



HTML

Web Engineering
Dierk König

The Web

Publishing in an open way,

Sharing in a standard way,

Linking in an flexible way.

Collaboration, data submission

User Interfaces, applications

Nilsson

ARTIFICIAL INTELLIGENCE:

A New
Synthesis

MORGAN
KAUFMANN

514

Essential **Persona Lifecycle**

With

Adlin • Pruitt

515

MORGAN
KAUFMANN

König • King
et al.



Groovy IN ACTION

516

MANNING

SECOND EDITION

Over 300,000
copies sold!

THE WHOLE INTERNET



USER'S GUIDE & CATALOG

A NUTSHELL
HANDBOOK

ED KROL

O'REILLY & ASSOCIATES, INC.

Hochverfügbarkeit

Computing

Linux I

Liebel

534

MANNING

Fisher
et al.
Spring Integration IN ACTION

538

MANNING

MongoDB The Definitive Guide

Chodorow

542

O'REILLY

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 crawlers, 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

LI

OL, UL

DL, DT, DD

TABLE, COLGROUP, COL,
CAPTION, THEAD, TFOOT,
TBODY, TR, TH, TD

SEMANTIC

NAV, MENU, HEADER,
HGROUPO, 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, BLOCKQUOTE, 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:

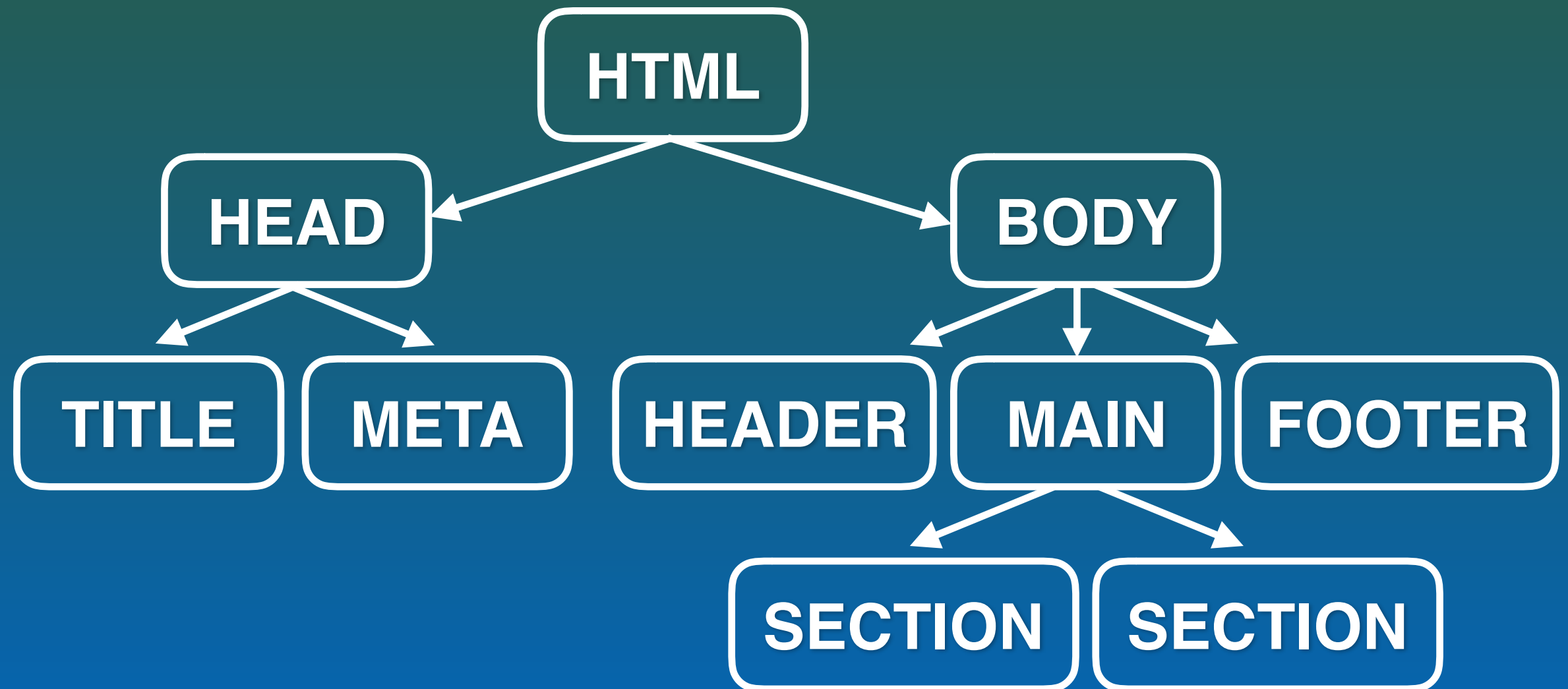
 (not allowed)

 (ok)

 (ok)

DOM

Document Object Model



Well-formed vs Valid

Well-formed:

tags syntactically correct

Valid:

tags nested according to DTD
(document type definition)

Which is Which?

<html><body></html></body>

<html><body </body></html>

<div></div>

<p>x</p>

<p>x<p>

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