

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
```

Summary:

[FFmpeg Examples for Daily Video Editing Tasks](#)

Convert .avi video to .mpg and any other formats by typing desired formats, say wmv, mp4, mkv, flv, etc. (Converting from one format to another is called “transcoding.”)

```
FFmpeg -i source_video.avi final_video.mpg
```

Convert a video for the iPod/iPhone using FFmpeg

```
FFmpeg -i source_video.avi input -acodec aac -ab 128kb -vcodec mpeg4 -b 1200kb -mbd 2 -flags +4mv+trell -aic 2 -cmp 2 -subcmp 2 -s 320x180 -title X final_video.mp4
```

Convert a video for the PSP using FFmpeg

```
FFmpeg -i source_video.avi -b 300 -s 320x240 -vcodec xvid -ab 32 -ar 24000 -acodec aac final_video.mp4
```

Extracting sound from a video, and save it as MP3 using FFmpeg

```
FFmpeg -i source_video.avi -vn -ar 44100 -ac 2 -ab 192 -f mp3 sound.mp3
```

Convert video to image sequences using FFmpeg

```
FFmpeg -i video.mpg image%d.jpg
```

Convert video to animated gif(uncompressed) using FFmpeg
FFmpeg -i source_video.avi gif_animated.gif

Split/Trim video using FFmpeg
FFmpeg -i source_video.mpg -ss 00:00:10 -t 00:00:30 final_video.mpg