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JavaScript with HTML and JS Event Handling

Objectives

After completing this lesson, you should be able to do the following:

- Create HTML5 documents
- Create HTML5 forms to request information and process it
- Validate HTML5 forms input
- Write JavaScript functions for HTML5 events
- Manipulate HTML5 elements through DOM

Topics

- HTML5 Documents
- HTML5 Forms
 - Reading Data from Forms
 - Validating HTML5 Form Input
 - Sending Data from Forms
- Controlling HTML5 Events with JavaScript
 - Writing `onClick` Events
- Document Object Model (DOM)



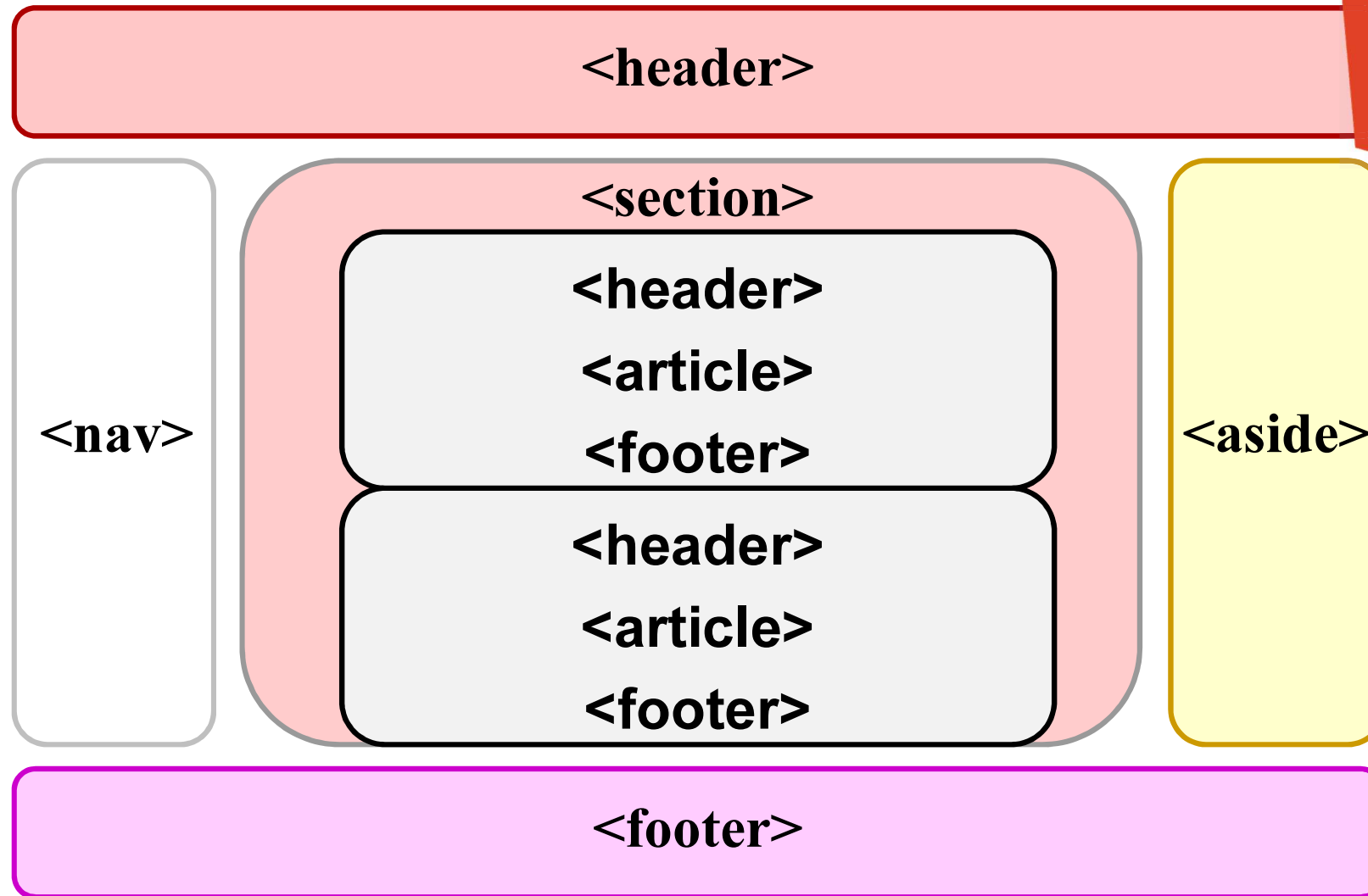
HTML5 Documents

Basic HTML5 Structure:

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>My HTML5 page</title>
    <link rel="stylesheet" href="styles.css">
    <script src="script.js"></script>
  </head>
  <body>
    <h1>My first HTML5 page</h1>
    <p>This is a paragraph</p>
    <!-- comment -->
  </body>
</html>
```



HTML5 Sections



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Speakers

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Reading Data from HTML5 Forms

Name: (required)

Email: (required)

Telephone:

Abstract: (required)

Or you can send us a document with the abstract:

No file selected.

The form Elements

```
<form name="proposalForm" action="#">
  <fieldset>
    <p>
      <label for="name">Name: (required)</label>
      <input type="text" name="name" id="name">
    </p>
    <p>
      <label for="email">Email: (required)</label>
      <input type="email" name="email" id="email">
    </p>
    <p>
      <label for="telephone">Telephone:</label>
      <input type="tel" name="telephone" id="telephone">
    </p>
    <p><label for="abstract">Abstract: (required)</label></p>
    <textarea rows="5" cols="80" name="abstract" id="abstract"></textarea>
    <p><label for="file">Or you can send us a document with the
      abstract:</label></p>
    <input type="file" name="file" id="file">
    <p><input type="submit" name="submit" value="submit"></p>
  </fieldset>
</form>
```


input Attributes

- `<input type="text" maxlength="30">`:

A screenshot of a text input field. The text inside the field is "I cannot write > 30 characters".

- `<input type="text" value="You cannot write here" readonly>`:

A screenshot of a text input field. The text inside the field is "You cannot write here".

- `<input type="text" list="suggestions">`

`<datalist id="suggestions">`

`<option value="Maybe this entry">`

`<option value="Or this one">`

`</datalist>`

A screenshot of a text input field with a dropdown menu. The dropdown menu is open and shows two suggestions: "Maybe this entry" and "Or this one".

- `Email:(required) = "email@example.com">`:

Validating HTML5 Form Input

Name: (required)

Email: (required)

Telephone:

Abstract: (required)

Please fill out this field.

Name: (required)

Email: (required)

Telephone:

Abstract: (required)

Please enter an email address.

Sending Data from Forms

```
<form action="/JSConsole/FormSubmissionServlet" name="proposalForm"
method="post" enctype="multipart/form-data">
  <fieldset>
    <label for="name">Name: (required)</label>
    <input type="text" name="name" id="name">
    <label for="email">Email: (required)</label>
    <input type="email" name="email" id="email">
    <label for="telephone">Telephone:</label>
    <input type="tel" name="telephone" id="telephone">
    <label for="abstract">Abstract: (required)</label>
    <textarea rows="5" cols="80" name="abstract"
      id="abstract"></textarea>
    <label>Or you can send us a document with the
    abstract:</label>

    <input type="file" name="file" multiple>
    <input type="submit" name="submit" value="submit">
  </fieldset>
</form>
```

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Controlling HTML5 Events with JavaScript

1. Event handling in HTML elements using attributes:

```
<section id="section-1" onclick="showSpeakersBanner()">
```

2. Event handling from JavaScript and DOM:

```
document.getElementById("section-2").onclick =  
    showWorkshopBanner;
```

3. Event handling by adding an event listener:

```
window.addEventListener("load", function() {  
    alert("Window load event listener fired!");  
}, false);
```

```
document.getElementById("headerProposal").addEventListener(  
    "click", showAbstractBanner, false);
```

