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EDPS 6560
Multimedia Learning
Exporting Shapes and CSS Flexbox Containers

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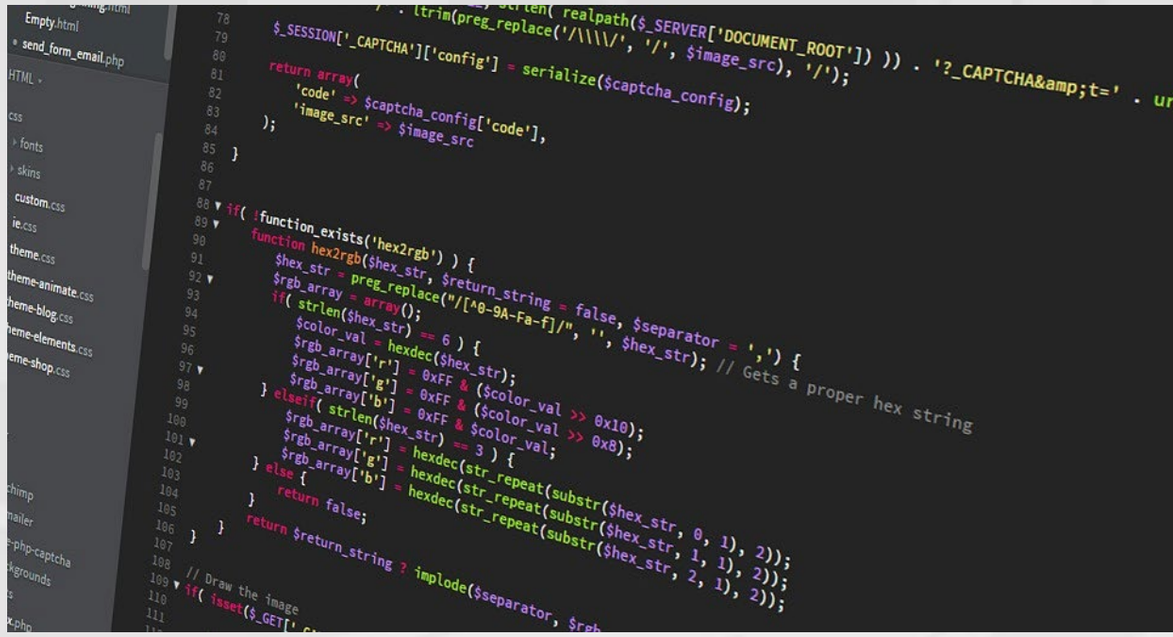
Class Objectives

By the end of this class you should be able to:

- Demonstrate knowledge of how to customize shapes
- Demonstrate knowledge of CSS flexbox containers



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Class Schedule

5:00-6:30 PM

- Review of the CSS Flexbox container

6:30-6:40 PM

- Break

6:40-8:00 PM

- Customizing shapes in Illustrator

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CSS Flexbox Containers

Enable Flex Behaviors

• A flexbox container is a useful approach to manage the layout of multiple HTML elements, similar to a CSS grid using the Bootstrap 4 framework.

- display: flex; /* Or inline-flex*/
- Flexbox containers may also be displayed an inline elements (display: inline-flex;)

BS4 Framework Class

• The children of a flexbox container consist of div elements that may contain images, paragraphs, items to display icons, hyperlinks, and so on.

```
<div class="d-flex"> <!– Or "d-inline-flex"→
        <div> … </div>
        <div> … </div>
</div>
```

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Flex Direction

Direction

• The rationale for the use of flexbox containers is to efficiently align elements either horizontally or vertically. The property will stack the flex items in any given direction.

CSS:

- flex-direction: column; /* Vertical alignment */
- flex-direction: row; /* Horizontal alignment */

Bootstrap 4 Class

BS4 HTML:

- … <--! Vertical alignment -->
- … <--! Horizontal alignment -->

It's also possible to reverse the order of items. See the documentation for examples.

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Horizontal Alignment

Justify Content

• You can center-, left-, or right-justify any item in a row (x-axis) or column (y-axis).

CSS:

- justify-content: flex-start; /* At the start of the row */
- justify-content: center; /* Center align in the row (horizontally) */
- justify-content: flex-end; /* At the end of the row */

BS4 Framework Classes

BS4 HTML:

- … <--! At the start of the row -->
- … <--! Center align in the row (horizontally) -->
- … <--! At the end of the row -->

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Vertical Alignment

Align Items

• You can center-, left-, or right-align any item in a row (y-axis) or column (x-axis).

CSS:

- align-items: flex-start; /* At the top of the row */
- align-items: center; /* Center align in the row (vertically) */
- align-items: flex-end; /* At the bottom of the row */

BS4 Framework Classes

BS4 HTML:

- … <--! At the top of the row -->
- … <--! Center align in the row (vertically) -->
- … <--! At the bottom of the row -->

• This property is most useful when adjusting the height of the container for vertical alignment.

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Auto Margins

CSS Margins

- You can also push items relative to other flex items in the row.

CSS:

… <--! This item will be left-aligned while others will appear at the end of the row-->

…

BS4 Framework Classes

BS4 HTML:

… <--! This item will be left-aligned while others will appear at the end of the row-->

…

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Item Alignment

Align Self

• You can specify the alignment of selected items inside the flexible container. It can override the default alignment set by the align-items property.

CSS:

… <--! This item will appear in the middle of the container -->

…

BS4 Framework Classes

BS4 HTML:

… <--! This item will be center-aligned while others will appear at the top of the row -->

…

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Break (10 min.)

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Using the Appearance Panel

1. Select the logo icon with either the direct selection tool or the corresponding layer in the Layers panel.
2. Select the Appearance panel icon.
3. The Appearance panel organizes all the fill and outline colors as well as effects applied to them as layers.

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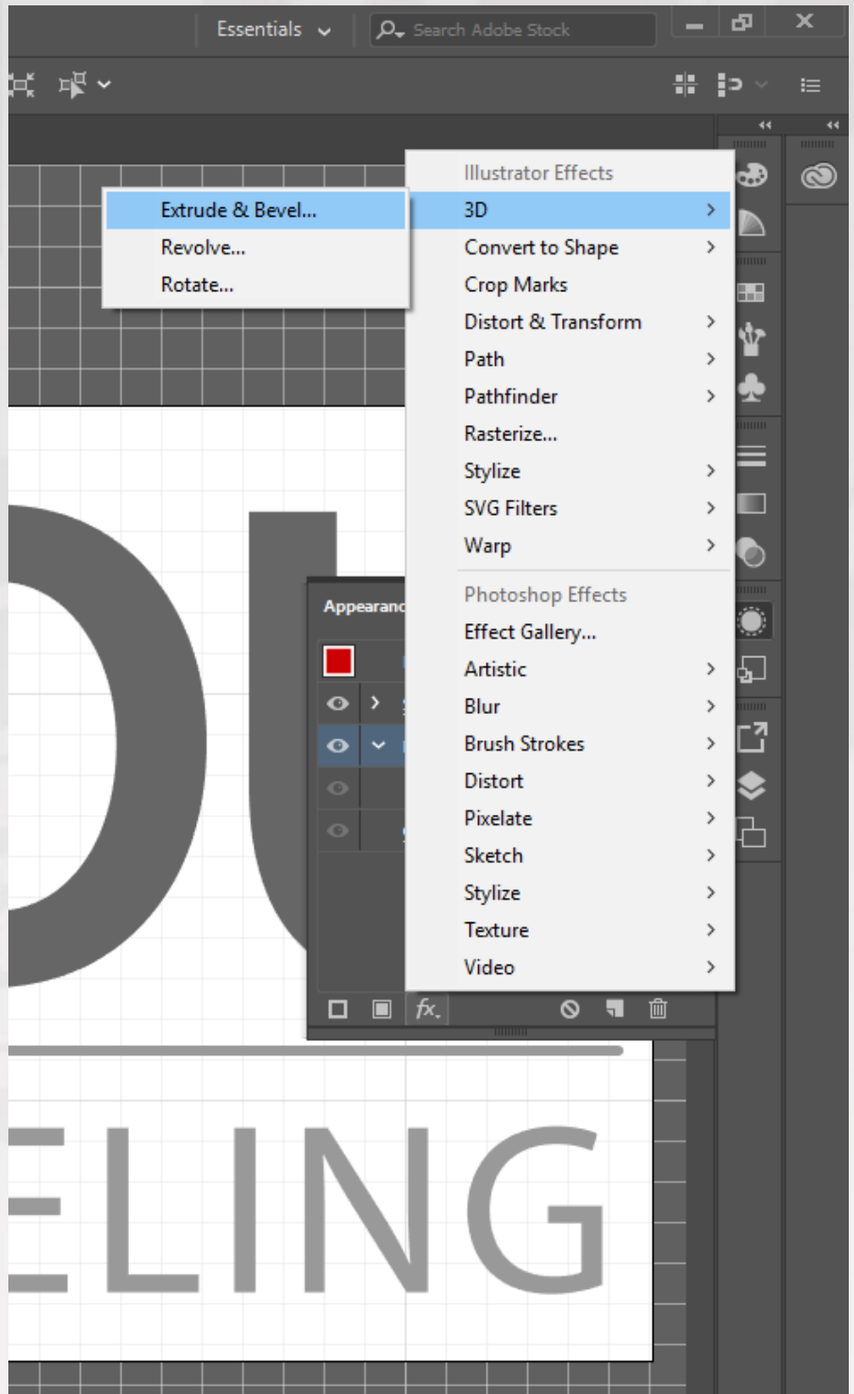
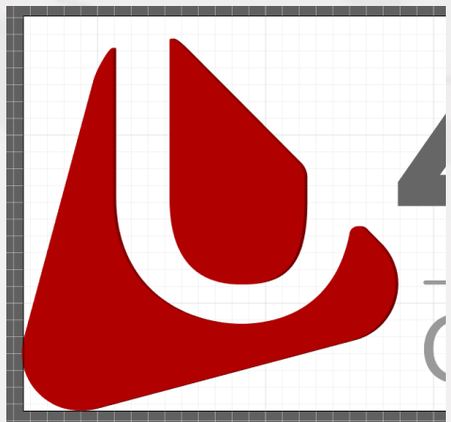
Using the Appearance Panel

1. In the Effects panel, select 3D > Extrude and Bevel.
2. Select the Preview checkbox to view the effect properties.
3. For the Position dropdown menu, select Front.
4. For rotation around the X axis, select 1 degrees.
5. For the Bevel dropdown menu, select None.
6. Select10pt for Extrude Depth.
7. Select Ok to accept the effect properties.
8.Repeat the same process for the second shape in the logo.





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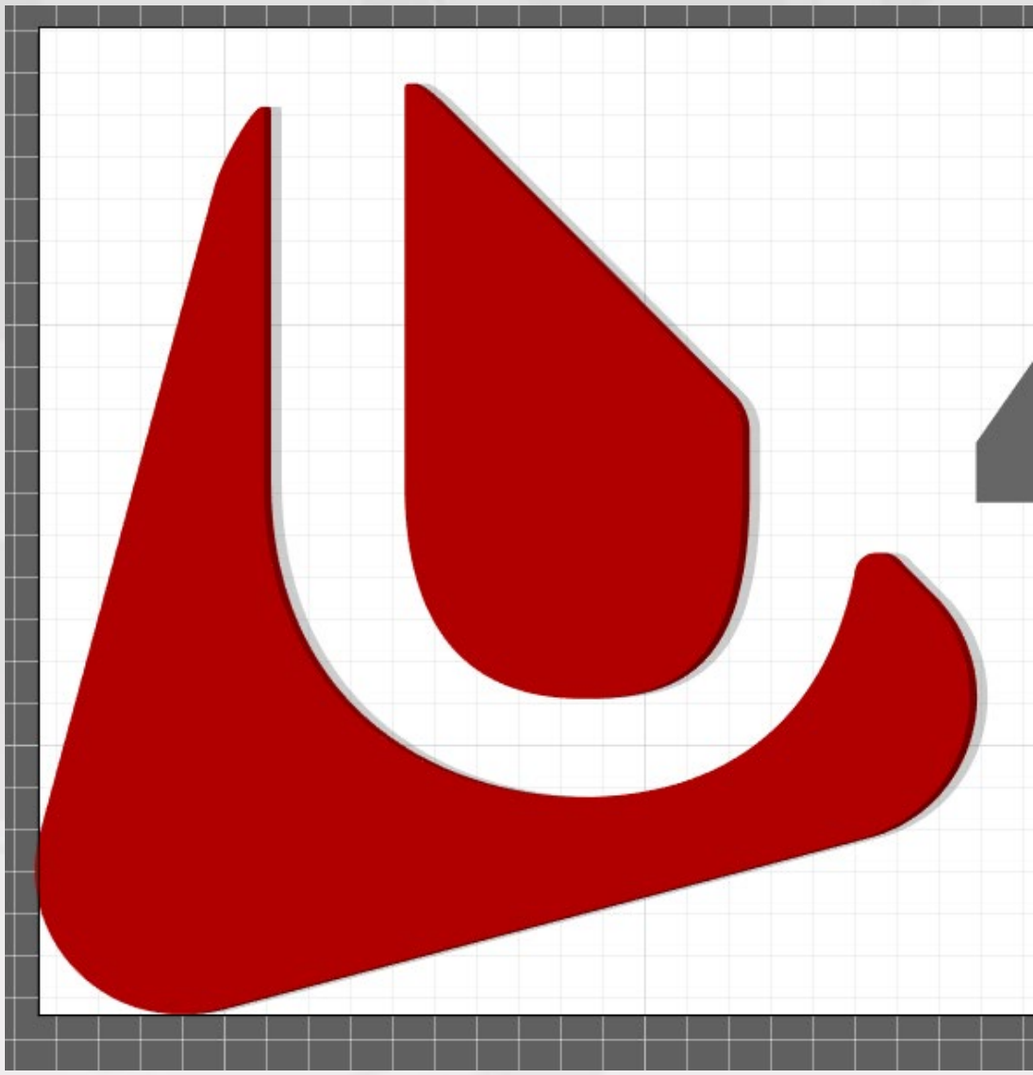
Using the Appearance Panel

1. In the Effects panel, select Stylize > Drop Shadow.
2. Select the Preview checkbox to view the effect properties.
3. Select a Mode of Normal.
4. The Opacity level should be set to 20%.
5. Assign an X Offset of 0.25 px.
6. Finally, assign a Blur value of 0 px.
7. The color should be dark for the Drop Shadow.
8.Select Ok.
9.Repeat the same process with the second shape of the logo icon.



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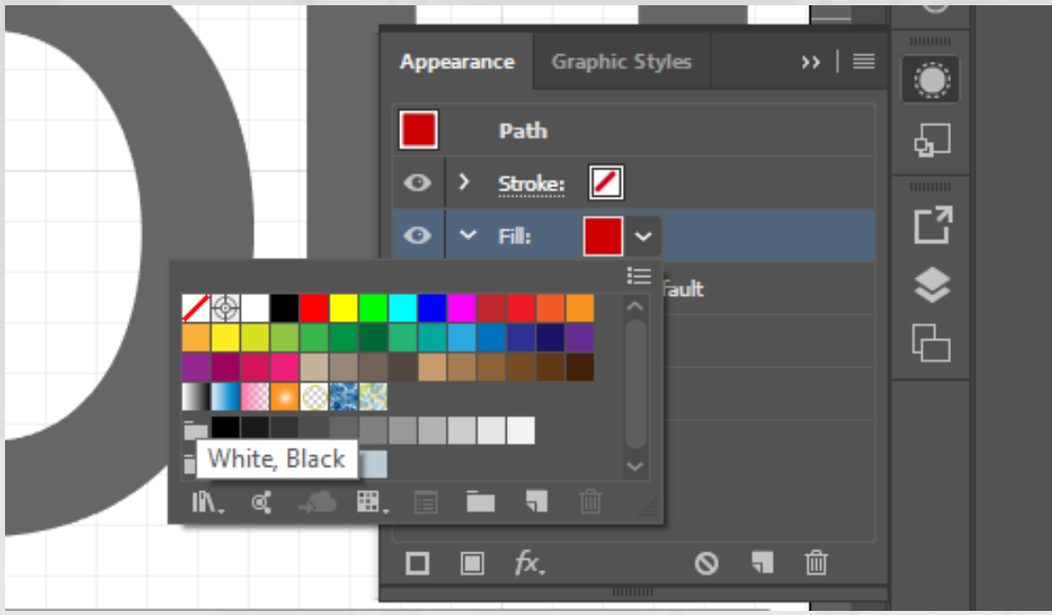
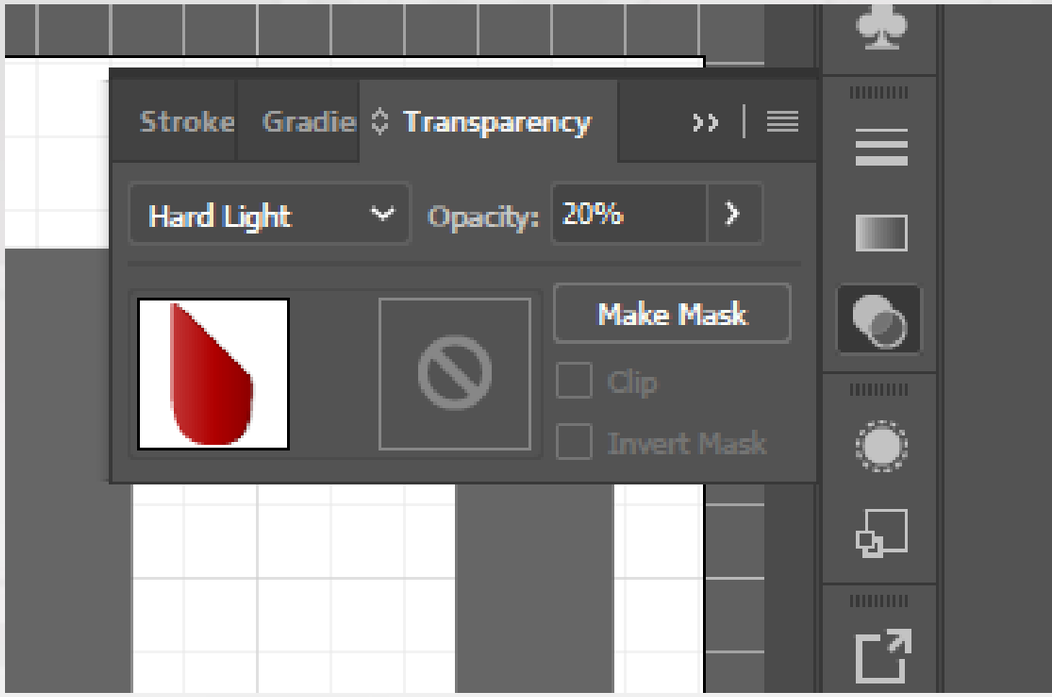
Using the Appearance Panel

1. In the Effects panel, select the Fill color layer. Then Add a New Fill Layer.
2. Select the White, Black color thumbnail option.
3. Using the Transparency panel, set the color preset to Hard Light. The Opacity level should be set to 20%.
4. Select Ok.
5. Repeat the same process with the second shape of the logo icon.





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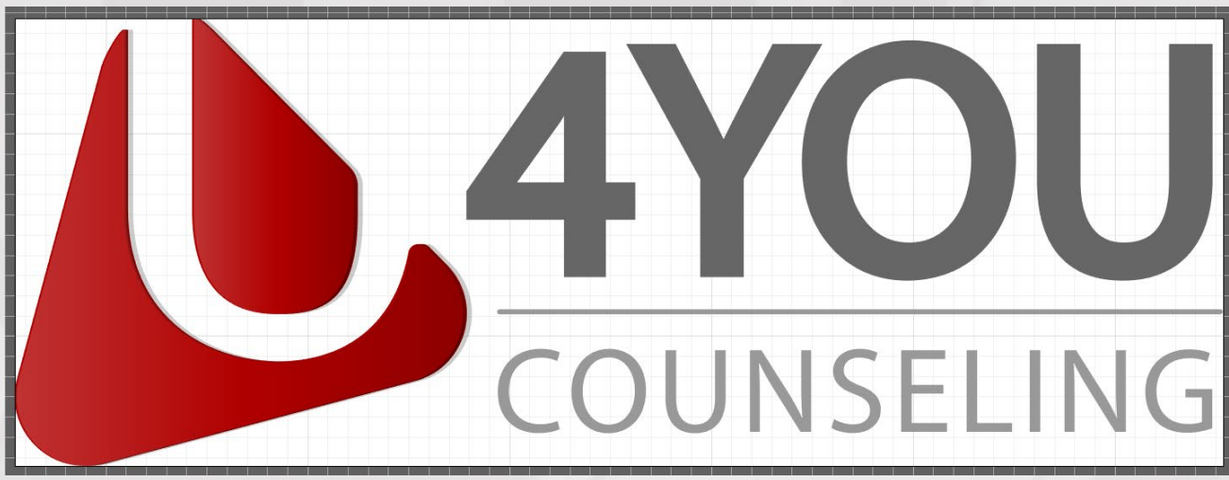
Exporting Graphs

1. Select the text and verify that it was converted to an Outline. Choose Type > Convert to Outline.
2. Choose File > Export > Save for Screens.
3. Save a .png version of the logo.
4. Import the .png in Illustrator on a separate artboard.
5. Notice how the raster graphic cannot be edited any further.



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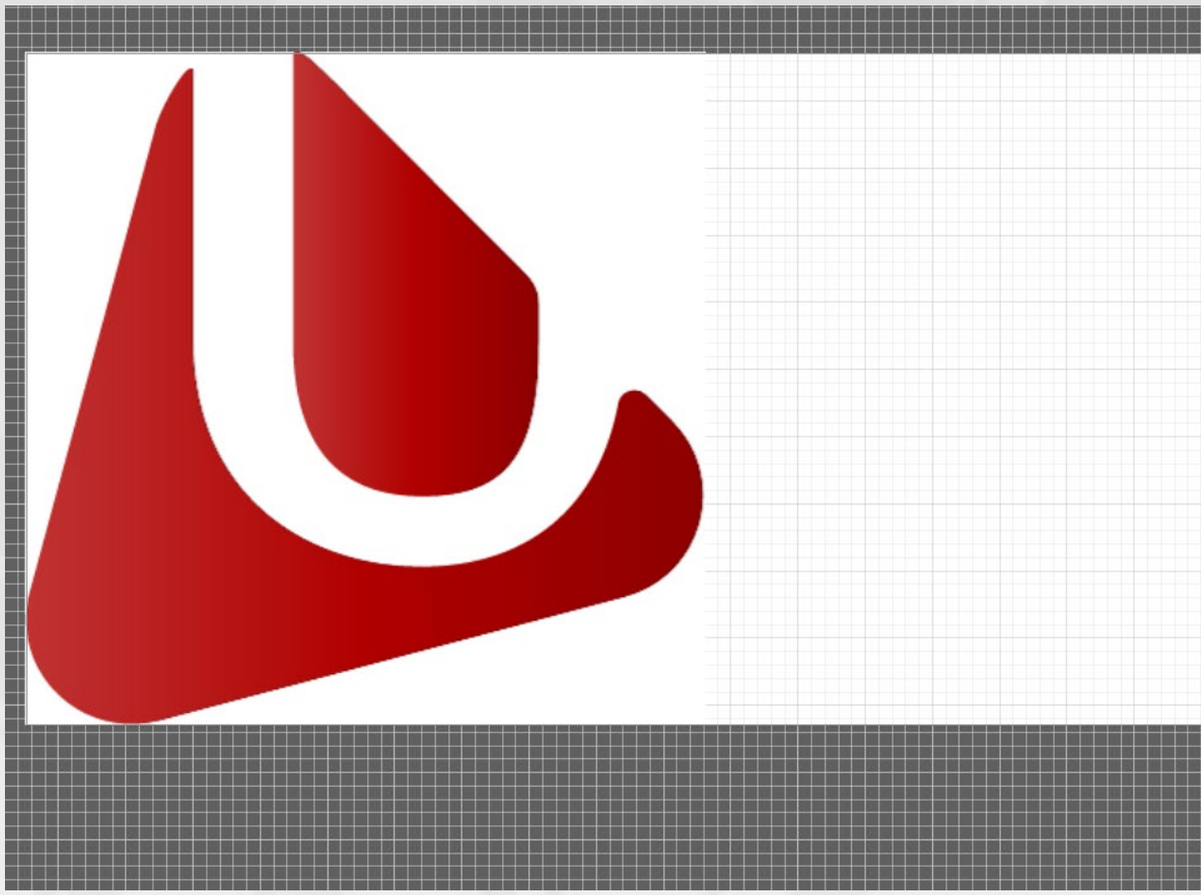
Clipping Raster Graphics

1. Draw a rectangle over the image to define the area to retain.
2. Select using the group selection tool both the shape and the rectangle.
3. Right click + Select Make Clipping Mask.
4. Synonymous to cropping in Photoshop and the pixels are retained but not visible. Right click again to Release the Mask.



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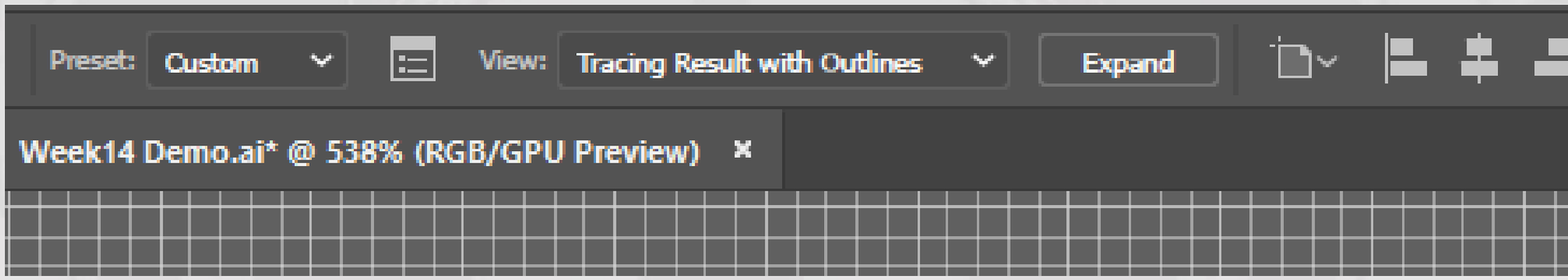
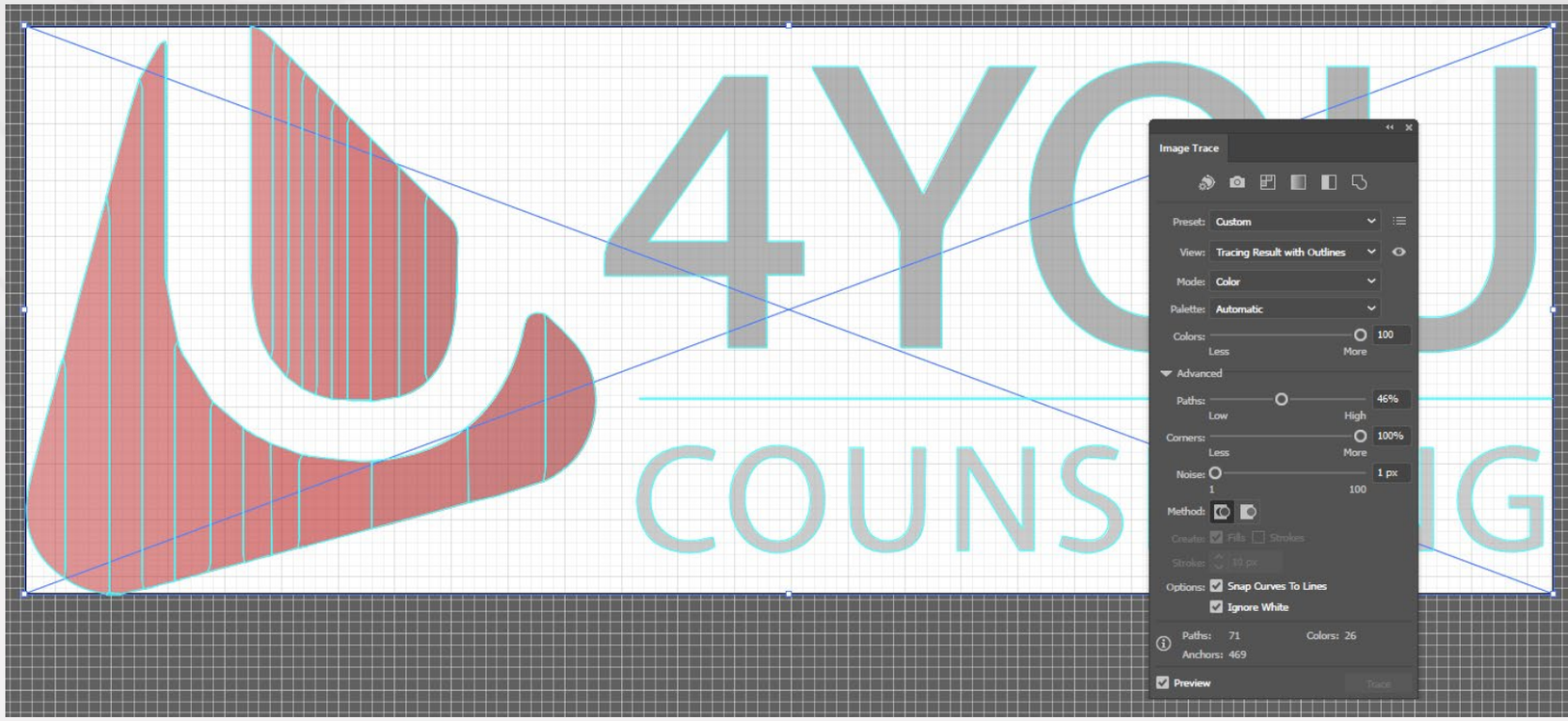


Converting Raster to Vector Images Using the Masking and Tracing Technique

1. Select the raster graphic. Then select Image Trace from the control panel.
2. Open the Image Trace panel. Select Trace Image with Outlines to preview the result. Open the Advanced options and experiment with the different presets and values. Click Expand in the control panel to convert the raster to a vector.



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Project #3: Vector Graphic in Illustrator

- The assignment is due at 11h59PM on Friday, the 2nd of May.
- Create a vector artwork of your own – classroom, work, or otherwise. Some ideas might include:
  - A set of matching system icons
  - A product icon/logo for your company
  - A poster presentation
  - A business card
  - ***A hi-fi prototype for the HCI class***

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Project #3: Vector Graphic in Illustrator

- You are expected to demonstrate knowledge of the type, drawing, and shape tools covered in class to transform objects and export the project in a format optimized for publication on the web (i.e., SVG, PNG).
- You are required to submit both the Illustrator project file and the exported file.
- Formatting requirements:
  - Prepare the image to be published for the web – less than 0.1 MB for icons; 1MB for exported posters/larger projects (Use pdf format if necessary).