Pau Casesnoves
Centre Integrat de Formació Professional

C/Joan Miró, 22 07300 Inca
Tel. 971 881711
secretaria@paucasesnovescifp.cat

Audio and Video activity

Curs	23/24	**Grup**	**S2WD**	**Data lliurament**	26/02/23 - 23:55
Mòdul	Disseny d'Interfícies Web				
Títol	Audio & Video Activity				

Tipus de treball	Individual

Pautes de realització

Audio section

1.- Let's suppose a stereo song of 2 minutes and 45 seconds of duration. You have this song stored in WAV file format, with 48kHz of sample rate and 16 bit depth.
This audio file has been also exported to mp3 using a bit rate set to 320 kbps.
What are the sizes of the WAV and MP3 in kiB (kibibytes)?
(1 point)

2.- Find on the internet an audio file with a CC license. Download it and look for its audio properties. Using Audacity, work with a 10 seconds sample of that file. Modify amplitude, frequency and compression (export using a different codec, bitrate or quality).
Explain how you changed and how you can see the difference between the two files.
(1 point)

3.- You have to mix a podcast program. Download three audio files (music) that will be used as intro, background music and outro of your podcast. Find a fragment of a podcast as the main audio voice, where you can hear people talking.
Using Audacity, cut for each song a piece between 10-20 seconds, set-up different tracks and combine these 4 audio files exporting them to a final file. Use a crossfade effect between each part. You have to hear the background at low level as the people are talking. Export the track to mp3 using a 192 kbps bit rate. The final audio file must have a duration between 30 and 60 seconds.
Explain how you mixed the audio parts, where and how you apply the effects.
(Some audio repositories: Bensound, FMA, BBC Podcasts)
(2 points)

4.- Write a PowerShell or a bash script that converts all the wav files in a directory into *.mp3 and *.ogg (2 versions of each file) using a specified bit-rate or quality value. Use ffmpeg to implement the conversion.
Explain your code and the options applied with ffmpeg.
(3 points)

Help:

- ffmpeg
- PowerShell - loop through files in directory

Pau Casesnoves
Centre Integrat de Formació Professional
C/Joan Miró, 22 07300 Inca
Tel. 971 881711
secretaria@paucasesnovescifp.cat

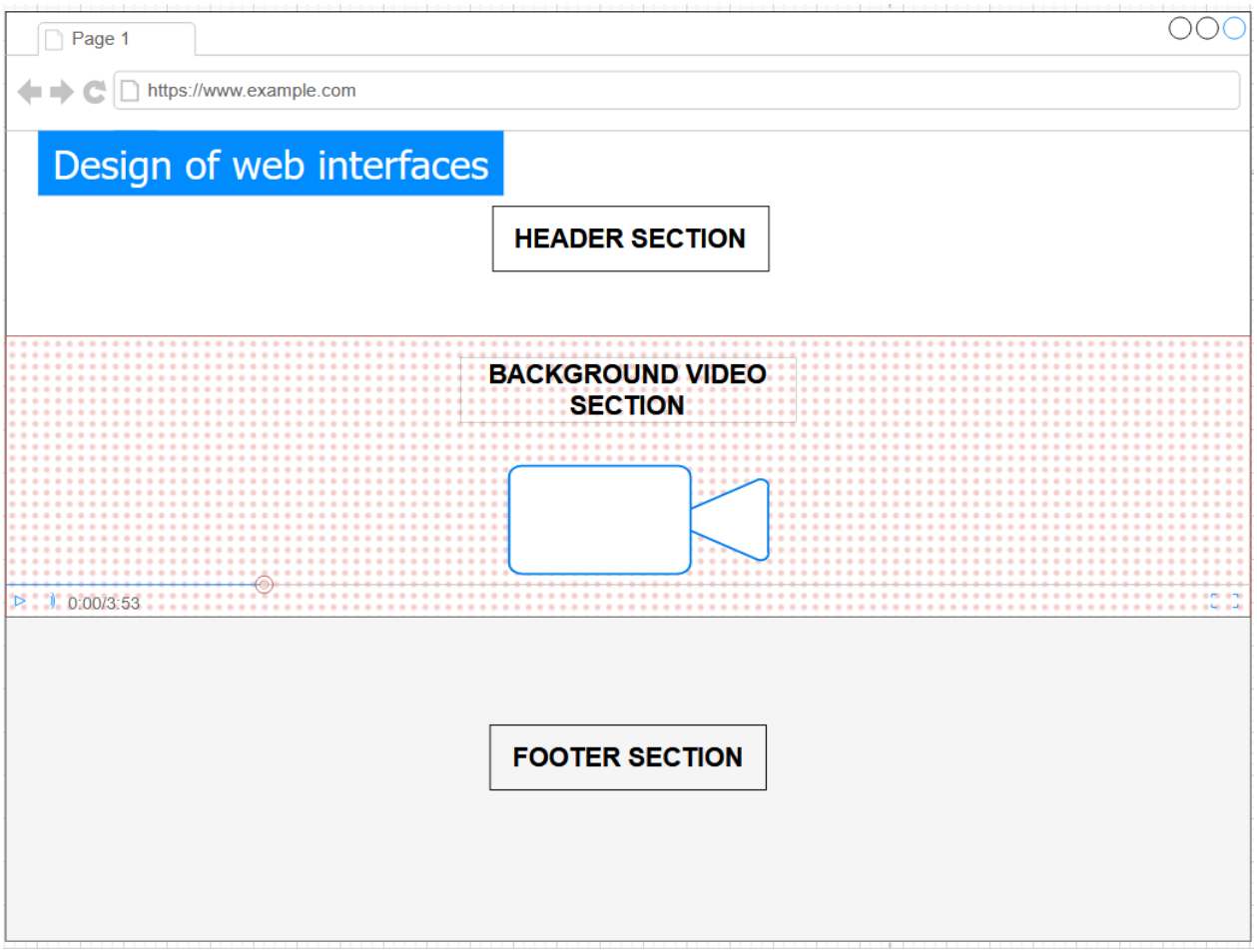
Video section

5.- Create a parallax and background video effect in a webpage.

First, follow this steps to prepare your video:

- Download a video file with CC license for that effect with a minimum duration of 4 seconds, and a minimum resolution of 1920x1080
- Convert the video using whichever options you want (and effects) and make it weigh as less as possible. The quality is not very important as you will set it as your web page background video.
- Using the parallax effect technique explained at the link, create a simple html page with a header section, a single “window” through which you will see the backgrounded video, and a final footer. Apply a design similar to the image below.
- Explain every step you make to get to the solution.

(3 points)



Pau Casesnoves
Centre Integrat de Formació Professional

C/Joan Miró, 22 07300 Inca
Tel. 971 881711
secretaria@paucasesnovescifp.cat

To deliver:

- A single document with all the answers and your explanations.
- Your audacity projects.
- Your PS1 or bash script file
- The audio and video files used (links to the originals and the exported files)
- The html page with all the needed to visualize it correctly.

Justifying your decisions is very important. Always explain how you get to the delivered solution for each statement. Without your explanation it can not be evaluated.

Create a ZIP with all the files and upload to the activity space.