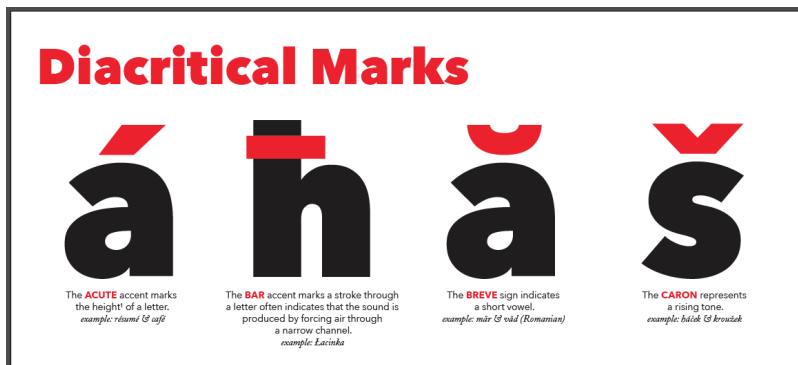


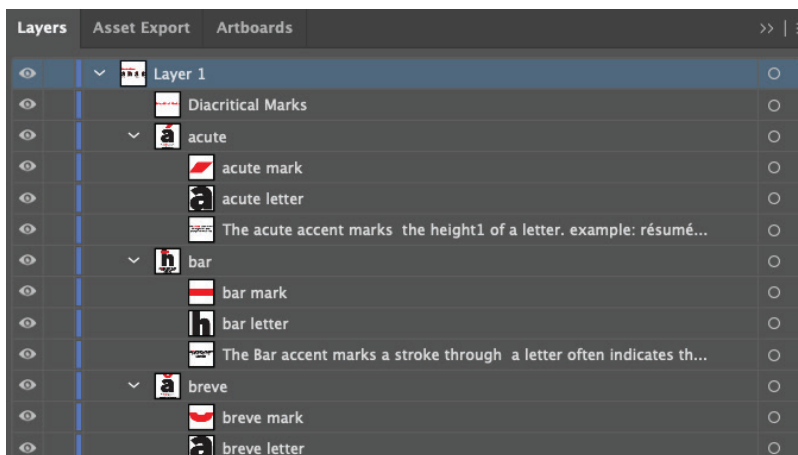
## INTERACTIVE DESIGN

## WORKING WITH SVGs

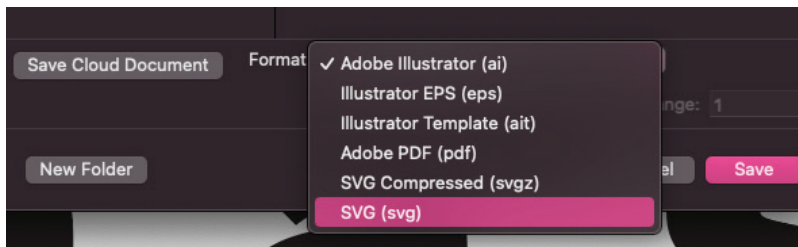
## WHAT ARE SVGs



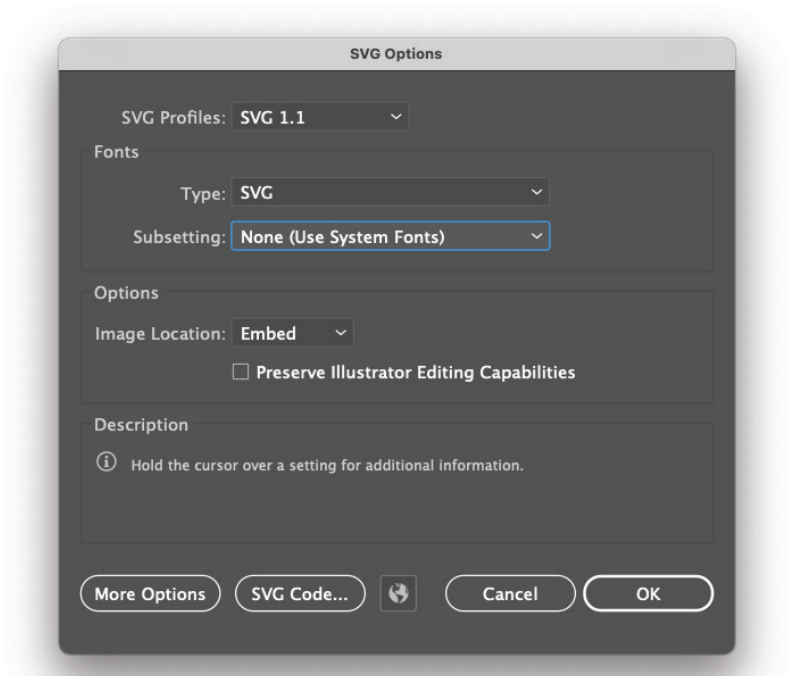
SVG stands for Scalable Vector Graphic, it is a file format available from many vector programs such as Adobe Illustrator. The above artwork was created for a poster I did in Illustrator.



In Illustrator you want to organize your objects by grouping objects that relate to one another and then naming the sub layers use all lowercase. It will make coding these objects easier.



Now you can go to File > Save As and then choose SVG from the drop down menu at the bottom of the dialog box.



After this you will get a SVG Options box (much like how you get PDF Options when saving a PDF in Illustrator). The setting above should be the default. **JUST MAKE SURE IT DOESN'T OUTLINE THE TYPE.**

## OFF TO YOUR TEXT EDITOR

```

1  <!DOCTYPE HTML>
2  <html>
3    <head>
4      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
5      <title>SVG and CSS</title>
6      <link href="styles.css" rel="stylesheet" type="text/css">
7    </head>
8    <body>
9      <div id="container">
10
11     </div>
12   </body>
13 </html>
14

```

So let's switch gears and head over to our text editor (*Dreamweaver, Coda, Text Wrangler, Atom...*)

I have set up a very basic HTML file here with a title, link to a CSS file, and a "container" div in the body.

```

1  #container {
2    width: 75%;
3    margin-top: 2em;
4    margin-left: auto;
5    margin-right: auto;
6  }
7

```

The starting CSS file has a couple lines for the "container" to help size and center the SVG that we will import.

## HERE COMES THE SCARY PART BACK TO THE HTML FILE

```

1 | <?xml version="1.0" encoding="utf-8"?>
2 | <!-- Generator: Adobe Illustrator 26.0.3, SVG Export Plug-In . SVG Version
3 | <svg version="1.1" id="Layer_1" xmlns="http://www.w3.org/2000/svg" xmlns:x
4 |   viewBox="0 0 1152 514" style="enable-background:new 0 0 1152 514;" xml:
5 | <style type="text/css">
6 |   .st0{fill:#231F20;}
7 |   .st1{font-family:'Helvetica';}
8 |   .st2{font-size:14px;}
9 |   .st3{fill:#ED1C24;}
10 |  .st4{font-family:'Helvetica-Bold';}
11 |  .st5{font-size:72px;}
12 | </style>
13 | <g id="caron">=
27 | <g id="breve">=
43 | <g id="bar">=
52 | <g id="acute">=
70 | <text transform="matrix(1 0 0 1 78.6328 105.2803)" class="st3 st4 st5">Dia
71 | </svg>
72 |

```

Now open the SVG file that you exported in your text editor. As you can see an SVG is code that builds the forms for us in the browser.

Copy all the code from the beginning to end `<svg>` tag (include the tag of course)

```

5 | <title>SVG and CSS</title>
6 | <link href="styles.css" rel="stylesheet" type="text/css">
7 | </head>
8 | <body>
9 | <div id="container">
10 |   <svg version="1.1" id="Layer_1" xmlns="http://www.w3.org/2000/svg" x
11 |     viewBox="0 0 1152 514" style="enable-background:new 0 0 1152 514;
12 |   <style type="text/css">
13 |     .st0{fill:#231F20;}
14 |     .st1{font-family:'Helvetica';}
15 |     .st2{font-size:14px;}
16 |     .st3{fill:#ED1C24;}
17 |     .st4{font-family:'Helvetica-Bold';}
18 |     .st5{font-size:72px;}
19 |   </style>
20 |   <g id="caron">=
33 |   </g>
34 |   <g id="breve">=
49 |   </g>
50 |   <g id="bar">=
58 |   </g>
59 |   <g id="acute">=
76 |   </g>
77 |   <text transform="matrix(1 0 0 1 78.6328 105.2803)" class="st3 st4 st
78 |   </svg>
79 | </div>
80 | </body>
81 | </html>

```

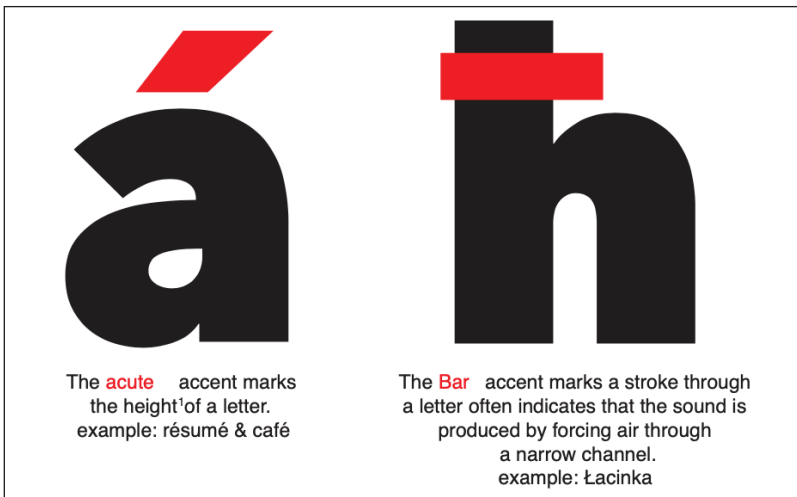
Paste the copied `<svg>` into the “container” div in the starter HTML you have. If you preview this file in a browser you should see your SVG centered in the browser window.

```
10 <svg version="1.1" id="Layer_1" xmlns="http://www.w3.org/2000/svg"
11     viewBox="0 0 1152 514" style="enable-background:new 0 0 1152 514;
12     <style type="text/css">
13         .st0{fill:#231F20;}
14         .st1{font-family:'Helvetica';}
15         .st2{font-size:14px;}
16         .st3{fill:#ED1C24;}
17         .st4{font-family:'Helvetica-Bold';}
18         .st5{font-size:72px;}
19     </style>
20 <g id="caron">
21 </g>
```

So we need to clean up our code a bit by removing styles and adding them to our CSS file and giving the elements in our HTML class tags to make manipulation easier for us.

```
1 #container {
2     width: 75%;
3     margin-top: 2em;
4     margin-left: auto;
5     margin-right: auto;
6 }
7
8 .st0{fill:#231F20;}
9 .st1{font-family:'Helvetica';}
10 .st2{font-size:14px;}
11 .st3{fill:#ED1C24;}
12 .st4{font-family:'Helvetica-Bold';}
13 .st5{font-size:72px;}
```

Now we can just paste them into our CSS file.



Now I personally have a small issue here that Illustrator didn't export my highlighted words with the uppercase CSS. So we'll need to fix that real quick.

```

8  .st0{fill:#231F20;}
9  .st1{font-family:'Helvetica';}
10 .st2{font-size:14px;}
11 .st3{fill:#ED1C24;}
12 .st4{font-family:'Helvetica-Bold';}
13 .st5{font-size:72px;}
14
15 .upper {
16   text-transform: uppercase;
17 }
18

```

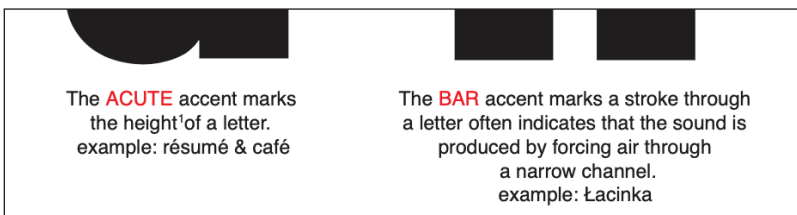
I'll start by creating a CSS class to transform text to uppercase.

```

11   viewBox="0 0 1152 514" style="enable-background:new 0 0 1152 514;
12   <g id="caron">
13     <text transform="matrix(1 0 0 1 917.2915 415.3691)"><tspan x="0" y
*   st4 st2 upper">caron </tspan><tspan x="83.23" y="0" class="st0 st1
*   rising tone.</tspan><tspan x="-7.41" y="33.6" class="st0 st1 st2">
14     <path id="caron_letter" class="st0" d="M1059.33,330.72c0,10.6-2.24
15     c-6.87,4.3-14.38,7.4-22.54,9.3c-8.16,1.9-15.94,2.85-23.32,2.85c-
16     l33.9-39.3c4.8,4.4,10.45,7.95,16.95,10.65c6.5,2.7,12.75,4.05,18.

```

Then add that class to the text that needs it. It takes a bit of hunting but it only needs to be done four times to fix this error.



There all better.

```
1 #container {
2   width: 75%;
3   margin-top: 2em;
4   margin-left: auto;
5   margin-right: auto;
6 }
7
8 .st0{fill:#231F20;}
9 .st1{font-family:'Helvetica', 'Arial', sans-serif;}
10 .st2{font-size:14px;}
11 .st3{fill:#ED1C24;}
12 .st4{font-family:'Helvetica-Bold', 'Arial-Bold', sans-serif;;}
13 .st5{font-size:72px;}
14
15 .upper {
16   text-transform: uppercase;
17 }
18
```

Now I need to put a bit of a safety net in since the only font being called is Helvetica and everyone doesn't have that on their computers so I will add a cascade with Arial and then just the default sans-serif. in case the person has neither. *(oh that second semi-colon shouldn't be there but it also doesn't harm anything).*

This also a time if you want to use web fonts like Google Fonts to implement them.

*#container helps me position the SVG where I want on the page.*

*font sizes, family, and color for the text*

*text-transform fix for my text*

*hides this acute on the page by default*

*displays the acute hidden when we hover over the group*

*repeated the above 2 styles for each of the accents and their hover effects from here to the bottom*

```

svg_css.html | styles.css
#container {
  width: 75%;
  margin-top: 2em;
  margin-left: auto;
  margin-right: auto;
}

.st0{fill:#231F20;}
.st1{font-family:'Helvetica', 'Arial', sans-serif;}
.st2{font-size:14px;}
.st3{fill:#ED1C24;}
.st4{font-family:'Helvetica-Bold', 'Arial-Bold', sans-serif;}
.st5{font-size:72px;}

.upper {
  text-transform: uppercase;
}

#acute #acute_mark {
  display: none;
}

#acute:hover #acute_mark {
  display: inherit;
}

#bar #bar_mark {
  display: none;
}

#bar:hover #bar_mark {
  display: inherit;
}

#breve #breve_mark {
  display: none;
}

#breve:hover #breve_mark {
  display: inherit;
}

#caron #caron_mark {
  display: none;
}

#caron:hover #caron_mark {
  display: inherit;
}

```

Now for the final touch. I need to add a sequence that talks to the accent within each group. For example I add in `#acute #acute_mark` and then give it a `display: none;`. This hides the accent by default. After that I add the `#acute:hover #acute_mark` with a `display: inherit;` this will cause the accent to appear if I hover over the letter group parts that are visible.

WHAT THE FINAL PAGE LOOKS LIKE

### Diacritical Marks

The **ACUTE** accent marks the height of a letter.  
example: résumé & café

The **BAR** accent marks a stroke through a letter often indicates that the sound is produced by forcing air through a narrow channel.  
example: Lacinka

The **BREVE** sign indicates a short vowel.  
example: măr & vâd (Romanian)

The **CARON** represents a rising tone.  
example: háček & kroužek

WHAT HAPPENS WHEN WE HOVER OVER THE BREVE A

### Diacritical Marks

The **ACUTE** accent marks the height of a letter.  
example: résumé & café

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