HTTP Requests and
Low level implementation of them

Vardan Aloyan
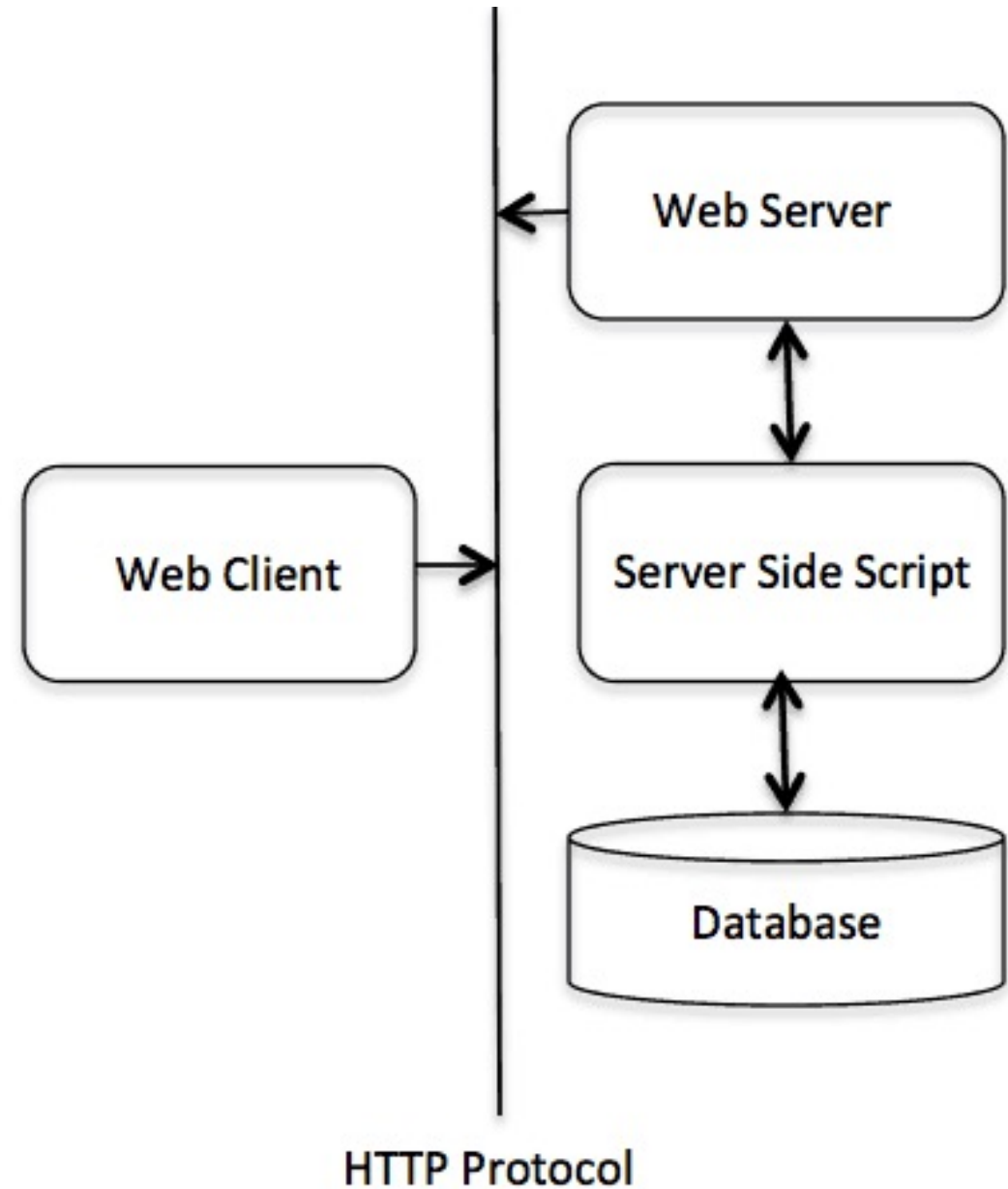
Agenda

- HTTP very brief Introduction
- Basic Architecure
- Sample of Request and Response
- Implementation

Definitions

- The Hypertext Transfer Protocol (HTTP) is an application-level protocol for distributed, collaborative, hypermedia information systems.

- HTTP is a TCP/IP based communication protocol, which is used to deliver data (HTML files, image files, query results, ...) on the World Wide Web.

- HTTP is based on client-server architecture model and a stateless request/response protocol that operates by exchanging messages across a reliable TCP/IP connection.

Basic Architecture

Web Server

Web Client → Server Side Script

Database

HTTP Protocol

What are the **client** and **server** doing ?

Client
The HTTP client sends a request to the server in the form of a request method, URI, and protocol version, followed by a MIME-like message containing request modifiers, client information, and possible body content over a TCP/IP connection.

Server
The HTTP server responds with a status line, including the message's protocol version and a success or error code, followed by a MIME-like message containing server information, entity metainformation, and possible entity-body content.

Sample of
Request and **Response**

GET /test HTTP/1.1
Host:127.0.0.1

HTTP/1.1 200 OK

Your Data here

Implementation

1. Server: Flask
   Client: RAW TCP Client, Postman

2. Server: RAW TCP Server
   Client: RAW TCP Client, Postman

Code samples are on my github account

References

- https://www.tutorialspoint.com/http/http_quick_guide.htm
- https://github.com/vardanaloyan/http-implementation

Thank You