Media Wiki Backend

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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]

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
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
“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.

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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](http://httpd.apache.org/docs/2.2)

- **serverRoot**
  is the path to the server's 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/