

HTML Fundamentals

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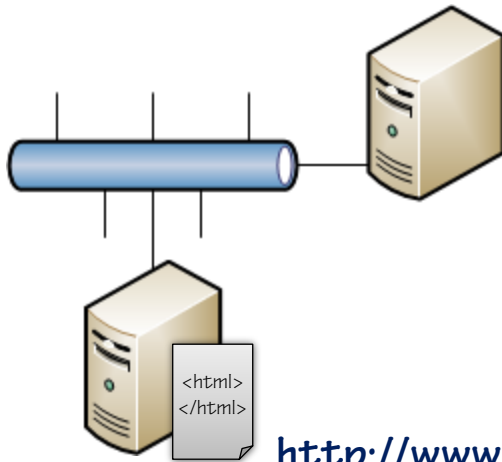


Outline

- HTML history
- An HTML document
- HTML and browsers

HTML history

- The internet
- The world wide web (WWW)
 - HTML
 - URI / URL
 - HTTP



<http://www.pluralsight.com/index.html>



HTML documents

- HTML was created to share research documents
 - Text, data, images, all linked together
- HTML is a markup language
 - Meant to be processed by a client application (browser)

```
<html>
  <body>
    <h1>Semantic web</h1>
    ...
  </body>
</html>
```



The screenshot shows the 'SEMANTIC WEB' page from W3C. It features a navigation bar with links to 'technology topics', 'news', and 'upcoming events and talks'. The main content area discusses the 'Web of data' and the 'Web of linked data'. Below the main text, there are three columns of related topics: 'Linked Data', 'Vocabularies', and 'Query'.

SEMANTIC WEB

On this page → technology topics • news • upcoming events and talks

In addition to the classic "Web of documents" W3C is helping to build a technology stack to support a "Web of data," the sort of data you find in databases. The ultimate goal of the Web of data is to enable computers to do more useful work and to develop systems that can support trusted interactions over the network. The term "Semantic Web" refers to W3C's vision of the Web of linked data. Semantic Web technologies enable people to create data stores on the Web, build vocabularies, and write rules for handling data. Linked data are empowered by technologies such as RDF, SPARQL, OWL, and SKOS.

Linked Data

The Semantic Web is a Web of data — of dates and titles and part numbers and chemical properties and any other data one might conceive of. RDF provides the foundation for publishing and linking your data. Various technologies allow you to embed data in documents (RDFa, GRDDL) or expose what you

Vocabularies

At times it may be important or valuable to organize data. Using OWL (to build vocabularies, or "ontologies") and SKOS (for designing knowledge organization systems) it is possible to enrich data with additional meaning, which allows more people (and more machines) to do more with the

Query

Query languages go hand-in-hand with databases. If the Semantic Web is viewed as a global database, then it is easy to understand why one would need a query language for that data. SPARQL is the query language for the Semantic Web.

Anatomy of an HTML document

- **doctype** – declaration of standards compliance
- **html** – Root element
- **head** – Document metadata
 - Used by browsers and search engines
- **body** – Document data
 - Displayed to the users by the client browser

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
    "http://www.w3.org/TR/html4/strict.dtd">
<html>
  <head>
    <title>My first page</title>
  </head>
  <body>
    <h1>Important heading</h1>
    text, data, links, etc.
  </body>
</html>
```

<head> - metadata

<title>

- The title of the document

<meta>

- includes metadata such as keywords

<script>

- includes script for interactive pages

<style>

- define styles to apply to body elements

<link>

- Directive indicating related documents

<base>

- defines the base address for all relative links on the page

<body> - data

Headings

Text

Lists

Links

Tables

Images / objects

Summary

- **HTML = HyperText Markup Language**
- **HTTP = protocol used to exchange documents**
- **URI/URL = the unique address of a particular document**
- **Useful links**
 - <http://validator.w3.org/>
 - <http://www.w3.org/QA/2002/04/valid-dtd-list.html>