Project Proposal

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Background

This project comes from the list of project ideas from the course syllabus:

> *XPath Evaluator: This will be a pedagogical tool aimed at helping students understand the use of XPath. The objective of the project will be to develop a stand tool that can be integrated with a web browser to evaluate XPath Expressions.*

Introduction to the Project

- Pedagogical tool

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- Dynamic visualization of XPath queries

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- Pedagogical tool
- Dynamic visualization of XPath queries
- It will be badass.

Approach

Client	**Server**
User selects XML file to use	
	Graphical representation of the XML is generated
User inputs XPath, which is sent to the server on a per-token basis	
	Identifiers of elements selected by individual subexpression are returned to the client
The browser highlights the elements and corresponding expressions	

Exclusions

What is not included in my project? Well...

- The parts of XPath that I think are
  - (a) not that useful and
  - (b) a pain to implement.
- Anything else that I think a proper academic wouldn't do. For example:
  - Cross browser support
  - Q.A.

Papers/Resources

I plan to read a lot of papers...
They wouldn't all fit on here, so here are my favorites:

Wenfei Fan Michael Benedikt and Gabriel Kuper.
Structural properties of XPath fragments.
Theoretical Computer Science, 336(1):3–31, May 2005.

Kian Win Ong Qun Chen, Andrew Lim and Jiqing Tang.
Indexing XML documents for XPath query processing in external memory.
Data & Knowledge Engineering, 59(3):681–699, Decemeber 2006.

Mark Scardina and Jinyu Wang.
Building an XPath-powered framework for XML data processing.
In *XML 2004 Proceedings*, 2004.

Timeline

Week	Goals [Tasks]
4.5th	Templates of reports Finding suitable XML with DTDs
5th	Parsing XML into datastructure Parsing XPath by token
6th	Visual display of XML elements
7th	Connect XPath & XML
8th	*Margin of Error*
9th	Final features
10th	*Margin of Error*