

Name: _____

Itec/modr 2635
Final sample questions
April 16, 2017

Part 1: Please submit a PDF outlining your steps (with links to your URLs) to our Moodle server

1. Create an HTML file (e.g. in Notepad, or a Google app) named home.html (another choice is home.htm).

2.

A very simple page might look like

```
<!DOCTYPE html>
<html>
<head>
  <title>My Web Page</title>
  <meta charset="UTF-8" />
</head>
<body>
  <h1>My Exam Page</h1>
  <p>Itec 2925 final examination</p>
</body>
</html>
```

Display it at the URL:

<http://oldtown.glendon.yorku.ca/~lastname>

3. Create the URL: <http://oldtown.glendon.yorku.ca/~lastname/exam/2017/cv>
4. Protect the website above with 3 usernames and 3 passwords:
user1 and pass1
user2 and pass2
user3 and pass3
5. Provide instructions on how to download [mycv.zip](#) and display its **content** at:
<http://oldtown.glendon.yorku.ca/~lastname/exam/2017/cv>

Replace the photo at the CV page above by your own photo, correctly scaled.

6. Describe with as much detail as you can how you would make your “protected web page” much more secure by putting the encrypted password file in /home/lastname/ (See explanation and help at our class Moodle.) Please protect another page,

<http://oldtown.glendon.yorku.ca/~lastname/exam/2017/cv2>

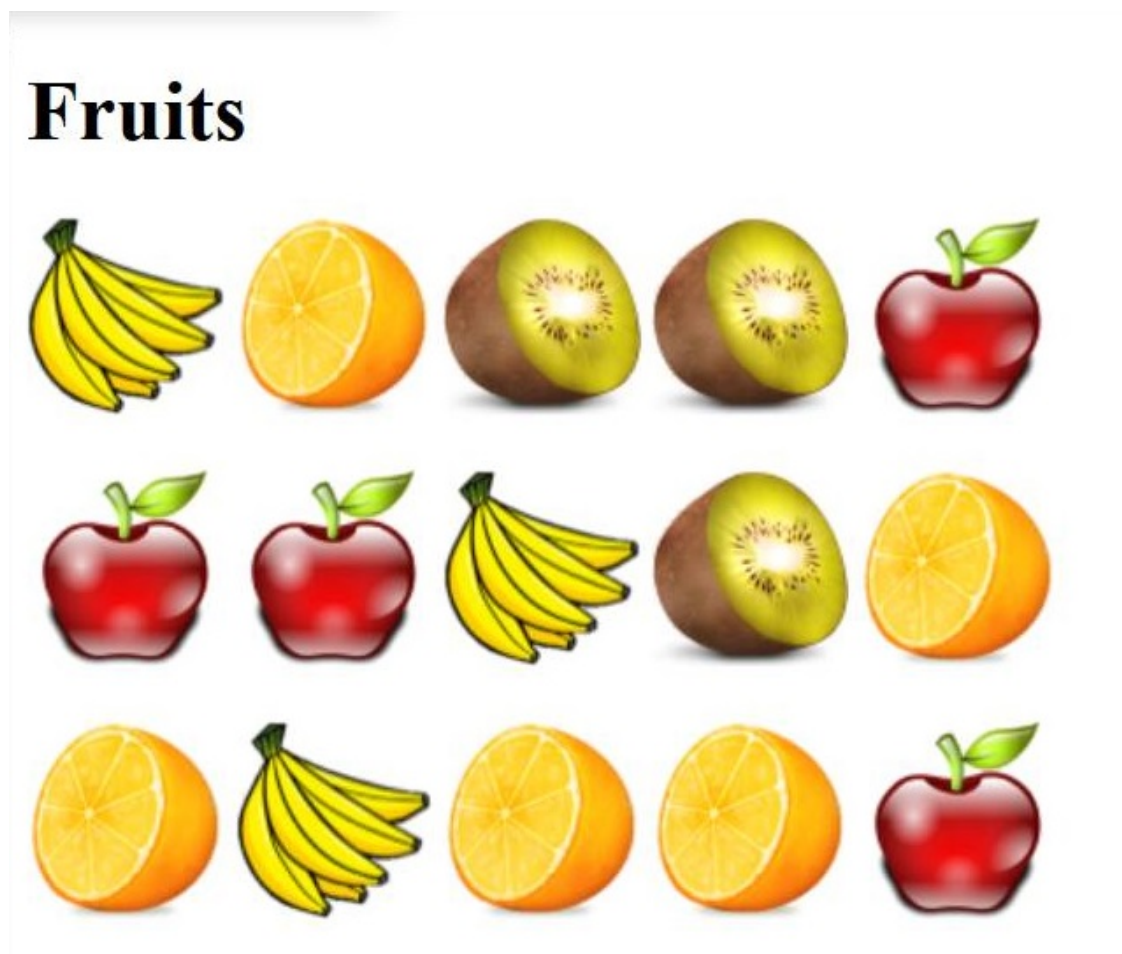
[Using this improved method.](#)

7. Download the ZIP file [q2.zip](#)

Display the content at:

<http://oldtown.glendon.yorku.ca/~lastname/examen/sample/>

Make the necessary change to the html code at the URL above so that your result will look just like shown in the graphic:



HTML5 Elements

Document Prolog

```
<!DOCTYPE html>
```

Root, Head and Body Elements

```
<html> ... </html>  
<head> ... </head>  
<body> ... </body>
```

Header Section

```
<!-- comments -->  
<title> ... </title>  
<link rel="stylesheet" type="text/css" href="filename.css">
```

Line Breaks

```
<br>  
<hr>  
<p> ... </p>
```

Formatting tags

```
<h1> ... </h1> to <h6> ... </h6>  
<b> ... </b> or <strong> ... </strong>  
<i> ... </i> or <em> ... </em>  
<small> ... </small>  
<sup> ... </sup>  
<sub> ... </sub>
```

Special Characters

```
&nbsp; &amp; &lt; &gt;  
&quot; &rdquo; &ldquo;  
&reg; &trade; &copy;  
&cent; &euro; &yen; &pound;  
&frac14; &frac12; &frac34;  
&hearts; &spades; &clubs; &diamonds;
```

Lists

```
<ul>  
  <li> ... </li>  
</ul>  
  
<ol>  
  <li> ... </li>  
</ol>
```

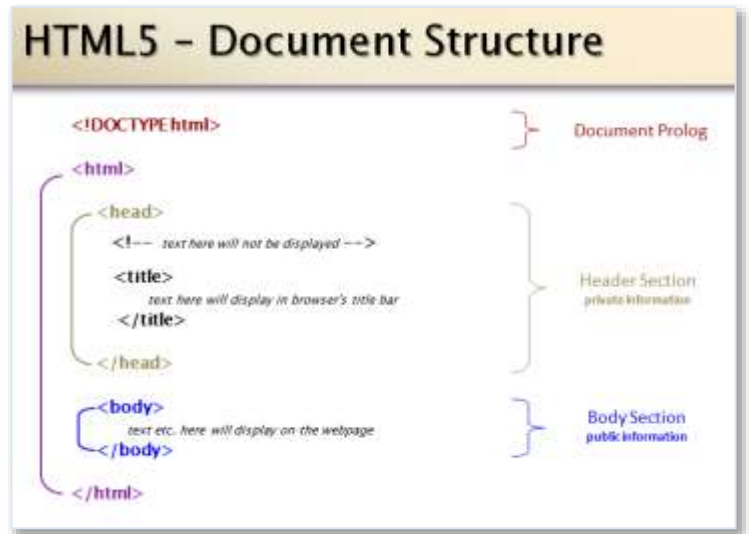
Hyperlinks

```
<a href="URL"> text or image </a>  
<a href="filename.ext"> text or image </a>
```

Images

```

```



Working on the Glendon cloud from your machine (Mac or PC)

- open a GUI terminal window (on the PC, you can use the software x2goclient to login server oldtown)
- at the prompt type: `pwd`
- next execute the command lines: `cd www, pwd .glendonsync, leafpad, glendonmp3, glendondl, htpasswd, etc...`

CSS Properties (basics)

In General

tag-name { *property:* *value;* }

Font properties

font-family: serif, sans-serif, cursive, fantasy OR specific font
font-size: ##px, ##em
font-style: normal, italic
font-weight: normal, bold

Text properties

text-align: left, right, center, justify, start, end
text-decoration: none, underline, overline, line-through, blink
text-indent: ##px, ##em,
color: *web-safe-color*, #RRGGBB

Background properties

background-color: *web-safe-color*, #RRGGBB
background-image: none, url(*filename.ext*)
background-attachment: scroll, fixed
background-size: cover, contain

Hyperlink properties

a:link { color: *web-safe-color*, #RRGGBB; }
a:visited { color: *web-safe-color*, #RRGGBB; }
a:active { color: *web-safe-color*, #RRGGBB; }
a:hover { color: *web-safe-color*, #RRGGBB; }

List properties

(ol) list-style-type: decimal, lower-roman, upper-roman, lower-alpha, upper-alpha, none
(ul) list-style-type: disc, circle, square, none
(ul) list-style-image: url(*filename.ext*), none

Border properties

border: border-width border-style border-color
border-color: *web-safe-color*, #RRGGBB
border-width: thin, medium, thick, ##px
border-radius: ##px, ##em
border-style: none, dotted, dashed, solid, double, groove, ridge, inset, outset

Notes and pdfs - Exam is open book and open web !!

1. On web security -- [PDF](#)

Your **.htaccess** file should have the following lines:

```
AuthType Basic
AuthName "restricted area"
AuthUserFile /home/lastname/www/.htpasswd
Require valid-user
```

The command "**chmod a+x**" will make a file or a directory "executable", as we have mentioned in class.

2. (a) On html5 table and background image (homework 1): [PDF](#)

See:

<http://oldtown.glendon.yorku.ca/~winter17/2925>

https://www.w3schools.com/tags/att_table_border.asp

https://www.w3schools.com/tags/att_body_background.asp

(b) Image and video embed:

https://www.w3schools.com/html/html_images.asp

https://www.w3schools.com/html/html5_video.asp

3, Scripting (direct sequence of commands directly to the Operating System),

(a) script to rename all files with .jpg extension to a numerical order 0001.jpg etc..

```
#!/bin/bash
a=1
for i in *.jpg; do
  new=$(printf "%04d.jpg" "$a") #04 pad to length of 4
  mv -- "$i" "$new"
```

```
let a=a+1
done
```

The script above will search all the files with extension .jpg in the working directory and rename them to a numerical order 0001.jpg, 0002.jpg, etc.....

4. Sample test:

<http://oldtown.glendon.yorku.ca/~winter17/sample/>

<http://oldtown.glendon.yorku.ca/~winter17/bin2>

7. Video and image processing with ffmpeg

To convert from wav to mp3 format:

```
lame -h file.wav file.mp3
```

General command with ffmpeg:

```
ffmpeg -i input_file [...parameter list...] output_file
```

The following command takes the mp3, attaches an image to it, and converts it to an mp4:

Size of input image (to ffmpeg command) has to be "even". Say suppose image j.jpg has size 133x120.

```
Execute: convert -resize 132x120! j.jpg j2.jpg
```

to make the image even (divisible by 2).

```
ffmpeg -i image.jpg -i audio.wav -c:v libx264 -c:a aac -b:a 192k -pix_fmt yuv420p -shortest out.mp4
```

```
ffmpeg -i input.mp3 -loop 1 -i image.png -c:a copy -c:v libx264 -shortest output.mp4
```

or

```
ffmpeg -i image.png -i sound.mp3 -shortest video.mp4
```

```
ffmpeg -i image.jpg -i audio.wav -c:v libx264 -c:a aac -b:a 192k -pix_fmt  
yuv420p -shortest out.mp4
```

or

```
ffmpeg -i input.mp3 -i image.png -c:a copy -c:v libx264 -shortest output.mp4
```

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Misc commands:

```
ffmpeg -r 10 -i out%05d.png -c:v libx264 -profile:v baseline -level 3.0 -vf format=yuv420p  
output.mp4
```