

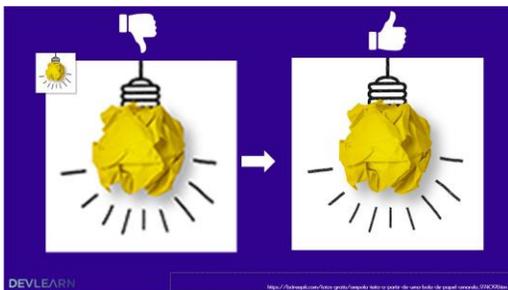
October 24 – 26, 2018 • Las Vegas, NV

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## Session 214 # Making Friends with Illustrator & Photoshop

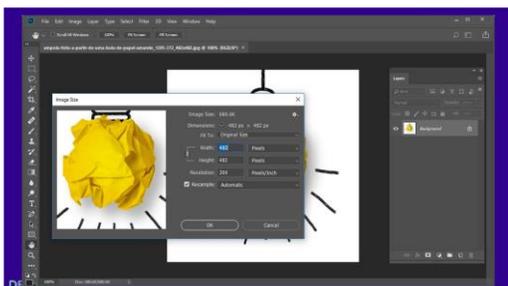
Kataryna Nemethy, Baycrest Health Sciences

### Exercise 1



I want to scale up my image, how do I make it less blurry?

- You try to scale an image and it becomes blurry OR you want to clean up an existing image
- Causes of blurry images (<https://thethemefoundry.com/blog/blurry-images-wordpress/>)
  - Many factors can cause blurry images. reasons may be compounded
  - You may be using an image you enlarged or trying to reuse an already blurred image.
  - Your browser or the software resized the image. A consequence of responsive web design, browsers will resize large images so they can be viewed on smaller screens. Unfortunately, doing so may also reduce image quality in an effort to display all of the content.

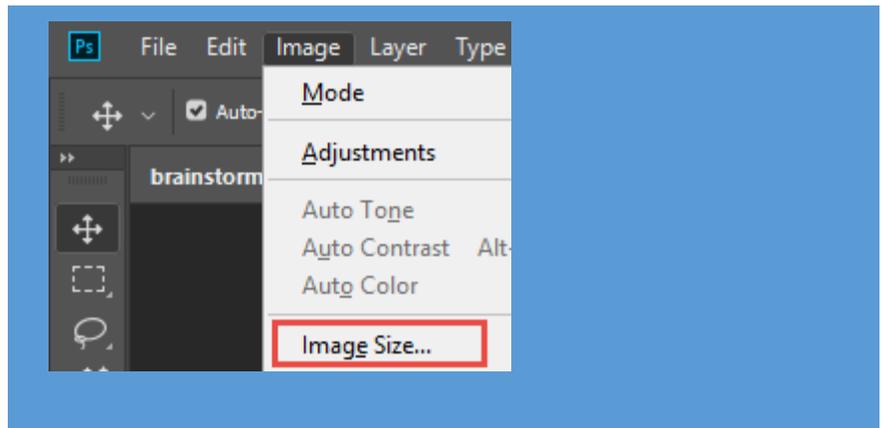


Pixel dimensions VS document size

In Photoshop:

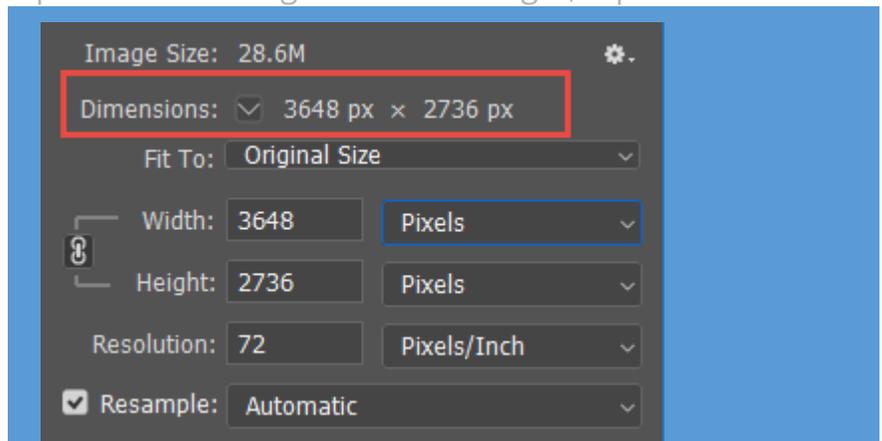
Find pixel dimensions and document size here:

Image → Image size



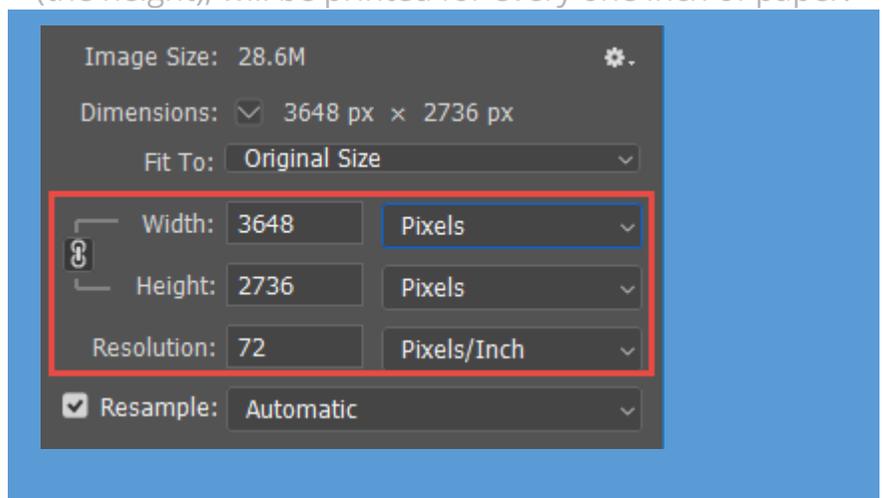
### Pixel Dimensions

- The width and height of our image in pixels: the # of pixels in our image from left to right, top to bottom.



### Document Size

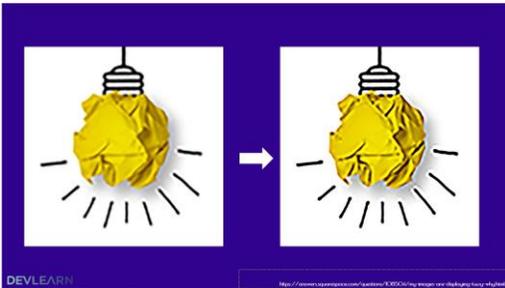
- When we go to print, 72 pixels out of our 3648 pixels from left to right in our photo (the width), and 72 pixels out of our 2736 pixels from top to bottom in our photo (the height), will be printed for every one inch of paper.



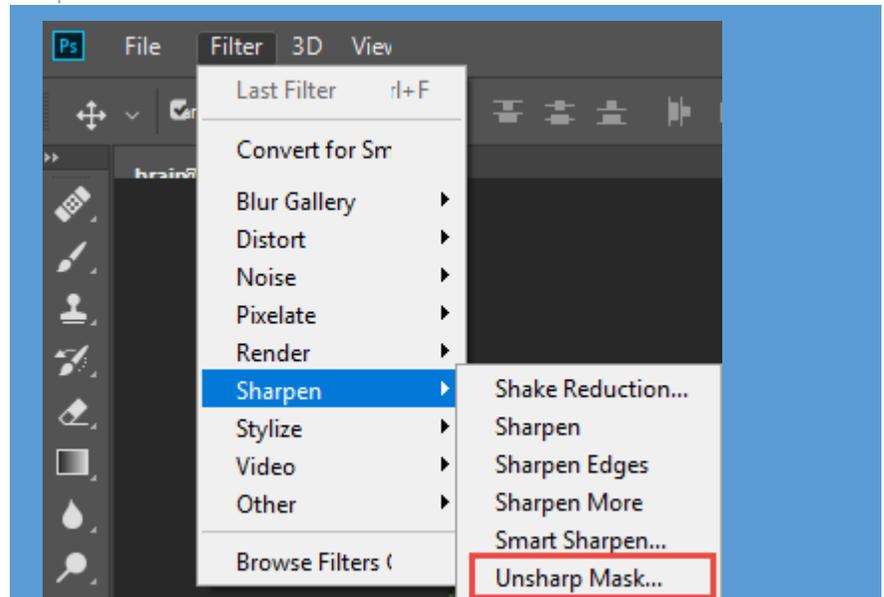
- Pixels/inch is irrelevant for web display - actual pixel height and width are what matters.
- Image Resolution Affects Print Size, Not Screen Size...Pixel dimensions is all your computer screen cares

about.

- The size at which an image appears on your screen depends on: the pixel dimensions of the image and the display resolution of your screen.
- As long as your screen is set to its native display resolution then the image will be displayed pixel-for-pixel.



Photoshop has 'sharpening tools' though they won't be very helpful if your image is very blurry to begin with. This tool looks for an 'edge' or change in tone/pixels, then sharpens/increases the contrast.





- Where to find images...
- Google image search (tools), pixabay (double confirm creative commons licensing/attribution requirements)



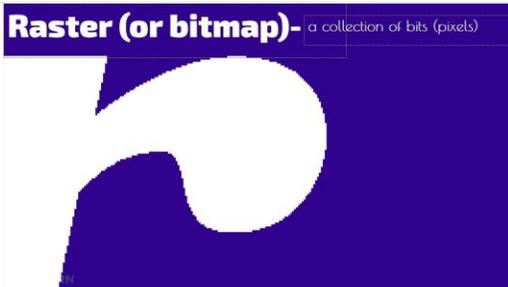
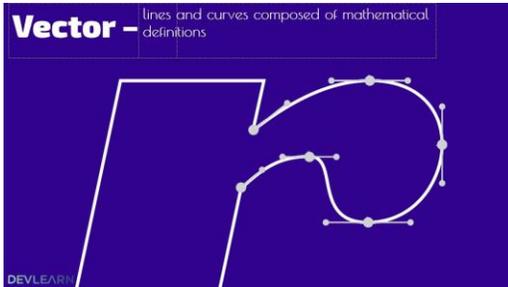
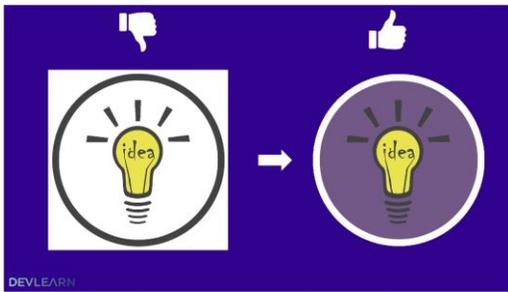
### Note on copyright

- Legally protects and gives the right to produce or reproduce any significant amount of a work of literature, drama, art, music, audio recording, software, performance, and communication

### Creative commons licensing

- CC was developed by a group of Stanford U law professors to provide a set of copyright licenses which allow people to retain the copyright of their intellectual property while also specifying that the material can be used under certain criteria
- You need to read the CC license in order to determine the usage details BEFORE you use the media.
- As the owner of an original work you have the rights to
  - Control first publication, Production, Reproduction, Performance of a work or its translation, Give away or sell copyright, License the work to another person or company for their use, Collect royalties

## Exercise 2



### I want to make the white part of this graphic transparent and modify it

1. Illustrator is a vector drawing application.
  2. Vectors files contain lines and shapes composed of mathematical definitions. Each line is made up of interconnecting points that are connected using Bezier curves.
  3. vector files are resolution independent thus you can scale an image to size of a wall mural and it will still maintain its integrity
- 
4. What is a bitmap or raster image?
    - a collection of bits (pixels) that make up an image
    - each pixel is 1 colour
    - They are resolution dependent: thus when resized there is a loss of resolution



**Ai Illustrator**

- ideally, find an editable file (svg or ai)
- alternatively import image; trace; expand; alter (if needed) & export as png

**Ps Photoshop**

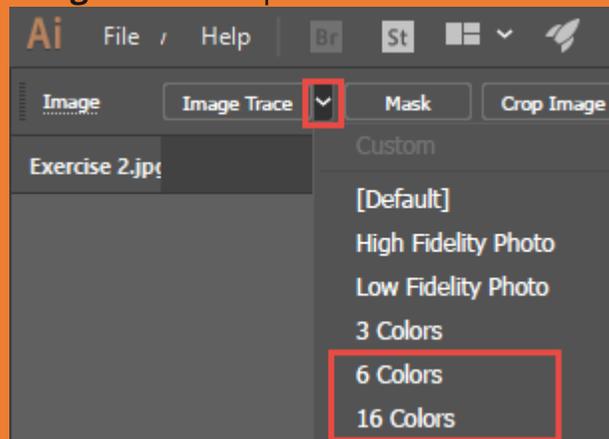
- duplicate background layer
- quick select and magic wand tool
- select colour and fill (shit + F5)
- eraser tool
- export as png

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If possible, you can search for vector files (ai or svg formats)

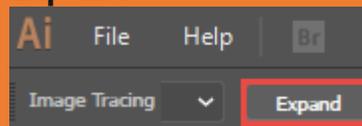
## Illustrator

1. **Image Trace** drop down arrow → 6 or 16 Colors



(This feature attempts to convert a flat raster image into a vector image)

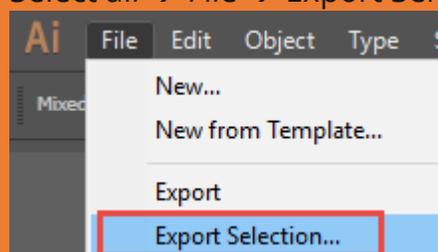
2. **Expand**



3. Select image (LMB) → Right Click → Select **Ungroup**
4. Select areas you want to be transparent (LMB) → Press **Delete**
5. Select area you want to change colour
6. Double click **Fill** (found near bottom of tool panel) → find appropriate colour



7. Select all → File → Export Selection

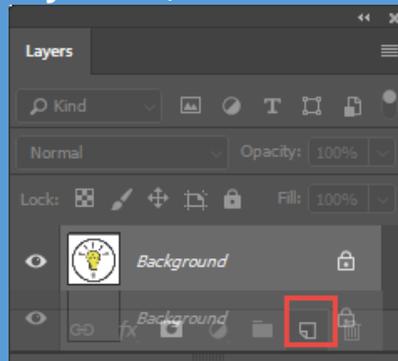


8. Rename asset, Format must be PNG. (PNGs allow for transparencies)

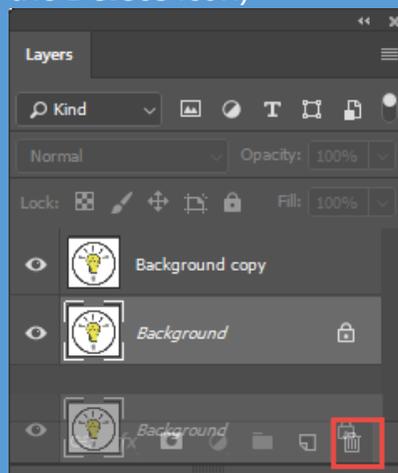


## Photoshop

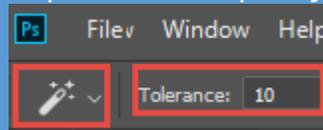
1. Duplicate background layer (drag and drop it over the **Layer** icon)



2. Delete original background layer (drag and drop it over the **Delete** icon)



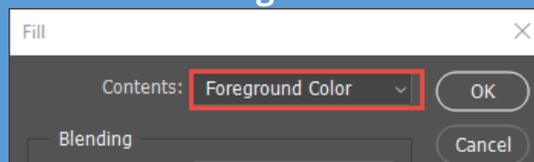
3. Use **Magic Wand** tool to select background → press **Delete** (tolerance 10-20 for simple graphics, dependent on quality of image. Play with this value)



4. Use **Magic Wand** tool to select colours you want to change
5. Double click **Fill colour**, find appropriate colour → OK



6. For the fill shortcut press **Shift + F5**
7. Contents = **Foreground colour** → OK



8. File → save as (png) or export as (png)

### Exercise 3



### I want to make the background of this photo transparent and clean

This exercise requires the Magic wand tool in Photoshop, but it's a bit more finicky when the background is not a solid colour.

The "trick" is finding a high resolution image with a very simple background and playing around with the tolerance value of the magic wand tool (it needs to be more 'tolerant' i.e., higher value).

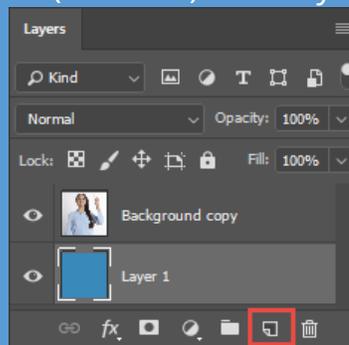
Demo difficulty using high resolution images with slightly more 'complex' background



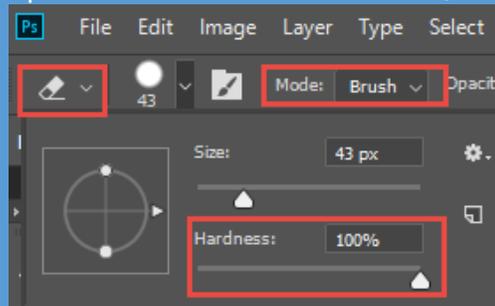
### Photoshop

1. Duplicate background layer
2. Delete original background layer
3. Use **Magic Wand** tool to select background → Hold shift key when selecting different sections → press **Delete**

Tip: Add an extra layer, move it behind your image and fill (Shift +F5) with any solid colour to see stray pixels

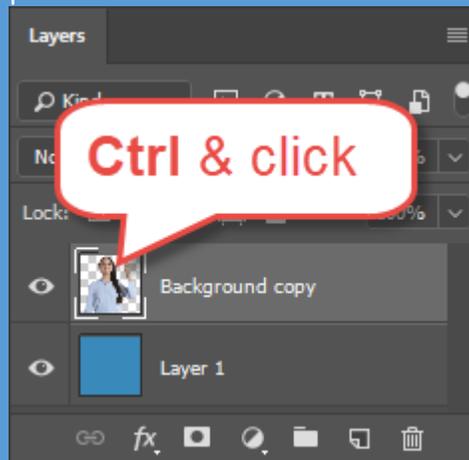


4. Use the erase tool to erase stray pixels and erase along the edge of your image where needed. I prefer a 'hard' brush eraser (between 94-100).

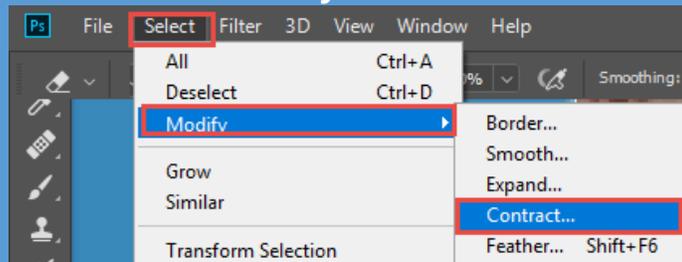


5. To clean up the edges, select the layer your image is on, press **Control** and click the image in your layers

panel

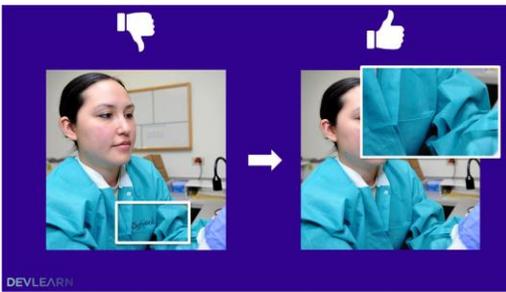


6. Click **Select** → **Modify** → **Contract**



7. Test a value between 1-2 pixels → OK
8. Press **Ctrl + Shift + i** to invert the selection
9. To soften the edges (if needed) click **Select** → **Modify** → **Feather** → **1** → **OK**
10. Click **Delete**
11. Tip: To deselect the “marching ants” in photoshop, click **Ctrl + d**
12. Clean up addition stray pixels with magic wand or eraser
13. Delete solid coloured bottom layer
14. File → save as (png) or export as (png)

## Exercise 4



## I want to remove identifying features

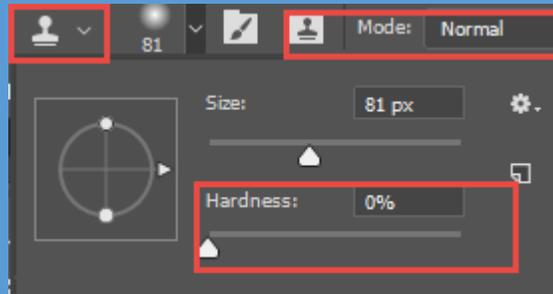
This exercise requires a bit of “playing” around.



## Photoshop

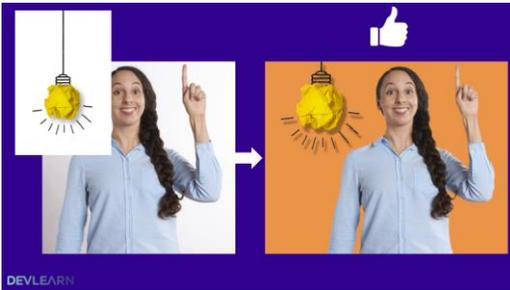
1. Duplicate background layer
2. Delete original background layer
3. **Clone tool**

- I like to use a softer brush with this tool



- To select a source to clone from: press **Alt** (mouse turns into target) and **click** on desired source
  - Click/stamp over area to be removed.
  - You will likely need to continually reselect the clone source.
  - You may also want to consider using the “Healing Brush tool” (see instructions in exercise 6)
4. File → save as png or jpg

## Exercise 5

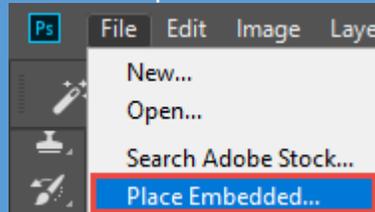


### I want to combine two photos

When combining images, you will likely need to remove their backgrounds (depending on your desired effect). If so, use the same method described in exercise 3.

#### Photoshop

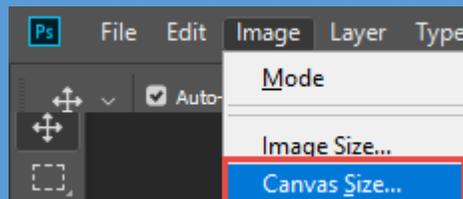
1. Open image of character, repeat steps 1-13 from exercise 3
2. To add image: **File** → **Place Embedded** → find image from computer/source



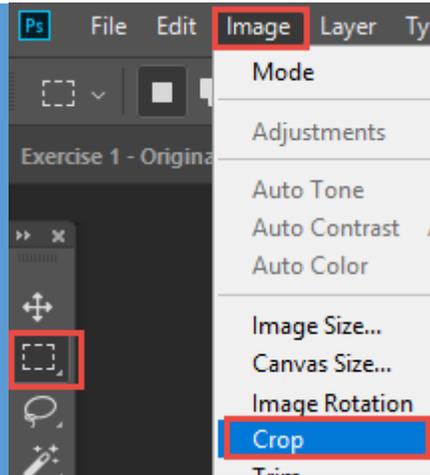
3. Image is placed on "canvas", click any tool (for example  )
4. Click **Place** (The image is placed on a new layer as a *Smart Object*)
5. If you need to manipulate this image further (ex, remove it's background), then right click the image from the layer panel, and select **Rasterize Layer**



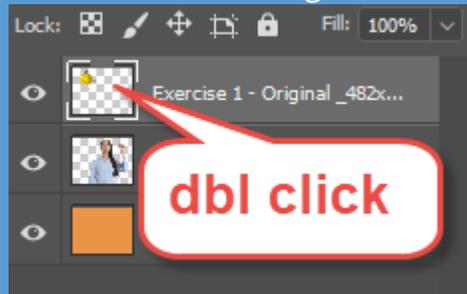
6. Repeat steps 3-13 from exercise 3 to remove the background of this layer
7. To resize a layer, select it from your layer panel and press **Ctrl + T** → **resize** → Click any tool → Click **Apply**
8. To resize dimensions of the image click **Image** → **Canvas Size** → indicate desired dimensions → ok



9. To crop an image, use the rectangular marquee tool to select, then click **Image** → **Crop**

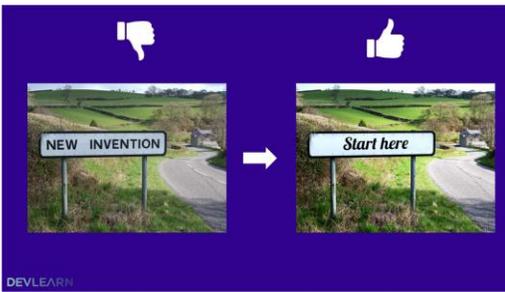


10. To apply a simple effect to the light bulb for example: double click the image from the layers panel



- 11. Play with different layer styles (for ex: drop shadow)
- 12. File → save as png or jpg

## Exercise 6



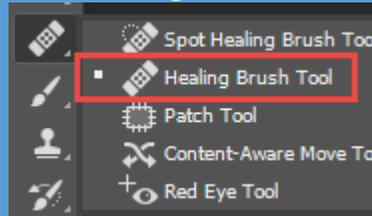
(artifacts post clone tool)



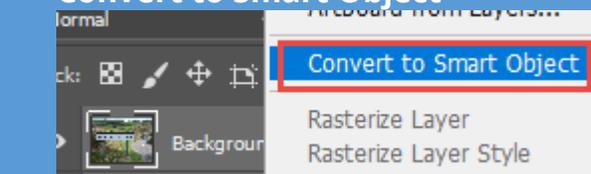
## I want to brighten an image

Photoshop

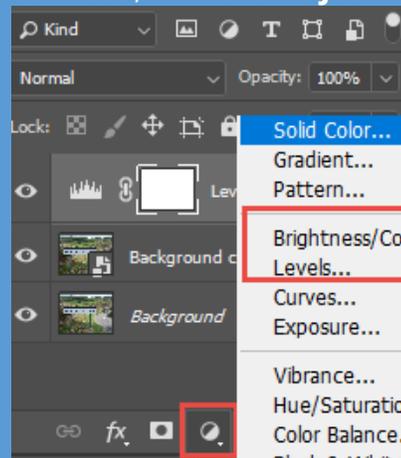
1. Duplicate background layer
2. When manipulating I prefer to keep the original for reference.
3. Use clone tool to clean up the sign (see exercise 4)
4. Use Healing brush tool to 'patch' up artifacts.

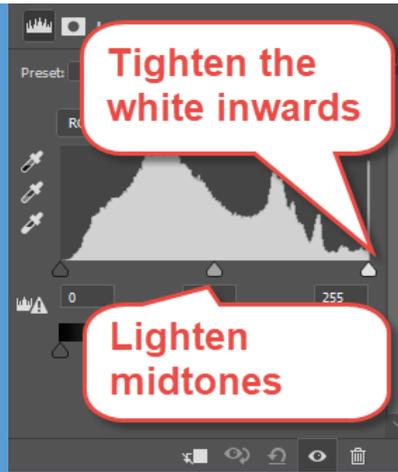


- Similar to clone tool though functions more like a "blend" tool. To select a source to patch from: press **Alt** (mouse turns into target) and **click** on desired source
  - Click/patch over area to be tidied up.
  - You will likely need to continually reselect the patch source.
5. To brighten the image:



- To make the image brighter: With the layer selected, click the **Adjustment layer** icon → **Levels**





- Repeat **Adjustment layer** icon → **Brightness/Contrast** → Adjust to desired effect
- File → save as png or jpg

Image sources:



[https://br.freepik.com/fotos-gratis/ampola-feita-a-partir-de-uma-bola-de-papel-amarelo\\_974091.htm](https://br.freepik.com/fotos-gratis/ampola-feita-a-partir-de-uma-bola-de-papel-amarelo_974091.htm)



<https://pixabay.com/en/idea-symbol-innovation-logo-3383766/>



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<https://pixabay.com/en/asian-beautiful-cellphone-3666366/>



<https://www.osan.af.mil/News/Photos/igphoto/2000858390/>



<https://www.pexels.com/photo/brainstorming-idea-innovation-inspiration-269472/>