Lab Report

ECPE 170 – Computer Systems and Networks – Spring 2016

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Lab Topic: Network Socket Programming(Basic)   (Lab #: 8)

Question #1:

```
What is first line of the python script that starts with #! doing?
Where in ECPE 170 have you seen this before.
```

Answer:

The first line defines where the python interpreter is located. The makefiles for out C programs have also had to call on C compilers.

Question #2:

```
Document the HTTP request and the server response when you manually
download the HTML file at http://ecs-network.serv.pacific.edu/ecpe-
170/lab/ via Netcat.
(By "document", you should provide the full client request and a
partial server response(top 40-50 lines is sufficient for me to tell
if you downloaded the right file). The script utility can make this
capture easy for you - see below.)
```

Answer:

GET /about/ HTTP/1.1

Host: www.google.com

Connection: close

HTTP/1.1 200 OK

Accept-Ranges: none

Vary: Accept-Encoding

Content-Type: text/html

Date: Thu, 30 Mar 2017 06:00:02 GMT

Expires: Thu, 30 Mar 2017 06:00:02 GMT

Cache-Control: private, max-age=0

Last-Modified: Mon, 27 Mar 2017 23:00:00 GMT

X-Content-Type-Options: nosniff

Server: sffe

X-XSS-Protection: 1; mode=block

Connection: close

<!DOCTYPE html>

```
<html class="google spa" dir="ltr" lang="en">
  <head>
    <meta charset="utf-8">
    <meta content="initial-scale=1, minimum-scale=1, width=device-width" name="viewport">
    <title>
      About Us | Google
    </title>
    <meta content=
    "Google's mission is to organize the world's information and make it universally accessible and
useful. Learn about our company history, products, and more."
    name="description">
    <link href="//fonts.googleapis.com/css?family=Roboto:100,300,400,500,700&amp;lang=en" rel=
    "stylesheet">
    <link href="/about/assets/css/main.min.css" rel="stylesheet">
    <script>
    (function() {
        var docElement = document.documentElement;
        docElement.className = docElement.className.replace(/\bgoogle\b/, 'google-js');
      })();
    </script>
    <script src="//www.gstatic.com/external_hosted/modernizr/v2_8_3/basic.js">
    </script>
    <script>
    (function() {
        function a(b){var r=c;b=window.navigator.userAgent.match(b);return!b||
b&&parseInt(b[1],10)>r}var d={IE:"ie",ANDROID:"android",IOS:"ios"},e=/MSIE\s(\d+)\.
(\d+);\sWindows\sNT/,f=/Windows\sNT.+Trident.+rv:(\d+)(?:.(\d+))?/,g={IE:e,IE11:f,IOS:/(?:iPhone|
iPad)?;.+OS\s(\d+)_\d+/,ANDROID:/Android\s(\d+)\.(\d+)/},h=/\bglue-app-?\w*\b/;
a:{var k={android:3,ie:8};window.glueAppSupported=!1;for(var l in k){var m;var n=void 0,p=void
0,q=l,c=parseInt(k[l],10);if("ie"==q)m=11<=c&&!a(f)?!1:a(e);else{for(n in d)if(d[n]==q)
{p=g[n];break}m=a(p)}if(!m)break a}window.glueAppSupported=!0;var
t=window.document.documentElement;h.test(t.className)?t.className=t.className.replace(h,"glue-
app-supported"):t.className+=(t.className?" ":"")+"glue-app-supported"};
      })()
    </script>
```

Question #3:
Document the HTTP request and the server response when you manually
download the HTML file at http://www.yahoo.com/ via Netcat
Answer:
```
Script started on Wed 29 Mar 2017 11:04:32 PM PDT
GET /about/ HTTP/1.1

Host: www.yahoo.com

Connection: closeHTTP/1.1 400 Host Header Required
```

Date: Thu, 30 Mar 2017 06:04:34 GMT

Connection: keep-alive

Via: http/1.1 ir6.fp.gq1.yahoo.com (ApacheTrafficServer)

Server: ATS

Cache-Control: no-store

Content-Type: text/html

Content-Language: en

Content-Length: 6491

```html
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <meta http-equiv="content-type" content="text/html; charset=UTF-
8">
    <meta charset="utf-8">
    <title>Yahoo</title>
    <meta name="viewport" content="width=device-width,initial-
scale=1,minimal-ui">
    <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
    <style>
      html {
          height: 100%;
      }
      body {
          background: #fafafc url(https://s.yimg.com/nn/img/sad-
panda-201402200631.png) 50% 50%;
          background-size: cover;
          height: 100%;
          text-align: center;
          font: 300 18px "helvetica neue", helvetica, verdana,
tahoma, arial, sans-serif;
          margin: 0;
      }
      table {
          height: 100%;
          width: 100%;
          table-layout: fixed;
          border-collapse: collapse;
          border-spacing: 0;
          border: none;
```

```
        }
        h1 {
            font-size: 42px;
            font-weight: 400;
            color: #400090;
        }
        p {
            color: #1A1A1A;
        }
        #message-1 {
            font-weight: bold;
            margin: 0;
        }
        #message-2 {
            display: inline-block;
            *display: inline;
            zoom: 1;
            max-width: 17em;
            _width: 17em;
        }
        </style>
        <script>
        </script>
    </head>
```

Question #4:
Document the HTTP request and the server response when you manually
download the PNG image file at
http://www.google.com/images/logos/google_logo_41.png via Netcat
Note: Is there a good reason why it doesn't make sense to include the
server response (at least, the data portion) in your lab report? On a
related note, if your Terminal window hangs during this step, at
least you'll know why!

Answer:
GET /about/ HTTP/1.1
Host: www.google.com
Connection: close