Web technologies

Assignment: II

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Question 1

CSS stands for cascading stylesheets.

Three types of CSS are:-

- Inline CSS
- Internal CSS
- External CSS

Three common properties used in CSS for styling text are:-

- Font style
- Text align
- Color

Question 2

Difference between inline, internal and external CSS

INLINE CSS	INTERNAL CSS	EXTERNAL CSS
1. It is used within Html tag using the Style attribute	**1.**It is used within <head> section of html document	**1.**It is used in a separate .css file
2.Affects only the specific element	**2.** Affects the entire HTML page	**2.**Affects multiple HTML pages that link CSS file

3.Not reusable	**3.**Reusable within the same HTML document	**3.**Highly reusable across multiple pages
4.Increases HTML file size	**4.**Increases HTML file size slightly	**4.**Keeps HTML and CSS separate, reducing HTML size
5.Can make HTML cluttered and difficult to read	**5.**Keeps HTML and CSS together but only within one file	**5.**Keeps HTML and CSS separate for cleaner, maintainable code

Question 3

Absolute Position: Positioning an element absolutely, removes the element from the normal flow of your HTML file, and positions it to the top left of it's nearest parent element that has a position declared other than static. If no parent element with a position other than static exists then it will be positioned from the top left of the browser window.

Relative Position: Positioning an element relatively places the element in the normal flow of your HTML file and then offsets it by some amount using the properties left, right, top and bottom. This may cause the element to overlap other elements that are on the page, which of course may be the effect that is required.

Question 4

Class Selectors: The class selector allows you to style items within the same HTML element differently. Similar to what I mentioned in the introduction about inline styles. Except with classes the style can be overwritten by changing out stylesheets. You can use the same class selector again and again within an HTML file.

To put it more simply, this sentence you are reading is defined in my CSS file with the following.

```
P {

   font-size: small;

   color: #333333

}
```

CSS ID's: IDs are similar to classes, except once a specific id has been declared it cannot be used again within the same HTML file. I generally use IDs to style the layout elements of a page that will only be needed once, whereas I use classes to style text and such that may be declared multiple times.

The main container for this page is defined by the following.

```
<div id="container">
```

Everything within my document is inside this division.

```
</div>
```

Question 5

```
button: hover {

background-color: #008CBA;

color: white

}
```

This CSS code will cause the button to change its background color and text color when the user hovers their mouse over it.

Question 6

```html
<!DOCTYPE html>
<html>
<head>
<style>
input[type=text] {
  width: 100%;
  padding: 12px 20px;
  margin: 8px 0;
  box-sizing: border-box;
  border: 2px solid red;
  border-radius: 4px;
}
</style>
</head>
<body>
<h2>Form</h2>
<form>
  <label for="fname">First Name</label>
  <input type="text" id="fname" name="fname">
  <label for="lname">Last Name</label>
  <input type="text" id="lname" name="lname">
</form>
</body>
</html>
```

Question 7

selector {property: value;

property: value;}

Selector:

- This is the part that specifies which HTML elements the styles will apply to. Selectors can target elements by their type, class, ID, attributes, and more.

  Examples:

- p: targets all <p> (paragraph) elements.

Declaration Block:

- This contains one or more declarations, each of which specifies a CSS property and its corresponding value.

- Each declaration is written as:

  property: value

Property:

  A property is a specific aspect of the element's style that you want to change. There are many CSS properties, such as color, margin, padding, border, background, and more.

Value:

  The value defines how the property will be styled. Values can be specific units (like px, %, em), colors (like red, #ff0000), keywords (like none, block), or other specifications depending on the property.

Question 8

```css
form {

    width: 100%;

    max-width: 600px;

    margin: 2em auto;

    padding: 1em;

    border-radius: 8px;

    background: #f9f9f9;

    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);

}


/* Styling Input Fields */

form input[type="text"],

form input[type="email"],

form input[type="password"],

form textarea,

form select {

    width: 100%;

    padding: 10px;

    margin: 10px 0;

    font-size: 1em;

    border: 1px solid #ccc;

    border-radius: 4px;

    transition: border-color 0.3s ease;

}
```

```css
/* Focus State */

form input[type="text"]:focus,

form input[type="email"]:focus,

form input[type="password"]:focus,

form textarea:focus,

form select:focus {

    border-color: #007bff;

    outline: none;

}


/* Placeholder Style */

form input[type="text"]::placeholder,

form input[type="email"]::placeholder,

form input[type="password"]::placeholder,

form textarea::placeholder {

    color: #888;

    opacity: 0.8;

}

/* Advanced Selector: Style the first and last input fields differently */

form input:first-of-type {

    border-top-left-radius: 8px;

    border-top-right-radius: 8px;
```

```css
}

form input:last-of-type {
    border-bottom-left-radius: 8px;
    border-bottom-right-radius: 8px;
}

/* Submit Button */
form button[type="submit"] {
    display: block;
    width: 100%;
    padding: 10px;
    font-size: 1.2em;
    font-weight: bold;
    background: #007bff;
    color: #fff;
    border: none;
    border-radius: 4px;
    cursor: pointer;
    transition: background-color 0.3s ease;
}

form button[type="submit"]:hover {
    background: #0056b3;
```

```css
}

/* Pseudo-Class: Highlight invalid input */
form input:invalid {
    border-color: #e63946;
}

/* Styling Labels */
form label {
    display: block;
    font-weight: bold;
    margin: 0.5em 0 0.3em;
    color: #333;
}

/* Styling form sections */
form section:not(:first-child) {
    margin-top: 1em;
    padding-top: 1em;
    border-top: 1px solid #ccc;
}

/* Styling optional fields */
form .optional::after {
```

```css
    content: " (Optional)";
    color: #888;
    font-size: 0.9em;
}


/* Media Queries */
@media (max-width: 768px) {
    form {
        padding: 1em 0.5em;
    }


    form button[type="submit"] {
        font-size: 1em;
        padding: 8px;
    }
}


@media (max-width: 480px) {
    form label {
        font-size: 0.9em;
    }


    form button[type="submit"] {
        padding: 10px;
```

```
      font-size: 1em;
    }
}
```