

## Testing Scenarios

### Case 1:

#### Method not Implemented – POST, CONNECT, HEAD

The image shows a Wireshark packet capture of an HTTP 501 Method Not Implemented response. The packet list on the left shows a packet of 261 bytes on the wire. The packet details pane on the right shows the following information:

- CONNECT s.joshoney.com:443 HTTP/1.1
- User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:66.0) Gecko/20100101 Firefox/84.0
- Proxy-Connection: keep-alive
- Connection: keep-alive
- Host: s.joshoney.com:443
- HTTP/1.1 501 Not Implemented
- Content-Length: 127
- Server: Apache/2.4.6
- Content-Type: text/html; charset=utf-8

The packet bytes pane at the bottom shows the raw data of the response, which is an HTML document with a 501 status and a message indicating that the method is not supported.

### Case 2:

#### Invalid Request Line – Protocol not supported

```
afscconnect1-44 ~ >: telnet 128.235.209.204 8877
Trying 128.235.209.204...
Connected to 128.235.209.204.
Escape character is '^]'.
GET / HTTP/1.0
Host: yahoo.com

HTTP/1.1 505 HTTP Version Not Supported
Content-Length: 131
Server: Apache/2.4.6
Content-Type: text/html; charset=utf-8

<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html>
<head>
</head>
<body>
505 HTTP Version Not Supported
</body>
</html>Connection closed by foreign host.
```

### Case 3: Incorrect Syntax

```
afsfconnect1-43 ~ >: telnet 128.235.209.204 8877
Trying 128.235.209.204...
Connected to 128.235.209.204.
Escape character is '^]'.
GET http://dsadasd HTTP/1.1
Host: yahoo.com
dasdsa
Accept: dasdsadas

HTTP/1.1 400 Bad request
Content-Length: 116
Server: Apache/2.4.6
Content-Type: text/html; charset=utf-8

<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html>
<head>
</head>
<body>
400 Bad request
</body>
</html>Connection closed by foreign host.
```

```
afsfaccess3-61 Assignment5 >: telnet 128.235.208.75 8877
Trying 128.235.208.75...
Connected to 128.235.208.75.
Escape character is '^]'.
GET http://dadasda HTTP/1.1
Accept: dadsa
Content: dadsa

HTTP/1.1 400 Bad request
Content-Length: 116
Server: Apache/2.4.6
Content-Type: text/html; charset=utf-8

<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html>
<head>
</head>
```

```
afaccess3-61 Assignment5 >: telnet 128.235.208.75 8877
Trying 128.235.208.75...
Connected to 128.235.208.75.
Escape character is '^]'.
GET / HTTP/1.1
host: www.google.com

HTTP/1.1 400 Bad request
Content-Length: 116
Server: Apache/2.4.6
Content-Type: text/html; charset=utf-8

<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html>
<head>
</head>
<body>
400 Bad request
</body>
</html>Connection closed by foreign host.
```

Case 4: No Valid Host



## Case 5: 200 status

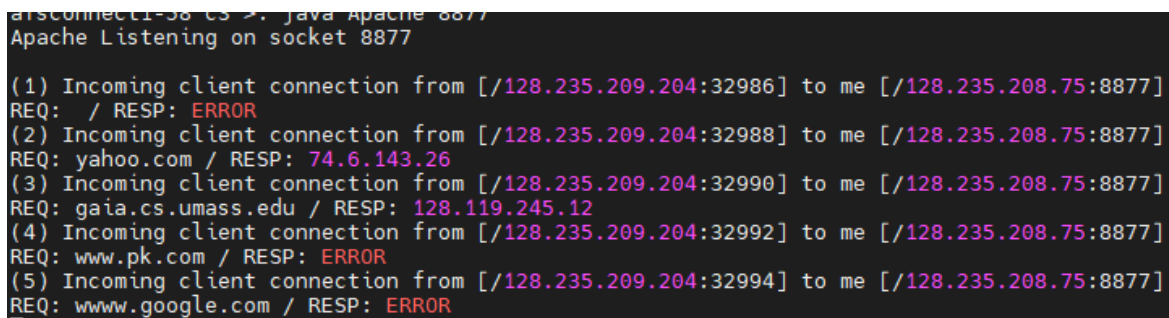


The screenshot shows a web browser window with the address bar displaying 'www.yahoo.com'. Below the address bar, the HTTP request details are visible:

```
GET http://www.yahoo.com/ HTTP/1.1
Host: www.yahoo.com
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:86.0) Gecko/20100101 Firefox/86.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive
Upgrade-Insecure-Requests: 1

DNS LOOKUP: www.yahoo.com
Preferred IP: 74.6.143.25
```

## Server View:



The screenshot shows a terminal window with the following output:

```
atsconnect1-38 CS > ./java Apache 8877
Apache Listening on socket 8877

(1) Incoming client connection from [/128.235.209.204:32986] to me [/128.235.208.75:8877]
REQ: / RESP: ERROR
(2) Incoming client connection from [/128.235.209.204:32988] to me [/128.235.208.75:8877]
REQ: yahoo.com / RESP: 74.6.143.26
(3) Incoming client connection from [/128.235.209.204:32990] to me [/128.235.208.75:8877]
REQ: gaia.cs.umass.edu / RESP: 128.119.245.12
(4) Incoming client connection from [/128.235.209.204:32992] to me [/128.235.208.75:8877]
REQ: www.pk.com / RESP: ERROR
(5) Incoming client connection from [/128.235.209.204:32994] to me [/128.235.208.75:8877]
REQ: www.google.com / RESP: ERROR
```