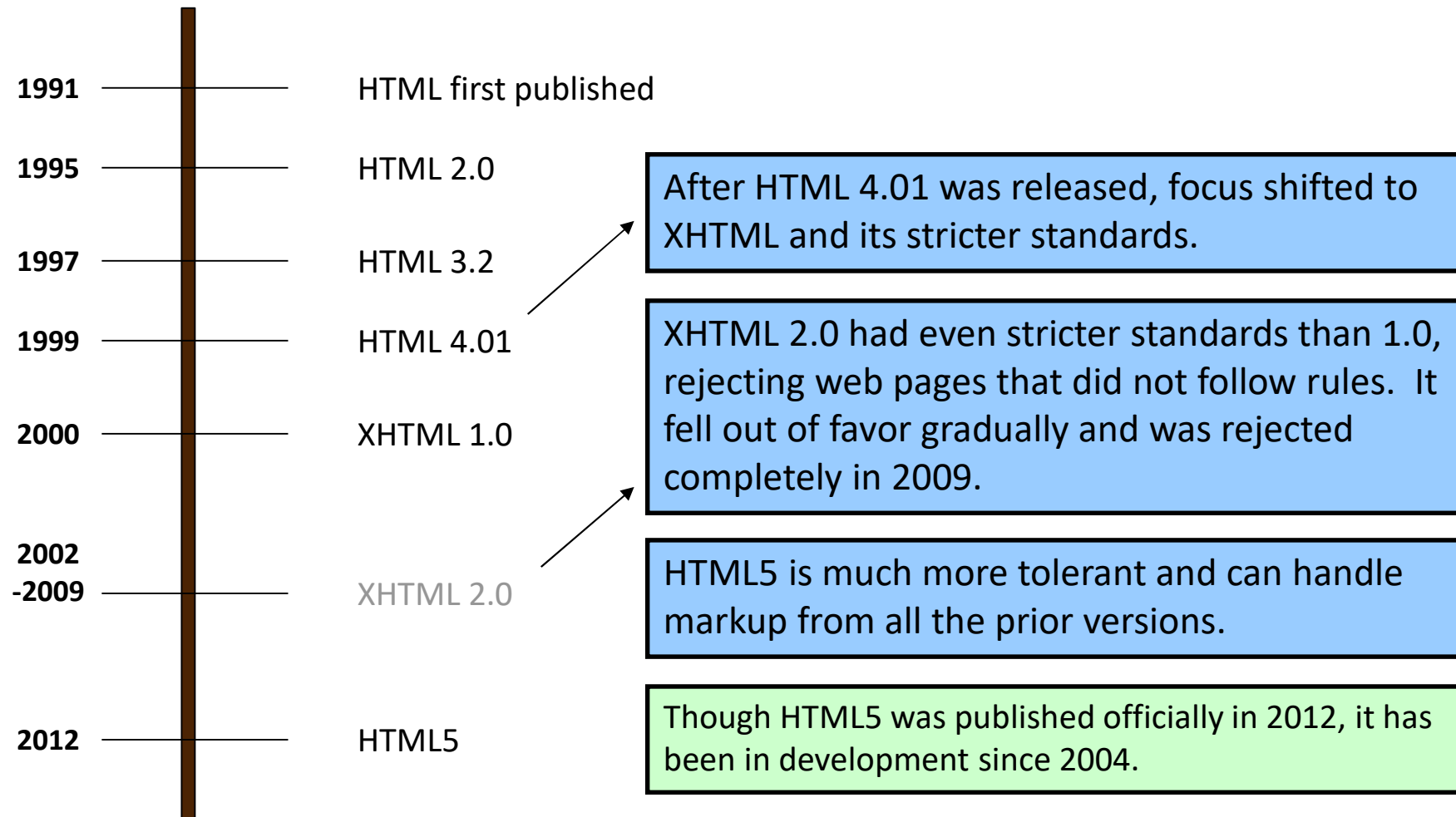


# Unit-1

# HTML

# History of HTML

---



# XHTML - Introduction

- XHTML stands for **EXtensible HyperText Markup Language**. It is the next step in the evolution of the internet. The XHTML 1.0 is the first document type in the XHTML family.
- XHTML is almost identical to HTML 4.01 with only few differences. This is a cleaner and stricter version of HTML 4.01. If you already know HTML, then you need to give little attention to learn this latest version of HTML.

# XHTML - Introduction

- XHTML was developed by World Wide Web Consortium (W3C) to help web developers make the transition from HTML to XML. By migrating to XHTML today, web developers can enter the XML world with all of its benefits, while still remaining confident in the backward and future compatibility of the content.

# Why Use XHTML?

- XHTML documents are XML conforming as they are readily viewed, edited, and validated with standard XML tools.
- XHTML documents can be written to operate better than they did before in existing browsers as well as in new browsers.
- XHTML gives you a more consistent, well-structured format so that your webpages can be easily parsed and processed by present and future web browsers.

# Why Use XHTML?

- You can easily maintain, edit, convert and format your document in the long run.
- Since XHTML is an official standard of the W3C, your website becomes more compatible with many browsers and it is rendered more accurately.
- XHTML combines strength of HTML and XML. Also, XHTML pages can be rendered by all XML enabled browsers.

# Why Use XHTML?

- XHTML defines quality standard for your webpages and if you follow that, then your web pages are counted as quality web pages. The W3C certifies those pages with their quality stamp.

Here are the important points to remember while writing a new XHTML document or converting existing HTML document into XHTML document –

- Write a DOCTYPE declaration at the start of the XHTML document.
- Write all XHTML tags and attributes in lower case only.
- Close all XHTML tags properly.
- Nest all the tags properly. `<p><b></b></p>`
- Quote all the attribute values. `[align="center"]`
- Forbid Attribute minimization. `[selected="selected"]`
- Replace the **name** attribute with the **id** attribute.
- Deprecate the **language** attribute of the script tag.



# Conclusion

- XHTML is supposed to make the HTML-Web-Pages suitable for all browser types.
- Disadvantages:
  - Web developers have to obey the rules
  - Errors will not be tolerated**=> More expenditure of time**

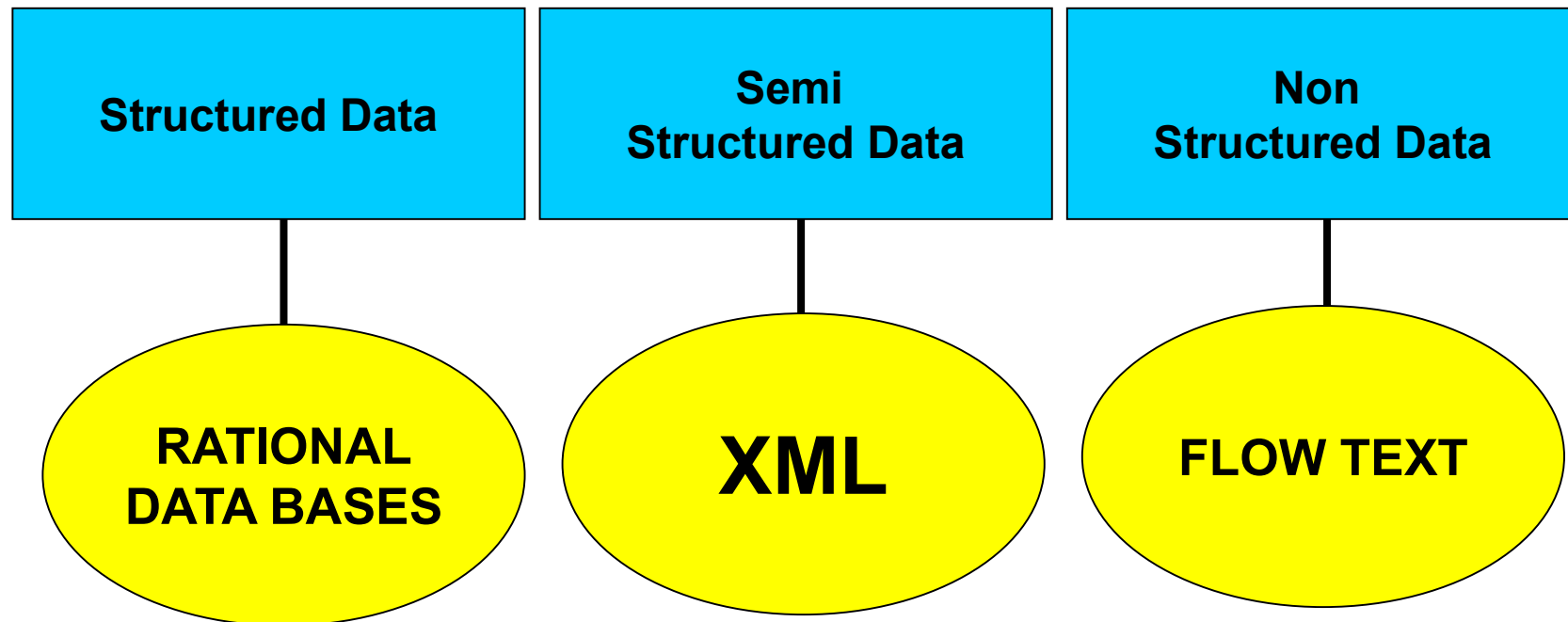
# What is XML

- XML (**EX**tensible **M**arkup **L**anguage)
- Guidance for writing of **D**ocument **T**ype **D**efinitions → DTD's
- XML is more general and uniform than HTML, and simpler than SGML
- **S**tandardized **G**eneral **M**arkup **L**anguage

# XML - Motivation

- For closing gaps between machine-machine communication ...
- ... applicable in the WWW
- Easy to create
- For humans and machines readable
- To cover as much as possible areas of application

# XML - Classification



# Sample Code

```
<?xml version=„1.0“ encoding=„ISO-8859-1“ ?>  
<book isbn=„3423085169“>  
<title>Sofies Welt</title>  
<author>  
<name>Gaarder</name>  
<firstname>Jostein</firstname>  
</author>  
<publisher>DTV</ publisher>  
<year>1993</year>  
</book>
```

# End - Conclusion

- HTML
  - Markup language for the Web
  - Version and compatibility problems
- XHTML
  - Tries to solve these problems
- XML
  - machine-machine communication

# XHTML DTD

- An XHTML DTD describes the allowed syntax and grammar of XHTML mark-up. Every XHTML document *must start* with a DTD declaration and a line of code that declares that you are starting to write XHTML code.
- This is the mandatory minimum way to start an XHTML document:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

# The Three Document Type Definitions

There are currently three XHTML 1.0 document types:

1. Strict
2. Transitional
3. Frameset



# XHTML 1.0 Strict

- This does not allow use of any type of deprecated tags.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 strict//EN"  
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

# XHTML 1.0 Transitional

- Use this when taking advantage of XHTML's presentational features and when you want to support browsers that do not understand Cascading Style Sheets. This allows the use of deprecated tags.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

# XHTML 1.0 Frameset

- Use this when you want to use XHTML Frames to partition the browser window into two or more frames. This allows both deprecated tags and frames.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 frameset//EN"  
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```

# HTML 5

PREPARED BY HIREN V MER

# First Look at HTML5

---

Remember the DOCTYPE declaration from XHTML?

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

In HTML5, there is just one possible DOCTYPE declaration and it is simpler:

```
<!DOCTYPE html>
```

Just 15 characters!

The DOCTYPE tells the browser which type and version of document to expect. This should be the last time the DOCTYPE is ever changed. From now on, all future versions of HTML will use this same simplified declaration.

# The <html> Element

---

This is what the <html> element looked like in XHTML:

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en"
      lang="en">
```

Again, HTML5 simplifies this line:

```
<html lang="en">
```

The **lang** attribute in the <html> element declares which language the page content is in. Though not strictly required, it should always be specified, as it can assist search engines and screen readers.

Each of the world's major languages has a two-character code, e.g. Spanish = "es", French = "fr", German = "de", Chinese = "zh", Arabic = "ar".

# The <head> Section

---

Here is a typical XHTML <head> section:

```
<head>
  <meta http-equiv="Content-type" content="text/html; charset=UTF-8" />
  <title>My First XHTML Page</title>
  <link rel="stylesheet" type="text/css" href="style.css" />
</head>
```

And the HTML5 version:

```
<head>
  <meta charset="utf-8">
  <title>My First HTML5 Page</title>
  <link rel="stylesheet" href="style.css">
</head>
```

Notice the simplified character set declaration, the shorter CSS stylesheet link text, and the removal of the trailing slashes for these two lines.

# Basic HTML5 Web Page

---

Putting the prior sections together, and now adding the <body> section and closing tags, we have our first complete web page in HTML5:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>My First HTML5 Page</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <p>HTML5 is fun!</p>
</body>
</html>
```

Let's open this page in a web browser to see how it looks...



# Meta tag:Definition and Usage

- Metadata is data (information) about data.
- The `<meta>` tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable.
- Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.
- The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.
- HTML5 introduced a method to let web designers take control over the viewport (the user's visible area of a web page), through the `<meta>` tag (See "Setting The Viewport" example below).

# HTML <meta> Tag

```
<head>  
<meta charset="UTF-8">  
<meta name="description" content="Free Web tutorials">  
<meta name="keywords" content="HTML,CSS,XML,JavaScript">  
<meta name="author" content="John Doe">  
<meta name="viewport" content="width=device-width, initial-  
    scale=1.0">  
</head>
```

# Chapter 1

## **Introduction**

Prepared by Hiren Mer

# Concept of WWW

## **Definition:**

It is a Information Space where documents and other web resources are identified by URL and interlinked by hypertext link and can be access via internet.

Invented by Tim berners Lee in 1989.

He wrote first web browser computer program when he was employed in CERN in Switzerland.

# Concept of WWW

## **The Web**

An infrastructure of information combined and the network software used to access it

## **Web page**

A document that contains or references various kinds of data

**Links** A connection between one web page and another

# Concept of WWW

## **Website**

A collection of related web pages

## **Web browser**

A software tool that retrieves and displays web pages

## **Web server**

A computer set up to respond to requests for web pages

# World Wide Web

## Uniform Resource Locator (URL)

A standard way of specifying the location of a Web page, containing the hostname, "/", and a file

# World Wide Web

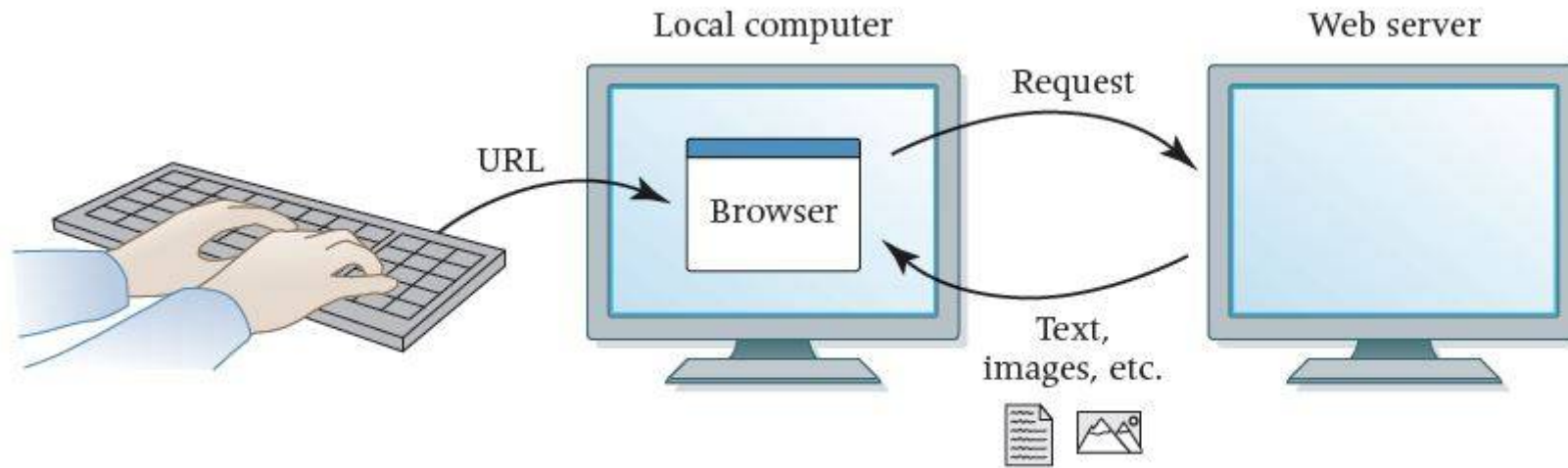
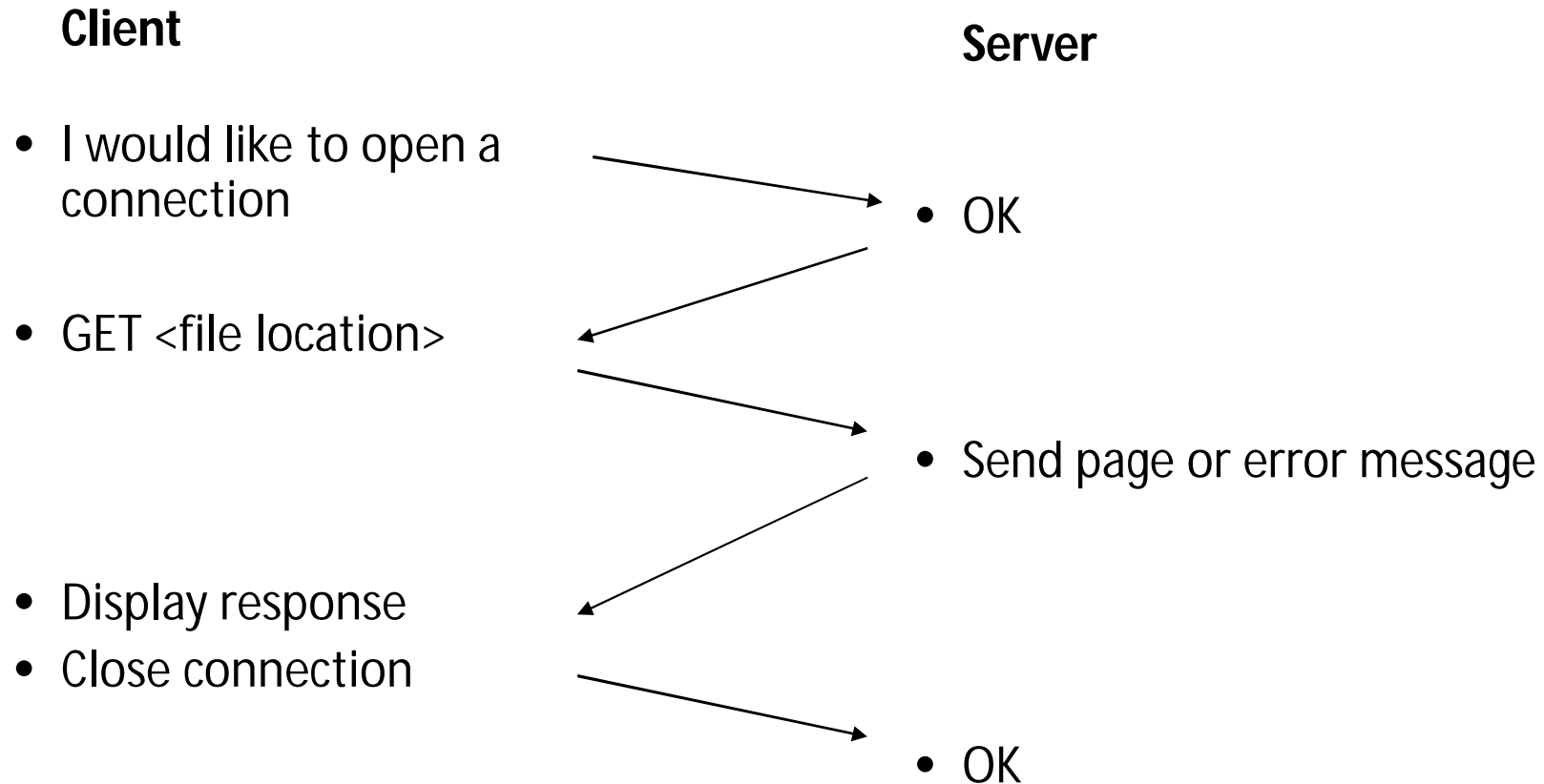


FIGURE 16.1 A browser retrieving a web page

*Why is the expression  
"visiting a website"  
confusing?*



# An HTTP conversation



HTTP is the set of rules governing the format and content of the conversation between a Web client and server

# An HTTP example

The message requesting a Web page must begin with the work "GET" and be followed by a space and the location of a file on the server, like this:

```
GET /fac/lpress/shortbio.htm
```

The protocol spells out the exact message format, so any Web client can retrieve pages from any Web server.

# What is HTTPS?

- Hyper Text Transfer Protocol Secure (HTTPS) is the secure version of HTTP, the protocol over which data is sent between your browser and the website that you are connected to. The 'S' at the end of HTTPS stands for 'Secure'. It means all communications between your browser and the website are encrypted. HTTPS is often used to protect highly confidential online transactions like online banking and online shopping order forms.
- Web browsers such as Internet Explorer, Firefox and Chrome also display a padlock icon in the address bar to visually indicate that a HTTPS connection is in effect.

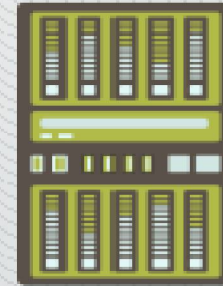
# HTTP vs HTTPS

User



Insecure connection

Normal HTTP (80)

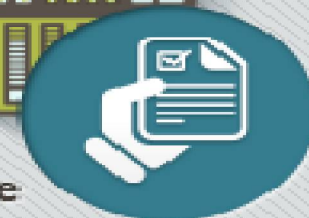


User



Encrypted Connection

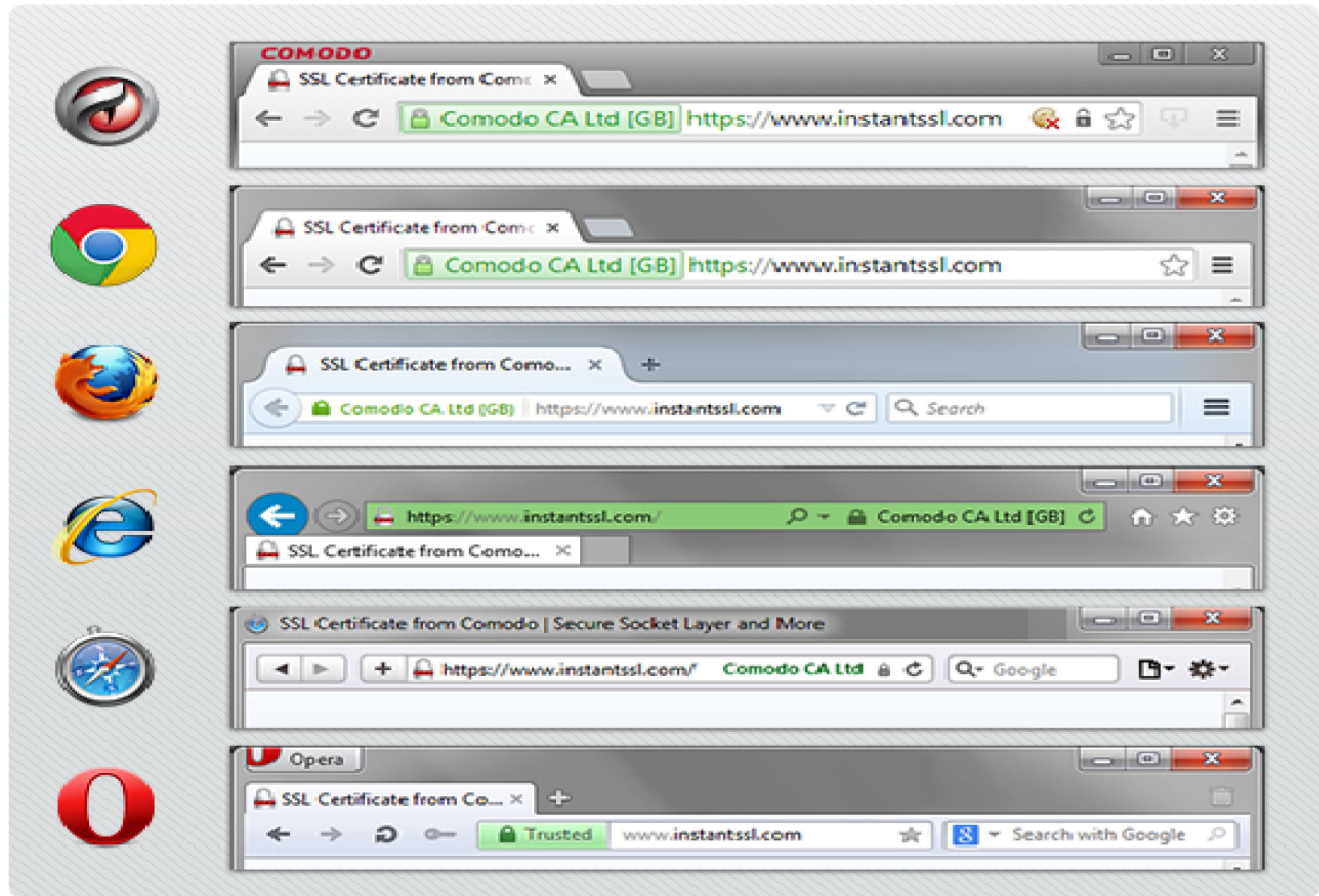
Secure HTTPS (443)



SSL Certificate

# Why Is an SSL Certificate Required?

- All communications sent over regular HTTP connections are in 'plain text' and can be read by any hacker that manages to break into the connection between your browser and the website. This presents a clear danger if the 'communication' is on an order form and includes your credit card details or social security number.
- **With a HTTPS connection, all communications are securely encrypted.** This means that even if somebody managed to break into the connection, they **would not be able to decrypt any of the data which passes between you and the website.**



Prepared by Hiren Mer

# Benefits of Hypertext Transfer Protocol Secure

- Customer information, like credit card numbers, is encrypted and cannot be intercepted
- Visitors can verify you are a registered business and that you own the domain
- Customers are more likely to trust and complete purchases from sites that use HTTPS



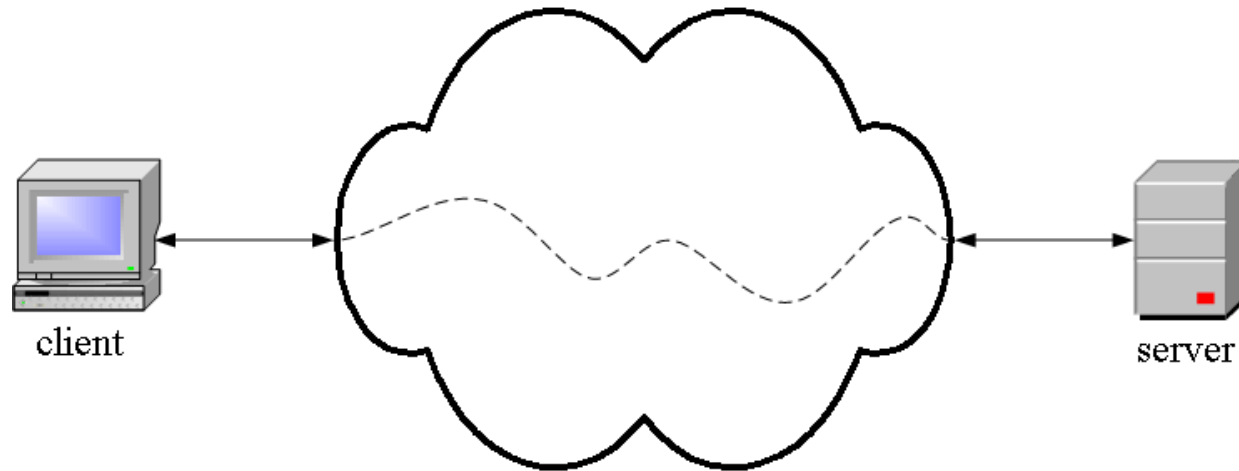
Year	Web browsers	Internet users (in millions)
1991	<a href="#">WorldWideWeb</a> (Nexus)	4
1992	<a href="#">ViolaWWW</a> , <a href="#">Erwise</a> , <a href="#">MidasWWW</a> , <a href="#">MacWWW</a> ( <i>Samba</i> )	7
1993	<a href="#">Mosaic</a> , <a href="#">Cello</a> , <sup>[28]</sup> <a href="#">Lynx 2.0</a> , <a href="#">Arena</a> , <a href="#">AMosaic 1.0</a>	10–14
1994	<a href="#">IBM WebExplorer</a> , <a href="#">Netscape Navigator 1.0</a> , <a href="#">MacWeb</a> , <a href="#">IBrowse</a> , <a href="#">Agora</a> ( <i>Argo</i> ), <a href="#">Minuet</a>	20–25
1995	<a href="#">Internet Explorer 1</a> , <a href="#">Netscape Navigator 2.0</a> , <a href="#">OmniWeb</a> , <a href="#">UdiWWW</a> , <sup>[29]</sup> <a href="#">Internet Explorer 2</a> , <a href="#">Grail</a>	16–44
1996	<a href="#">Arachne 1.0</a> , <a href="#">Internet Explorer 3.0</a> , <a href="#">Netscape Navigator 3.0</a> , <a href="#">Opera 2.0</a> , <a href="#">PowerBrowser 1.5</a> , <sup>[30]</sup> <a href="#">Cyberdog</a> , <a href="#">Amaya 0.9</a> , <sup>[31]</sup> <a href="#">AWeb</a> , <a href="#">Voyager</a>	36–77
1997	<a href="#">Internet Explorer 4.0</a> , <a href="#">Netscape Navigator 4.0</a> , <a href="#">Netscape Communicator 4.0</a> , <a href="#">Opera 3.0</a> , <sup>[32]</sup> <a href="#">Amaya 1.0</a> <sup>[31]</sup>	70–120
1998	<a href="#">iCab</a> , <a href="#">Mozilla</a>	147–188
1999	<a href="#">Amaya 2.0</a> , <sup>[31]</sup> <a href="#">Mozilla M3</a> , <a href="#">Internet Explorer 5.0</a>	248–280
2000	<a href="#">Konqueror</a> , <a href="#">Netscape 6</a> , <a href="#">Opera 4</a> , <sup>[33]</sup> <a href="#">Opera 5</a> , <sup>[34]</sup> <a href="#">K-Meleon 0.2</a> , <a href="#">Amaya 3.0</a> , <sup>[31]</sup> <a href="#">Amaya 4.0</a> <sup>[31]</sup>	361–413



Year	Web browsers	Internet users (in millions)
2001	<a href="#">Internet Explorer 6</a> , <a href="#">Galeon</a> 1.0, Opera 6, <sup>[35]</sup> <a href="#">Amaya</a> 5.0 <sup>[31]</sup>	499–513
2002	<a href="#">Netscape 7</a> , Mozilla 1.0, <a href="#">Phoenix</a> 0.1, <a href="#">Links 2.0</a> , <a href="#">Amaya</a> 6.0, <sup>[31]</sup> <a href="#">Amaya</a> 7.0 <sup>[31]</sup>	587–662
2003	<a href="#">Opera 7</a> , <sup>[36]</sup> <a href="#">Safari</a> 1.0, <a href="#">Epiphany</a> 1.0, <a href="#">Amaya</a> 8.0 <sup>[31]</sup>	719–778
2004	<a href="#">Firefox</a> 1.0, <a href="#">Netscape Browser</a> , OmniWeb 5.0	817–910
2005	<a href="#">Safari</a> 2.0, <a href="#">Netscape Browser</a> 8.0, <a href="#">Opera 8</a> , <sup>[37]</sup> <a href="#">Epiphany</a> 1.8, <a href="#">Amaya</a> 9.0, <sup>[31]</sup> <a href="#">AOL Explorer</a> 1.0, <a href="#">Maxthon</a> 1.0, <a href="#">Shiira</a> 1.0	1018–1029
2006	<a href="#">SeaMonkey</a> 1.0, K-Meleon 1.0, <a href="#">Galeon</a> 2.0, <a href="#">Camino</a> 1.0, <a href="#">Firefox</a> 2.0, <a href="#">Avant</a> 11, <a href="#">iCab</a> 3, Opera 9, <sup>[38]</sup> <a href="#">Internet Explorer 7</a>	1093–1157
2007	<a href="#">Maxthon</a> 2.0, <a href="#">Netscape Navigator 9</a> , <a href="#">NetSurf</a> 1.0, <a href="#">Flock</a> 1.0, <a href="#">Safari</a> 3.0, <a href="#">Conkeror</a>	1319–1373
2008	<a href="#">Konqueror 4</a> , <a href="#">Safari</a> 3.1, Opera 9.5, <sup>[39]</sup> <a href="#">Firefox 3</a> , <a href="#">Amaya</a> 10.0, <sup>[31]</sup> <a href="#">Flock</a> 2, <a href="#">Chrome</a> 1, <a href="#">Amaya</a> 11.0 <sup>[31]</sup>	1562–1574
2009	<a href="#">Internet Explorer 8</a> , <a href="#">Chrome</a> 2–3, <a href="#">Safari</a> 4, <a href="#">Opera 10</a> , <sup>[40]</sup> <a href="#">SeaMonkey</a> 2, <a href="#">Camino</a> 2, <a href="#">Firefox 3.5</a> , <a href="#">surf</a>	1743–1802
2010	K-Meleon 1.5.4, <a href="#">Firefox 3.6</a> , <a href="#">Chrome</a> 4–8, <a href="#">Opera 10.50</a> , <sup>[41]</sup> <a href="#">Safari</a> 5, <a href="#">xxxterm</a> , Opera 11	1971–2034

Year	Web browsers	Internet users (in millions)
2011	Chrome 9–16, <a href="#">Firefox 4-9</a> , <a href="#">Internet Explorer 9</a> , Maxthon 3.0, SeaMonkey 2.1–2.6, <a href="#">Opera 11.50</a> , Safari 5.1	2264–2272
2012	Chrome 17–23, Firefox 10–17, <a href="#">Internet Explorer 10</a> , Maxthon 4.0, SeaMonkey 2.7-2.14, <a href="#">Opera 12</a> , Safari 6	2497–2511
2013	Chrome 24–31, Firefox 18–26, <a href="#">Internet Explorer 11</a> , SeaMonkey 2.15-2.23, Opera 15–18, Safari 7	2712
2014	Chrome 32–39, Firefox 27–34, SeaMonkey 2.24-2.30, Opera 19–26, Safari 8	3079

# HTTP is an **application layer** protocol



- The Web client and the Web server are application programs
- Application layer programs do useful work like retrieving Web pages, sending and receiving email or transferring files
- Lower layers take care of the communication details
- The client and server send messages and data without knowing anything about the communication network

# Web 2.0

The Read/Write Web

# History

- Tim Berners-Lee: World Wide Web 1989
- Dream of sharing information back and forth
- Mosaic Web browser in 1993
- Writing to the web required knowledge of HTML codes and more.



# The New World Wide Web

- New way software developers and users utilize the web.
- 2003 - sites utilize tools that make it easy to publish to the web.
- No longer limited to “consuming” information.
- Multimedia publishing has exploded.

# Useful Web 2.0 Tools

- Weblogs
- Wikis
- Real Simple Syndication (RSS)
- Aggregators
- Social Bookmarking and Networking
- Online Photo Galleries
- Audio/video-casting

\*Not the only web 2.0 tools! Keep educational uses in mind when looking at these.

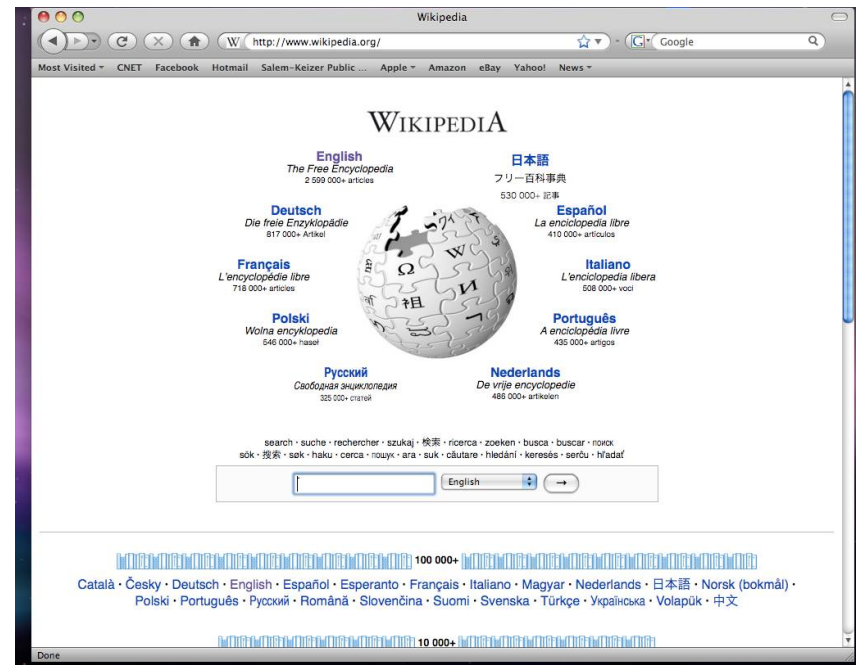
# Weblogs (Blogs)

- Easily created/updated sites.
- Publish instantly from any internet connection.
- Interactive - comment, question, link, converse.



# Wikis

- Collaborative page.
- Anyone can add or edit content.
- Wikipedia - friend or foe?
- Wikispaces



# Real Simple Syndication

- Subscribe to “feeds” from your favorite sites.
- New information is sent to you.
- Reduces research time.
- Example:
- Google Reader

# Aggregators

- Collects and organizes the content you subscribe to with an RSS feed.

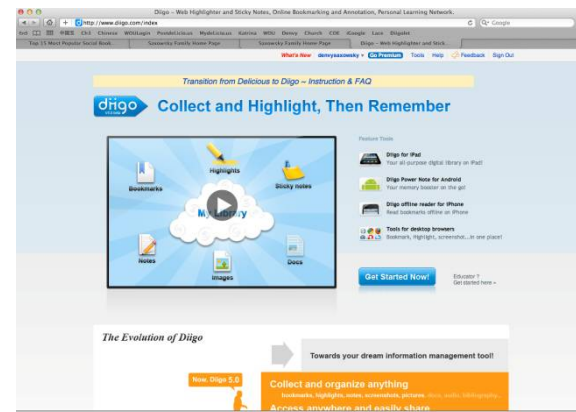
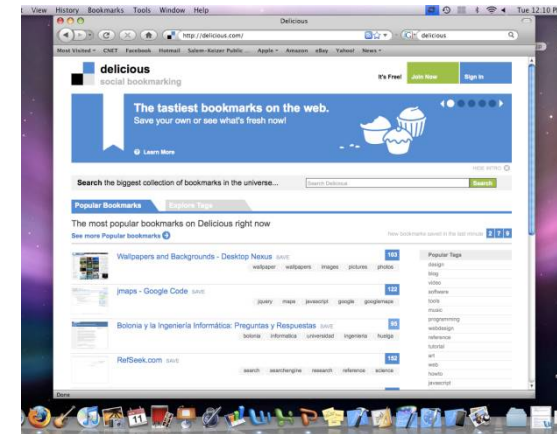


**Aggregator** refers to a web site or computer software that aggregates a specific type of information from multiple online sources:

- [Poll aggregator](#), a website that aggregates polling data for upcoming elections
- [Review aggregator](#), a website that aggregates reviews of movies or other products or services
- [Search aggregator](#), software that runs on a user's computer and fetches, filters, and organizes a specific search from various search engines
- [Social network aggregation](#), the collection of content from multiple social network services
- [Video aggregator](#), a website that collects and organizes online video sources
- [News aggregator](#), a computer software or website that aggregates news from other news sources
- Shopping aggregator, a website that aggregates retail products from numerous retailers' websites
- Insurance aggregator, a website that enables consumers to receive multiple insurance quotes from policy providers, and subsequently purchase a suitable quote

# Social Bookmarking

- Save web addresses of useful content.
- Share and search bookmarks.
- Generate specific resource lists.



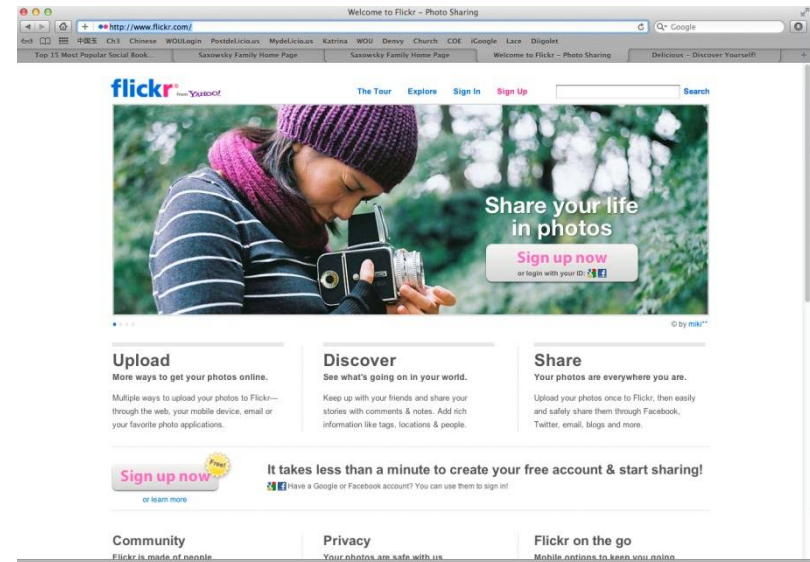
# Social Networking

- Facebook, Twitter
- LinkedIn.com
- Collaborate, bookmark, share, etc.



# Online Photo Galleries

- Publish photos online.
- Comment, and share ideas.
- Create photo stories and presentations.



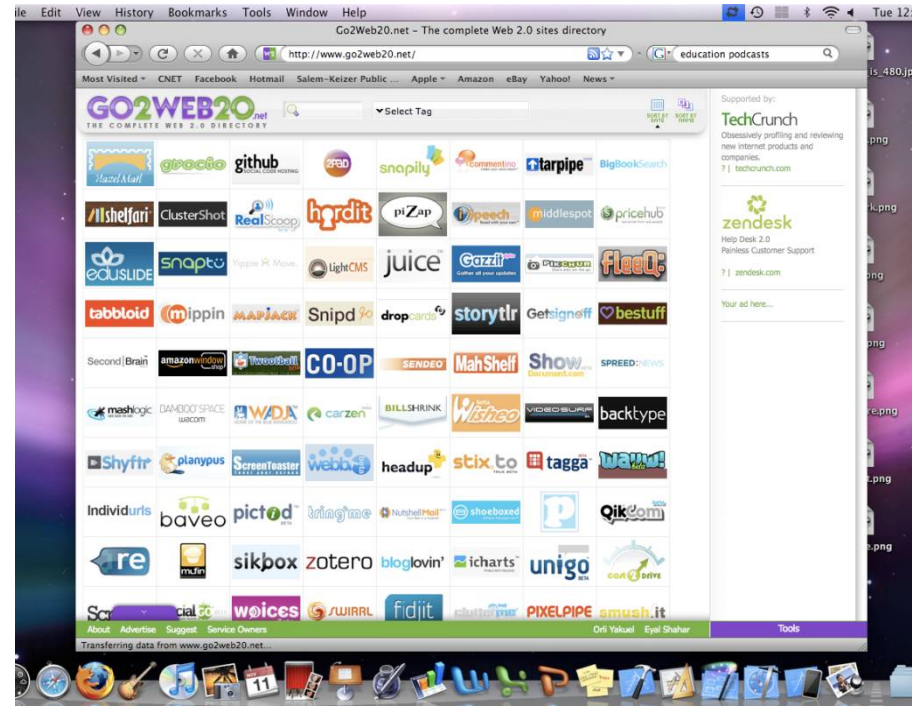
# Audio/video-casting

- Produce audio and video recordings.
- Publish them easily to the web.
- Creates a world-wide audience.





# Other Fun Web 2.0 Sites



# Time to Explore

## ■ Visit

[www.bighugelabs.com](http://www.bighugelabs.com)

- ## ■ In groups of three choose one of the tools and prepare a short explanation of what it can do.

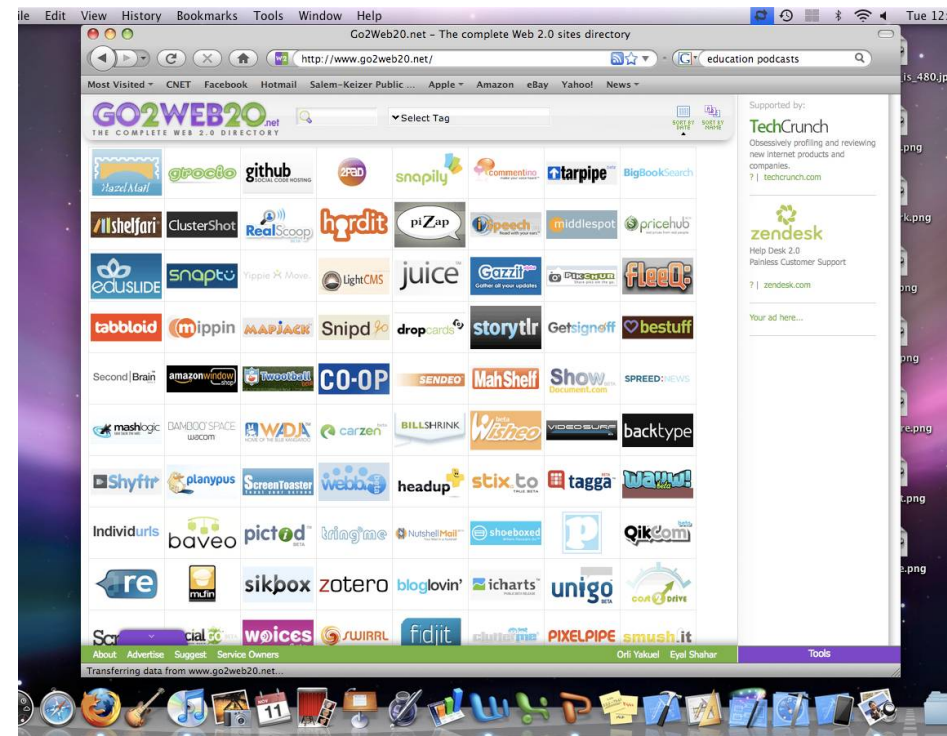


# Are you ready for this?

- Visit

[www.go2web20.net](http://www.go2web20.net)

- In groups of three choose a web 2.0 tool to share with the class.



# Time to bring it all together

- How could these tools be used in a particular grade level and content area?
- What do these tools bring to a lesson that is unique?
- What are some disadvantages or risks associated with these tools?
- What are some of the benefits and challenges of utilizing web 2.0 tools?

# Chapter 2

# Web Design

Prepared by Hiren Mer

# Contents

- Concepts of effective web design
- Web design issues
  - Browser and Operating system
  - Bandwidth and Cache
  - Display resolution
  - Look and Feel of the Website
  - Page Layout and linking
  - User centric design
  - Sitemap,
- Planning and publishing website
- Designing effective navigation

# Concepts of effective web design

- WWW is huge amount of web pages group together on websites and upload on web servers.
- Websites are designed for personal information, business organization, education institutes, government departments, online marketing and selling, banking, entertainment, online booking and more.

# Concepts of effective web design

- Website are depend on environment like **browser and operating system.**
- Planning of websites includes Objective and goal, audience characteristics, contents, prototyping, and taking necessary steps to implementing and publish web site.
- All these factors are very important in designing a successful website.

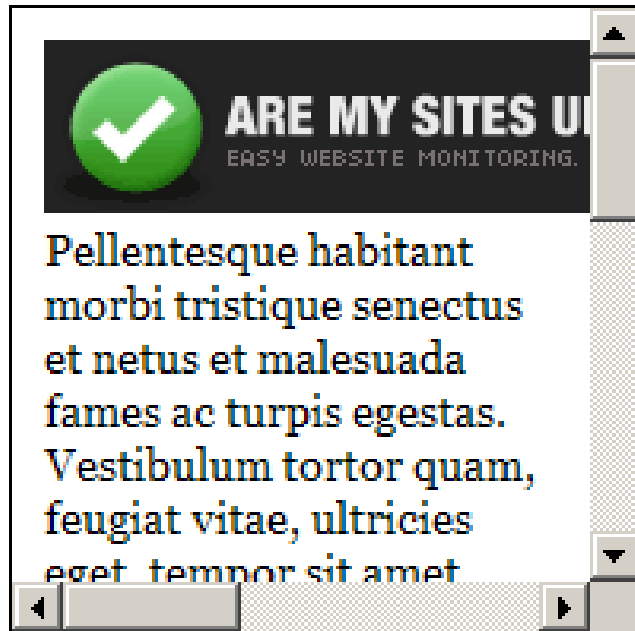


# Website Design Issues

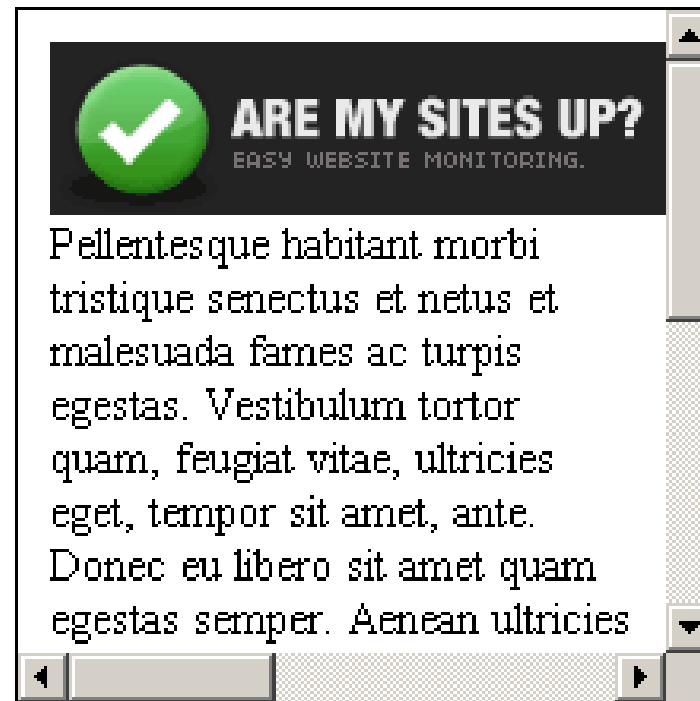
## **Browser and Operating system**

- Web pages are implemented in HTML tags and viewed in browser window. The different browser and their versions affect the way a page is rendered.
- Different browser interpret same HTML pages in different way.

# Browser Difference



IE 7



Firefox 3.0.10

# Browser and Operating system

- Solution:
  - To make web page portable, test it on different browser and os.
  - Use the development tools to add special features to your pages supported by majority browsers.
  - The best way to avoid the problems is to follow standards.
  - Use validation rules to of the W3c to validate your code.

# Browser and Operating system

- W3C improves the browser compatibility of your code as latest versions of popular browsers such as IE, Firefox, Netscape etc have started supporting standards.

[Check your site](#)

<https://validator.w3.org/>



## Markup Validation Service

Check the markup (HTML, XHTML, ...) of Web documents

Validate by URI

Validate by File Upload

Validate by Direct Input

### Validate by URI

Validate a document online:

Address:

▶ More Options

Check

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).

The W3C validators rely on community support for hosting and development.  
[Donate](#) and help us build better tools for a better web.

5947

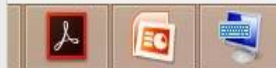


[Home](#) [About...](#) [News](#) [Docs](#) [Help & FAQ](#) [Feedback](#) [Contribute](#)

This service runs the W3C Markup Validator v1.3+ho

Show all X

Home	PgUp	Nav
End	PgDn	Mv Up
Insert	Pause	Mv Dn
PrtScn	ScrLk	Dock





# Markup Validation Service

Check the markup (HTML, XHTML, ...) of Web documents

Jump To: [Notes and Potential Issues](#) [Validation Output](#)

## Errors found while checking this document as XHTML 1.0 Transitional!

<b>Result:</b>	103 Errors, 18 warning(s)		
<b>Address :</b>	<input type="text" value="http://gtu.ac.in/"/>		
<b>Encoding :</b>	utf-8	<input type="text" value="(detect automatically)"/>	▼
<b>Doctype :</b>	XHTML 1.0 Transitional	<input type="text" value="(detect automatically)"/>	▼
<b>Root Element:</b>	html		
<b>Root Namespace:</b>	<a href="http://www.w3.org/1999/xhtml">http://www.w3.org/1999/xhtml</a>		

The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations. [Donate](#) and help us build better tools for a better web.

5947  
Flattr

Show Outline  List Messages Sequentially  Group Error Messages by Type

Show all X

Home PgUp Nav  
End PgDn Mv Up  
Insert Pause Mv Dn  
PrtScn ScrLk Dock

# Bandwidth and Cache

- User has different connection speed to access websites.
- Connection speed plays important role to design web pages.
- If user has lowed **bandwidth** connection and website contains so many pages then user is denied to visit that site.

# Bandwidth and Cache

- When we design the web site then we have to consider the lowest speed **56-256kbps** of the internet connection.
- For high speed connection we can use the good graphics for the particular websites.
- Browser provide temporary memory called **cache**.



# Bandwidth and Cache

- When user open the any webpage for first time it stores the graphics in browser cache.
- Then next time the same page user is visited, the browser gets only HTML file and use the images from the cache which increase the download speed significantly.

# Display resolution

- **Display resolution** is another important factor affecting the web page design, as we do not have control of display resolution on Monitors which user view pages.
- Display resolution is measured in pixels
- Common display resolutions
  - 800 X 600
  - 1024 X 768
  - **1240 X 1024 more common**

# Display resolution

- If page displayed in higher resolution, the page displayed on left hand side and some part on right hand side become blank.
- We can use centered design to display page e.g middle scree, leaving same space on both side.



# GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD (INTERNATIONAL INNOVATIVE UNIVERSITY)

[This website was Last](#)

- Home
- For Disabled
- Search web contents
- GTU Act / UGC Cell
- RTI
- Student Grievance Portal
- Achievements
- Affiliation
- Affiliated Colleges & Courses
- Syllabus
- Ph.D. Programme

Recorded Video of Fifth convocation on 28-01-2016

Result Links :

Alternative Result link- [Link-1](#) | [Link-2](#) | [Download GTUResult Android mobile app.](#)

[Institute & Course Details](#) | [Faculty Details of GTU](#)

[Degree, Diploma Certificate Verification](#)

## A message from your Vice-Chancellor

**My dear students and colleagues:**

GTU has grown and matured into a dynamic and vibrant university, since its inception. Excellence is a popular and much loved word and pushes the frontiers of all activities. Hence we should try and define



## NEWS

- ALVCOM- Active Learning Video Lecture Communication-Schedule for Dt 6th-7th Aug 2016
- Webinar on Digital Image Processing Concepts and Techniques with MATLAB by Parul Bansal, Thu, Aug 4, 2016 3:30 PM - 4:30 PM IST.
- Webinar on Course Outcomes

# Look and Feel of the Website

- Web site theme
- Fonts Graphics and colours
- Presentation and Access



This website was Last Updated on 30 July 2016, for latest information please

- Home
- For Disabled
- Search web contents
- GTU Ad / UGC Cell
- HR
- Student Reference Portal
- Achievements
- Affiliates
- Affiliated Colleges & Centers
- Syllabus
- Ph.D. Programs
- Student Corner & Student Grade History
- Under Means (UPM)
- e - Assessment
- Students' Welfare
- GTU Alumni Association
- MANSICA (Chair)
- IGNMSP
- Administration
- Institute Transfer
- Circulars
- Conferences
- Convocation
- College Activities
- PG Course Portal
- PG Research Centers
- GTU Discussion Forum
- Newsletters
- Placements (E-Workshop)
- GTU Training & Placement Cell
- Board of Environment & Green Technologies
- GTU Board for Mobile Computing & Wireless Technologies
- GTU Innovation Council
- Institutes & Faculties
- Video Messages
- List of MoU
- E-Learning
- E-Library
- Wahwahanra Yojana

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### A message from your Vice-Chancellor

#### My dear students and colleagues:

GTU has grown and matured into a dynamic and vibrant university, since its inception. Excellence is a popular and much loved word and pushes the frontiers of all activities. Hence we should try and define what we are going to excel in and how. My request to all our students, faculty and managements is to define their domains and strengths, find where they are and then plan their onward journey. Good governance and educational outcomes go hand in hand, hence it is important that clearly defined goals, outputs and outcomes are put in place. GTU too shall take the same roadmap and define specific goals to start with, the outputs in terms of number of faculty trained, student programs conducted, will help in understanding whether we are progressing. But we have to look at the bigger picture and also keep in view the outcomes, the impact that these initiatives and goals can lead to. Unless we work to this end, we will claim accolades in terms of numbers, but the biggest stake holder, our student, the future citizen of this great Nation, will not be able to reap the benefits. Excellence will only be achieved when a student, a faculty and an institute is able to impact the environment around them.



In the coming days, we hope to work on these lines and put in place enabling processes, to tap the opportunities available through the State and Central policies and programs.

Your ideas and initiatives will be most welcome and the GTU team and myself will be happy to hear from you.

Our respected Dr. Aggarwal sir, has sent his warm wishes and thanks for all the good work done during his tenure, during his speech on 7th June 2016.

**Dr. Rajul K. Gajjar**

(16<sup>th</sup> June 2016)

Order Messages from your Prev. Vice Chancellor

HR Counter: **069902819** (Counter Start Date: 04 Apr 2015)

### NEWS

Workshop for Industry-Academia Collaboration by Prof. Maheshwari M. G., Thu, Jun 14, 2016 3:30 PM - 4:30 PM IST

GTU Open Source Technologies Club organizes "Open Source Summer Camp" from 16th to 19th June 2016 at GTU,Block No.8.7 those register online on or before 15th June 2016.

Workshop on Leadership in International Information Technology projects - cross - cultural collaboration for Japan and India by Dr. Praga Sankararaman Mahalingam, Japan Thu, Jun 9, 2016 3:30 PM - 4:30 PM IST

Workshop on Virtual Academy Towards Student-Centered Teaching: A New Paradigm by Pragna Sankar, Department of Information Technology, Maharashtra Institute of Technology Sangli Thu, Jun 7, 2016 3:30 PM - 4:30 PM IST

Workshop on Industry Training Policy by Dr. Manjushree P. Subramani, Head, Engineering Curriculum and Quality, Mumbai

### New Horizons

Workshop on VLSI Design (Qualified Only), Mr. Naveg Matha (VLSI software system), Mr. Sanku Sanku (VLSI software system) and Mr. Sangeeta Matha (VLSI software system) evaluated the project

REPCONS - Final Year Project Fair at all the Departments of V.V.P. Group, College, Rajkot on 14th and 15th April 2016 at Shyama Prasad Mukherjee Art Gallery, New Campus, Rajkot

REPCONS - Final Year Project Fair at S.C. Department of Study ID 11 History Institute of Chemical Tech on 25th April 2016, Mr. Vimal Shah, Dy. General Manager, Godrej Industries was invited to evaluate the projects

REPCONS - Final Year Project Fair at G.C. Department of Sarwanand College of Engg & Tech, Kesh, Rajkot on 20th April 2016

REPCONS - Final Year Project Fair at M.C. Department of Vasthara Institute of Engg on 12th April 2016

# Page Layout and Linking

- Website consists of individual web pages that are linked together using various navigational links.
- Page Layout defines the visual structure of page and area into different part to information.
- Page layout allows designer to distribute the contents in a page such that visitor can easily find and access necessary details.

# Page Layout and Linking

- Page Layout called page Template. There are so many page templates are available on websites which can directly simply used to design page by inserting contents of pages.
- **Key points for Designing Layouts:**
  1. While distributing the contents in layout, balance between text and graphics. Too much graphics lead to slow download of the page.



# Page Layout and Linking

2. Locate the item on page using screen importance to attract user's attention on important items.
3. Maintain Consistency among the layout of the pages such that it creates cohesive design of web site matching to your theme.

# Locating Information

- Web pages viewed on computer screen and it can be divided into five major areas **center,top,right,bottom and left**.
- The main importance is user viewing pattern center,then top,right,bottom left in particular order.
- Put important information in center to get immediate attention of the user.

# Locating Information

- Information on other parts as per the order of importance.
- Most website use **left side** for the links of other pages.
- Top is used to display **logo and title or flash as advertisements.**
- **Right hand side for other information like news or other updates ,circulars.**

# Locating Information

- Bottom part used to **quick link** to important sections or to **provide copyright message**.

The screenshot displays the official website of Gujarat Technological University (GTU) in Ahmedabad. The header includes the university's name and logo. A navigation bar at the top provides links for Academic Calendar, Events, Result, Web Mail, Courses, Tender, Recruitment, International, Alumnus, Contact Us, Gallery, and Checkmate. A notice states the website was last updated on 20 July 2016. The main content area features a 'Result Links' section with dropdown menus for 'Link-1' and 'Link-2'. Below this is a message from the Vice-Chancellor, Dr. Rajul K. Gajjar, dated 05th June 2016, which discusses the university's growth and future goals. A portrait of Dr. Gajjar is included in the message. The right sidebar contains 'NEWS' and 'New Horizons' sections with various articles. The footer includes a 'Disclaimer' and contact details for the Registrar, Ahmedabad, Gujarat, with a phone number 069902819.

# Make Design User Centric

- It is very difficult for web designer to predict exact behaviour of the user.
- It is depend on the reading habits.
- Some of the user want to connect the subsection and want different results.
- Then designer can give the hyperlink for the particular keyword.

# Sitemap

- Many time websites are too complex as there area a large number of sections and each sections contains many pages.
- It is difficult for user to move from one page to other directly.
- User getting confused if there are so many pages in the websites.

# Sitemap

- Solution is to provide **Sitemap** for all pages.
- By clicking any link in sitemap ,you can directly jump to particular page.
- Sitemap gives the organization of contents for the particular website.

Find out more here

# MOBILE

## MOBILE

- Smartphones
- Tablets
- Wearables
- Other Phones
- Accessories

## MOBILE APPS

- Find my mobile
- Galaxy Apps
- Theme Service
- Smart Switch
- SideSync
- My galaxy

## FEATURED

- Galaxy S7
- Galaxy On Nxt
- Galaxy J7 Prime
- Galaxy J2 (2016)
- Samsung Z2
- Galaxy A9 Pro

Feedback

# TV & AV

## AUDIO

- Home Entertainment System
- Soundbar
- Sound Tower
- Digital Component

## FEATURED

- SUHD TV

Home	PgUp	Nav
End	PgDn	Mv Up
Insert	Pause	Mv Dn
PrtScn	ScrLk	Dock
Options	Help	Fade



# Planning a Website

**Before we start designing/developing we should ask this questions**

1. Why are we developing website?
2. What do we achieve by developing this website?
3. Who are the people who will use this website?
4. What are the information contents?
5. How are this contents organized? What are the Possible ways?
6. How the files prepared are organized?

# Planning a Website

- We have
  - Objective and Goal
  - Audience/user profile
  - Identifying and Organizing Contents
  - Towards Publishing Website

# Navigation

- Navigation means the ways to move from one page to another page in website using hyperlinks provided on a page.
- If it is not proper then user feel the problems in moving around the pages in your effective navigation website.

- Thank you