

Computer Science 571 MidTerm

Prof. Horowitz

Thursday, October 11, 2012, 9:30am – 10:45am

Name:

Student ID Number:

1. This is a closed book exam.
2. Please answer all questions.
3. Place all answers on the exam and return the entire exam

General Questions [40 pts]



Snapshot of Google About Page

Below is the Google source code (slightly edited) with line numbers added, that produced the page above. Some lines are longer than the width of the page. Please answer all of the questions that follow the source code.

```
1. <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
2. <html> <head>
3. <META http-equiv="Content-Type" content="text/html; charset=UTF-8">
4. <title>About Google</title>
5. <link rel="stylesheet" type="text/css"
href="http://www.google.com/css/gcs.css">
6. <style type="text/css">
7. h1 {
8.   color:#636363;
9.   float:left;
10.  font-size:1.8em;
11.  padding:0;
12. }
13. .promo {
14.   border:1px solid #000;
15.   margin:0.2em 0.7em 1em 0;
16.   padding:0.5em 0.3em;
17.   text-align:center; }
18. .leftnav {
19.   width:201px !important; }
20. .content {
21.   margin:0 0 0 201px !important;
22. }</style>
23. </head>
24. <body>
25. <div class="g-doc about">
26. <div class="g-section header">
27. <h1>About <a href="/"></a>
28. </h1>
29. <form action="http://www.google.com/search" method="get">
30. <label for="output"></label><input type="hidden" value="googleabout"
name="output">
31. <label for="sitesearch"></label><input type="hidden"
value="http://www.google.com" name="sitesearch">
32. <label for="hl"></label><input type="hidden" value="en"
name="hl"><label for="q">
33. </label><input type="text" value="" size="20" name="q">
   &nbsp;<input type="submit" value="Search our site" name="submit">
34. </form> </div>
35. <div class="g-section g-tpl-180">
36. <div class="g-unit g-first leftnav">
37. <div class="promo promo-red">
38. <strong><a
href="http://www.google.com/admanager?utm_source=aboutgoogle&utm_medium=e
t&utm_campaign=aboutgoogle"
onclick="javascript:urchinTracker('/embedmktg/admanager');">Google Ad
Manager</a></strong>
39. <br>New! Manage your online ad sales and inventory with Google Ad
Manager.</div>
```

```

40. <div class="promo promo-yellow">
41. <strong><a
href="http://www.google.com/chrome/index.html?hl=en&brand=CHMH&utm_source=en-et-abt&utm_medium=abt&utm_campaign=en"
onclick="javascript:urchinTracker('/embedmktg/chrome');">Google
Chrome</a></strong> <br>
42. <a
href="http://www.google.com/chrome/index.html?hl=en&brand=CHMH&utm_source=en-et-abt&utm_medium=abt&utm_campaign=en"
onclick="javascript:urchinTracker('/embedmktg/chrome');"></a>
43. <br>Browse the web with the power of Google. Searching just got faster,
easier, and safer.</div>
44. <div class="promo promo-blue">
45. <strong><a href="http://docs.google.com/?utm_source=en-abt-
page&utm_medium=abt&utm_campaign=en"
onclick="javascript:urchinTracker('/embedmktg/docs');">Google
Docs</a></strong>
46. <br>Create and share your documents online and access them from
anywhere.</div>
47. <div style="display:none;" class="promo promo-green" id="rec1"></div>
</div>
48. <div class="g-unit content">
49. <div class="g-section g-tpl-50-50 contentr1">
50. <div class="g-unit g-first contentr1c1">
51. <h2>Our Products</h2>
52. <p><a href="/support?hl=en"
onclick="javascript:urchinTracker('/site/help');">Help</a>
53. <br>Help with Google Search, Services and Products...</p>
54. <p> <a href="help/features.html"
onclick="javascript:urchinTracker('/site/websearch');">Google Web Search
Features</a>
55. <br>Translation, I'm Feeling Lucky, Cached...</p>
56. <p> <a href="options/"
onclick="javascript:urchinTracker('/site/services');">Google Services &
Tools</a>
57. <br>Toolbar, Google Web APIs, Buttons...</p>
58. <p> <a href="http://labs.google.com/"
onclick="javascript:urchinTracker('/site/labs');">Google Labs</a>
59. <br>Ideas, Demos, Experiments...</p> </div>
60. <div class="g-unit contentr1c2">
61. <h2>For Site Owners</h2>
62. <p> <a href="ads/"
onclick="javascript:urchinTracker('/site/ads');">Advertising</a>
63. <br>AdWords, AdSense...</p>
64. <p> <a href="services/"
onclick="javascript:urchinTracker('/site/solutions');">Business Solutions</a>
65. <br>Google Search Appliance, Google Mini, WebSearch...</p>
66. <p> <a href="webmasters/"
onclick="javascript:urchinTracker('/site/webmaster');">Webmaster Central</a>
67. <br>One-stop shop for comprehensive info about how Google crawls and
indexes websites...</p>

```

```

68.  <p> <a href="submit_content.html"
onclick="javascript:urchinTracker('/site/submit');">Submit your content to
Google</a>
69.  <br>Add your site, Google Base, Google Sitemaps...</p>
</div> </div>
70.  <div class="g-section g-tpl-50-50 contentr2">
71.  <div class="g-unit g-first contentr2c1">
72.  <h2>Our Company</h2>
73.  <p> <a href="press/"
onclick="javascript:urchinTracker('/site/press');">Press Center</a>
74.  <br>News, Images, Zeitgeist...</p>
75.  <p> <a href="jobs/"
onclick="javascript:urchinTracker('/site/jobs');">Jobs at Google</a>
76.  <br>Openings, Perks, Culture...</p>
77.  <p> <a href="corporate/"
onclick="javascript:urchinTracker('/site/corporate');">Corporate Info</a>
78.  <br>Company overview, Philosophy, Diversity, Addresses...</p>
79.  <p> <a href="http://investor.google.com"
onclick="javascript:urchinTracker('/site/ir');">Investor Relations</a>
80.  <br>Financial info, Corporate governance...</p> </div>
81.  <div class="g-unit contentr2c2">
82.  <h2>More Google</h2>
83.  <p> <a href="contact/"
onclick="javascript:urchinTracker('/site/contact');">Contact Us</a>
84.  <br>FAQs, Feedback, Newsletter...</p>
85.  <p> <a href="stickers.html"
onclick="javascript:urchinTracker('/site/logos');">Logos and Photos</a>
86.  <br>Logos, Doodles, Googlers at work and play...</p>
87.  <p> <a href="http://googleblog.blogspot.com"
onclick="javascript:urchinTracker('/site/blog');">Google Blog</a>
88.  <br>Insights to Google products and culture...</p>
89.  <p> <a href="http://www.googlestore.com"
onclick="javascript:urchinTracker('/site/store');">Google Store</a>
90.  <br>Pens, Shirts, Lava lamps...</p>
91.  </div></div></div></div>
92.  <div class="g-section footer">
93.  <p>&copy;2008 Google - <a href="privacy.html">Privacy Policy</a> - <a
href="/accounts/TOS">Terms of Service</a>
94.  </p> </div> </div>
95.  <script type="text/javascript" language="javascript"
src="https://ssl.google-analytics.com/urchin.js"></script>
96.  <script type="text/javascript" language="javascript">
97.    _uacct="UA-18000-1";
98.    _utcp="/";
99.    _uanchor=1;
100.    urchinTracker();
101.  </script>
102.  <script type="text/javascript" language="javascript"
src="http://www.google.com/receng/js/receng.js"></script>
103.  <script type="text/javascript" language="javascript">
104.    function getRecommendations() {
105.      var recEng = new goog.RecEng();
106.      recEng.config = recEng.CONSUMER;
107.      recEng.layout = formatPromo;
108.      recEng.caller = "about";

```

```

109.         recEng.divs = [ "rec1"];
110.         recEng.recommend();
111.     }
112.     function formatPromo(div,rec){
113.         document.getElementById(div).innerHTML='<a
href="'+rec.callToActionUrl+'"><strong>'+rec.longTitle+'</strong></a>
114.         <br />'+rec.shortDescription;
115.         document.getElementById(div).style.display='block';
116.     }
117.     getRecommendations();
118. </script> </body> </html>

```

For the questions below,

- if a link is clicked, please provide the complete URL which produces the resulting page.
- if a function is called, please name the function and its arguments

1. [4 pts] Which version of HTML, v 3.2, v 4., v 4.01 or v 5.0 does the file conform to?

ANSWER: HTML 4.01

2. [4 pts] what is the location (URL) of the stylesheet that is used for this file?

ANSWER: <http://www.google.com/css/gcs.css>

3. [4 pts] If someone bookmarks this page, what will be the name that they see when the bookmarks are displayed?

ANSWER: About Google

4. [4 pts] Explain the purpose of lines 14 - 17, which are repeated here. Describe explicitly the purpose of two of border, margin, padding and text-align.

```

.promo {
14.     border:1px solid #000;
15.     margin:0.2em 0.7em 1em 0;
16.     padding:0.5em 0.3em;
17.     text-align:center; }

```

ANSWER: it defines properties of the class selector promo. The border is 1 pixel solid black, the margins are set top, right, bottom, left (clockwise) and same for padding. Text-align centers the text.

5. [4 pts] the page has a search box in the upper right hand corner. If someone enters the phrase "ads per thousand" and clicks on the button, what URL is displayed?

ANSWER:

<http://www.google.com/search?output=googleabout&sitesearch=http%3A%2F%2Fwww.google.com&hl=en&q=ads+per+thousand&submit=Search+our+site>
(No partial credit)

6. [4 pts] Under the "Our Products" category there is a link labeled "Help" what happens when a user clicks on this link? Mention everything that occurs.

ANSWER:

THE JAVASCRIPT ROUTINE `urchinTracker` is called with string argument `'/site/help'` and a new page is displayed whose URL is `http://www.google.com/support/?hl=en`

7. [4 pts] What is the resulting URL if the link labeled Privacy Policy is clicked?

ANSWER:

`http://www.google.com/intl/en/privacy.html`

8. [4 pts] This web page imports one or more JavaScript files. What is the URL of one of the imported JavaScript files?

ANSWER:

`https://ssl.google-analytics.com/urchin.js`

or

`http://www.google.com/receng/js/receng.js`

9. [4 pts] The JavaScript function `urchinTracker` is called on many lines, e.g. 38, 41, and 42, always with one argument, but on line 100 it is called with no arguments; how is that possible?

ANSWER

A JavaScript function acting as a constructor function can accept different numbers of arguments.

10. [4 pts] At line 112 you will find the definition of `formatPromo()`. Where in the page is `formatPromo` invoked?

ANSWER: line 107.

HTTP [24 pts]



The picture above is a snapshot of the Yahoo home page accessed by the Firefox browser. Below, are the HTTP headers exchanged between the browser and Yahoo. The transactions have been edited, leaving only a few of the transactions.

Transaction 1

https://www.yahoo.com/

GET / HTTP/1.1

Host: www.yahoo.com

User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101

Firefox/15.0.1

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Accept-Language: en-us,en;q=0.5

Accept-Encoding: gzip, deflate

Connection: keep-alive

HTTP/1.1 301 Moved Permanently

Date: Wed, 26 Sep 2012 23:01:48 GMT

Location: http://www.yahoo.com/?s=https

Vary: Accept-Encoding

Connection: close

Transfer-Encoding: chunked

Content-Type: text/html; charset=utf-8

Cache-Control: private

Transaction 2

http://www.yahoo.com/?s=https

GET /?s=https HTTP/1.1

Host: www.yahoo.com

User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101

Firefox/15.0.1

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Accept-Language: en-us,en;q=0.5

Accept-Encoding: gzip, deflate

Connection: keep-alive

HTTP/1.1 200 OK

Date: Wed, 26 Sep 2012 23:02:04 GMT

Set-Cookie: B=822iko58672bc&b=3&s=83; expires=Tue, 27-Sep-2014 20:00:00 GMT; path=/; domain=.yahoo.com

Set-Cookie: IU=deleted; expires=Tue, 27-Sep-2011 23:02:03 GMT; path=/; domain=.yahoo.com

Set-Cookie: PH=deleted; expires=Tue, 27-Sep-2011 23:02:03 GMT; path=/; domain=.yahoo.com

Set-Cookie: MSC=t=1348700524X; expires=Thu, 26-Sep-2013 23:02:04 GMT; path=/; domain=.yahoo.com

Set-Cookie:

fpc=d=ah9i35kWpnT1UpelL3GVbSuVtUSyEAxfRUB5_qCjr28pg.xAPGVMYQuPP1sFpvj773w7JuK mH0P.Ws1VK4B7xM2N2sbXiHBcMOcy769eHLyB.GcIWA0kLXKOFBeSqyal5UoM3pO5NAZt8eGNE.n.N

_HX6ElImtc_N4mifh.VuMQq3Yd6b2hons1Hb7LY_lmtN4BNWws0-&v=2; expires=Thu, 26-Sep-2013 23:02:04 GMT; path=/; domain=www.yahoo.com
Set-Cookie: fpps=deleted; expires=Tue, 27-Sep-2011 23:02:03 GMT; path=/; domain=www.yahoo.com
Set-Cookie: CH=deleted; expires=Tue, 27-Sep-2011 23:02:03 GMT; path=/; domain=www.yahoo.com
Set-Cookie: CH=AgBQY4kQAA3fEAAOYRAAJu8QABtxEAAv7BAAEBQQABhkEAAiGRAAO80QADN6; expires=Fri, 26-Oct-2012 23:02:04 GMT; path=/; domain=.yahoo.com
Set-Cookie:
fpt=d=ZcicxhLXecy2.2vWofusZDFdMvG4aheFEWj.7_JDywand.kdllG1P7ZDaPFfalWgDaXDCwmTsJYjxfz1CIuDXtA6_C6gd77.4i7QZDW4OOhmklIVYyTs0jFfBw8XE4ka4DUDtTZ1bsnMnAxEreYQWxWCsy0qXXNVxOz5wFMm7wOwwqJ0XsXdwF3g8I_4Pb6SSFwXWOM_9nsLxo0nUf0CigkKcqC_fI9bfa7uJfPG7rUDGR6z43t4Kw9ib42QJdElx4yU_9mSFYPPQRfWkArLybtEF8zHzLOdh7BCZHWPu_zLXzIW5qyc3Q6PhnGUGYTCiw5NbtTqMRL.AwRt6loXgNi0CHTey6FscxddH0z3hie1gp2_9BB1csPSKqWcLhrrVbUOMtVB6Cz1HY1ltzHVeHV6FkfroyYBiVh4kRo_FcOOopJnuiWidHhh38zGidjMzKh4I5NGZMgZohQXbZUEAXTfochpq2wMO6NVMplxzGvM5j04ySYK3cuPT0S09AP5lyAJR1scYOjOTdo-&v=1; path=/; domain=www.yahoo.com
Set-Cookie: fpms=p_13923988=%7B%22rkse%22%3A1%2C%22showMore2%22%3A2%7D; expires=Thu, 26-Sep-2013 23:02:04 GMT; path=/; domain=www.yahoo.com
Set-Cookie:
fpc_s=d=veUComsWpnQcQ1qR8WEGI9AiB7dDQyDz3Z5k_or3Y1OV9VB_AWjGptvihRGhPJ.nxqCR5FY07d7mhgSrrj435h0_K7ukQ3a.LgFlNF5UzLm2yGjopurecuTqvZs7NAD0Zr3Uz3DhF0.7wSFO0qh eL5kgBhe114yOv6LrlalLr3lkYGyL.49Zfa.72dPj2pCPI1HptVEBRumAdK9qe6zB1ryn6owdFJRcKLn2XdcWWIaulj.cQluIygIxbvZKElwzLrZynFl0PVvH4ZAJGd5CoDjbvvGpjIXi0Xygykry8vTopDmti5gjKjL80_9EQ-&v=2; path=/; domain=www.yahoo.com
P3P: policyref="http://info.yahoo.com/w3c/p3p.xml", CP="CAO DSP COR CUR ADM DEV TAI PSA PSD IVAi IVDi CONi TELo OTPi OUR DELi SAMi OTRI UNRi PUBi IND PHY ONL UNI PUR FIN COM NAV INT DEM CNT STA POL HEA PRE LOC GOV"
Cache-Control: private
x-frame-options: SAMEORIGIN
Vary: Accept-Encoding
Content-Type: text/html; charset=utf-8
Content-Encoding: gzip
Age: 1
Transfer-Encoding: chunked
Connection: keep-alive
Server: YTS/1.20.13

Transaction 3
http://l.yimg.com/a/i/mnt1/ww/events/p.gif

GET /a/i/mnt1/ww/events/p.gif HTTP/1.1
Host: l.yimg.com
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101 Firefox/15.0.1
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.yahoo.com/?s=https

HTTP/1.1 200 OK
Date: Sun, 23 Sep 2012 22:49:01 GMT
Cache-Control: max-age=31536000
Expires: Wed, 21 Sep 2022 22:49:01 GMT

Last-Modified: Tue, 05 Oct 2010 18:34:20 GMT
Accept-Ranges: bytes
Content-Length: 43
Content-Type: image/gif
Age: 259988
Connection: keep-alive
Via: http/1.1 114.ycs.s2e.yahoo.com (ApacheTrafficServer/3.2.0)
Server: ATS/3.2.0

Transaction 4

http://1.yimg.com/zz/combo?nn/lib/metro/g/uicontrib/yui/yui_3.4.2.js

GET /zz/combo?nn/lib/metro/g/uicontrib/yui/yui_3.4.2.js HTTP/1.1
Host: 1.yimg.com
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101
Firefox/15.0.1
Accept: */*
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.yahoo.com/?s=https

HTTP/1.1 200 OK
Vary: Accept-Encoding
Cache-Control: max-age=315360000
Last-Modified: Mon, 24 Sep 2012 16:42:18 GMT
Content-Type: application/x-javascript
Expires: Sat, 05 Sep 2026 00:00:00 GMT
Content-Encoding: gzip
Date: Mon, 24 Sep 2012 16:42:18 GMT
Age: 195592
Server: ATS/3.2.0
Content-Length: 20327
Connection: keep-alive
Via: http/1.0 114.ycs.s2e.yahoo.com (ApacheTrafficServer/3.2.0)

Transaction 5

http://1.yimg.com/dh/ap/default/120926/andywilliams_ac.jpg

GET /dh/ap/default/120926/andywilliams_ac.jpg HTTP/1.1
Host: 1.yimg.com
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101
Firefox/15.0.1
Accept: image/png,image/*;q=0.8,*/*;q=0.5
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.yahoo.com/?s=https

HTTP/1.1 200 OK
Date: Wed, 26 Sep 2012 15:11:16 GMT
Content-Length: 4280
Accept-Ranges: bytes
Last-Modified: Wed, 26 Sep 2012 14:29:36 GMT

Etag: "YM:1:5da6de9d-28d4-408f-b721-c12f090de5500004ca9ba6f09f4d"
Cache-Control: max-age=567648000, public
Expires: Sat, 05 Sep 2026 00:00:00 GMT
Content-Type: image/jpeg
Age: 28258
Via: HTTP/1.1 web2.mobstor.sk1.yahoo.com (YahooTrafficServer/1.19.11 [c sSf]), http/1.0 16.ycs.s2e.yahoo.com (ApacheTrafficServer/3.2.0)
Server: ATS/3.2.0
x-ysws-request-id: 2cfc8c08-5829-4834-8d28-ce97be355362
Connection: keep-alive

Transaction 6
http://l.yimg.com/cv/eng/abc/120926/e/abc_972x250.swf

GET /cv/eng/abc/120926/e/abc_972x250.swf HTTP/1.1
Host: l.yimg.com
User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:15.0) Gecko/20100101
Firefox/15.0.1
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Referer: http://www.yahoo.com/?s=https

HTTP/1.1 200 OK
Date: Wed, 26 Sep 2012 15:53:43 GMT
Content-Length: 5858
Accept-Ranges: bytes
Last-Modified: Wed, 26 Sep 2012 15:48:55 GMT
Etag: "YM:1:cc8d47e3-c440-42aa-90fa-18f98f62974e0004ca9cc29a8e8f"
Cache-Control: max-age=567648000, public
Expires: Sat, 05 Sep 2026 00:00:00 GMT
Content-Type: application/x-shockwave-flash
Age: 25715
Via: HTTP/1.1 web4.usw7.mobstor.s2e.yahoo.com (YahooTrafficServer/1.19.11 [c sSf]), http/1.0 114.ycs.s2e.yahoo.com (ApacheTrafficServer/3.2.0)
Server: ATS/3.2.0
x-ysws-request-id: d6376e40-ff1f-4678-a125-281227ad98c8
Connection: keep-alive

Each of the following questions is worth 4 points.

11. [4 pts] How many web servers are involved in these HTTP transactions and what are their names?

Answer: YTS/1.20.13, ATS/3.2.0, Apache Traffic Server/3.2.0

12. [4 pts] How many cookies are being set in these transactions and what are their names?

Answer: 10, B, IU, PH, MSC, fpc, fpps, CH, fpt, fpm, fpc_s

13. [4 pts] What is the name and version of the browser used in these transactions?

Answer: Firefox version 15.0.1

14. [4 pts] What character set is used in these transactions?

Answer: utf-8

15. [4 pts] Are any transactions returning compressed data? If so, which ones?

Answer: Transaction 2, Transaction 4

16. [4 pts] Some transactions are returning "301 Moved Permanently". What does that mean?

Answer: the browser must load a new page given by location = <http://www.yahoo.com/?s=https>

Web Server Questions [16 pts]

Below is a replica of an actual httpd.conf file from a real website. Each line has been numbered. Answer the questions immediately after the end of the file.

```
1. #####
2. ### General Settings
3. #####

4. ServerType standalone
5. ServerRoot "/usr/local/apache"
6. PidFile "/var/run/httpd.pid"
7. ScoreBoardFile "/var/log/apache/httpd.scoreboard"
8. Timeout 300
9. KeepAlive Off
10. MaxKeepAliveRequests 100
11. KeepAliveTimeout 15
12. MinSpareServers 10
13. MaxSpareServers 20
14. StartServers 10
15. MaxClients 256
16. MaxRequestsPerChild 0
17. Port 80
18. HostnameLookups Off
19. ServerSignature Off
20. ErrorDocument 403 /link_error.php
21. ErrorDocument 404 /link_error.php
22. ErrorDocument 500 /link_error.php
23. User nobody
24. Group nobody
25. ServerAdmin webmaster@mp3xyz.com
```

配置文件

```

26. ServerName SERVER-IP
27. NameVirtualHost SERVER-IP
28. DocumentRoot "/usr/local/apache/htdocs"
29. ServerTokens ProductOnly

30. Include conf/vhosts.conf
31. Include conf/vhosts_ssl.conf

32. #LoadModule sql_log_module      libexec/mod_log_sql.so
33. LoadModule php5_module          libexec/libphp5.so

34. <Directory "/usr/local/apache/htdocs">
35. Options FollowSymLinks
36. AllowOverride None
37.     Order deny,allow
38.     Allow from all
39. </Directory>

40. ScriptAlias /cgi-bin/ "/usr/local/apache/cgi-bin/"

41. <Directory "/usr/local/apache/cgi-bin">
42.     AllowOverride None
43.     Options +ExecCGI
44.     Order allow,deny
45.     Allow from all
46. </Directory>

47. <Files ~ "^\.ht">
48.     Order allow,deny
49.     Deny from all
50.     Satisfy All
51. </Files>

52. DirectoryIndex index.html index.php

53. LogLevel warn
54. LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" \"%{Cookie}i\"" combined
55. LogFormat "%h %l %u %t \"%r\" %>s %b" common
56. LogFormat "%{Referer}i -> %U" referer
57. LogFormat "%{User-agent}i" agent

58. ErrorLog /var/log/apache/error_log
59. CustomLog /var/log/apache/access_log combined env=!attacks
60. CustomLog /var/log/apache/attack_log combined env=attacks

61. TypesConfig /usr/local/apache/conf/mime.types
62. DefaultType text/plain

63. AddEncoding x-compress Z
64. AddEncoding x-gzip gz tgz
65. AddType application/x-tar .tgz
66. AddType application/x-httpd-php .php
67. AddType application/x-httpd-php-source .phps

```

```

68. BrowserMatch "Mozilla/2" nokeepalive
69. BrowserMatch "MSIE 4\.0b2;" nokeepalive downgrade-1.0 force-response-1.0
70. BrowserMatch "RealPlayer 4\.0" force-response-1.0
71. BrowserMatch "Java/1\.0" force-response-1.0
72. BrowserMatch "JDK/1\.0" force-response-1.0

73. <Location /server-status>
74. SetHandler server-status
75. Order Deny,Allow
76. Deny from all
77. Allow from 10.0.0.0/24
78. Allow from 192.168.0.0/16
79. Allow from 172.16.200.0/16
80. </Location>

```

Answer the following questions:

17. [2 pts] In what directory is the server installed?

/usr/local/apache

18. [2 pts] On startup how many copies of the server are created

10 or 11, both are acceptable (why 11 is acceptable? Startservers=10, but apache may not include the parent process in the count)

19. [2 pts] What is the location of the directory containing the web pages?

/usr/local/apache/htdocs

20. [2 pts] What is the purpose of lines 63 - 67?

Adding additional mime types and associated programs

21. [2 pts] Does the server provide a status page, and if so where is it located?

Yes, /usr/local/apache/server-status

22. [2 pts] What port does the server run on?

80

23. [2 pts] What is the purpose of lines 20, 21 and 22

They specify a specific page to return in case of status indicators: 403, 404, and 500

24. [2 pts] What is the location where executable scripts reside

/usr/local/apache/cgi-bin/

DOM QUESTIONS [20 PTS]

Consider the following XML file, test.xml:

```

<?xml version="1.0" encoding="UTF-8"?>
<Personnel>
  <Employee Type="permanent">
    <Name>Seagull</Name>
    <Id>3674</Id>
    <Age>34</Age>
  </Employee>
  <Employee Type="contract">
    <Name>Robin</Name>
    <Id>3675</Id>
    <Age>25</Age>
  </Employee>
  <Employee Type="permanent">
    <Name>Crow</Name>
    <Id>3676</Id>
    <Age>28</Age>
  </Employee>
</Personnel>

```

21. [20 pts] Write a JavaScript/ program using DOM functions that inputs the xml file above and creates a list of Employees as shown below.

Employee Details - Name:Seagull, Type:permanent, Id:3674, Age:34.
Employee Details - Name:Robin, Type:contract, Id:3675, Age:25.
Employee Details - Name:Crow, Type:permanent, Id:3676, Age:28.

Below is the start of the program. Place your answer within the function named printList below:

```

<html>
<body onload="xmlDoc=loadXML();printList()">
<script language="JavaScript">
    var xmlDoc;
    function loadXML()
    {
        var URL = "test.xml";
        var loaded;
        if (window.ActiveXObject)
        {
            var xmlDoc = new ActiveXObject("Microsoft.XMLDOM");
            xmlDoc.async="false";
            xmlDoc.load(URL);
        }
    else if (document.implementation && document.implementation.createDocument)
    {
        var xmlDoc= document.implementation.createDocument("", "doc", null);
        xmlDoc.async=false;
        loaded = xmlDoc.load(URL);
    }
    if ((window.ActiveXObject && (xmlDoc.parseError.errorCode == 0))||loaded)
    {
        return xmlDoc;
    }
}

```

```

function printList(){
    ELEMENT_NODE=1;
    ATTRIBUTE_NODE=2;

    root=xmlDoc.documentElement;
    firstLevelNodes=root.childNodes;
    for (i=0;i<firstLevelNodes.length;i++)
    {
        k=0;
        if (firstLevelNodes[i].nodeType==ELEMENT_NODE)
        {
            document.write (firstLevelNodes[i].nodeName+" Details - ");
            secondLevelNodes=firstLevelNodes[i].childNodes;
            for (j=0;j<secondLevelNodes.length;j++){
                if (secondLevelNodes[j].nodeType==ELEMENT_NODE)
                {
                    if (k>0)
                    {
                        document.write(", ");
                    }

                    document.write (secondLevelNodes[j].nodeName+":");

                    document.write (secondLevelNodes[j].childNodes[0].nodeValue);
                    if (k==0)
                    {
                        document.write(", "+firstLevelNodes[i].attributes[0].name+":");

                        document.write (firstLevelNodes[i].attributes[0].value);
                    }
                    k++;
                }

            }
            document.write (".</br>");
        }
    }
}

</script> </body> </html>

```

The fonts are not consistent. Do you have any preference on which font type, font size? I checked it and it looks like Courier New 10 everywhere. No?