Intekglobal
HTML/CSS Questionnaire
Time Take to finish: 57 hours

HTML5/CSS
Estimated Time: 40 hour.

1. What is *doctype*?
2. What are the different positions in CSS?
3. How would you create a menu in which each element takes the same portion of space from its container, and if you change its size, it still remains the same space for each one.
4. What cross browser issues have you run into and how did you deal with them?
5. What does the *float* property do?
   - How do you clear a floated element?
6. How do you change the direction of HTML text?
7. Explain how the new HTML5 features work:
   - semantic tags
   - attributes
   - connectivity
   - work offline
   - storage
   - device access
   - styling
   - performance & integration
8. How can you generate a **public key** in html?
9. What are **<label>** elements used for?
10. What is XHTML?
11. Are there any optional tags?
12. When would you use a **<div>**, **<section>**, or **<article>** tag?
13. What are the different formats supported by **<audio>** and **<video>** tag components? Are there any advantages of one over the other?
14. How can you apply CSS to only a part of the HTML document?
15. What are the new features introduced by CSS3?
    - Compare CSS2 and CSS3
16. How can you highlight text in HTML?
17. What is responsive design?
18. What is progressive enhancement?
19. What is graceful degradation?
20. Explain how CSS3 animations work.
21. Explain how transitions work
22. Explain the different CSS units of measurement.
    - Which one do you prefer to use and why?
23. How do you capitalize using only CSS?
24. What are the possible values for the *display* rule and what do they do?

- ○ What is the difference between *display:block* and *display:inline-block*?
25. What is a *class* and an *id*?
    - ○ When would you use an id instead of a class?
    - ○ When would you use a class instead of an id?
26. Which selector is faster, id or class?
27. How do you target a direct child element?
28. Can you target a single, specific element with a particular class?
    - ○ When would this be useful?
29. What is the use of the *data-** attribute?
30. What is the difference between *display:none* and *visibility:hidden*?
31. Does *overflow: hidden* create a new block formatting context?
32. Is it possible to use percentages in border widths?
33. Is it possible to use percentages in margins?
34. How do you reset a CSS style?
35. If you have a way of dividing an interface horizontally and vertically, could any layout be made?
36. How can you store data on the browser?
37. What debug tools are available for CSS?
38. How do you make a mobile-first approach?
39. Explain how the box-model works.
    - ○ What are the properties related to it?
40. What is flexbox? Have you used it?
41. What are media queries?
    - ○ What is the use of *only*?
    - ○ Does the *screen* keyword apply to the device's physical screen or the browser's viewport?
42. What are **pseudo-classes** and **pseudo-elements**?
43. Name a few pseudo-classes and what they are used for.
44. Explain how CSS shorthand syntax works for padding/margin.
    - ○ How do they behave when defining 1, 2, 3, or 4 values
45. How is an HTML5 form implemented?
    - ○ How is validation performed?
    - ○ How are key-value pairs sent to the server?
    - ○ How is a field declared mandatory?
    - ○ How is a field set to be mandatory AND avoid having the browser validate?
46. Describe how to improve page load times when you have 20 js files, 20 css files, and 20 images.
47. How can an inline style be overridden?
48. Explain how to implement a carousel using CSS / CSS3
49. How can the performance of a web page be measured?
50. Describe different ways in which a web page can be optimized.
51. Is there a performance difference between the different selectors?

       ○   How do you optimize CSS selectors?
       ○   Which selector is the fastest?

52. What are the different CSS filters you can use ?
53. What is specificity?
       ○   How do you calculate it?
54. How would you use sprites?
55. How can you load CSS resources conditionally?
56. What is gzipping? How is it used?
57. Mention any CSS framework that you have used.
58. How do you serve a page in multiple languages?
59. Explain what standard and quirks mode are.
60. Have you used **<meta>** tags? Explain if you have.
61. Describe what happens when you type a URL into a browser
62. When sending form data, what is the difference between the GET and POST methods?

Bootstrap
Estimated Time: 3 hour.

63. Explain what bootstrap is and how you make use of it.
       ○   Explain its key features such as the grid system, glyphs, responsive design, etc.
64. How would you plan creating a CSS framework similar to bootstrap?
65. What is your opinion on bootstrap?
66. What version of bootstrap have you used?
67. What is the difference between bootstrap 4 and 5?
68. Give a comparison between **bootstrap** and **foundation**.

CSS Preprocessors
Estimated Time: 1 hour.

69. What are CSS preprocessors?
70. Explain how LESS works; advantages & disadvantages.
       ○   What is a mixin?
71. What are the reasons to use preprocessors?

Exercises
Total Estimated Time: 16 hour.

72. Create a star-rating system with hover using only HTML/CSS. No javascript.
       ○   Use elements that are semantic compliant when possible.
       ○   Assume you have a sprite with 5 stars selected and 5 stars unselected.
       ○   The selection should persist
     Estimated Time: 8 hour.
73. Create an image slider with the following markup:

```
<div id='carousel'>
  <ul>
     <li>Slide1</li>
```

```html
      <li>Slide2</li>
      <li>Slide3</li>
  </ul>
</div>
```
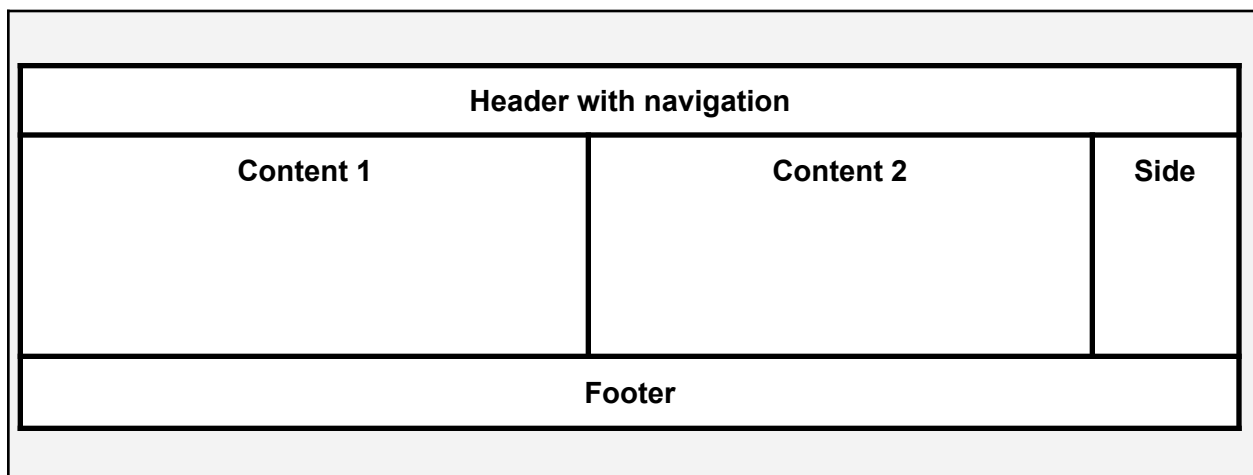
- ○ Must have 500x300 dimensions
- ○ Only show one slide at a time
- ○ Create a transition animation

Estimated Time: 4 hour.

74. Write the necessary HTML and CSS to create a layout as follows (using HTML5 semantics):
    - ○ The two content elements and side element must be next to each other
    - ○ These three elements must be vertically aligned
    - ○ Total sum of the 3 elements must be 100%
    - ○ The footer should have a width of 100% and a height of 200px
    - ○ Make the height of the 3 elements be 100% — the 200px of the footer

Header with navigation		
Content 1	Content 2	Side
Footer		

Estimated Time: 4 hour.

75. Have each letter of a word pop-up when hovered over.
76. Explain how you would create a simple slider using CSS and HTML with values of 0 for min and 100 for max. No JS.
77. Create a layout displaying a navigation menu with at least 5 options
    - ○ Provide a way to:
        - ■ Display the menu on the left
        - ■ Display the menu on the right
        - ■ Display the menu on the top
        - ■ hide/show submenus (drop-down)
        - ■ Allow the user to switch between all positioning options
78. Create a CSS3 animation.
79. Create a 4x4 album grid with divs.
    - ○ Make the HTML auto break the number of columns to 4

- ○ Make it responsive.
- ○ Consider what to do if a large number of albums are to be shown (100000+)
80. Create 3 divs and have them side-by-side.
   - ○ Each div has text centered both horizontally and vertically.
   - ○ Center a paragraph both horizontally and vertically inside a div
81. Create two elements, positioned side-by-side, each having **width: 50%**.
   - ○ Each element has additional padding and a border.
   - ○ Make sure the parent does not overflow
   - ○ Make sure the elements do not cause a break line.
82. Scenario issue: You are given a URL in which, when accessed, returns only a blank page.
   - ○ How do you resolve the issue?