

Introduction to HTML5



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HTML5 New Features

- There **are new tags** for the structure of HTML5 documents
- New **type attributes** for HTML5 tags
- New **validation attributes and regular expressions** for HTML5 tags
- **Browser storage (local and session)**
- Audio and Video support

HTML5 New Features

- **New** <!DOCTYPE> declaration

Lets the browser knows how to render response (<!DOCTYPE html> means HTML5)

OLD

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

NEW

```
<!DOCTYPE html>
```

HTML5 New Features

- Default type for script tag is text/javascript

```
<script src="{jqueryjs}" ></script>
```

- No need to define type for link tag is text/css

```
<link href="{bootstrap}" rel="stylesheet" />
```

HTML5 Useful Web Sites

- [**https://html5test.com/**](https://html5test.com/)
- [**http://www.w3.org/TR/html5-diff/**](http://www.w3.org/TR/html5-diff/)

HTML5 New Features, Tags and Attributes

- New **structural elements** for page layout(eliminates <div> tags) such as;

<header>

<main>

<nav>

<section>

<article>

<aside>

<footer>

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HTML5 Audio and Video Content Support

- **Audio**

```
<audio controls>  
  <source src="/audio/testaudio.m4a" type="audio/mp4">  
</audio>
```

- **Video**

```
<video width="640px" height="450px">  
  <source src="/video/testvideo.mp4" type="video/mp4">  
</video>
```

HTML5 Editable Content

- You can edit HTML content with new feature

```
<article>  
  <h1>Editable Content</h1>  <div  
id="editHere" contenteditable="true">You can  
edit this text</div>  
</article>
```


HTML5 Regular Expressions

- Using pattern in input elements

```
<input name="phone"  
  pattern="([0-9]{3}[0-9]{7})"  
  title="(123)4567890"  
  style="width: 250px"/>
```

HTML5 Regular Expressions

- Using pattern in input elements

```
<input name="phone"  
        pattern="([0-9]{3}[0-9]{7})"  
        title="(123)4567890"  
        style="width: 250px"/>
```

* match the previous element zero or more time

+ match the previous element one or more time

? match the previous element zero or one time

[A-Z] range

[charactergroup]

{exact match}

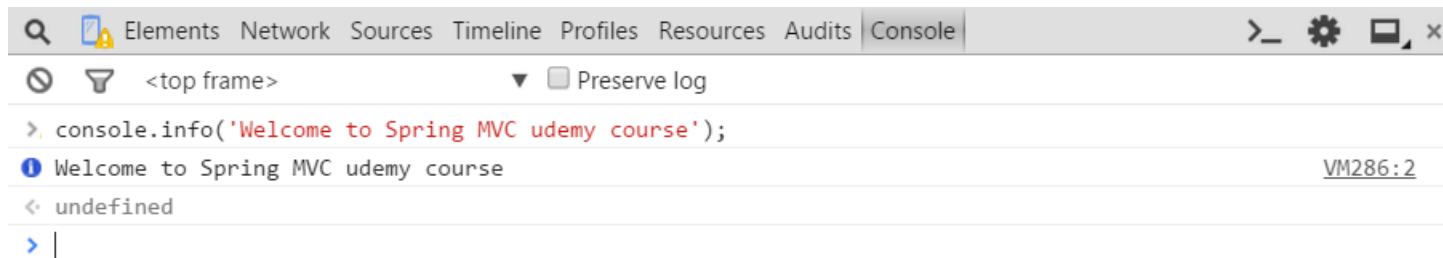
```
pattern="[s][a-z]{4}[g]"
```

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HTML5 Debug and Test



Google Developer Tools (Debug, Log and test)



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HTML5 Form Validation

- `<input required/>`
- `<input type="number" min="1" max="100"/>`
- `<input type="email" required>`
- `<input type="url">`
- `<form novalidate="novalidate">`

HTML5 The usage of LocalStorage API

- **localStorage** object can be accessed via JavaScript
data written into localStorage will be stay there even if the users close browsers
 - **sessionStorage** object is used to store data during browser session and the data will be removed if the users close browser
- examples;

```
localStorage.setItem('username','springweb');  
localStorage.getItem('username');
```