**HTTP - HyperText Transfer Protocol**

by **Makarima Fahreza Fathony**

HTTP (Hypertext Transfer Protocol) is a group of commands and rules to transfer many files, such as text, graphics, images, sounds, etc., over World Wide Web. When user is entering space of web browser, the user is actually using HTTP, not in a straight way. HTTP is actually an application protocol that can be executed over TCP/IP.

Protocol of HTTP consists of request and response protocol, based on the data that client or server asks or retrieves. Usually, web browsers, robots and search engines, etc. act as HTTP clients, while the web server acts as server.

HTTP clients give a request method, URI, and protocol version to the server, followed by a message containing modifiers, client information, and body content over TCP/IP. Meanwhile, HTTP server responds with a status line, consists of message’s protocol version and a result code, in a form of success or error code, followed by a message containing server information, entity Meta information and entity-body content.

Method of HTTP client requests are many, such as GET, HEAD, POST, PUT, DELETE, CONNECT, OPTIONS and TRACE. This can be seen as following.

*GET /pub/WWW/TheProject.html HTTP/1.1*

*Host: www.w3.org*

Method of HTTP server responses consist of 5 kind of 3-digit status-codes. For example, 4xx means client error, or 2xx means success of responding client.

*HTTP/1.1 200 OK*

*Date: Mon, 27 Jul 2009 12:28:53 GMT*

*Server: Apache/2.2.14 (Win32)*

*Last-Modified: Wed, 22 Jul 2009 19:15:56 GMT*

*Content-Length: 88*

*Content-Type: text/html*

*Connection: Closed*

*<html>*

*<body>*

*<h1>Hello, World!</h1>*

*</body>*

*</html>*

If the web browser receives this response, that means browser and server have a handshake and web page will be displayed.

**References**:

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