

Web Programming - Overview (1A)

- HTML
- CSS
- Javascript

Copyright (c) 2012 Young W. Lim.

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.2 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled "GNU Free Documentation License".

Please send corrections (or suggestions) to youngwlim@hotmail.com.

This document was produced by using OpenOffice and Octave.

Editor

Text Editor

NotePad, EditPlus, AcroEdit, UltraEdit
Vi, Emacs,

Word Processor

Mircrosoft Office Word, Hancorn HanWord – WYSIWYG
LaTex – Markup Language

LaTeX Example

```
\documentclass[12pt]{article}
\usepackage{amsmath}
\title{\LaTeX}
\date{}
\begin{document}
  \maketitle
  \LaTeX{} is a document preparation system for the \TeX{}
  typesetting program. It offers programmable desktop publishing
  features and extensive facilities for automating most aspects of
  typesetting and desktop publishing, including numbering and
  cross-referencing, tables and figures, page layout, bibliographies,
  and much more. \LaTeX{} was originally written in 1984 by Leslie
  Lamport and has become the dominant method for using \TeX; few
  people write in plain \TeX{} anymore. The current version is
  \LaTeXe.

  % This is a comment; it will not be shown in the final output.
  % The following shows a little of the typesetting power of LaTeX:
  \begin{align}
    E &= mc^2 && \backslash \\
    m &= \frac{m_0}{\sqrt{1-\frac{v^2}{c^2}}} && \backslash
  \end{align}
\end{document}
```

LaTeX

LaTeX is a document preparation system for the TeX typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more. LaTeX was originally written in 1984 by Leslie Lamport and has become the dominant method for using TeX; few people write in plain TeX anymore. The current version is LaTeX 2_ε.

$$E = mc^2 \quad (1)$$

$$m = \frac{m_0}{\sqrt{1 - \frac{v^2}{c^2}}} \quad (2)$$

Markup Language

Well-known document markup languages

TeX, LaTeX – a format for describing complex type and page layout often used for mathematics, technical, and academic publications.

HyperText Markup Language (HTML) – the original markup language that was defined as a part of implementing World Wide Web, an ad hoc defined language inspired by the meta format SGML and which inspired many other markup languages.

Extensible HyperText Markup Language (XHTML): HTML reformulated in XML syntax.

Mathematical Markup Language (MathML)

Scalable Vector Graphics (SVG)

Extensible 3D (X3D)

Metalanguages

Standard Generalized Markup Language (SGML) – a standard pattern for markup languages to which HTML and DocBook adhere.

Extensible Markup Language (XML) – a newer standard pattern for markup languages; a restricted form of SGML that is intended to be compatible with it.

HTML Editor and Browser

EditPlus

Emacs, Vim

BlueFish

CompoZer

Internet Explorer

Chrome

Firefox

Opera

HyperText

Reference

WWW (World Wide Web)

HyperText Transfer Protocol (HTTP)

The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web.

Hypertext is a multi-linear set of objects, building a network by using logical links (the so-called hyperlinks) between the nodes (e.g. text or words). HTTP is the protocol to exchange or transfer hypertext.

Client request

```
GET /index.html HTTP/1.1\r\nHost: www.example.com\r\n\r\n
```

Server response

```
HTTP/1.1 200 OK\r\nDate: Mon, 23 May 2005 22:38:34 GMT\r\nServer: Apache/1.3.3.7 (Unix) (Red-Hat/Linux)\r\nLast-Modified: Wed, 08 Jan 2003 23:11:55 GMT\r\nEtag: "3f80f-1b6-3e1cb03b"\r\nAccept-Ranges: none\r\nContent-Length: 438\r\nConnection: close\r\nContent-Type: text/html; charset=UTF-8
```


File Transfer Protocol

File Transfer Protocol (FTP) is a standard network protocol used to transfer files from one host to another host over a TCP-based network, such as the Internet.

Web Colors

R, G, B component

R – 8 bit – 2 Hexa digits

G – 8 bit – 2 Hexa digits

B – 8 bit – 2 Hexa digits

Color Names

Number System

Binary Number

Octal Number

Hexa Number

Decimal Number

Reference

References

- [1] <http://en.wikipedia.org/>
- [2] <http://www.w3schools.com/>
- [3] K.H. Koh, HTML, CSS, Javascript (in Korean)