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**HTTP Lab:**

In this lab we will use the HEAD and GET commands from the HTTP protocol. Together these commands allow you to retrieve information about a web resource (its header) or get the resource itself. Along with PUT and POST (that we won’t be using in this lab) these comprise the primary commands in the HTTP protocol.

1 – Login to Icarus using putty

2 – Use Icarus’ telnet command to connect to the http port (port 80) of icarus.cs.weber.edu

telnet icarus.cs.weber.edu 80

This should take you into the “telnet” command prompt where you can enter telnet commands.

Note: This connection will time out within a short amount of inactive time for security reasons. To complete this lab you will probably have to type the telnet commands into another document, run the telnet command and then paste the commands in. Otherwise you will get disconnected while typing most of the commands.

If you see <your username>@icarus:~$ (or anything similar) then you are back outside of the telnet command prompt. When that happens you’ll need to run the telnet command again.

3 – Run the following telnet commands:

HEAD /~jn58729/gogetem.html HTTP/1.1

host: icarus.cs.weber.edu

Note: You don’t need to copy and paste them one by one. Copy and Paste both together.

After entering the commands hit enter twice. Copy and paste the output here.

HTTP/1.1 200 OK

Date: Sun, 13 Dec 2015 21:28:01 GMT

Server: Apache/2.4.7 (Ubuntu) SVN/1.8.8 mod\_fastcgi/mod\_fastcgi-SNAP-0910052141 mod\_fcgid/2.3.9 PHP/5.5.9-1ubuntu4.14 OpenSSL/1.0.1f mod\_perl/2.0.8 Perl/v5.18.2

Last-Modified: Thu, 30 May 2013 19:10:53 GMT

ETag: "ad-4ddf441db7555"

Accept-Ranges: bytes

Content-Length: 173

Vary: Accept-Encoding

Content-Type: text/html

What is the Content-Type of this file?

HTML

4 – Run the following telnet commands (Rerun the telnet connection command if you need to):

GET /~jn58729/gogetem.html HTTP/1.1

host: icarus.cs.weber.edu

After entering the commands hit enter twice. Copy and paste the output here.

HTTP/1.1 200 OK

Date: Sun, 13 Dec 2015 21:28:55 GMT

Server: Apache/2.4.7 (Ubuntu) SVN/1.8.8 mod\_fastcgi/mod\_fastcgi-SNAP-0910052141 mod\_fcgid/2.3.9 PHP/5.5.9-1ubuntu4.14 OpenSSL/1.0.1f mod\_perl/2.0.8 Perl/v5.18.2

Last-Modified: Thu, 30 May 2013 19:10:53 GMT

ETag: "ad-4ddf441db7555"

Accept-Ranges: bytes

Content-Length: 173

Vary: Accept-Encoding

Content-Type: text/html

<form action="http://icarus.cs.weber.edu/~jn58729/ps.cgi" method="GET">

<p>What is the userID?

<input name="userid" /></p>

<input type=submit value="SUBMIT" />

</form>

What is different between the HEAD command and the GET command?

HEAD returns infomation about the page, while the GET returns that plus the page itself.

5 – Run the following telnet commands:

HEAD /~jn58729/JPG.jpg HTTP/1.1

host: icarus.cs.weber.edu

Copy and paste the output here.

Trying 127.0.1.1...

Connected to icarus.cs.weber.edu.

Escape character is '^]'.

HEAD /~jn58729/JPG.jpg HTTP/1.1

host: icarus.cs.weber.edu

HTTP/1.1 200 OK

Date: Sun, 13 Dec 2015 21:29:27 GMT

Server: Apache/2.4.7 (Ubuntu) SVN/1.8.8 mod\_fastcgi/mod\_fastcgi-SNAP-0910052141 mod\_fcgid/2.3.9 PHP/5.5.9-1ubuntu4.14 OpenSSL/1.0.1f mod\_perl/2.0.8 Perl/v5.18.2

Last-Modified: Fri, 19 Jul 2013 05:38:09 GMT

ETag: "3393a-4e1d6bb54f240"

Accept-Ranges: bytes

Content-Length: 211258

Content-Type: image/jpeg

What is the Content-Type of this file?

JPEG image

Why do you think the HEAD command tells you the Content-Type?

The HEAD command is responsible for getting the header info for the page requested, I think it’s important for it to note what type of file it’s showing.

6 – Think of the commands we just ran from the perspective of your web browser. How do you think a web browser knows when to download a file, when to display it as HTML on your screen and when to display it as a picture or multimedia file?

I think it’s important that the browser knows the kind of file that it is opening. This will allow them to perform the correct function and display the file correctly.