

JavaScript

1. Email Validation using JS

```
<!DOCTYPE html>
<html>

<head>
  <script>
    function ValidateEmail() {
      var inputText = document.forms["myForm"]["email"].value
      var mailformat = /^\\w+([\\.-]?\\w+)*@\\w+([\\.-]?\\w+)*(\\.\\w{2,3})+$/;
      if (inputText.match(mailformat)) {
        return true;
      }
      else {
        alert("You have entered an invalid email address!");
        return false;
      }
    }
  </script>
</head>

<body>

  <form name="myForm" action="" onsubmit="return ValidateEmail()" method="post">
    Email: <input type="text" name="email">
    <input type="submit" value="Submit">
  </form>
</body>
</html>
```

2. Form Validation on Submit

```
<!DOCTYPE html>
<html>
<head>
<script>
function validateForm() {
    var x = document.forms["myForm"]["fname"].value;
    if (x == "") {
        alert("Name must be filled out");
        return false;
    }
}
</script>
</head>
<body>

<form name="myForm" action="/action_page.php" onsubmit="return validate
    Name: <input type="text" name="fname">
    <input type="submit" value="Submit">
</form>

</body>
</html>
```

3. Different Between Attributes and properties

- When the browser loads the page, it “reads” (another word: “parses”) the HTML and generates DOM objects from it. For element nodes, most standard HTML attributes automatically become properties of DOM objects.
- For instance, if the tag is `<body id="page">`, then the DOM object has `body.id="page"`.
- Non-standard attributes are not converted into object property directly.
- Properties are related to DOM's Object
- Attributes are written in HTML
- Methods to work with attributes are:
 - `elem.hasAttribute(name)` – to check for existence.
 - `elem.getAttribute(name)` – to get the value.
 - `elem.setAttribute(name, value)` – to set the value.
 - `elem.removeAttribute(name)` – to remove the attribute.
 - `elem.attributes` - is a collection of all attributes.