



World Wide Web "WWW", "Web" or "W3"



- What is WORLD WIDE WEB?
- Background.
- Structure.
- Components.
- Fundamental concepts.
- How to access the web?
- Creating a web page?
- Internet and World wide web?
- Growth
- Examples
- Conclusion





#### WHAT IS WORLD WIDE WEB?

- The World Wide Web is a way of exchanging information between computers on the Internet.
- The World Wide Web is the network of pages of images, texts and sounds on the Internet which can be viewed using browser software.

#### WWW .... BACKGROUND?

- ❖ 1989-1990 Tim Berners-Lee invents the World Wide Web at CERN
- Means for transferring text and graphics simultaneously
- Lots of previous attempts (Gopher, WAIS, Archie, Xanadu, etc.)
- Client/Server data transfer protocol
- Established a common language for sharing information on computers

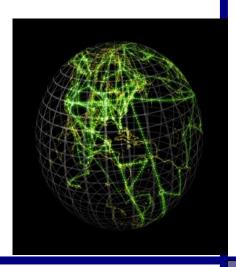


#### **STRUCTURE**

- Clients use browser application to send URIs via HTTP to servers requesting a Web page
- Web pages constructed using HTML (or other markup language) and consist of text, graphics, sounds plus embedded files
- Servers (or caches) respond with requested Web page
  - Or with error message
- Client's browser renders Web page returned by server
  - Page is written using Hyper Text Markup Language (HTML)
  - Displaying text, graphics and sound in browser
  - Writing data as well
- The entire system runs over standard networking protocols (TCP/IP, DNS,...)

#### WWW COMPONENTS

- Structural Components:
  - Clients/browsers to dominant implementations
  - □Servers run on sophisticated hardware
  - □Caches many interesting implementations
  - □Internet the global infrastructure which facilitates data transfer
- Semantic Components:
  - ☐ Hyper Text Transfer Protocol (HTTP)
  - ☐ Hyper Text Markup Language (HTML)
    - extensible Markup Language (XML)
  - □Uniform Resource Identifiers (URIs)



# The Fundamental concept the World Wide Web

#### > The Hypertext concept

•Hypertext is text which contains links to other texts. The term was coined by Ted Nelson around 1965.

#### > The Hypermedia concept

•Hypermedia is a term used for hypertext which is not constrained to be text: it can include graphics, video and sound.

#### **WEB Browser**

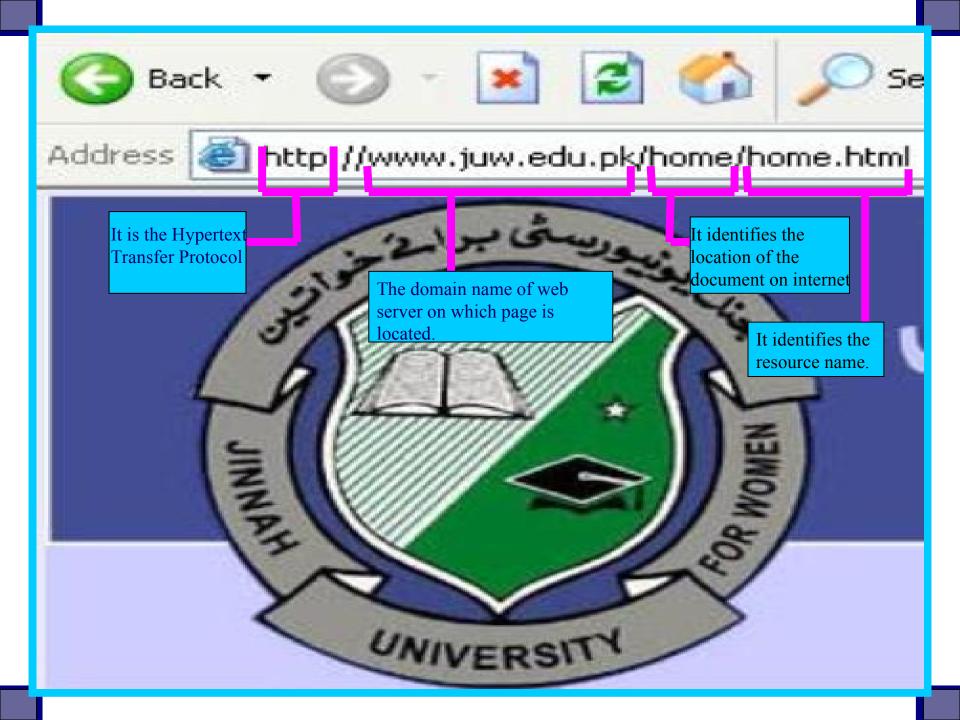
• A web browser displays a web document and enables users to access web documents.

#### **<u>>WEB Server</u>**

• This is a program that waits patiently for the browser to request a web page. The servers looks for the requested information, retrieves it and send it to the browser or sends an error message if the file is not found.

#### > Uniform Resource Locator (URL)

• These are the web addresses. The resource locator is an addressing system.



#### **HOW TO ACCESS THE WEB?**

- Written by William F. Slater, III
- 1996

 President of the Chicago Chapter of the Internet Society

# **Creating a WEB PAGE!**

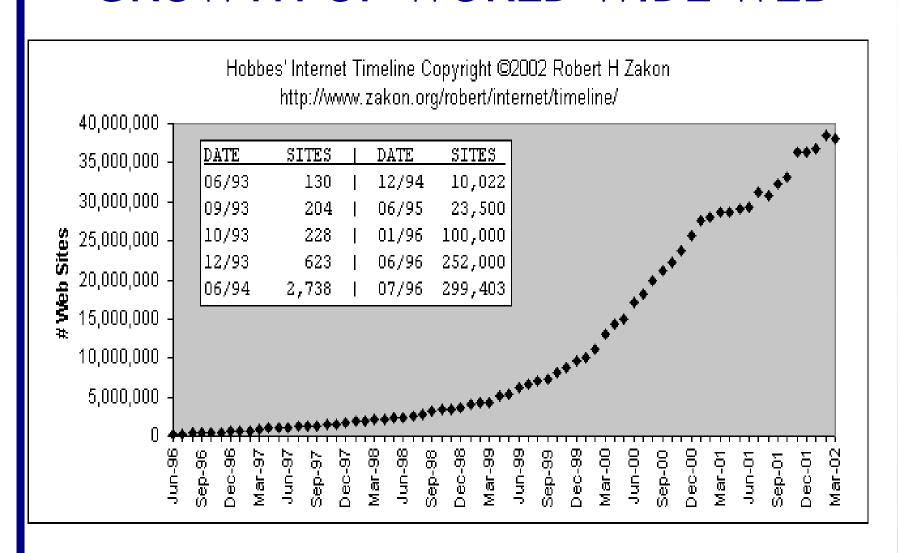


Web pages are generally sets of text files coded with special notation called Hypertext Markup Language (HTML) that is interpreted by a web browser program reading the file.

## THE DIFFERENCE BETWEEN WORLD WIDE WEB AND INTERNET...?

- Many people use the terms *Internet* and *World Wide Web*, but in fact the two terms are not synonymous. The *Internet* and the Web are two separate but related things.
- The Internet is a massive network of networks. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet.
- The World Wide Web, or simply Web, is a way of accessing information over the medium of the Internet.
- So the Web is just a portion of the Internet, albeit a large portion, but the two terms are not synonymous and should not be confused.

#### **GROWTH OF WORLD WIDE WEB**



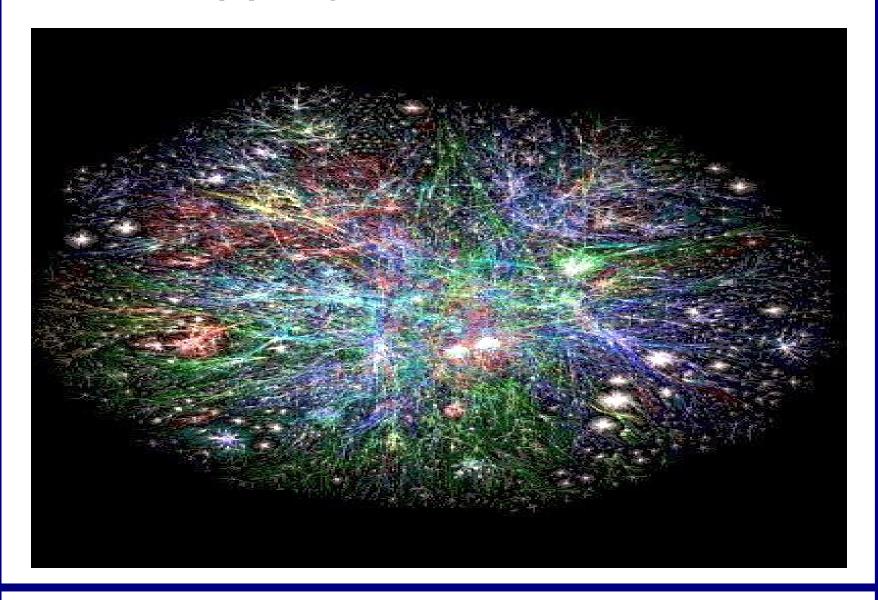
#### **WORLD WIDE WEB success!!**

World Wide Web succeeded because it was simple!

➢ Didn't attempt to maintain links, just a common way to name things



### 3D mapping of World wide web



## **Examples:**

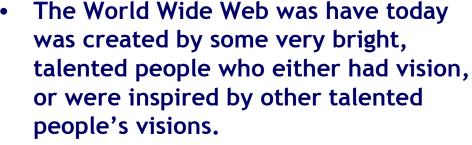
www.juw.edu.pk

www.google.com

www.msn.com

### **Conclusion**









- Though their ideas were not always popular, they pressed ahead.
- Their perseverance and hard work brought us to where we are today.
- There is a lot to be learned by studying these people, their early work and keeping in mind what they had to work with.















### Questions?





## Thank you!



