Pau Casesnoves
Centre Integrat de Formació Professional

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Activity - Images for the web

Course	23/24	**Group**	**S2W-D**	**Delivery**	29/01 23:55
Module	Design of Web Interfaces				
Title	Images Activity				

Type of work	Individual

Statement

In this activity you will work with images in different ways.

Materials: a computer with Gimp and Inkscape installed.

Document the process to solve every exercise and deliver it using a single PDF file.

Exercise 1 - Images and licenses (20%)

Look for an image repository where you can find and filter images with different CreativeCommons author licenses. Choose 5 different images of any subject, download them and complete a table like the following, where:

- The size of these images must be, at least, 1080 pixels height
- Find one image of each of these formats: GIF, PNG, JPEG, WebP and SVG

License	Image size (in pixels)	File Type	Author	URL
CC0				
CC BY-SA				
CC BY-ND				
CC BY-NC				
CC BY-NC-ND				

- Explain the main characteristics of the 5 CreativeCommons licenses in the table

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Exercise 2 - Image properties (20%)

Using the images you downloaded in the previous exercise:

- Create a table where you have to collect the necessary properties of each image to calculate its minimum size in memory.
- Define the properties you have considered necessary to make the calculations.
- Add two more columns to the table:
    - one for the disk size (in KiB - kibibytes) of the image
    - one with the ratio between the size on disk and the minimum memory size (given as a percentage using DiskSize * 100 / MemorySize)

Exercise 3 - Create a logo with Inkscape using layers (20%)

Using the ***Inkscape*** software you have to create a logo in SVG format for a fictitious company. Document all the process and deliver your design as a SVG file.

- Watch the video on this page https://inkscape.org/es/~logosbynick/%E2%98%85logo-design-tutorial.
- Layers allow you to organize the elements of the logo in a logical and efficient way. To create a new layer, click the "Add layer" button in the toolbar. In this case, we will create three layers:
    - Layer 1: For the text
    - Layer 2: For the icon
    - Layer 3: For the background
- On layer 1, type the text of the logo in a font of your choice. Use different font sizes. You can adjust the size, color, and alignment of the text using the tools in the toolbar.
- On layer 2, draw an icon of a pencil and paper using the drawing tools in Inkscape. You can use the "Shapes" menu to select a shape, or you can draw your own shape using the basic drawing tools.
- On layer 3, design a background with some elements using 2 or more colors.
- Save the logo using the SVG format.

  The final result should be a logo similar to the following. This is an example, your logo should be completely differnt:

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Exercise 4 - Design an animated banner using GIMP (20%)

Document the process used and deliver your GIMP project as well as your exported GIF.

Steps

- Review this video about creating and animated GIF with GIMP.
- Create a new document. Open GIMP and create a new document. Set the size of the document to 300x600 pixels.
- Work with layers. Use at least one layer for each of the main elements of your design.
- You have to include text, images and shapes to create your banner.
- Once you are finished designing and animating the banner, export it as an animated GIF file.

Hints

In the context of creating an animated banner, layers can be used to separate the different elements of the banner, such as the background, the foreground, and the text. This makes it easier to edit and animate the different elements of the banner.

For example, if you want to change the color of the background of the banner, you can simply change the color of the background layer. This will not affect the foreground layer or the text layer.

Exercise 5 - Image optimization (20%)

Sometimes we need to adapt the images on our web applications to reduce the workload or the number of requests to the server. This helps when the design is adaptable to more than one screen layout, allowing us to have a better presentation on different devices using the same HTML code.

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- Modify the size of the images used in Exercise 1. You can use any process seen in class. Add a text to the images to know which size they have. Document the process used to transform **all** the images to each of these 3 sizes :
    - 1024px width
    - 640px width
    - 320px width

- Create a simple HTML page where 5 images are displayed. Use the <picture> element to help the browser choose between the 3 image sizes depending on the display dimensions. Document how your HTML code works.
    - when the browser window is greater than 1024px it will show the images using the 1024px version
    - when the browser window is between 640px and 1024px it will show images with 640px width.
    - when the browser window is under 640px, it will show images with 320px width.

Deliver all the images and the HTML page.