HTML: DOM Tree

In the program

- Trees
- Vocabulary
- Dom Tree

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Trees

- Do you think that a tree is:

Trees

- This…

Trees

- Or this…

Trees

- Or this…

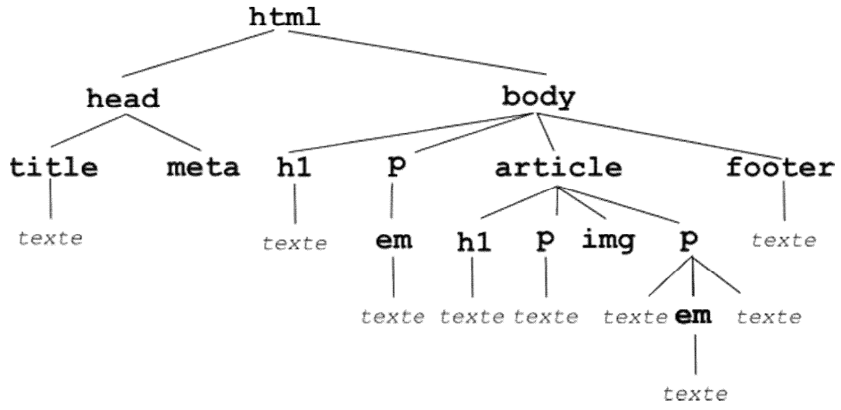
But ….

Trees

A tree is:

Trees

A tree is:



On the program

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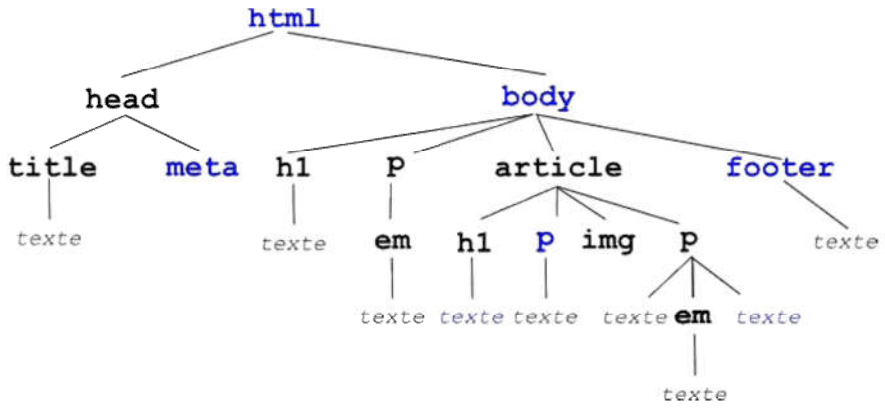
Tree vocabulary

Node

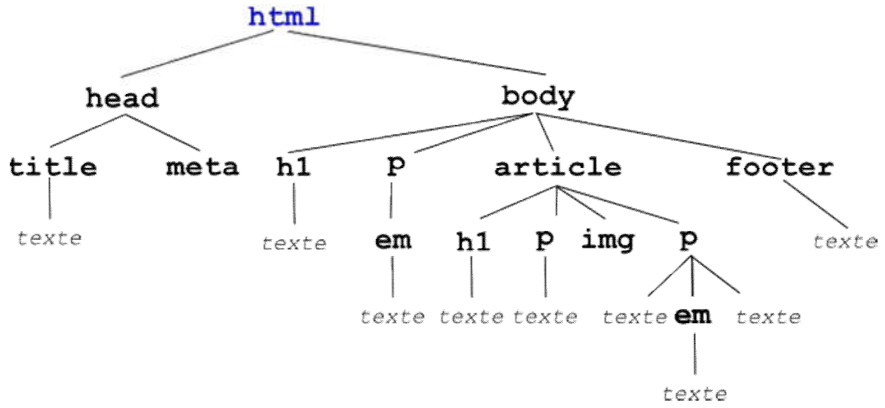
Tree nodes



Tree vocabulary

Root

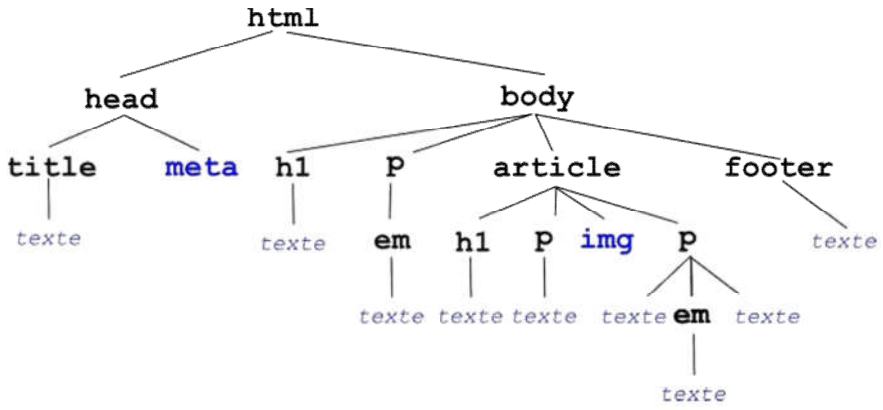
The root node of the tree



Tree vocabulary

Leaf

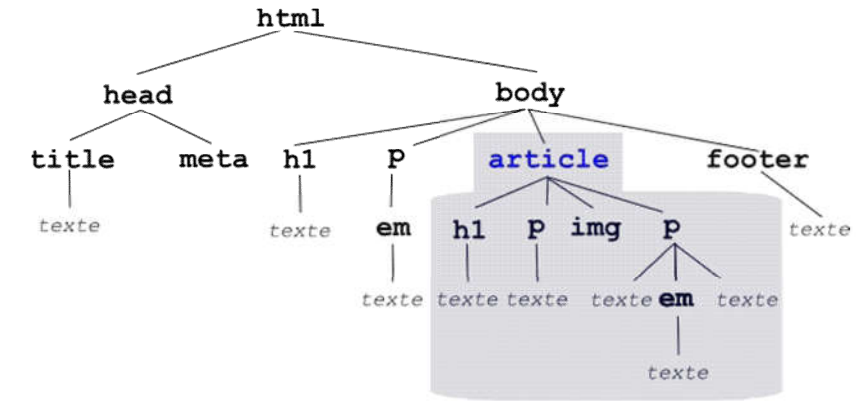
The leaf nodes of the tree



Tree vocabulary

Sub-tree

root sub-tree, the article node

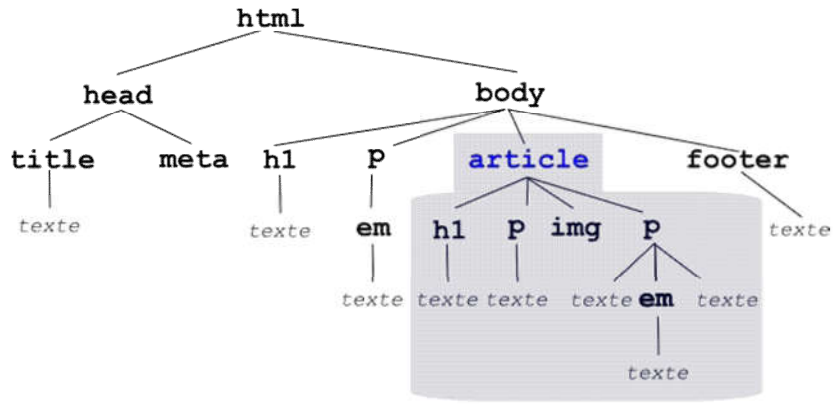


Tree vocabulary

Sub-tree and descendant

root subtree the article node.

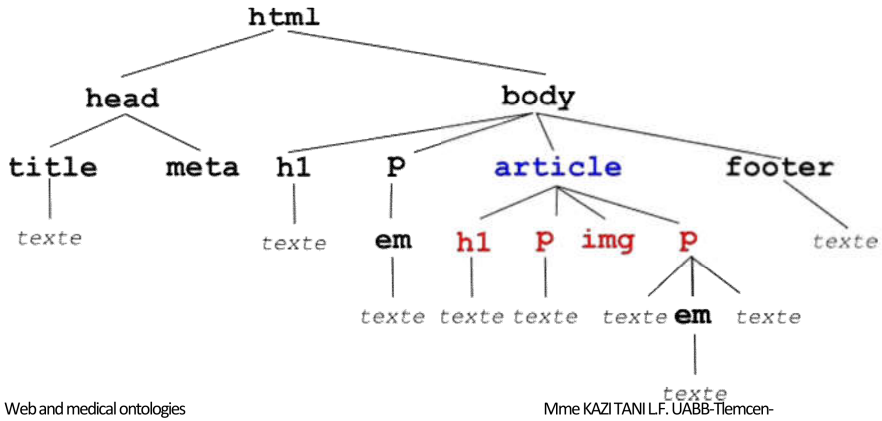
The nodes of the sub-tree are the descendants of the article node.



Tree vocabulary

Father and son

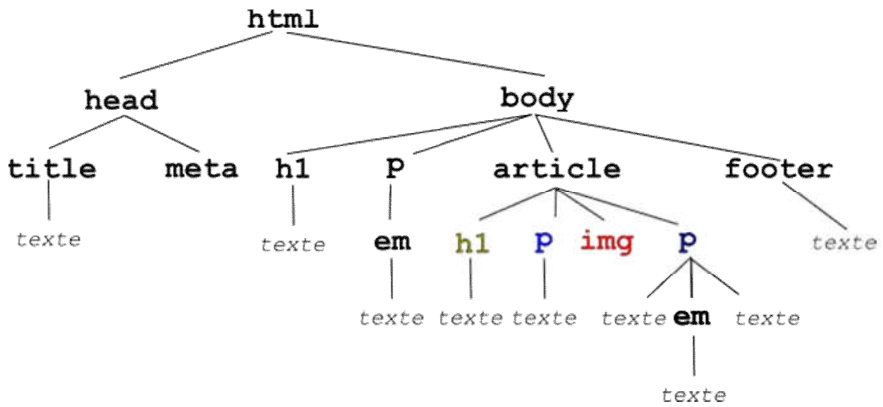
The node article is the father of nodes h1, p, img and p.



Tree vocabulary

Brothers

Nodes h1, p, img and p are brother nodes.

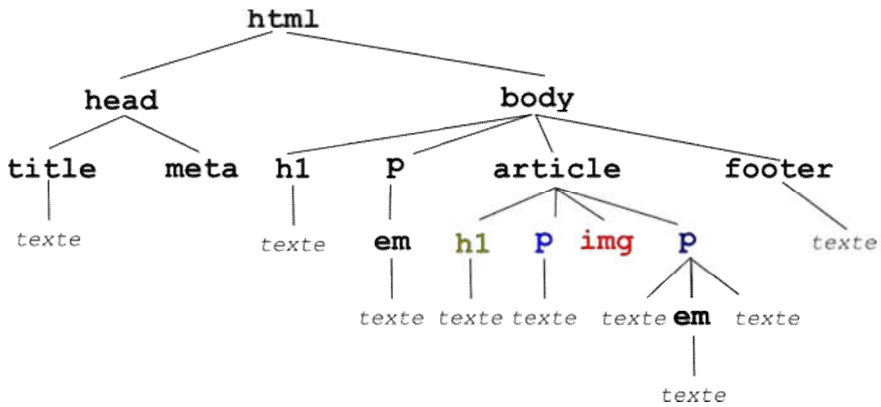


Tree vocabulary

Brothers

Nodes h1, p, img and p are brother nodes.

The img node follows the first p node preceded by the h1 node.



In the program

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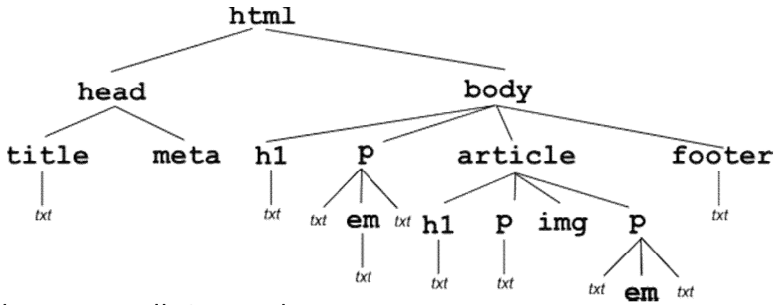
Tree structure of an HTML document

DOM Tree

The structure of an html document is represented using a tree. This is known as the DOM tree (*Document Object Model*) of the document. The nodes of the tree are the elements.



txt nodes are usually ignored.

Tree structure of an HTML document

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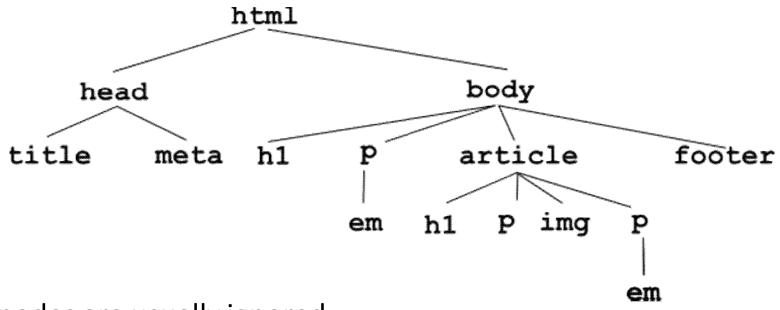

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Built the DOM Tree

Built the DOM Tree

- We browse the document sequentially

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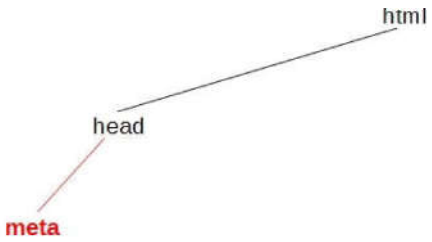
Built the DOM Tree

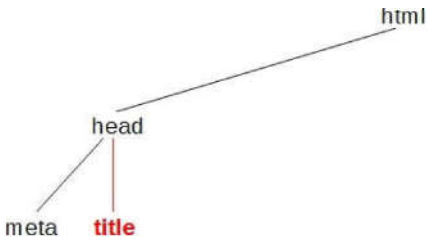
- We browse the document sequantially
- Each element being a new node
- If the <elt> element is nested in the <box> element, the node elt is the child of the box node
- The nodes of elements embedded in the same level as brothers. They follow each other "from left to right" according to the order in which they appear in the document.

Example

html


html
head


html
head
meta


html
head
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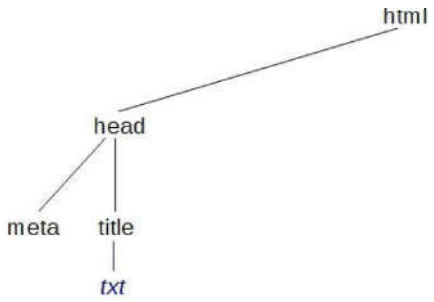
title


html
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meta
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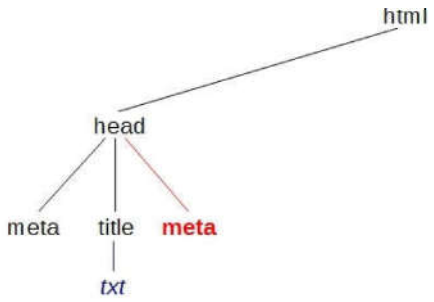
txt


html
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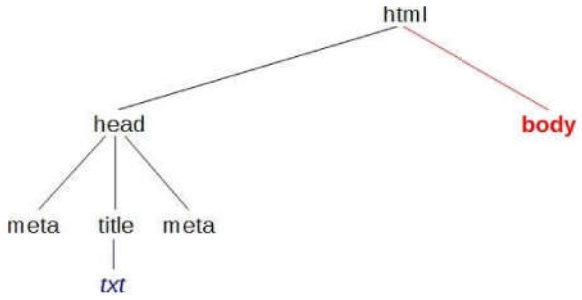
title
meta
txt


html
head
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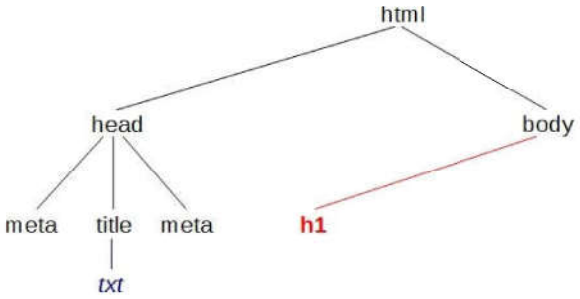
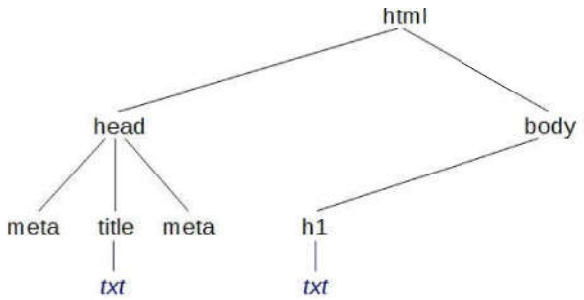
meta
txt


html
head
body
meta
title
meta
h1
txt


html
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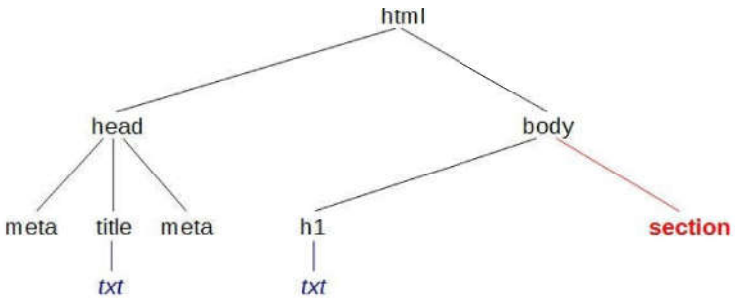
meta
title
meta
h1
txt
txt


html
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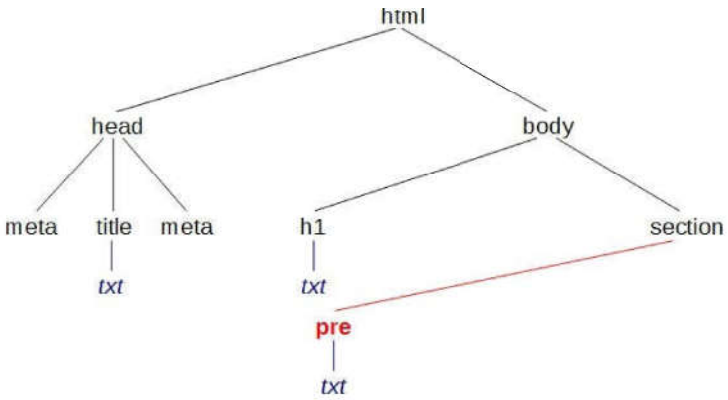
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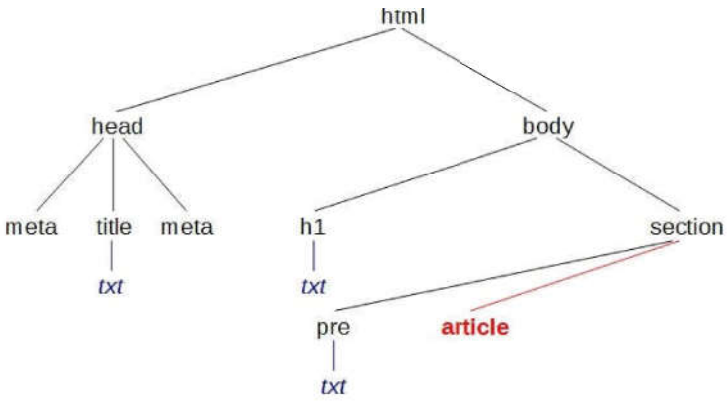
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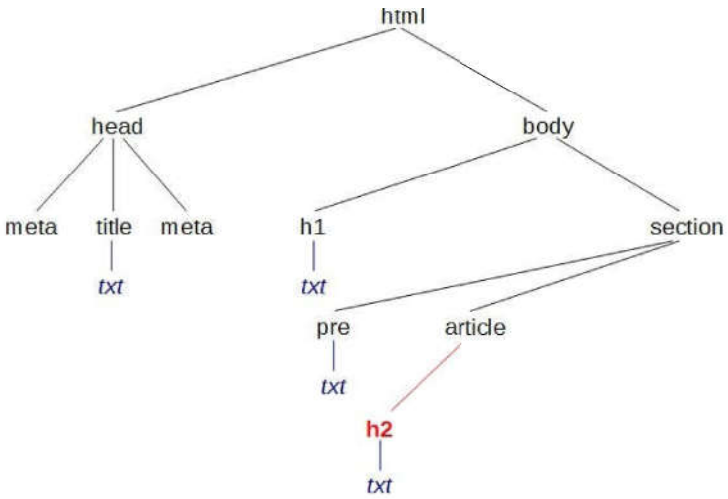
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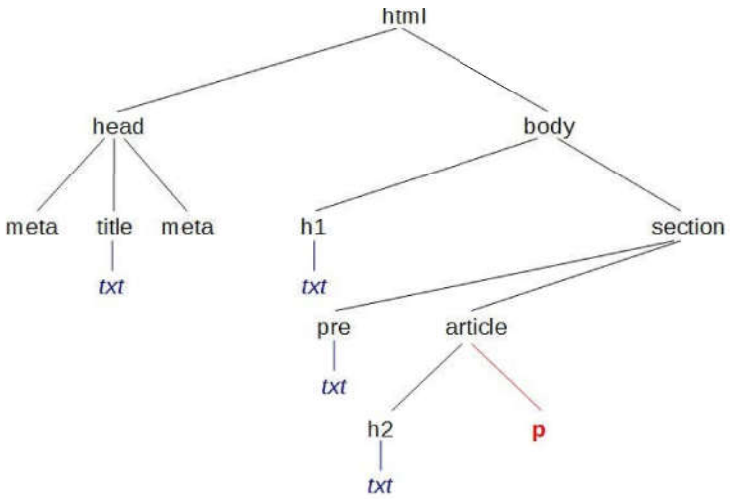
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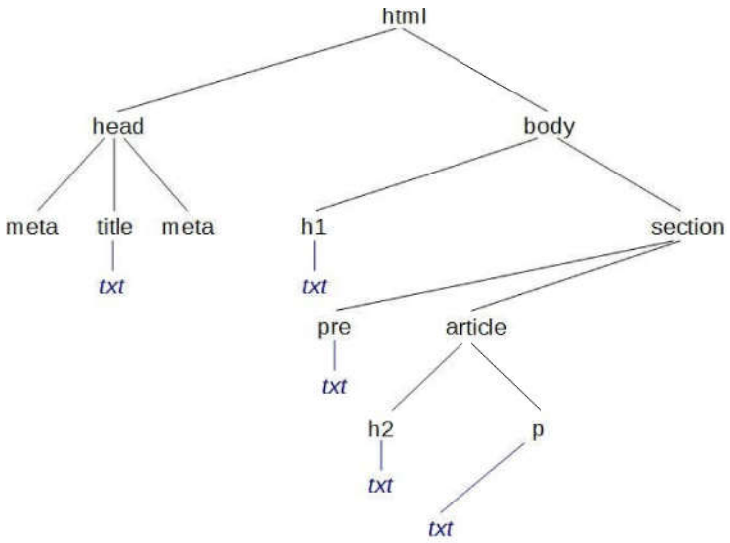
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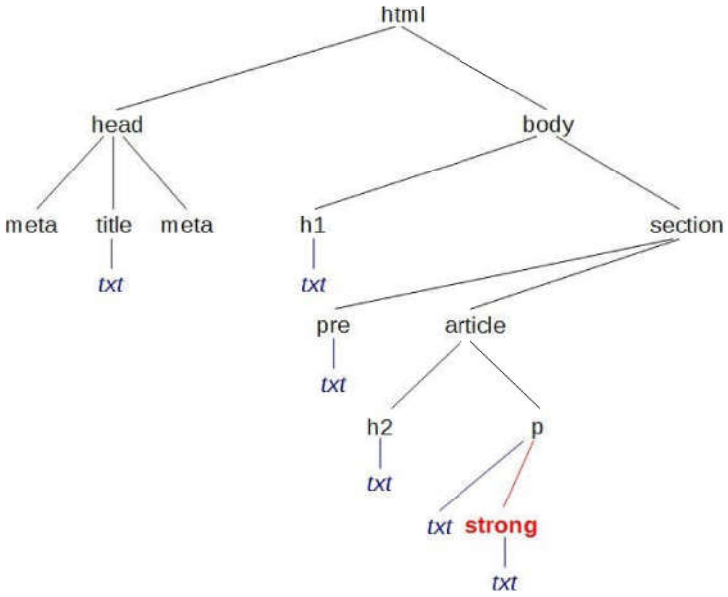
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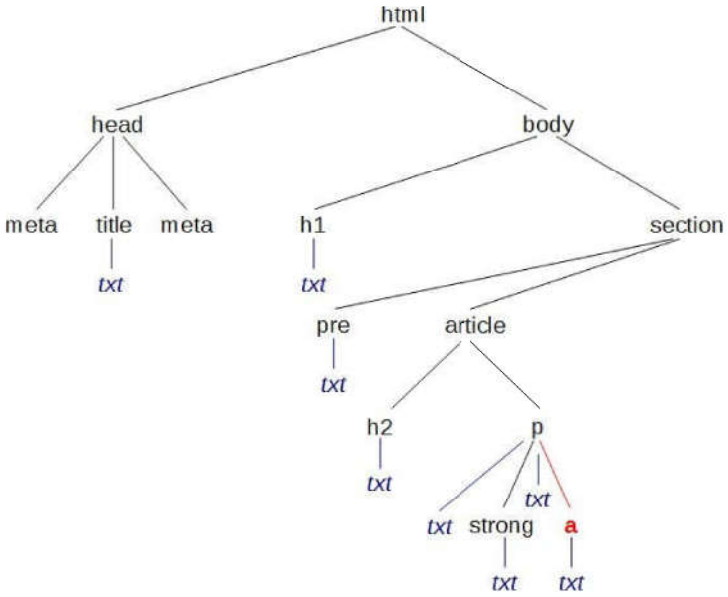
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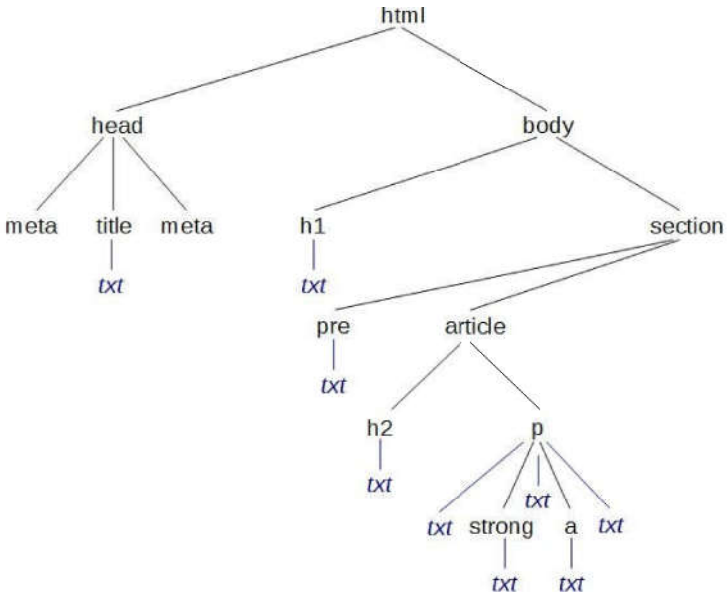
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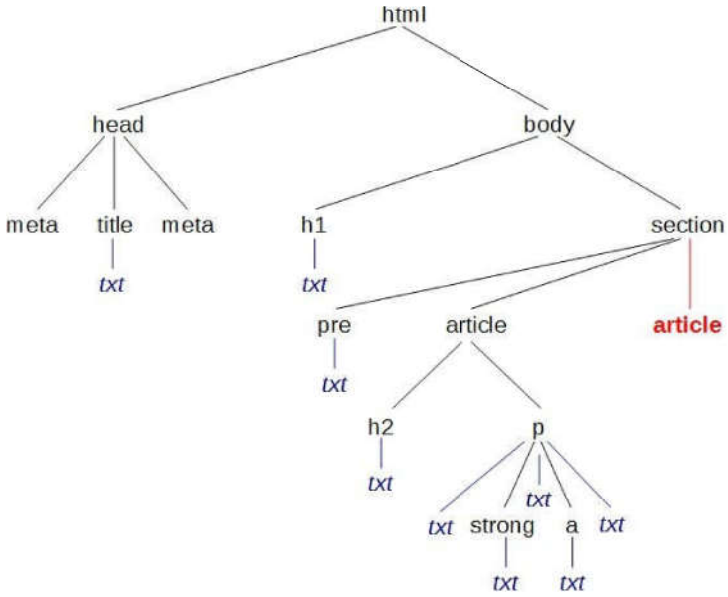
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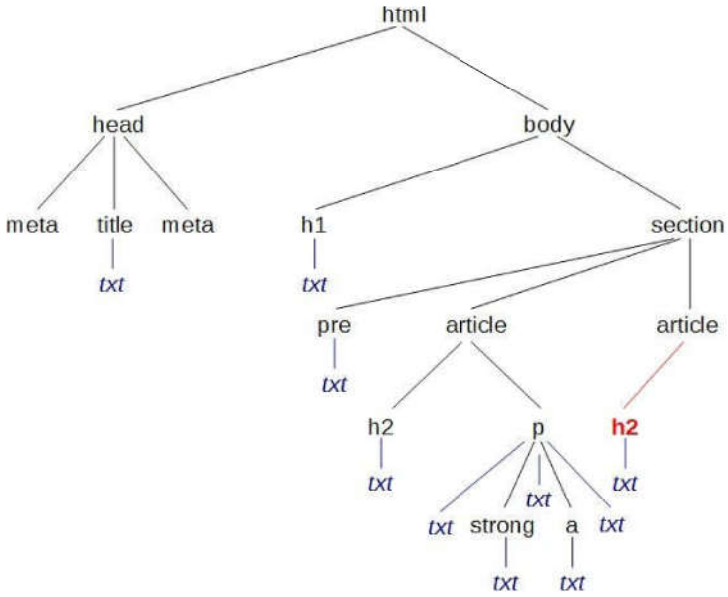
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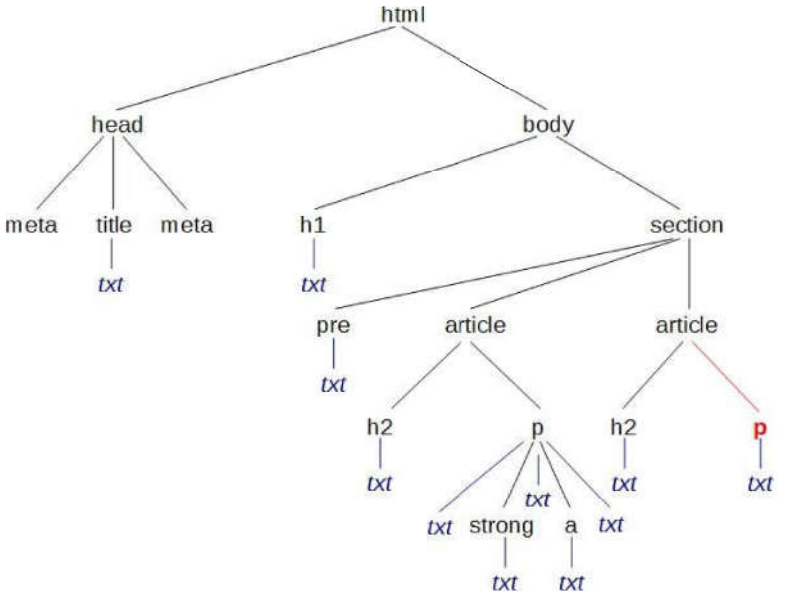
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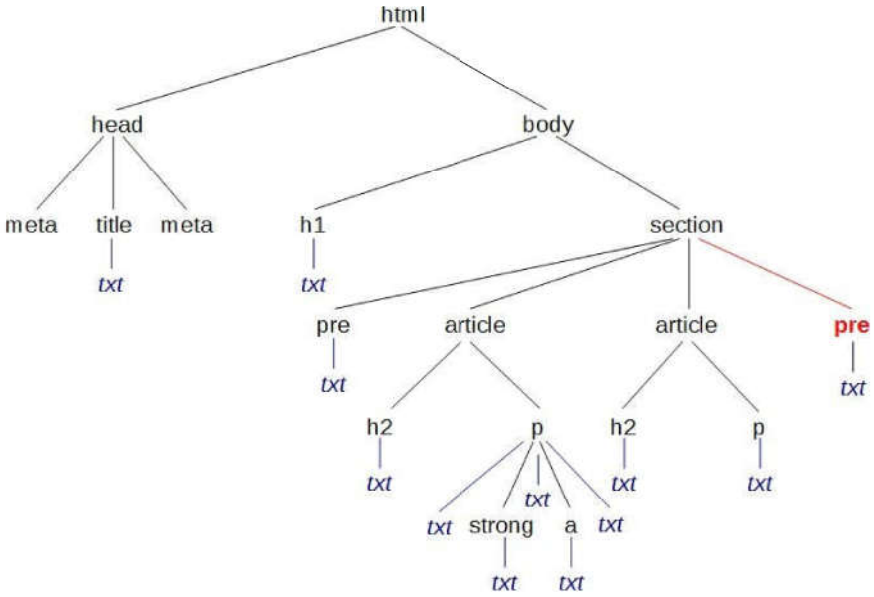
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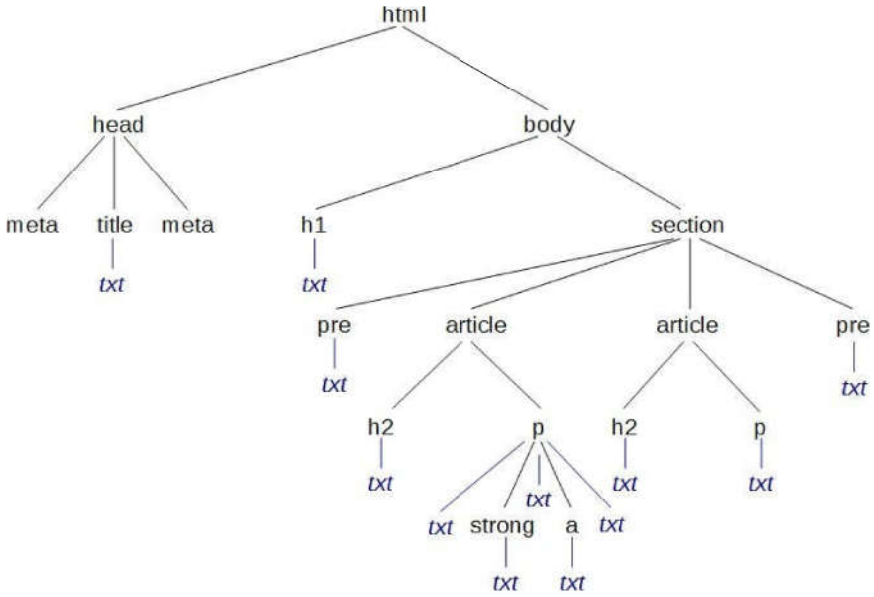
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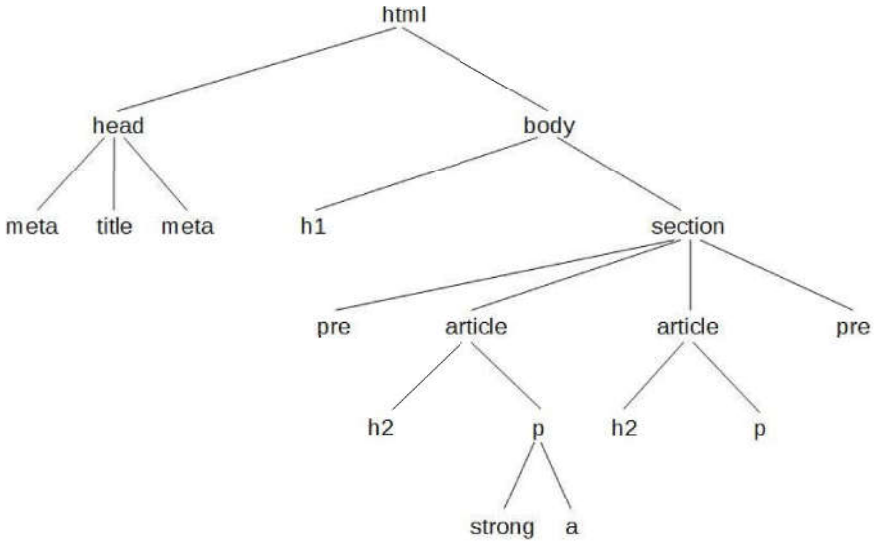
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The browser

- continuously interprets the document's DOM tree to display the page
- each element/node occupies a rectangular area of the page “box”
- any change to the DOM structure is repercussed

⇒ dynamic pages

To be continued…

CSS…