ECE 465: Computer Networking Protocols//HTTP Examples

Prof. Paris

Last updated: February 15, 2007

Minimal GET Request

- Begin by establishing a TCP connection to the server

  telnet www.spec.gmu.edu 80

- Once connection is established, send request

  GET /~pparis/classes/ece465.html HTTP/1.1
  Host: www.spec.gmu.edu

- Note, requests ends with empty line

Response

```
HTTP/1.1 200 OK
Date: Thu, 15 Feb 2007 14:57:36 GMT
Server: Apache
Last-Modified: Tue, 06 Feb 2007 14:46:09 GMT
ETag: "5f709-1236-ded9ce40"
Accept-Ranges: bytes
Content-Length: 4662
Content-Type: text/html

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
....
```

A POST Request

- A POST request transmits information to the server.
- The information is sent in the body of the request.
- To signal the presence of a body, the `Content-Length` header is required.
- After connecting (as before) issue the following request. Note the empty line between header and body.

```
POST /~pparis/cgi-bin/test.cgi HTTP/1.1
Host: www.spec.gmu.edu
Content-Length: 10

name=Bubba
```

```
HTTP/1.1  200 OK
Date : Thu , 15 Feb 2007 15:06:17 GMT
Server : Apache
Content-Length : 393
Content-Type : text / html ; charset=ISO-8859-1

<!DOCTYPE html
        PUBLIC "-//W3C//DTD XHTML 1.0 Transitional //EN"
         " http ://www.w3. org /TR/ xhtml1 /DTD/ xhtml1-transitional . dtd">
<html xmlns=" http ://www.w3. org /1999/ xhtml" lang ="en-US" xml : lang ="en-US">
<head>
< title >ECE 465 Form Example </ title >
<meta http-equiv ="Content-Type" content =" text / html ; charset=iso -8859-1" />
</head>
<body>
<h1>ECE 465 Form Example </h1>Hello <em>Bubba </em>!<p /><hr />
```

Chunked Encoding

- Chunked Encoding provides an alternative to specifying the content length.
- Useful when content length is not known immediately.

```
POST /~pparis/cgi-bin/test.cgi HTTP/1.1
Host: www.spec.gmu.edu
Transfer-Encoding: chunked

5
name=
5
Bubba
0
```

- Two chunks of size 5 bytes are sent. End of body is signaled by chunk of size 0.
- Caveat: this doesn't work quite right.