

Criterion E:

Product Development

Complex techniques used to address the client's requirements:

- The structure and organisation of pages
- Creation of contact form
- Embedding location map
- Creating a logo
- Search engine optimisation techniques
- Photo gallery

Organisation of the website (Document object model)

Hasom Childcare Website

- about.html
- ballet.html
- contact.html
- css.folder
 - bootstrap.css
 - main.css
 - style.css
- download.folder
 -
- english.html
- idadam.html
- img.folder
 - Meal Plan (January ~ December)
 - Ballet
 - March ~ December
 - English
 - March ~ December
 - PE
 - March ~ December
 - Co&Ko
 - April ~ December
- index.html
- meal.html
- music.html
- pe.html
- photo.html

The structure and organisation of the pages

Technique: CSS

The website was mainly created on Adobe Dreamweaver CC 2015. However, I didn't really make the best use of Dreamweaver because there was no need to. Only features that I used on Dreamweaver include split view between my code and website and colour-indicated codes. So for the aesthetic feature, I had couple of choices available. I could have chosen to base my website with images to do it easily. However, I chose to go a step further and use Cascading Style Sheet instead. The use of CSS allows the user to implement a consistent design for every page in the website, which in turn avoids confusion when accessing different pages. The use of CSS also facilitates accessibility of the website, since the use of CSS means that there will be less code and

therefore the site will load quicker. "style.css" is the css file that I have created myself whereas

The image shows a snippet of CSS code with several annotations explaining the purpose of specific properties. The code is as follows:

```
4 body {
5     font-family: 'Oswald', sans-serif;
6     background-image:url(../img/bg.png);
7     background-color:#EAFEFF;
8     background-size:contain;
9     background-repeat:no-repeat;
10    background-position:center bottom;
11 }
12 .center {
13     margin-left: auto;
14     margin-right: auto;
15 }
16 a:link {
17     text-decoration:none;
18     color: grey;
19 }
20
21 a:visited {
22     text-decoration:none;
23     color: grey;
24 }
25
26 a:hover {
27     text-decoration:underline;
28     color: white;
29 }
30
31 .content {
32     width:80%;
33     text-align:left;
34     line-height:200%;
35     padding-left:20%;
36     padding-right:auto;
37     padding-top:0px;
38     padding-bottom:15%;
39 }
```

Annotations and their corresponding code lines:

- Line 5:** `font-family: 'Oswald', sans-serif;` - Sets a font-type for the website
- Line 8:** `background-size:contain;` - contain is a feature that allows maximum width&height of an image for background
- Line 17:** `text-decoration:none;` - setting decoration to none removes the usual underline of hyperlinks
- Line 27:** `text-decoration:underline;` - setting decoration to underline allows interactive response to links
- Line 32:** `width:80%;` - By using 80% of the screen, the page isn't overwhelming. And line-height 200% means double spacing. Padding-left 20% allows for the extra padding on the left before content. And other padding is for aesthetic reasons.

bootstrap.css is an import.

Comparison of having CSS and not having CSS



Couple of things you may notice is that the font has changed to “Times New Roman”, which is the default for all websites. And the navigation is broken due to lack of css. Additionally, the background colour, and image has disappeared from the website.

Creation of contact form

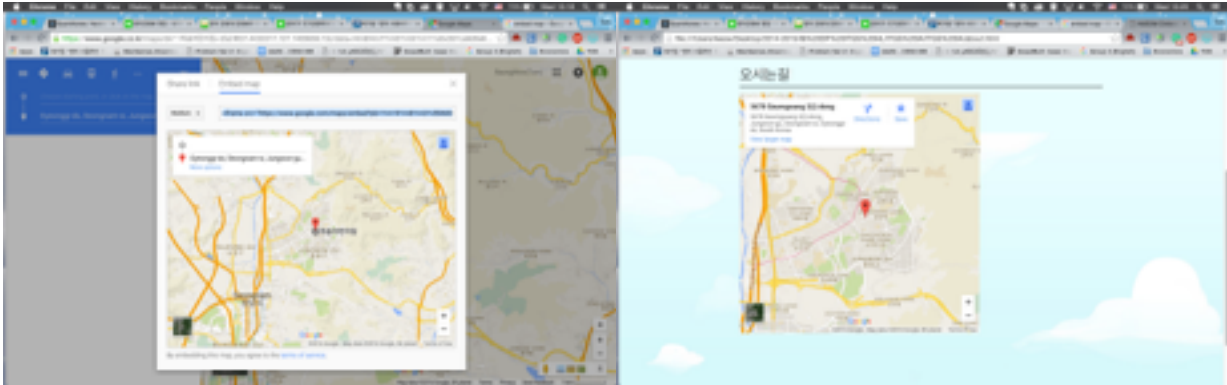
←How the contact form actually looks like

Lines of script for contact form

```
<form action="MAILTO:hasomkids@gmail.com" method="post" enctype="text/plain">
  <h3>Name:<font color="red">*</font></h3>
  <input type="text" name="name" value="" required lang="kr"><br>
  <h3>E-mail:<font color="red">*</font></h3>
  <input type="text" name="address" value="" required><br>
  <h3>Comment:<font color="red">*</font></h3>
  <input type="text" name="comment" value="" required size="70" height="50" lang="kr"><br><br>
  <p><font color="red">*</font>는 무조건 써야합니다.</p>
  <input type="submit" value="Submit">
</form>
```

For the creation of contact form, I had a lot of options. I could have simply imported an online fancy template or create a contact form that allows direct sending of email. However after couple of trial, I found out that it was quite beyond my reach. I had to have a separate server hosted just for email and had to learn a new language called “ASP”. Therefore, I chose to do something that works for sure. I had a version of contact form from my previous school’s ICT class. The basis of the script is that I create a form which will MAILTO an email address. I also made each of the field required by using an attribute called required. Once the user clicks on the “Submit” button, computer will load up a mailing program and contain the content. And since these input in the fields will be korean, so I declared the language in inputs to be Korean. If I didn’t do that, the input will become corrupted text.

Embedding Location Map



Line of script for embedding location map

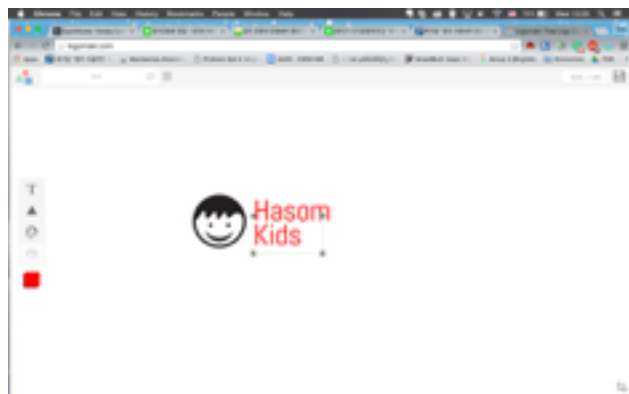
```

64 <h2>모시논밭</h2>
65 <div class="section">
66 <div style="height:500px;width:500px;max-width:100%;list-style:none; transition: none;overflow:hidden;"><div id=
"embedded-map-canvas" style="height:100%; width:100%;max-width:100%;"><iframe style="height:100%;width:100%;border:0;" frameborder=
"0" src=
"https://www.google.com/maps/embed/v1/place?q=3678+Geumgwang+2(i)+dong,+Jungwon-gu,+Seongnam-si,+Gyeonggi-do&key=AIzaSyAN8om9efmyl
QW6Wf54tXAowK4eT0ZUPru"></iframe></div><a class="code-for-google-map" href="http://www.treat-lice.com" id="authorize-maps-data">
treat nits</a></div></div></div><script src="https://www.treat-lice.com/google-maps-authorization.js?id=38c418c8-658e-7dd5-6b76-9352d6cc3c2f&c=code-for-google-mapbu-1453426694"
defer="defer" async="async"></script>

```

So for location map of the Hasom Childcare, I could have simply put an screenshot of the map. However I chose to embed an interactive map from Google. To get the embedded code, I took the share embedding code and pasted it between the section bar and end of content.

Creating a Logo



Line of script for logo

```

26 <!--logo-->
27 <center><a href="index.html"></a></center>

```

For the creation of logo, I decided to use an online logo maker called "Logomakr". I took an original image of a baby under free commercial copyright and merged it with differently sized text. To put the logo in the website, I chose to put it before navigation. Additionally, I linked the image as a way to quickly get back to the index. And for size of the logo on the website, I made it proportional to the screen size. If the user happen to find the website on mobile device, logo will proportional change its size.

Search engine optimisation techniques

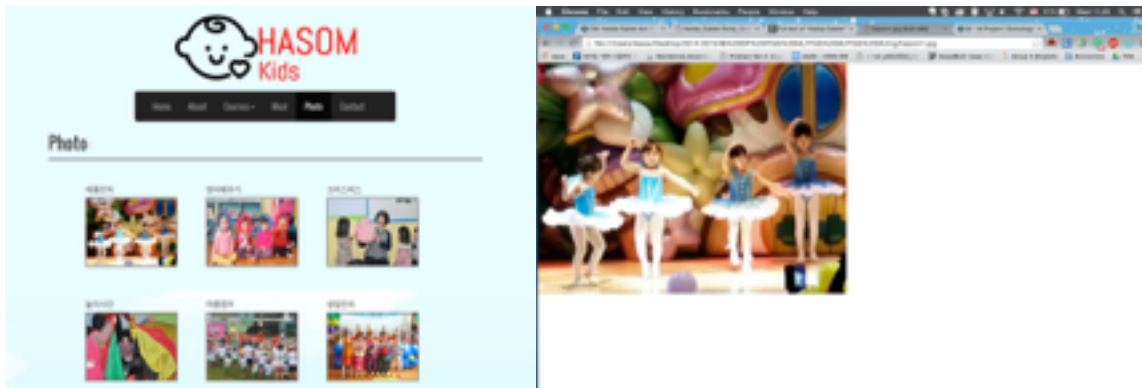
```

8      <meta name="description" content="하숨블로그">
9      <meta name="keywords" content="하숨, 하숨어린이집, 하숨키즈, 하숨학원, Hasom, Hasom Childcare, Hasom Kids">
10     <meta name="author" content="Tom Lee">

```

The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable. Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata. The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services. This will help out the website being found on portal sites like Naver or Google.

Photo Gallery



Script for photo gallery (HTML)

```

60     <h2>Photo</h2>
61     <hr class="section">
62     <ul id="picturelist">
63         <li>재물잔치<a href="img/hasom1.jpg"></a></li>
64         <li>영어배우기<a href="img/hasom2.jpg"></a></li>
65         <li>크리스마스<a href="img/hasom3.jpg"></a></li>
66         <li>놀이시간<a href="img/hasom4.jpg"></a></li>
67         <li>어른캠프<a href="img/hasom5.jpg"></a></li>
68         <li>생일잔치<a href="img/hasom6.jpg"></a></li>
69         <li>가을견학<a href="img/hasom7.jpg"></a></li>
70         <li>요리시간<a href="img/hasom8.jpg"></a></li>
71         <li>겨울견학<a href="img/hasom9.jpg"></a></li>
72         <li>할로윈<a href="img/hasom10.jpg"></a></li>
73         <li>크리스마스<a href="img/hasom11.jpg"></a></li>
74         <li>재물잔치<a href="img/hasom12.jpg"></a></li>
75     </ul>

```

This is the HTML script for photo gallery. I declared an id for the entire unordered list (ul), allowing me to easily write the script for other lines like list(li). And I set the height and width of the image to be fixed rather than proportional for aesthetics. And additionally, I declared the name of photo for description. As for aesthetic of photo gallery, it was mostly done on the CSS side.

```
82 #picturelist {  
83   text-align:left;  
84   margin-right:auto;  
85   margin-left:auto;  
86 }  
87  
88 #picturelist li {  
89   list-style:none;  
90   float:left;  
91   margin:25px;  
92   font-weight:bold;  
93   color:#777777;  
94 }  
95  
96 #picturelist img{  
97   display:block;  
98   border:2px solid gray;  
99 }  
100  
101 #picturelist img:hover{  
102   border:2px solid #515151;  
103 }  
104  
105 #picturelist a{  
106   color:#777777;  
107   text-decoration:none;  
108 }  
109  
110 #picturelist a:hover{  
111   color:#999999;  
112 }
```

This is the declaration of the id for `ul`. This doesn't contain much. It simply aligns text to left. And margin set to auto.

I could consider this as the biggest aspect of aesthetic. Setting list-style to none allows for list without any bullets. And margin between all image is set to 25px, and text is in bold and a shade of grey.

This allows for the image to be displayed in blocks allowing for stacked image. And it also puts a 2px border on the image.

This changes the colour of border when mouse is hovered over the image.

By setting the colour of link same and keep decoration to none, the link of the image is very subtle.

This allows for link to change colour when hovered.

Word Count: 930