

Programming Assignment 1 – Network Systems – A HTTP WEB SERVER

Mahadasu Yogitha Renu
(yoma2088@colorado.edu)

Details Of my Setup:

Wsconf file is needed to be put in the location: **/home/user/ws.conf**

WS.conf file contents:

#service port number
23156

#document root
DocumentRoot /home/user/Desktop/Yogitha/DocRoot

#default web page
/index.html

#Content--Type
.html .txt .png .gif .js

Pipelining Test case:

(echo -en "GET /abc.html HTTP/1.1\n Host: localhost \nConnection: keep-alive\n\nGET /abc.html HTTP/1.1\nHost: localhost\n\n"; sleep 10) | telnet localhost 23156

Response:

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^'].

```
HTTP/1.1 200 OK
<!DOCTYPE html>
<html>
<head>
  <title>Hi there</title>
</head>
<body>
<br/>
  This is a page
  a simple page
```

```
</body>
</html>
```

```
HTTP/1.1 200 OK
<!DOCTYPE html>
<html>
<head>
  <title>Hi there</title>
</head>
<body>
<br/>
  This is a page
  a simple page
</body>
</html>
```

Connection closed by foreign host.

Also, the index.html or the default web page, is active for 10 seconds, after 10 seconds, the links on the page are not being served.

400 ERROR Handling:

1. BAD URL:

```
(echo -en "GET /abc[1].html HTTP/1.1\n Host: localhost "; sleep 10) | telnet localhost 23156
```

Response:

```
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
HTTP/1.1 400 Bad Request
```

Server: Yogitha/Private

```
<html><head><title>400 Bad Request Error :-( !! </head></title><body><h1> Request URL is
BAD </h1><br><p>The request URL from the client is
malformed.</p><br><br></body></html>Connection closed by foreign host.
```

2. BAD METHOD:

```
(echo -en "POST /abc.html HTTP/1.1\n Host: localhost "; sleep 10) | telnet localhost 23156
```

Response:

```
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.

```

HTTP/1.1 400 Bad Request

Server: Yogitha/Private

```
<html><head><title>400 Bad Request Error :-( !! </head></title><body><h1> Request METHOD  
is BAD </h1><br><p>The request type from client is not  
GET.</p><br><br></body></html>Connection closed by foreign host.
```

3. BAD HTTP Version:

(echo -en "GET /abc.html HTTP/1.5\n Host: localhost "; sleep 10) | telnet localhost 23156

Response:

Trying 127.0.0.1...

Connected to localhost.

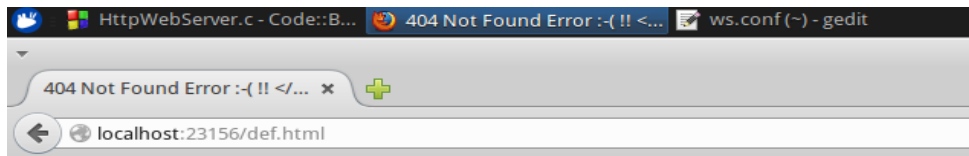
Escape character is '^['.

HTTP/1.1 400 Bad Request

Server: Yogitha/Private

```
<html><head><title>400 Bad Request Error :-( !! </head></title><body><h1> Request HTML  
Version is bad </h1><br><p>The request type from client is not either HTTP/1.1 or  
HTTP/1.0.</p><br><br></body></html>Connection closed by foreign host.
```

404 Error Handling:



Server: Yogitha/Private

URL NOT FOUND

The page you are looking for was not found on the server.

501 Not Implemented ERROR:

Response: (echo -en "GET /abc.mpg HTTP/1.1\n Host: localhost "; sleep 10) | telnet localhost 23156

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^['.

HTTP/1.1 NOT Implemented Error

Server: Yogitha/Private

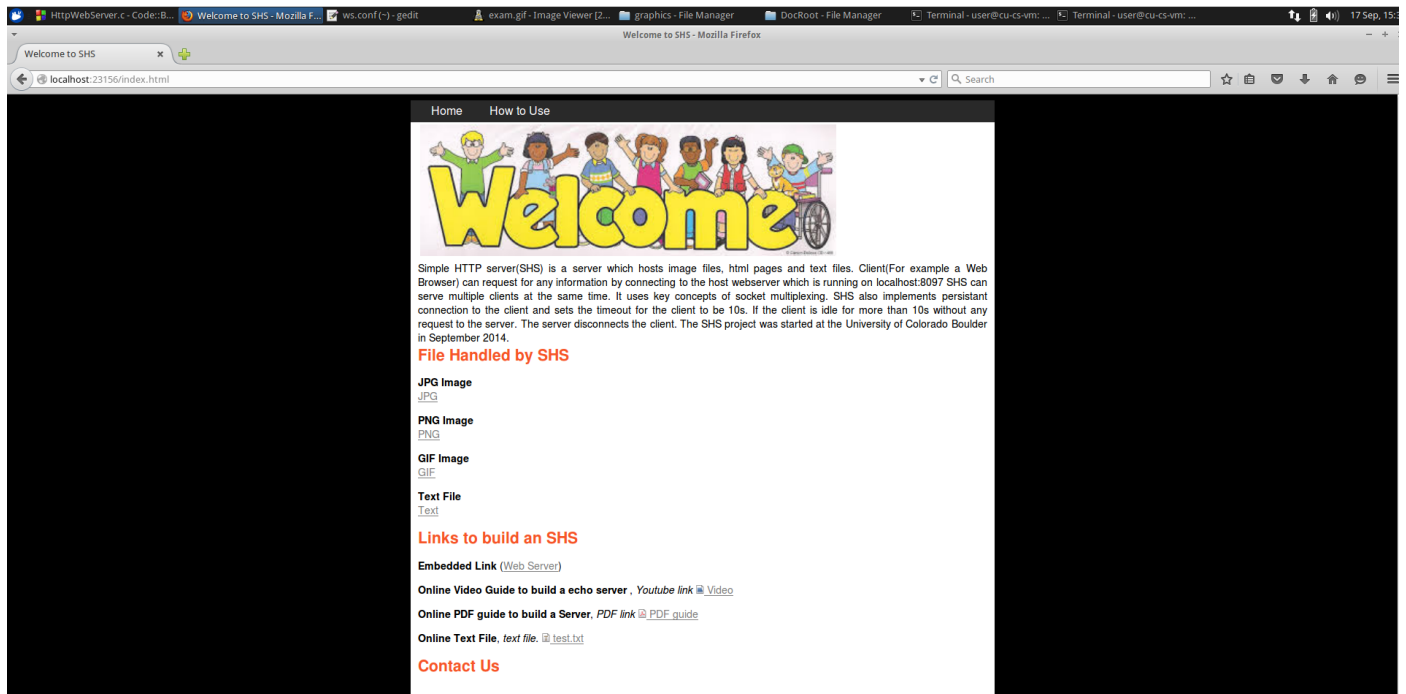
```
<body><h1> The content type is not supported </h1><br><p>The
.</p><br><br></body></html><html><head><title>NOT IMPLEMENTED :-( !! </head></title>Connection
closed by foreign host.
```

Multiple Connections: Multithreading:

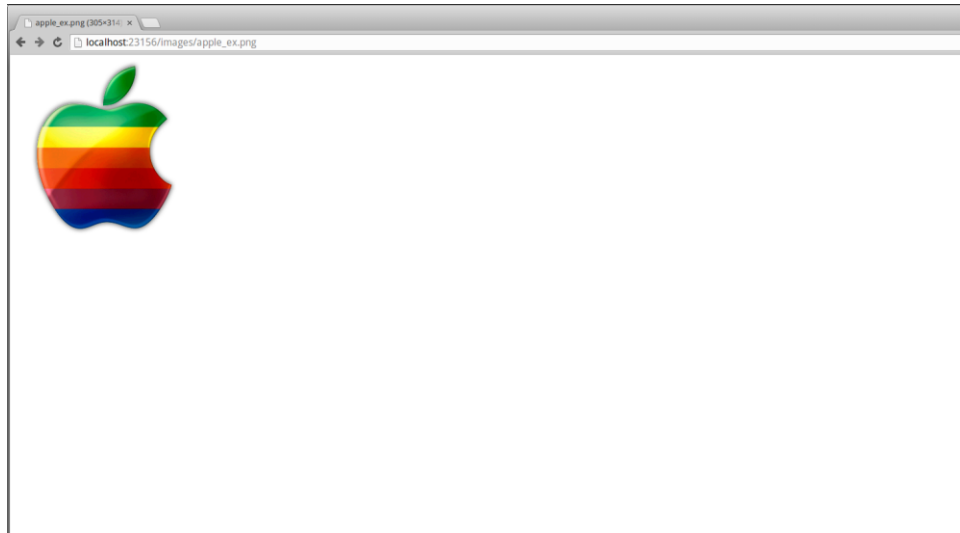
Requesting different pages at a time using firefox and chrome:

<http://localhost:23156/index.html>

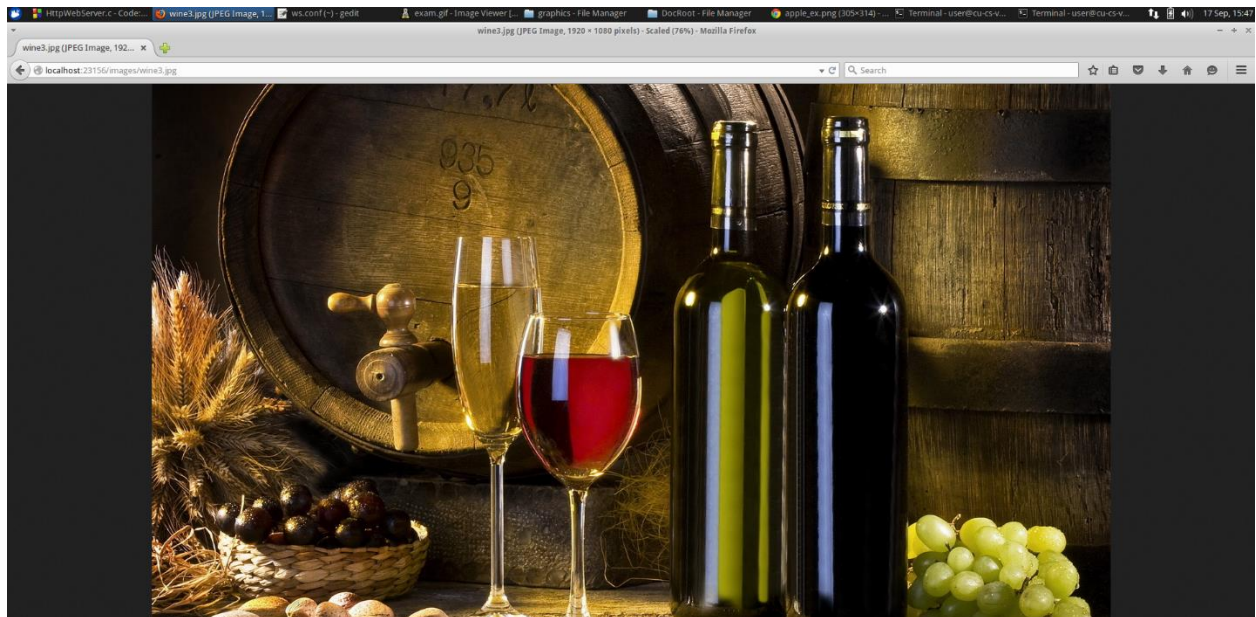
Firefox:

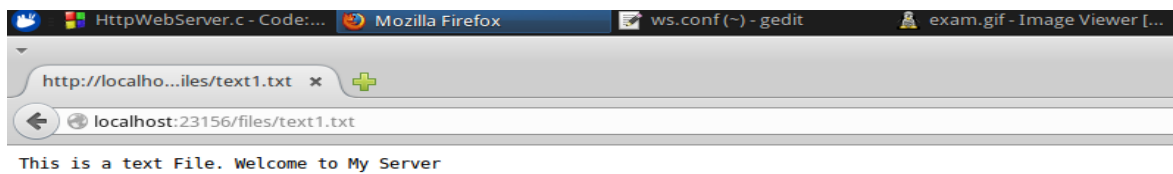
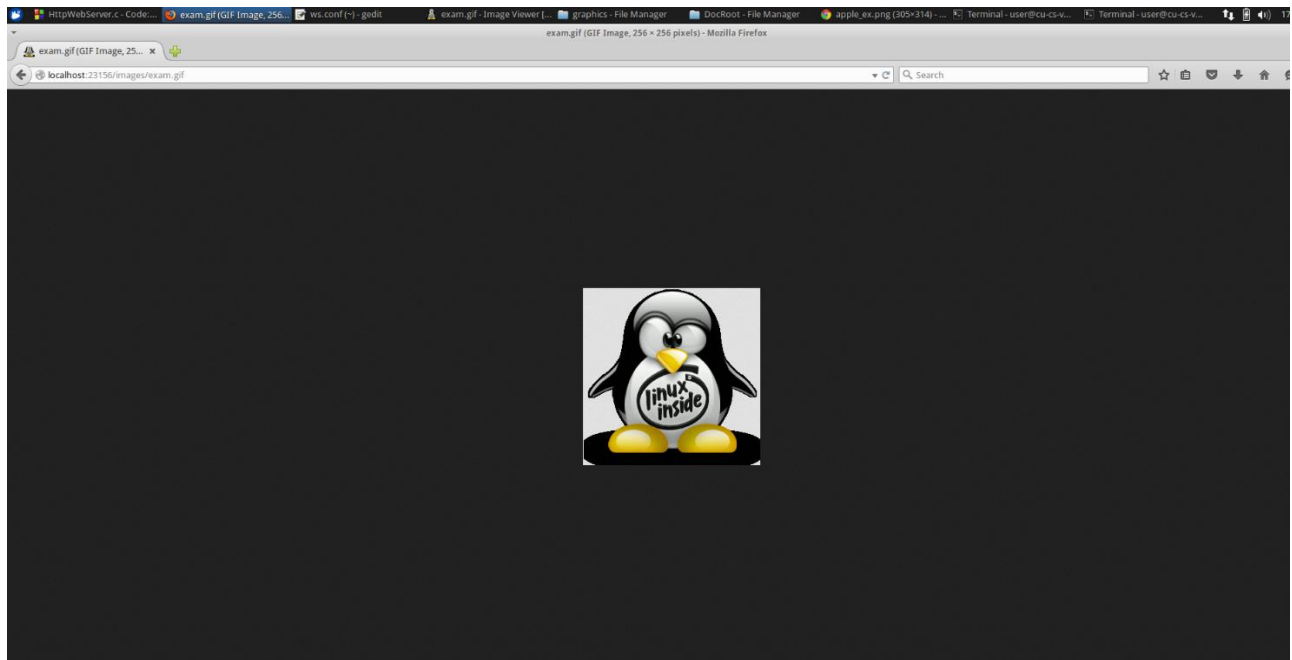


Chrome:



All the internal links to png, gif, jpeg, text files are working correctly:





All the external links handled by webserver on the internet are working correctly:

