HTTP Server
Requirement and Specification Document
21/03/2017
Version 1.1

Group no. 11
Chirag Maheshwari   15114020
Mohit Jindal   15114046
Nitish Bansal   15114048

Project Abstract

HTTP is the abbreviation of "**H**yper**T**ext **T**ransfer **P**rotocol". A protocol is like a language with a simple grammar. The HTTP Server is the implementation of that protocol in a piece of Software.

The protocol specifies how the information must be requested and how the responses are formed, so we have two important actors here: the HTTP Client (well known as Browser) and the HTTP Server.As HTTP Clients we have Firefox, Safari, Opera and Explorer within others. At Server side we have Apache, Nginx, Monkey, Lighttpd, etc.In short terms, every time that you open your browser (HTTP Client) and you write some address like: http://google.com and hit Enter, the browser is connecting to the HTTP server behind http://google.com, the server will interpret the main request and then provide the principal HTML page to the browser, later this last one will render the content for you. The HTTPServer "serves" content located in the server, this includes HTML, images, flash and any file related. The server is not restricted to server static content, it also serves dynamic content generated on fly from a database or similar.

Document Revision History

Rev 1.0 12/03/2017

Customer

Since the project is for the educational aspect ,our customer includes those students/people who want to know how server works,how requests are made and responded ,how the web pages are managed and displayed.We will first implement the core module consisting of some basic functionalities of HTTP server.Now assuming Mr. C to be our customer we will present our project after adding each new functionality to our project . If C understands this functionality thoroughly ,then new features would be designed and implemented,else we will break this functionality into more basic modules which the customer will be able to understand.This would be repeated till customer approves this .The deadline for adding each new functionality would be around a week, though some of advance features may require upto 2 to 3 weeks.Setting this deadline enables us to deploy our product with a new functionality every week to the customer C.

Competitive Landscape

We are realising this project for educational purpose . Although there already exists many HTTP server projects but they consists of just basic get request . Our Server would implement GET Request ,POST ,PATCH ,HEAD ,DELETE ,etc. We will try to keep each aspect as simple as possible so that customer can properly understand the functionalities of the server . Security remains an issue in our server. Our system might be vulnerable to external attacks like buffer eploitation ,enter into the database and can grasp the data or edit the data .Marketing is the second issue will face . We will just upload our server on the github ,no advertisement will be done.
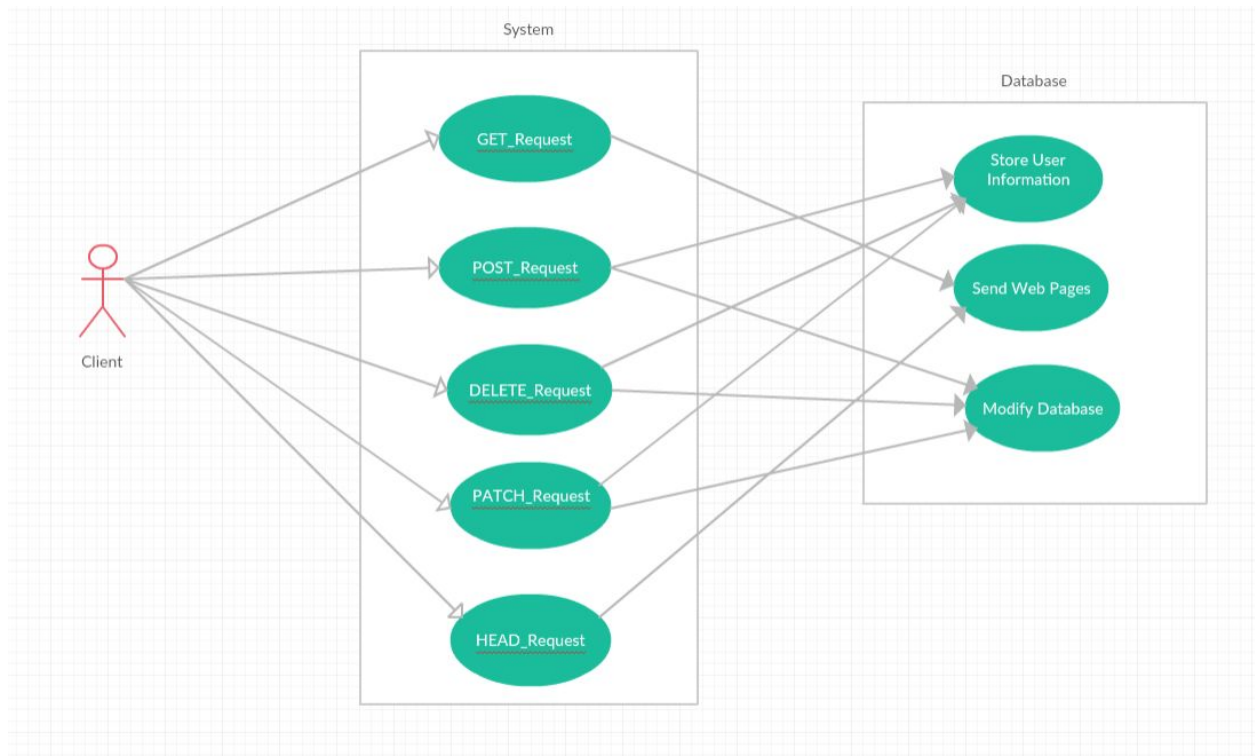
System Requirements

Python 2.7 or above

Python socket, threading library

Sufficient RAM and space for storing data

MySQL database support

Php support

GET_Request use case: Clent requests for some data and server responds appropriately.

POST_Request use case: Client gives some data and server stores in database with proper user information.

DELETE_Request use case: Removes all current representations of the target resource given by a URI.

PATCH_Request use case: Patch can be used to update partial resources.

HEAD_Request use case: Server transfer the status line and header section only to the client..

Check List

- All the views of the stakeholders have been taken into account.
- The requirements completely specify what the program does.
- Requirements are almost clear.
- All the requirements are properly prioritized.