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EDPS 6560

Multimedia Learning

Photo Correction and HTML Elements

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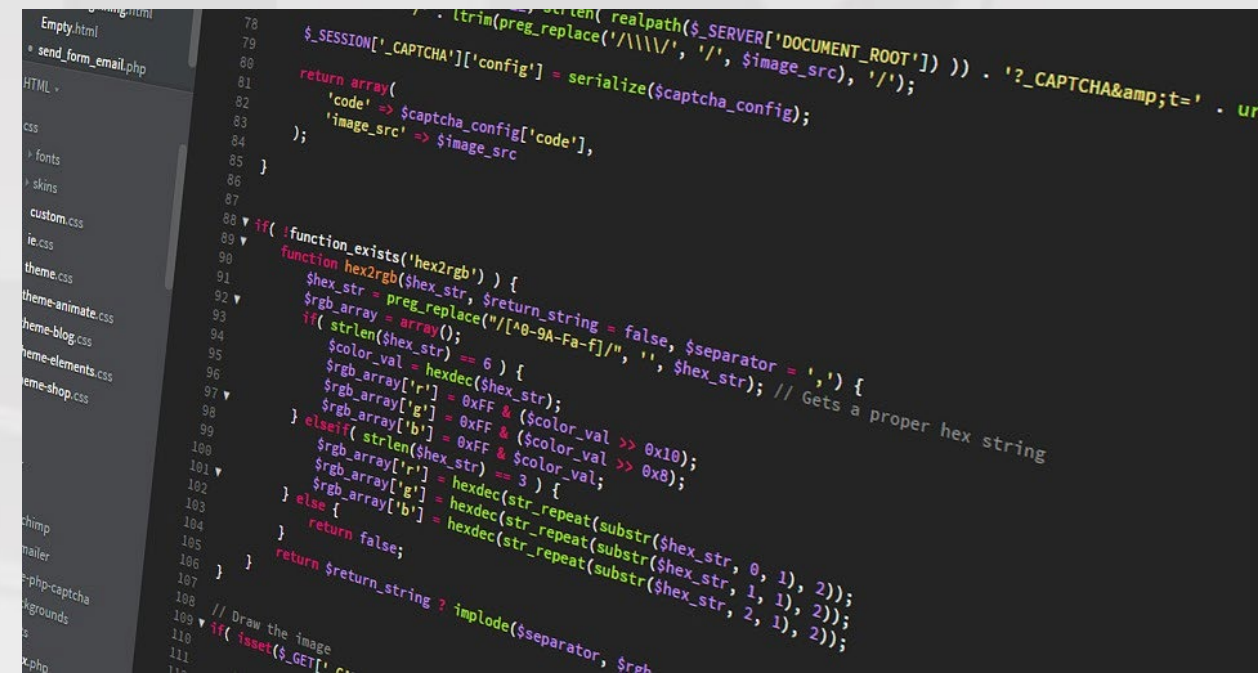
Spring 2019
January 16th



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Class Objectives

- By the end of this class you should be able to:
- Draft an HTML document with a few elements, including paragraphs, headers, and images
- Correct imperfections in images using Photoshop





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Class Schedule

5:00-6:30 PM

- Demonstration of HTML elements
- Exercises

6:30-6:40 PM

- Break

6:40-8:00 PM

- Find a cool image online using the resources covered in class
- First steps in editing a photograph in Photoshop
- Exercises



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Download Class Materials


EDPS 6560: Multimedia Learning


Front-End Web Dev Adobe CC

Week 1



HTML: Getting started


 Preview


 Download

Week 2



HTML Elements

 Preview

 Download



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Digital Assets Forum Post of the Week



Eric POITRAS

11:29am



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Ten things you didn't know about Wikipedia: https://en.wikipedia.org/wiki/Wikipedia:Ten_things_you_may_not_know_about_images_on_Wikipedia ↗

↩ Reply

Review of HTML Elements

HTML document structure

- .html file – “skeleton that gives a page structure and defines content”
- Default name is “index.html”. Web browsers open this file by default when navigating to the url address to your directory.
- Put !<DOCTYPE html> on the first line – defines the type of document for the web browser
- Boundaries of the document are indicated by opening <html> and closing </html> tags
- Two sections embedded within the <html> element:
 - <head> - Includes the title and meta-data related to the document and references to CSS documents
 - <body> - Includes all the elements that define its contents, incl. paragraphs, headers, and images

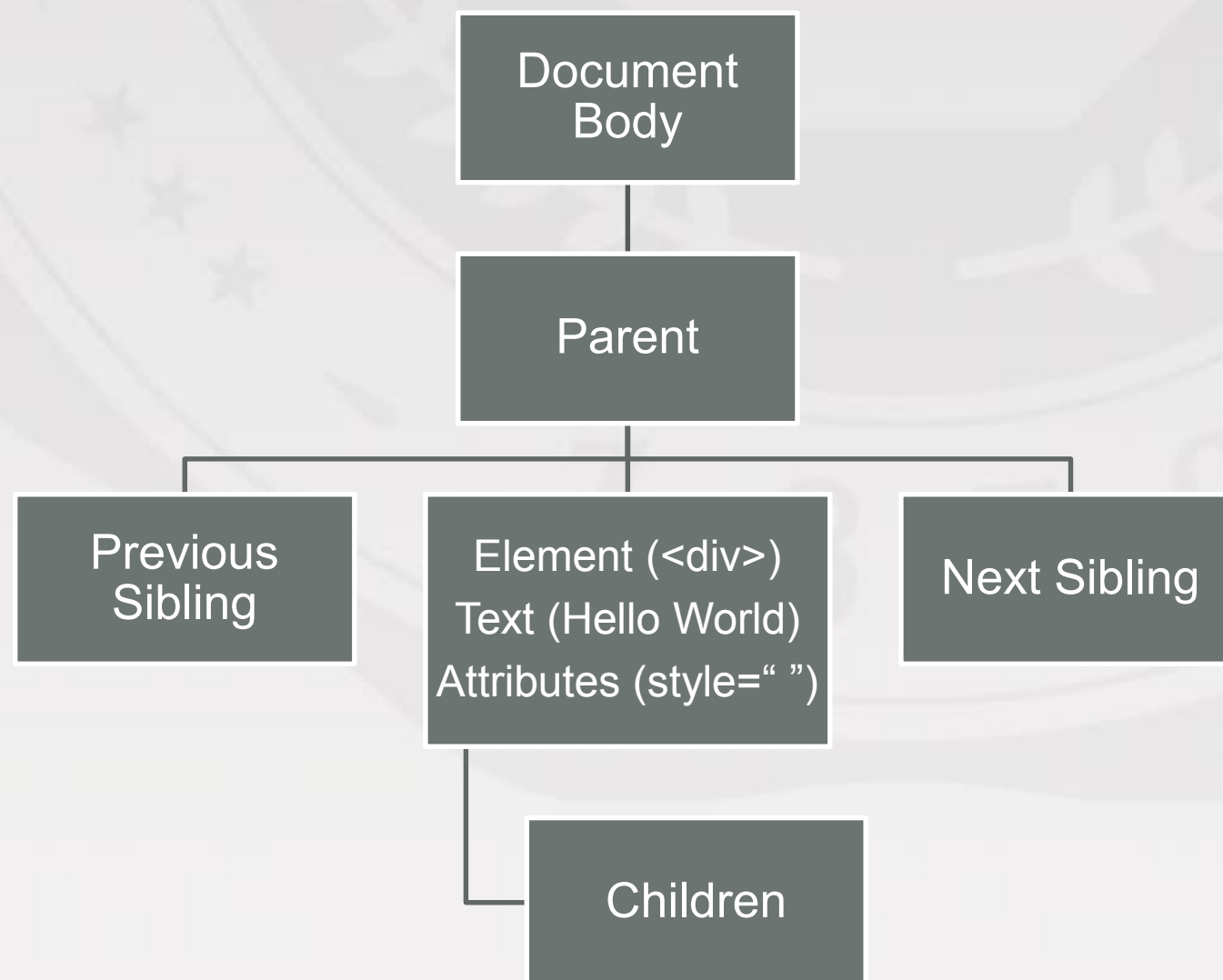


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Review of HTML Elements

Document Object Model

- HTML document is structured as a tree of objects wherein each node corresponds to an object or element within the document. Each object may include text, attributes, and elements.



Review of HTML Elements

Metadata and stylesheet (appears in the head section)

- Metadata – data used by search engines to index documents as well as to define character encoding, language, and viewport size on different devices
- Change the metadata by writing your own name, description of the site, and some keywords
- Title – will appear on top of the browser tab window, feel free to make up your own
- Link reference to the Bootstrap 4 CSS sheet – pre-written code adds styling properties to HTML elements, for example, the font family and size of your paragraphs, headers, and so on
 - Hosted on a stackpath server under the subdomain bootstrapcdn



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Review of HTML Elements

Symbols

- Angle brackets: `<>`
- Forward slash: `/`
- Dash: `-`
- Quotation marks: `" "`
- Opening tag: `<tag>`
- Closing tag: `</tag>`
- Self-closing or Empty elements (although in HTML, the shorthand `` is rendered correctly by web browsers): ``
- HTML comment: `<!-- text appears here -->`

Review of HTML Elements

Element syntax

- Opening and closing tags `<tag>...</tag>`
- *Exceptions:* `<meta>`, ``, `
`

Element attributes

- Attributes have values to associate information with certain elements, for example, a url address associated to a hyperlink
- ``

Element default display property

- Block element: Takes as much width as possible; appears on a new line
- Inline element: Takes as much width as its content (least possible); appears on the same line as other elements



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Review of HTML Elements

Element types (in the body section)

- `<p>` - Paragraphs
- `<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>` - Headers
- `Label...`
 - Use `target="_blank"` to open in separate tabs
- ``
 - Unit of height and width is the pixel (dots in the screen), where auto will maintain the original ratio of width to height in the img
- `
` add a break line
- `<div>` block-level container to group elements and select them
- `` inline container to group content of an element and select it



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HTML Elements Exercise #1

Your objective for this exercise is to find example code on how to create an HTML table. Consult the following websites to search for an example:

- [W3Schools](#)
- [StackOverflow](#)

Once you have found example code, ***discuss with a classmate how did you proceed to find the relevant information*** in both sites. ***Explain the pros and cons of both sites*** in terms of drawing analogies from examples to write your own code.

HTML Elements Exercise #2

- Download the content of your repository on your own laptop. Extract the content of the zip folder.
- Open the index.html file using Brackets. Edit the content of the HTML:
 - Replace the “Hello World!” message with a site message, i.e., “Welcome to my digital portfolio, ...”.
 - Create an img folder in your file structure. Download any image from the web, use an tag to display the image hosted from a folder on your site.
 - Add an external hyperlinks that opens a page in a separate tab.
- Select Live Preview to preview the content of the site using Brackets. Save changes to the index.html document, then drag it to your GitHub repository to update changes made to your site (along with the img folder).



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Break (10 min.)



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Download Class Materials

EDPS 6560: Multimedia Learning

Front-End Web Dev Adobe CC

Week 1





Intro to Adobe Creative Cloud

Week 2



Photo Correction

 Preview

 Download

How to Find Stock Images for Projects

Websites

- [StockSnap.io](#), [Pexels](#), [Lorempixel](#)
- Google images with [filter for usage rights](#)
- [Open Educational Resources](#) – high-quality, openly licensed, online educational materials
- The [Public Domain Project](#) – media files for creative projects
- The [Creative Commons](#) search engine

Equipment

- For equipment rental services, check out the options available in the Syllabus. For instance, green screens and boxes, digital cameras, mics, tripods, and so on.



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What will we be learning today?

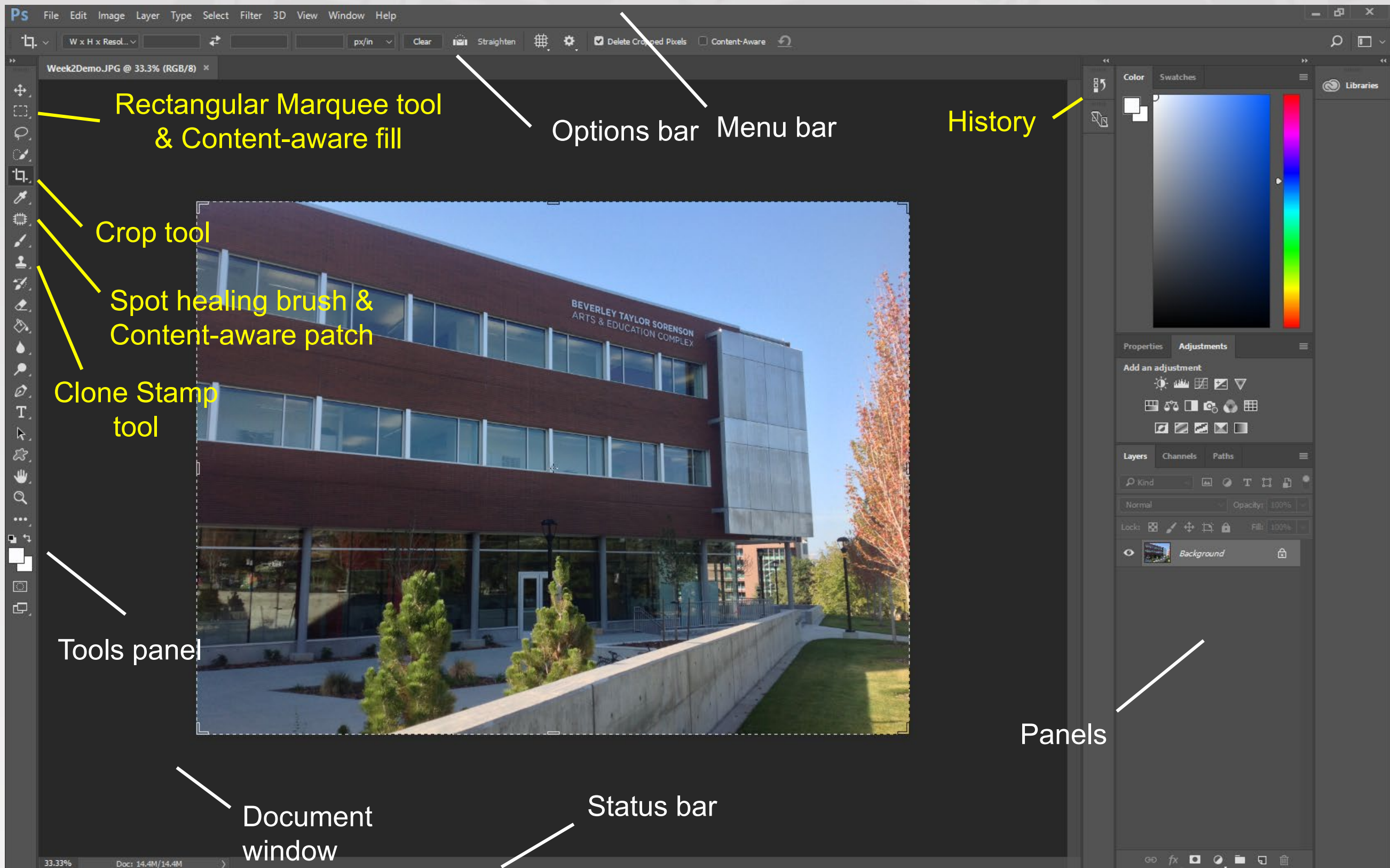
By the end of today, you should be able to:

1. Identify elements of the Photoshop user interface and demonstrate knowledge of their function.
2. Demonstrate an understanding of importing, exporting, organizing, and saving.
3. Demonstrate knowledge of producing and reusing images.
4. Demonstrate knowledge of retouching and blending.





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How to retouch images in Photoshop...

- Duplicate the original image or scan (easier to recover the original when doing destructive edits).
- Ensure that the resolution is appropriate for the way you'll use the image
- Crop the image to its final size and orientation
- Repair flaws in the image

Next week...

- *Remove any color casts*
- *Adjust the overall contrast/tonal range of the image*
- *Sharpen the overall focus of the image*
- *Adjust these steps depending on your needs*
 - *Ex: Color, Grayscale, Black/White*
 - *Print (CMYK color mode); Web (RGB color mode)*



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Creating a new document in Ap

1. Choose *Window > Workspace > Reset Essentials*.
2. Choose *File > Open*. Select the original picture file labeled as “*week2demo.png*”.
3. Choose *File > Save as*.
4. Write “*Photo_RevisedVersion*” in the filename textbox.
5. Select PNG as the file format type.
6. Click Save.





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About Pixels Dimensions and Image Resolution

- Pixel dimensions measure the total number of pixels along an image's width and height.
- Resolution is the fineness of detail in a pixel-based image measured in pixels per inch (ppi).
- The more pixels per inch, the greater the resolution and better the quality.
- For example, the image on the left is set at 72 ppi and the one on the right is 300 ppi.

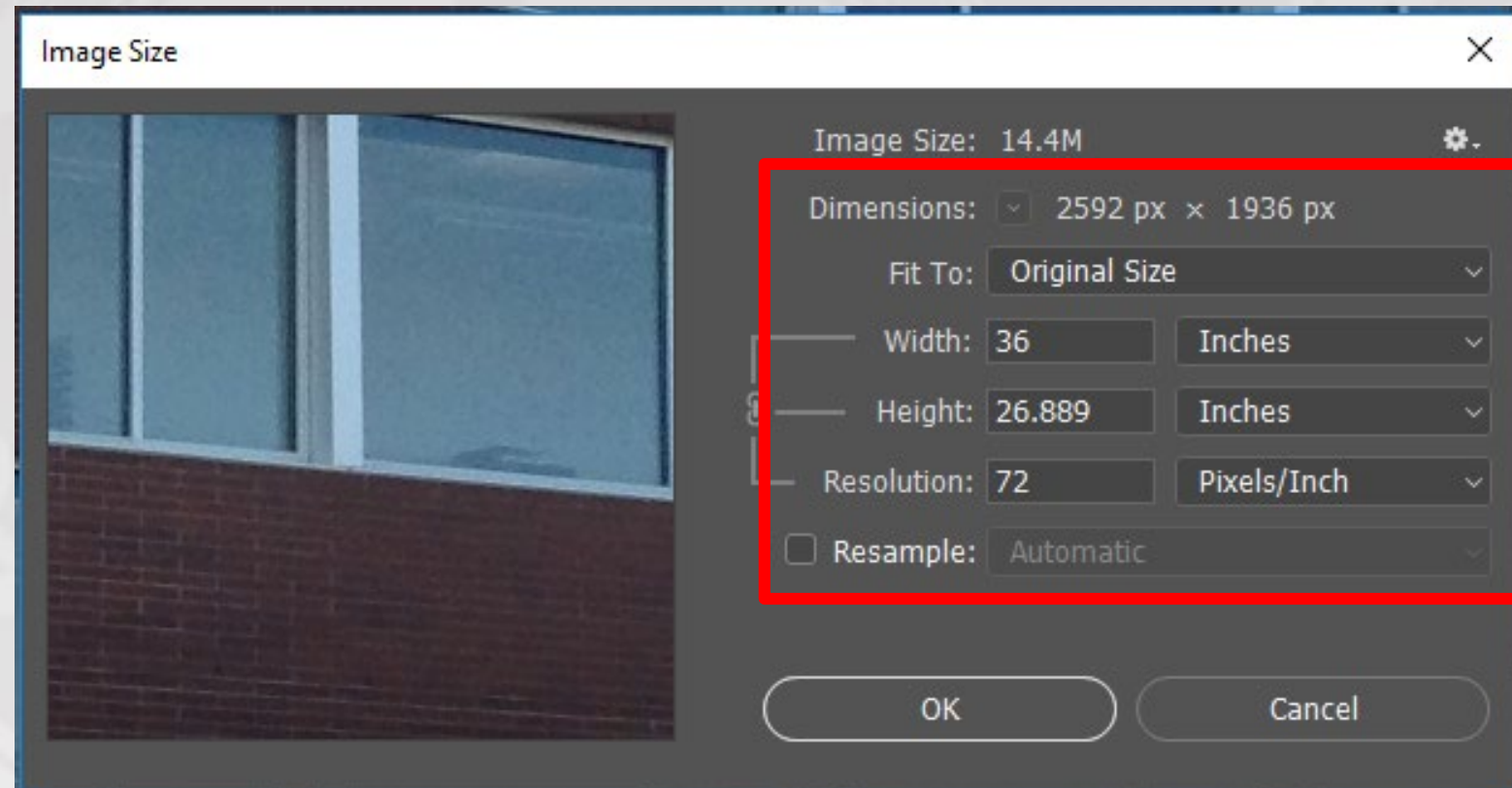




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Resolution and Image Size

1. Choose *Image > Image Size*.
2. Select Fit To: “Custom” in the dropdown menu options. Deselect the Resample: Automatic option. As you increase the scale of the image, the resolution decreases.

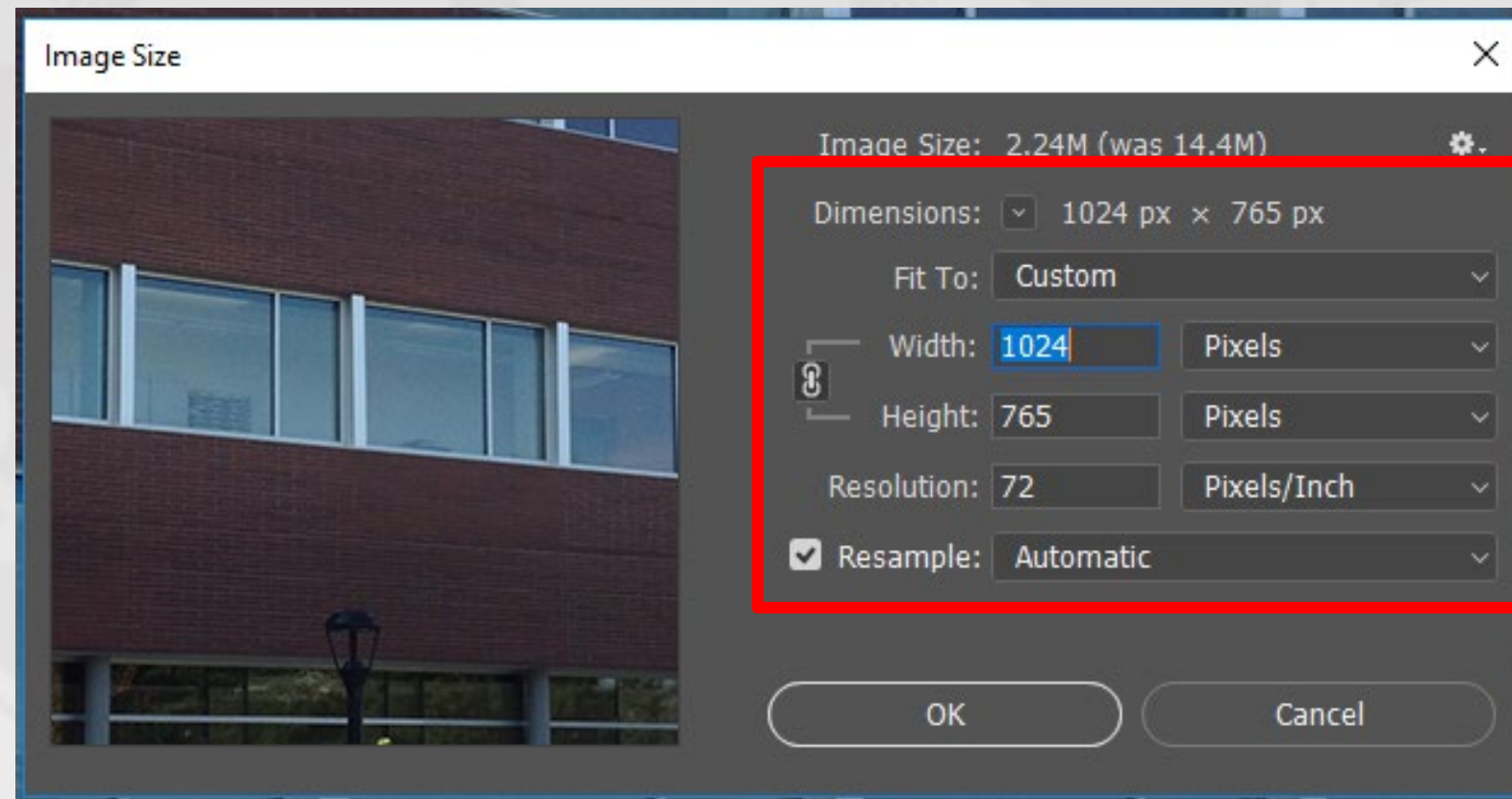


Screen-Display (Web Publication)

Select the Resample option. Change the unit of Width and Height to pixels.

Change the Width value to 1024px. Select Ok. Then View > Fit on Screen.

The resolution value does not matter. What you see is what you get in terms of width and height, and the image is resampled according to the selected method. Use either Automatic or test with specific methods depending on whether you reduce or enlarge the image size.

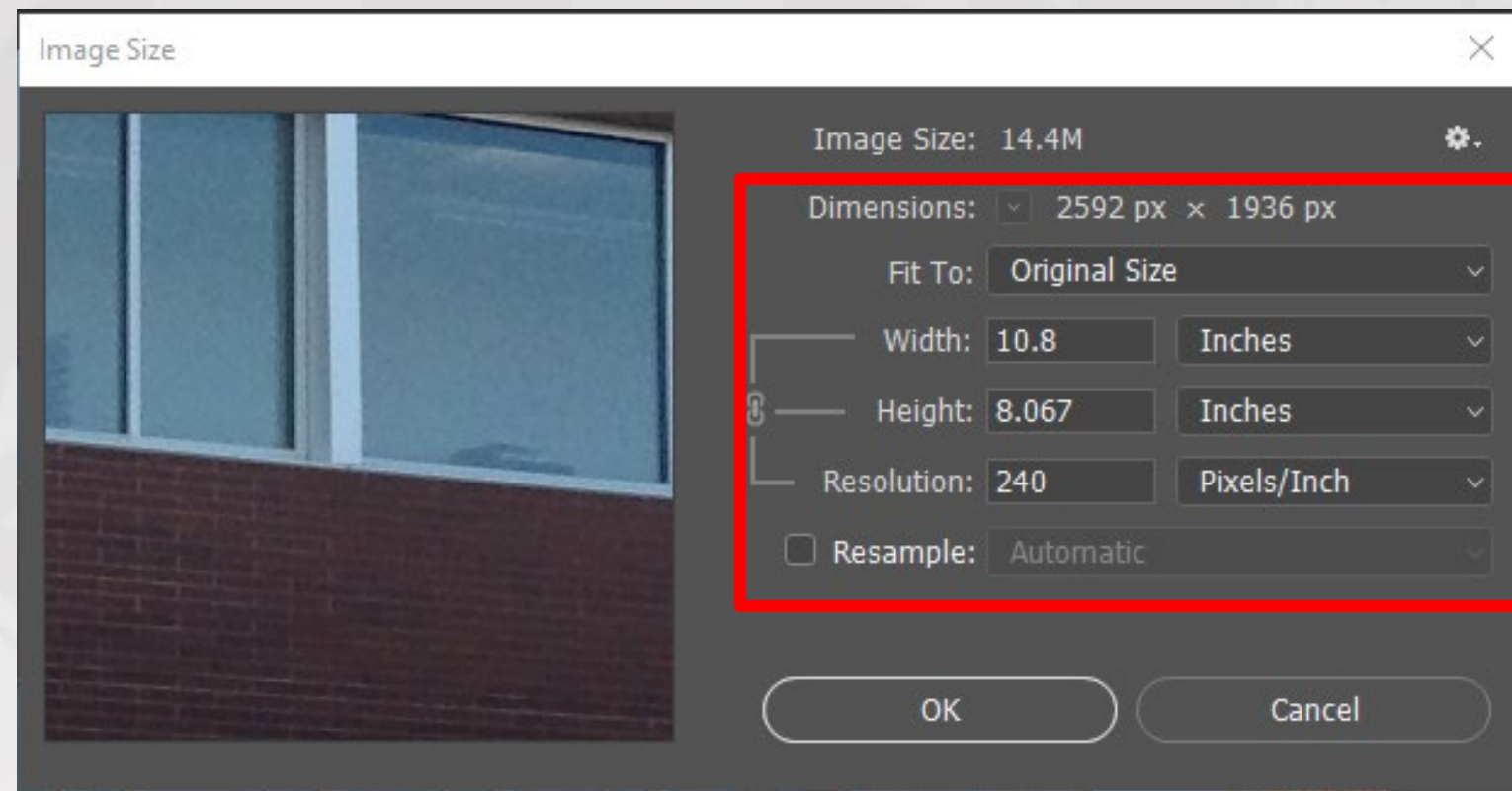


Screen resolution varies – standard widescreen for modern laptops is around 1920 x 1080.

Ink-Jet Printer (Continuous Tone Print)

Deselect the Resample option. Change the Resolution value to 240 px/inch. Given the resolution of the original image, the largest size that could be printed without a loss for quality or resampling the image is 10.8 inches for width and 8.1 inches for height.

If you want to increase the scale of the image, select Resample. Adjust the Width and Height. For testing the image, follow [these steps to view at print size](#); otherwise always preview printed images.



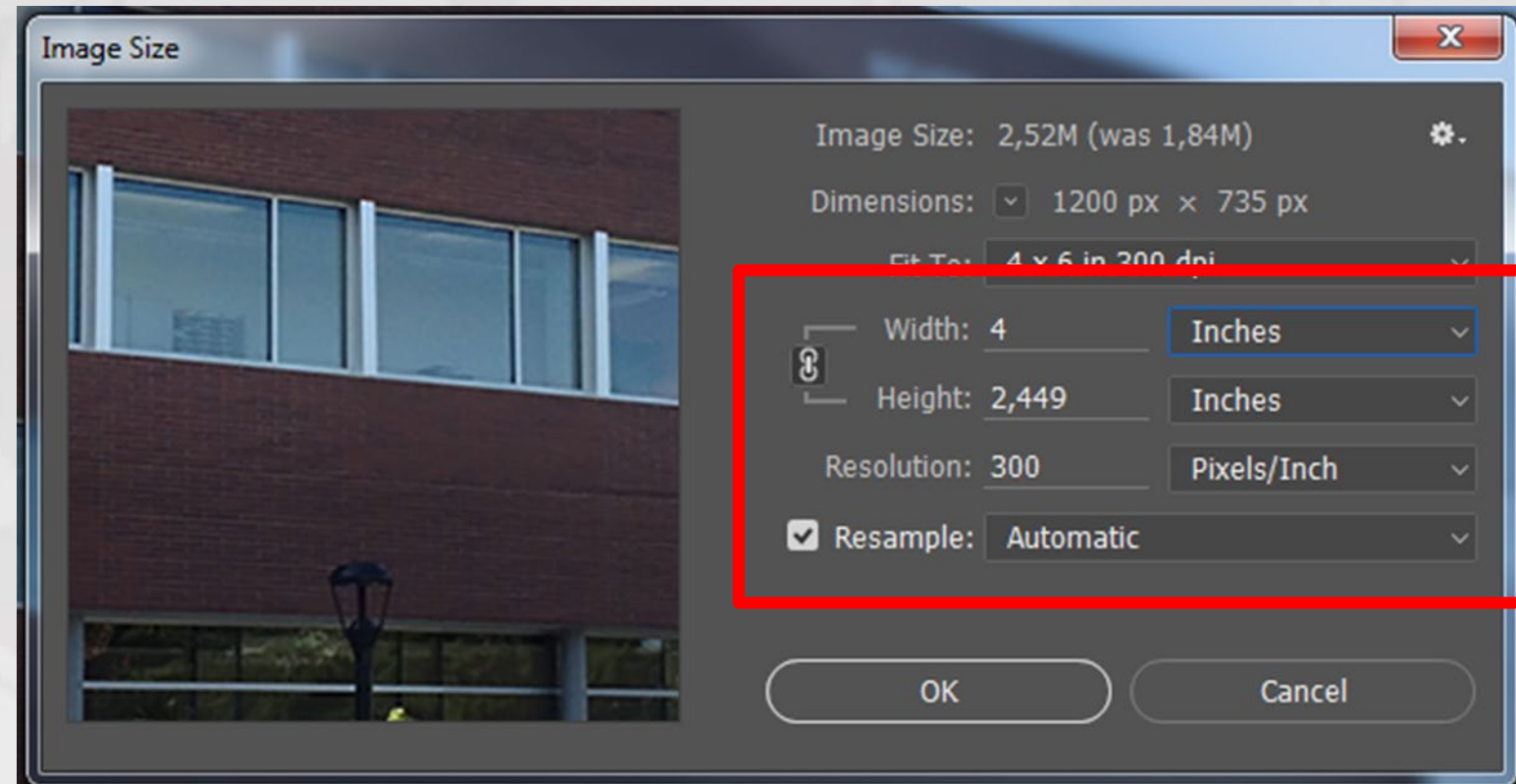


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Professional Printing Press (Half Tone Print)

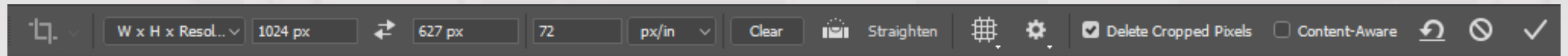
Each printing company may use different standards (i.e., RGB, CMYK) and dots per line specifications for their device. Contact them to set the needed resolution (i.e., X 2 the amount of dots per line) that is required.


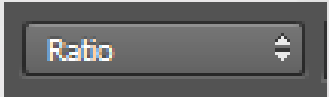

To modify the color mode of the image, choose Image > Mode > CMYK color.



Straightening and cropping the image in Photoshop

The Crop tool allows to straighten, trim, and scale the photograph. By default, the cropped pixels are automatically deleted.

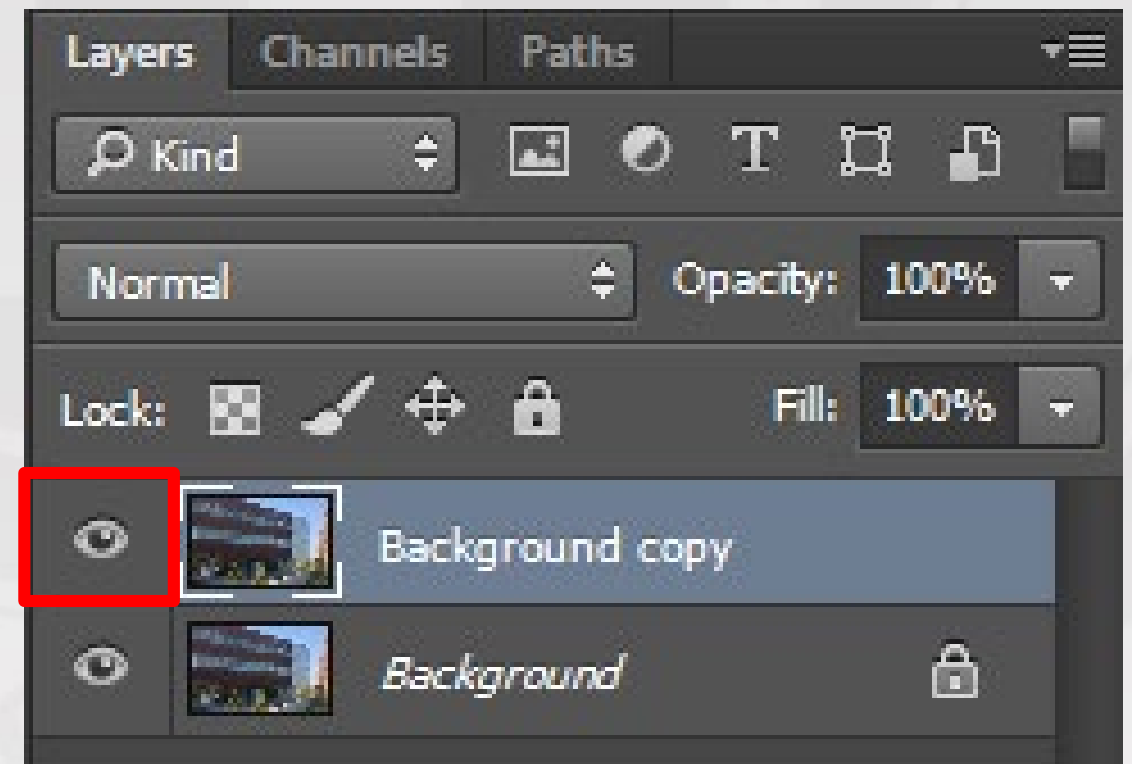


- In the Tools panel, select the *Crop tool* ().
- In the options bar, choose *W x H x Resolution* from the Preset Aspect Ratio menu ().
- In the options bar, you can type the desired width and height of the photograph as well as its resolution manually. Type *1024 px* for the width, *627 px* for the height.
- A cropping grid will appear. *You can select the area within the cropping grid in order to move the image to better define the cropped area.*
- Click the *arrow symbol* in the options panel to crop the photo ().
- Choose *File > Save*.

Nondestructive editing in Photoshop

In order to preserve the original data of the unaltered image, it is recommended to work with a duplicate of the Background layer.


- In the Layers panel, Right click the Background layer.
- Choose *Duplicate Layer* in the dialog menu that appears.
- We will perform edits using the Background copy layer to avoid altering the original source file.
- Use a combination of the zoom and hand tools as well as the view menu to navigate your image to do edits. You can also toggle the visibility of edits using the eye icon.



Using the Spot Healing Brush Tool

The Spot Healing Brush tool quickly removes blemishes and other imperfections. It samples pixels around the retouched area and matches the texture, lighting, transparency, and shading to the pixels being healed.



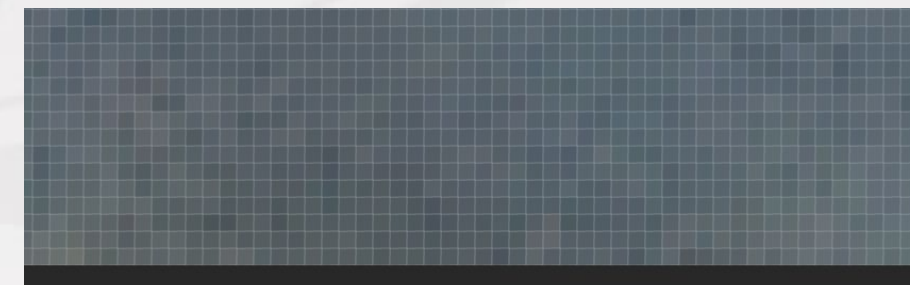
- Zoom in to see the area clearly. Select the Background copy layer.
- In the Tools panel, select the Spot Healing Brush tool ().
- In the options bar, open the Brush pop-up panel, *specify the diameter of the brush*. Make sure *Content-Aware* is selected in the options bar.
- *Click and Drag* the Spot Healing Brush down from the beginning of the area. As you drag, the area appears black, but when you release the mouse, the painted area is healed.

This is particularly useful in the case of creases in the photo where the line is a distinct color from the rest of the context, touch ups on faces for headshots, and getting rid of distracting objects.

Brush stroke over a shrub in the picture



Before




After

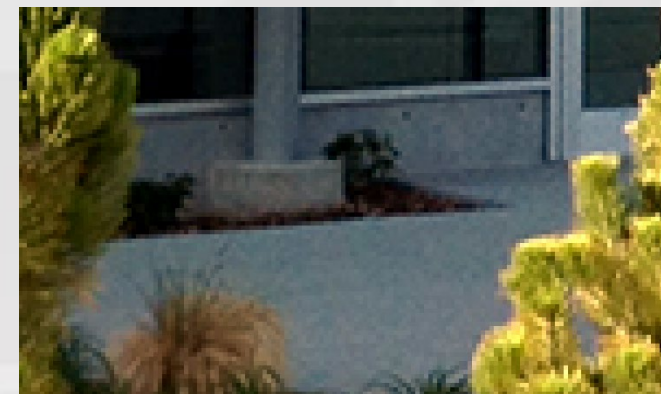
Applying a Content-Aware Patch

The Content-Aware Patch tool allows you to define an area to copy the pixels in order to replace the pixels in another part of the image. Using this tool, you can remove unwanted objects from your images and fill missing areas.

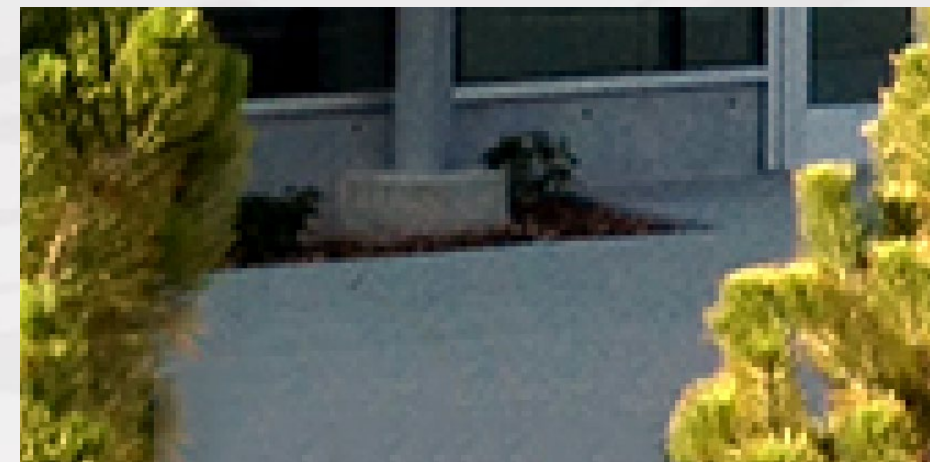


- Select the Background copy layer. In the Tools panel, select the Patch Tool ().
- In the options bar, choose Content-Aware from the Patch menu.
- Drag the Patch tool around the area to edit.
- Click within the area you've just selected, and drag it over to another area to replace pixel colors.
- *Right click and choose Deselect* once your done.
- Use the healing brush to make slight corrections, If necessary. Remember to first press the ALT key to sample an area.

Before



After





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Applying a Content-Aware Patch


Structure: 7 ▾ Color: 10 ▾

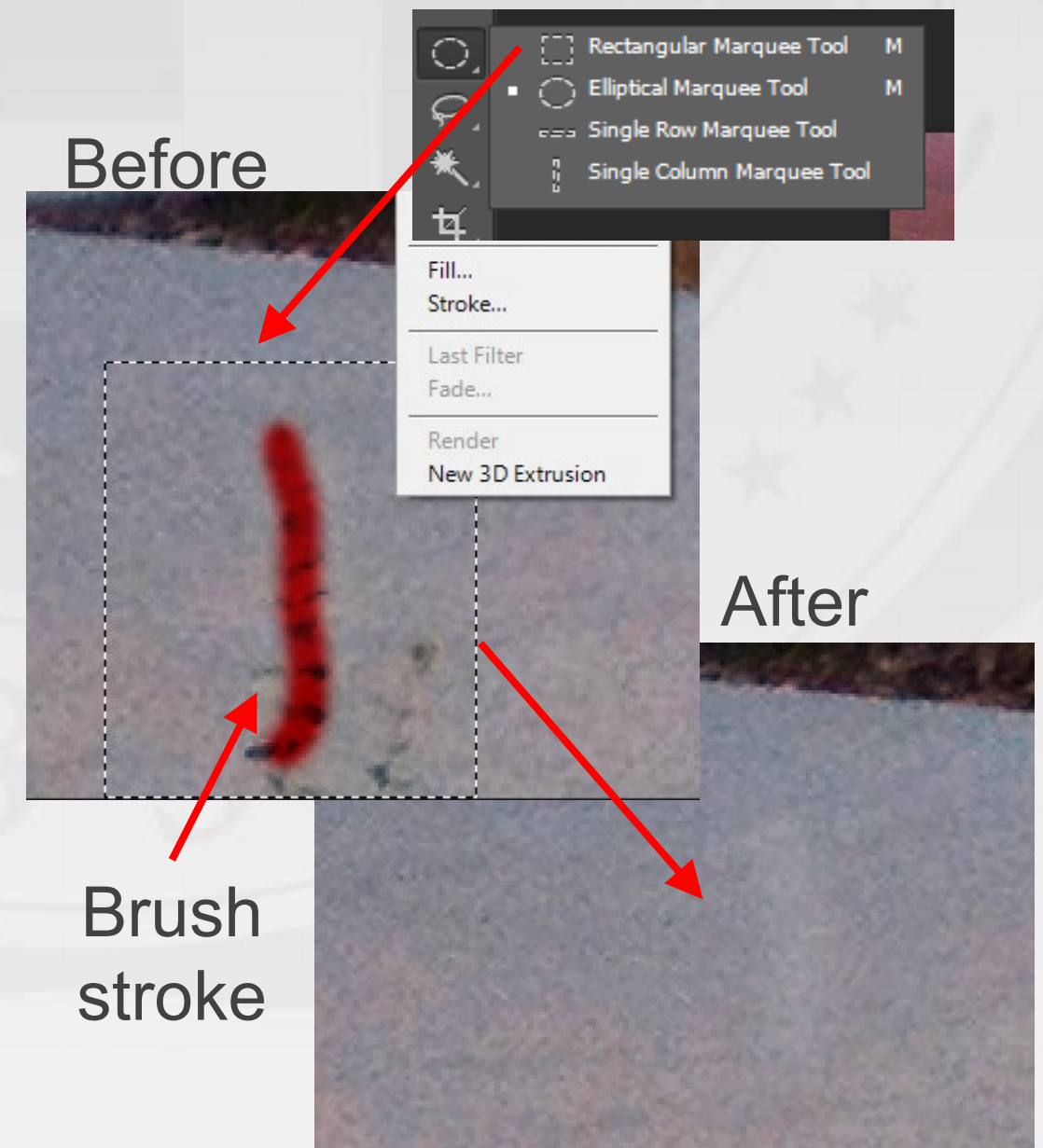
How closely the patch should reflect the existing image pattern (+ is closest)

How much color blending to apply (+ is greater)

Using Content Aware Fill

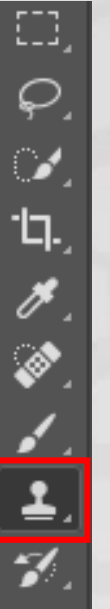
Samples pixels around the retouched area can also be sampled when applying a fill in order to remove distracting shadows or objects.


- Select the Rectangular Marquee tool () in the Tools panel.
- Drag the Rectangular Marquee tool around the area to replace. The selection that you make determines the fill. For the best result, slightly extend your selection beyond the area to be filled.
- Choose Edit > Fill. Or right click and Fill.
- In the Fill dialog box, make sure Content-Aware is chosen in the Use menu, and click OK. Try
- Choose Edit > Undo if your not happy with the results, and repeat the steps to apply the fill again.



Repairing areas with the Clone Stamp tool

The Clone Stamp tool uses pixels from one area of an image to replace the pixels in another part of the image. Using this tool, you can remove unwanted objects from your images and fill missing areas.



- Select the Clone Stamp Tool () in the Tools panel.
- In the options bar, open the Brush pop-up menu, and set the size to 21 and the hardness to 30%. Make sure the Aligned option is selected.
- Alt-click to start sampling a part of the image (Option-click (Mac)).
- Drag the Clone Stamp tool down where you want to define a new part of the image, and then release the mouse button.

Before



After





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Photo Correction Exercise #1

Remove all the shrubs on the side of the building using the tools covered today.





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Photo Correction Exercise #2

Navigate to pexels.com (or any other free stock photo site). Find a photo that you would like to feature on your own site or use for the class project.



Looking Forward to Next Week

- We've learned about photo correction and enhancement techniques using Photoshop – a range of tools that are useful for publishing photos in our projects.
- Next week, we will cover how to compose photos using Photoshop as well as other commonly used types of html elements.
- What do we still have questions about? Come and talk to me or post on the technical issues forum.
- Complete the tutorial videos, Codecademy module, and read about a few tips for building an instructional design portfolio.