    return (field == "") ? "No Surname was entered.\n" :
    ""
}
```

```

function validateUsername(field) {
    if (field == "")
        return "No Username was entered.\n"
    else if (field.length < 5)
        return "Usernames must be at least 5
characters.\n"
    else if (/^[^a-zA-Z0-9_-]/.test(field))
        return "Only a-z, A-Z, 0-9, - and _ allowed in
Usernames.\n"
    return ""
}

function validatePassword(field) {
    if (field == "")
        return "No Password was entered.\n"
    else if (field.length < 8)
        return "Passwords must be at least 6
characters.\n"
    else if (!/[a-z]/.test(field) || !/[A-
Z]/.test(field) || !/[0-9]/.test(field))
        return "Passwords require one each of a-z, A-Z and
0-9.\n"
    return ""
}

function validateAge(field) {
    if (isNaN(field))
        return "No Age was entered.\n"
    else if (field < 18 || field > 110)
        return "Age must be between 18 and 110.\n"
    return ""
}

```

```

function validateEmail(field) {
    if (field == "")
        return "No Email was entered.\n"
    else if (!((field.indexOf(".") > 0) &&
(field.indexOf("@") > 0)) ||
/^[^a-zA-Z0-9._-]/.test(field))
        return "The Email address is invalid.\n"
    return ""
}

</script>
</head>
<body>
<form method="post" action="adduser.php"
onsubmit="return validate(this)">

<table border="0" cellpadding="2" cellspacing="5"
bgcolor="#eeeeee">
    <th colspan="2" align="center">Signup Form</th>
    <tr><td>Forename</td>
    <td><input type="text" maxlength="32"
name="forename" ></td></tr>
    <tr><td>Surname</td>
    <td><input type="text" maxlength="32"
name="surname"></td></tr>
    <tr><td>Username</td>
    <td><input type="text" maxlength="16"
name="username"></td></tr>
    <tr><td>Password</td>
    <td><input type="text" maxlength="12"
name="password"></td></tr>

```

JAVASCRIPT

```
<tr><td>Age</td>
<td><input type="text" maxlength="3"
name="age"></td></tr>
<tr><td>Email</td>
<td><input type="text" maxlength="64"
name="email"></td></tr>
<tr><td colspan="2" align="center">
<input type="submit" value="Signup">
</td></tr>
</table>
</form>
</body>
```

Between the `<script>` and `</script>` tags lies a single function called **validate**(form) that itself calls up six other functions to validate each of the form's input fields.

The function return either an empty string if a field validates, or an error message if it fails. If there are any errors, the final line of the script pops up an alert box to display them.

If it returns false, the form is prevented from being submitted.

It produces the following page when user click the Signup button.

The screenshot shows a web page with a 'Signup Form' and an alert box. The form has fields for Forename (filled with 'Johan'), Surname, Username, Password, Age, and Email, followed by a 'Signup' button. An alert box titled 'localhost says' is displayed, containing the following error messages: 'No Surname was entered.', 'No Username was entered.', 'No Password was entered.', 'Age must be between 18 and 110.', and 'No Email was entered.'. There is an 'OK' button in the bottom right corner of the alert box.