



# HTML

Web Engineering

Dierk König



@ProfDKoenig

# 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**



Adlin • Pruitt

515

MORGAN KAUFMANN

König • King  
et al.



## GROOVY IN ACTION

516

MANNING

Mastering **JAVAFX 8** Controls

Ebber  
517

Oracle Press

Mc Graw Hill

518

MANNING

SECOND EDITION

# THE WHOLE INTERNET

Over 300,000  
copies sold!



## USER'S GUIDE & CATALOG

A NUTSHELL<sup>®</sup>  
HANDBOOK

ED KROL

O'REILLY & ASSOCIATES, INC.

## Hochverfügbarkeit

Computing

## Linux

Liebel

534

MANNING

Fisher  
et al.



## Spring Integration IN ACTION

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MANNING

## MongoDB The Definitive Guide

Chodorow

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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:     &ouml;

# 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

# Presentationa

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,  
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, 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:

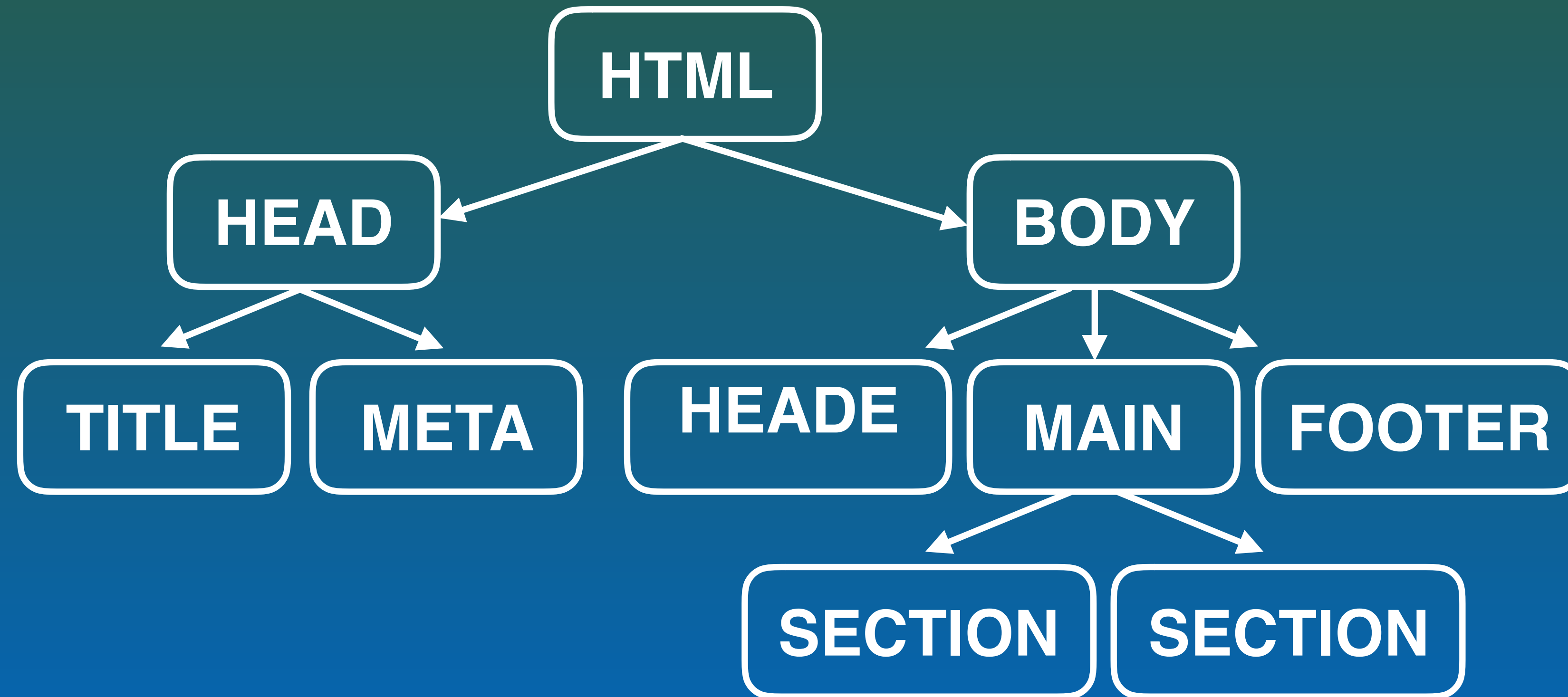
<IMG></IMG> (not allowed)

<IMG/> (ok)

<IMG> (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>

<span><div></div></span>

<p><em>x</em></p>

<p><em>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