# Media Wiki Backend

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18th April

# Topics

1 Services
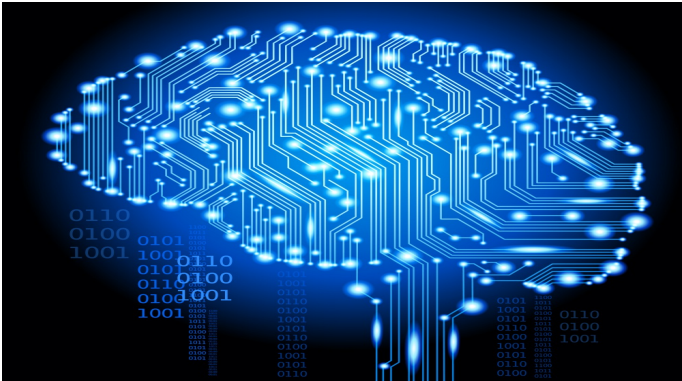
2 Web Server

3 Thank you

# Humans

## Computer



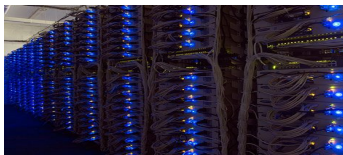Figure: Computer capabilities. [4]

## Personal computer

- "*A general-purpose computer equipped with a microprocessor and designed to run especially commercial software (as a word processor or Internet browser) for an individual user*" [5]

## Server

- "*A server is a computer program that provides services to other computer programs (and their users) in the same or other computers.*" [6]
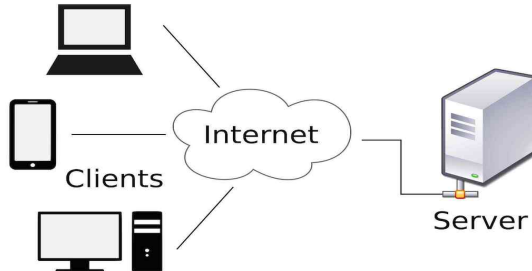


(a)



(b)

Figure: A: Server room B: standalone server

## Client-Server model

- "*A system in which client software or a client computer makes requests of server software or a server computer that provides the client with resources or services, such as data or files.*" [6]

## Servers

- Email
- Database
- File
- DNS
- DHCP
- Application
- Computing
- Database
- Media (Audio/Video Streaming)
- Game (Minicraft)
- Print
- Proxy
- Cloud
- Web

## World Wide Web (www)

- CERN, the European Organization for Nuclear Research, is where it all began in March 1989. A physicist, **Tim Berners-Lee** , wrote a proposal for information management showing how information could be transferred easily over the **Internet** by using **hypertext**, point-and-click system of navigating through information.

# World Wide Web (www)



Figure: Sir Timothy John Berners-Lee

- `http://Info.cern.ch` First ever web site and webserver
- `http://info.cern.ch/hypertext/WWW/TheProject.html`

## Web page

- A single hypertext document on the www that can incorporate text, graphics, sounds etc

## Hypertext

- *"A format of information which is not constrained to be linear, it contains links to other texts, Ted Nelson*
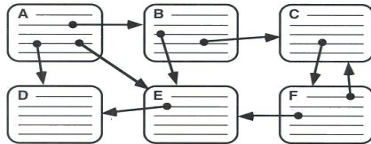


Figure: Hypertext also called Hyperlinks

## Resource Identifiers (URL)

- "*Unique identifiers used to locate a particular resource (computer files, document or other resources) on the network*
- URL components
  `http://www.uni-weimar.de/index.html`
  - Protocol Identifier (http/https/ftp)
  - Resource name (www.uni-weimar.de)
    - **Host Name**. The name of the machine on which the resource lives.
    - **Filename**. The pathname to the file on the machine.
    - **Port Number**. The port number to which to connect (typically optional).
    - **Reference**. A reference to a named anchor within a resource that usually identifies a specific location within a file (index.html#link).

## Web Clients
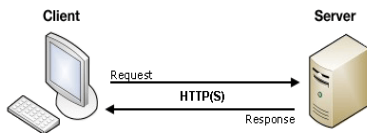
- The client, or user, side of the Web. It typically refers to the Web browser in the user's machine.



Figure: Different web browsers

## Web Server

- "*A Web server is a server that is responsible for accepting HTTP requests from web clients and serving them HTTP responses, usually in the form of web pages containing static (text, images etc) and dynamic (scripts) content.*" [3]

## Web Server examples

- Apache Server [7]
- Microsoft IIS Server [8]
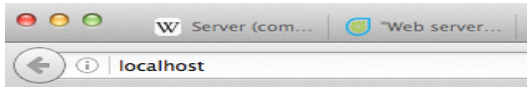- IBM web server (Lotus) [10]
- Lighttpd [9]

## Apache

- Developed by Apache software foundation.
- Reliable
- Good performance
- Free of cost
- A of documentations,
- Cross platform.
- Good maintenance by developers.
- Feature rich servers.
- Widely used.



APACHE

## Apache Installation

- Install apache Server alone.
- Or Install MAMP/ XAMP /LAMP



Figure: You have successfully installed apache :)

## Apache services

- **Start apache service**.
  *sudo /usr/sbin/apachectl start*
  *service httpd start*

- **Stop apache service.**
  *sudo /usr/sbin/apachectl stop*
  *service httpd stop*

- **Restart apache service.**
  *sudo /usr/sbin/apachectl restart*
  *service httpd restart*

- **Check apache service status.**
  *cat /var/run/httpd.pid*
  *ps aux — grep httpd*

# Main configuration files (httpd.conf)

It contains the configuration directives that give the server its instructions. http://httpd.apache.org/docs/2.2

- serverRoot
  is the path to the servers configuration, error and log files.
- ServerName
  This is where you declare the name of your website.
    - Add Hosts file etc–hosts
- DocumentRoot
  Tells you where your web documents (html files, images etc) should be located
- ErrorLog
  Tells you where the log containing all server errors is located. All messages with the value of warning (warn) Path to serverRoot.

# Main configuration files (httpd.conf)

original log files – /var/log/httpd/error_log
symbolic link –/etc/httpd/logs/error_log

- Listen
  The Listen command tells the Web server what ports to use
  for incoming connections. By default, port 80 is used
- PidFile
  Is the process identification number for the httpd. It allows
  you to monitor and manipulate your server processes.

## Tasks

- Create simple HTML page.
- Place it in the web server root directory.
- Test it locally and externally.

## Thank You

Any Questions ?

# Relavent links I

📕 Bauhaus University Media & Art MediaWiki
https://www.uni-weimar.de/medien/wiki/Main_Page.

📕 MediaWiki official Website
https://www.mediawiki.org/wiki/MediaWiki.

📕 *Apache Web Server Complete Guide* Dedoimedo
www.dedoimedo.com

📕 computer
https://rosnikv92.files.wordpress.com/2013/07/
ai-lowres.jpg

# Relavent links II

📕 Personal computer
http://www.merriam-webster.com/dictionary/
personal%20computer

📕 Server
http://whatis.techtarget.com/definition/server

📕 Apache
http://www.apache.org/

📕 Microsoft IIS
https://technet.microsoft.com/de-de/library/
cc753433%28v=ws.10%29.aspx

# Relavent links III

📕 lighttpd webserver
http://www.lighttpd.net/

📕 IBM webserver
http://www.ibm.com/de-de/