

Up to now :

History of DB approaches: - Data Models  
 High-level concepts - Query Languages

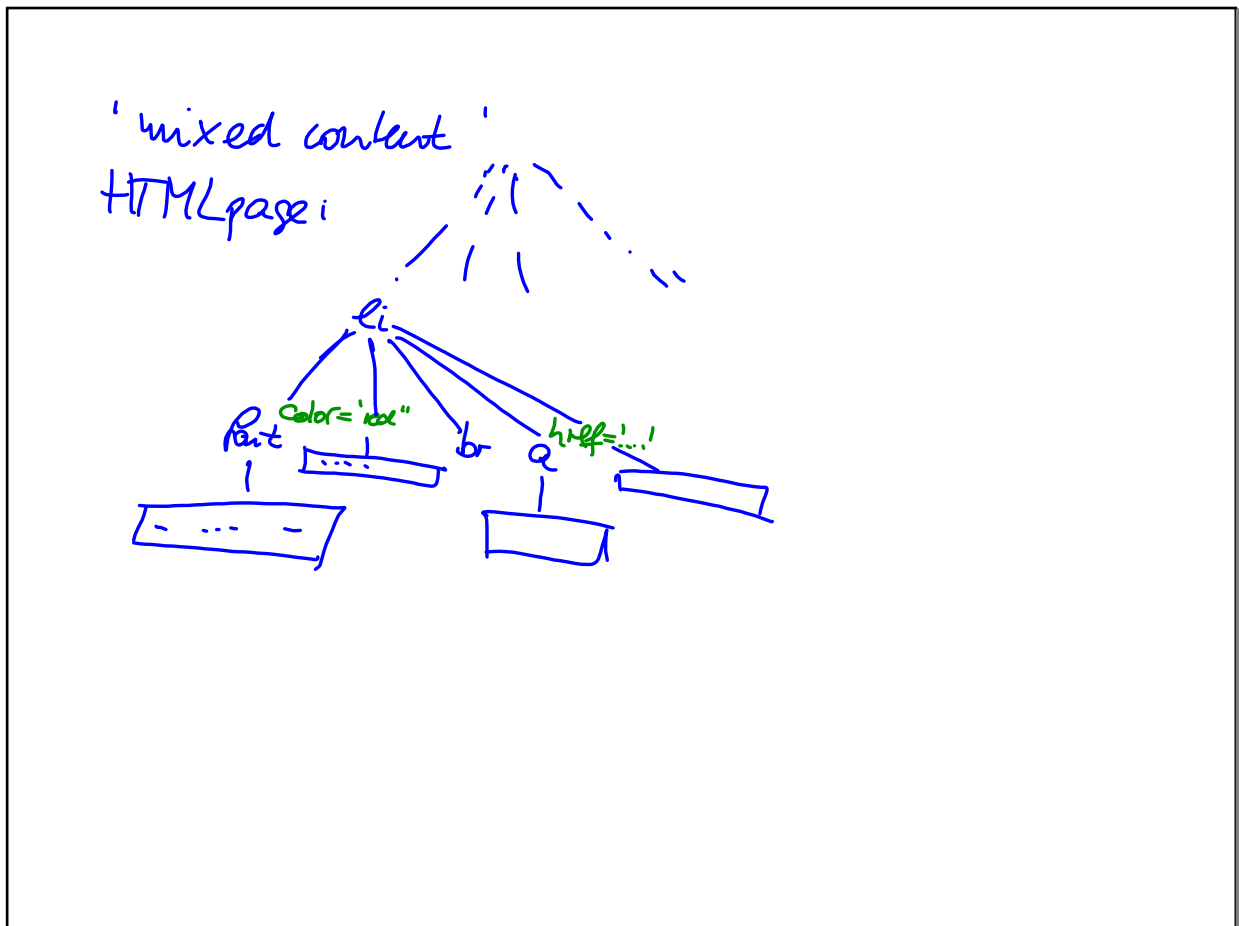
⇒ ideas, requirements and  
high-level solutions + concepts for XML

⇒ make a working approach out of that

⇒ employ lower-level /  
 { underlying } concepts of CS  
 { theoretical }

- trees
- tree grammars
- regular expressions
- tree traversal, depth-first...
- parsing, classical grammars
- finite state automata

lecture ⇒ repetition of CS I concepts  
 exercise  
 practical application



empty element: `<br />`

`<border country='F' length='451' />`

Content:

`<td> </td>`

element with empty contents

SAX parser + query annotation:

`Country [ // city [ population > 1 000 000 ] / name ]`  
 Annotations: `[last()]`, `[position() = max(.. / population / position())]`, `/text()`

keep storage: ~~'Albania'~~

'Greece'

'Serbia'

..... → output 'Serbia'

→ output 'France'

"22763" > "1590000"