

HTML

Web Engineering
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Overview



The Web

Publishing in an open way, Sharing in a standard way, Linking in an flexible way. Collaboration, data submission User Interfaces, applications



König • King et al.

Groovy IN ACTION

516

MANNING

SECOND EDITION

THE WHOLE



USER'S GUIDE & CATALOG

A NUTSHELL®

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SGML Derivatives

Standard Generalized
Markup Language
HTML - XML - DocBook - RDF
HyperText Markup Language

HTML

<!DOCTYPE html>

Elements: <tag> content </tag>

Attributes: <tag name=value>

Entities: ö

LOOKUP

W3C Specifications, Validator W3Schools, SelfHTML (ger) html5test, caniuse

Readers

People with Browsers

Screen Readers, OS Integration

Search Engines

Web scrawlers, scrapers

Key Elements

HTML, HEAD, BODY
META, TITLE, LINK, BASE
H1, H2, H3, H4, H5, H6
P, A, DIV, SPAN, STYLE
SCRIPT

Media

FIGURE, FIGCAPTION
PICTURE, IMG, AUDIO, VIDEO
OBJECT, EMBED
CANVAS, MATH, SVG

Frames

IFRAME

FRAMESET, FRAME no longer supported in HTML5

Presentational

EM, I, STRONG, B INS, DEL, PRE, SMALL, SUB, SUP BR, HR

Collections

OL, UL DL, DT, DD TABLE, COLGROUP, COL, CAPTION, THEAD, TFOOT, TBODY, TR, TH, TD

SEMANTIC

NAV, MENU, HEADER, HGROUP, FOOTER, MAIN, ASIDE, TIME, SECTION, ARTICLE, ADDRESS, DFN, ABBR, DETAIL, LEGEND, PROGRESS, OUTPUT, SAMP

FORMS

FORM
INPUT, TEXTAREA, BUTTON,
SELECT, OPTION, OPTGROUP,
DATALIST
FIELDSET, LABEL, KEYGEN

Input types

button, checkbox, color, date, datetime-local, mail, file, hidden, image, month, number, password, radio, range, reset, search, submit, tel, text, time, url, week

Some more...

CITE, BLOCKQUTOTE, Q, AREA, BDO, CODE, RUBY, VAR, WBR, COMMAND, NOSCRIPT, TEXT, ...

Elements

Block elements: P, DIV,...

Inline elements: A, SPAN, ...

Inline elements are not allowed to have block elements inside.

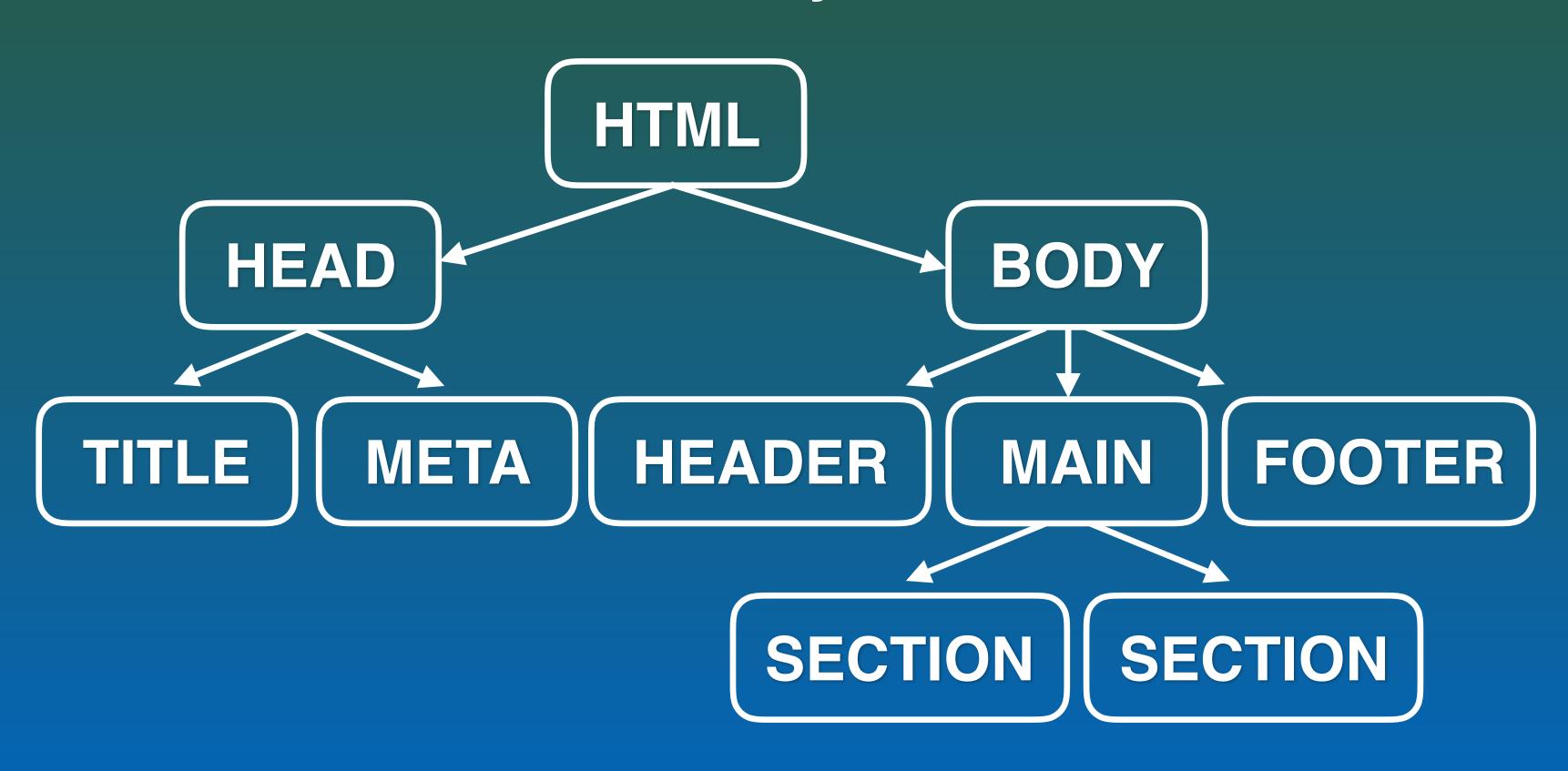
Elements

```
Some elements are self-closing:
```

```
</pr
```

```
<IMG/> (ok)
```


Document Object Model



Well-formed vs Valid

```
Well-formed:
tags syntacticly correct
Valid:
tags nested according to DTD
(document type definition)
```

Which is Which?

```
<a href="https://html></body></a>
<ht><html><body</body></html>
<span><div></div></span>
```

HTML is forgiving

Unknown tags are ignored
Unknown attributes are ignored

... and browsers display almost anything.

Meta

```
charset
http-equiv, content
name, content
author, description,
keywords, viewport
```

Global Attributes

id, class, title, lang, accesskey, tabindex, contextmenu, spellcheck, draggable, dropzone, ...

Event Attributes

```
onClick,
onMouseOver,
onChange, onInput, ...
```

Attributes

are sometimes inherited from parent to children through the DOM

Attributes

User data

data-*

Microformats

itemscope, itemtype, itemprop

More to come

Styling HTML with CSS
Programming the DOM
Dynamic creation of HTML
Protocols