

CSS and CSS3

CSS Selectors & Styling

Theory

Question 1) What is a css selector examples of element, class and id selectors.

Ans: A css selector is a pattern used to select and style HTML elements. It tells the browser which html elements the styles should apply to.

Examples:

1) Element selector: targets all elements of a specific

```
P {  
    color: blue;  
}
```

This p is paragraph elements.

2) Class selector : targets elements with specific class

```
.highlight {  
    background-color: yellow;  
}
```

This styles any element with class="highlight" with a yellow background.

3) Id Selector – Targets a unique element with a specific id attribute. Prefixed with a hash #.

```
#header {  
    font-size: 24px;  
}
```

This styles the element with id="header" with a font size of 24px.

Question 2: explain the concept of css specificity.
How do conflicts between multiple styles get resolved?

Ans: css specificity determines which css rule is applied when multiple rules could apply to the same element.it is based on the types of selector used in a rule.

Specificity hierarchy (from lowest to highest):

- 1) Universal selector *, element. It's based on the types of selectors used in a rule.
- 2) Class selectors (.class), attribute selector ([type="text"]), and pseudo-classes (:hover)
- 3) Id selectors (#id)
- 4) Inline style (e.g., <div style="color:red;">)
- 5) !important declarations (overrides all other rules)

```
<p id="intro" class="text"> hello world</p>
P {
Color:blue;
}
.text {
Color:green;
}
#intro {
Color:red;
}
```

The paragraph will be red, because the id selector has the highest specificity.

Question3: difference between internal, external, and inline css & their pros/cons.

- Inline: `<p style="color: blue;">hello</p>`

Advantages: quick one-off styling and highest specificity for immediate effect.

Disadvantages: results in messy html, poor maintainability, no reusability, hard to override

- Internal css:

```
<head>
<style>
```

```
p { color: red; }  
</style>  
</head>
```

Advantages: Centralized styling for single-page use, no extra downloads.

Disadvantages: not reusable across pages; increases html size harder to manage for large projects

- External css:

```
<link rel="stylesheet" href="styles.css">
```

Advantages: clean separation of content and style; reusable across site; cached by browsers for better performance

Disadvantages: requires extra http request (may delay rendering); styles absent if file fails to load

Lab Assignment:

Task: style the contact form(created in the html forms lab) using external CSS.

The following should be implemented:

- Change the background color of the form
- Add padding and margins to form fields
- Style the submit button with a hover effect
- Use class selectors for styling common elements and id selectors for unique elements

Contact page:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
  <title>Contact Form</title>
  <link rel="stylesheet" href="style2.css" />
</head>
<body>
  <div class="form-container">
```

```
<form id="contactForm">  
  <h2>Contact Us</h2>  
  
  <label for="name">Name:</label>  
  <input type="text" id="name" class="input-field"  
placeholder="Your Name" required>  
  
  <label for="email">Email:</label>  
  <input type="email" id="email" class="input-field"  
placeholder="Your Email" required>  
  
  <label for="message">Message:</label>  
  <textarea id="message" class="input-field"  
placeholder="Your Message" rows="5"  
required></textarea>  
  
  <input type="submit" id="submitBtn" value="Send  
Message">  
  </form>  
</div>  
</body>
```

```
</html>
```

Stylesheet page:

```
#contactForm {  
background-color: #f2f8ff;  
padding: 30px;  
max-width: 400px;  
margin: 50px auto;  
border-radius: 10px;  
box-shadow: 0 0 10px rgba(0,0,0,0.1);  
font-family: Arial, sans-serif;  
}
```

```
.input-field {  
width: 100%;  
padding: 10px;  
margin: 10px 0 20px 0;  
border: 1px solid #ccc;  
border-radius: 5px;
```

```
box-sizing: border-box;  
}  
  


## #submitBtn {

  
background-color: #007BFF;  
color: white;  
padding: 12px;  
border: none;  
border-radius: 5px;  
cursor: pointer;  
width: 100%;  
font-size: 16px;  
transition: background-color 0.3s ease;  
}  
  


## #submitBtn:hover {

  
background-color: #0056b3;  
}  
  


## #contactForm h2 {


```

```
text-align: center;  
margin-bottom: 20px;  
}
```

```
#contactForm label {  
    font-weight: bold;  
}  
}
```

Contact Us

Name:

Email:

Message:

Send Message

CSS Box Model:

Theory Assignment:

Question1: explain the css box model and its components (content, padding, border, margin)

How does each affect the size of an element?

Answer:

The css box model is a fundamental concept in css that describes how the size of every html element is calculated and how it is rendered on the webpage.

It consists of 4 main components:

- Content: the actual text image or other data inside the element.
The width and height are applied directly to the content area.
- Padding: the space between the content and the border.
adds space inside the element around the content
increases the total size of the element box-sizing: border-box is used .
- Border: the visible line around the padding and content.

Adds to the total width and height of the element

- Margin: the space outside the element, creating distance from other elements.
Does not affect the size of the element itself but affects spacing on the page.

Total width = content width +left/right padding + left/right border + left/right margin

Total height = content height + top/bottom padding + top/bottom border + left/right margin

Question2 : what is the difference between border-box and content-box box-sizing in css?
Which is the default?

Answer:

content-box:

- The width and height apply only to the content.
- Padding and border are added outside the specified width and height
- Total size increases with padding/border.

Ex: box-sizing: content-box;

Border-box:

- The width and height include content + padding + border.
 - Makes sizing more predictable and easier to manage layouts
- Ex: box-sizing: content-box;

Or

```
*{  
  box-sizing: border-box;  
}
```

Box page

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <meta charset="UTF-8">  
  <meta name="viewport" content="width=device-width, initial-scale=1">  
  <title>Profile Card</title>  
  <link rel="stylesheet" href="style.css">
```

```
</head>

<body>

  <div class="profile-card" align="center">

    <h2 class="profile-name">Devika Kollur</h2>

    <p class="profile-bio">Front-end Developer | UI/UX
    Enthusiast | Learner</p>

    <button class="follow-btn">Follow</button>

  </div>

</body>

</html>
```

Stylesheet page:

```
/* Center the card on the page */

body {

  margin: 0;
  height: 100vh;
  display: flex;
  justify-content: center;
  align-items: center;
  background-color: #f0f0f5;
```

```
    font-family: Arial, sans-serif;  
}  
  
/* Profile Card Container */
```

```
.profile-card {  
    width: 300px;  
    border: 2px solid #ccc;  
    border-radius: 12px;  
    padding: 20px;  
    background-color: #fff;  
    box-shadow: 0 8px 20px rgba(0,0,0,0.1);  
    text-align: center;  
    box-sizing: border-box; /* Using border-box for the  
    card */  
}
```

```
/* Profile Image */  
.profile-img {  
    width: 100px;  
    height: 100px;
```

```
border-radius: 50%;  
border: 3px solid #4CAF50;  
padding: 5px;  
margin-bottom: 15px;  
box-sizing: content-box; /* Demonstrate content-box  
*/  
}
```

```
/* Name */  
.profile-name {  
margin: 0;  
font-size: 24px;  
color: #333;  
margin-bottom: 8px;  
}
```

```
/* Bio */  
.profile-bio {  
font-size: 14px;  
color: #666;
```

```
margin-bottom: 20px;  
padding: 0 10px;  
}  
  
/* Follow Button */
```

```
.follow-btn {  
padding: 10px 25px;  
background-color: #4CAF50;  
color: white;  
border: none;  
border-radius: 6px;  
cursor: pointer;  
transition: background-color 0.3s;  
}
```

```
.follow-btn:hover {  
background-color: #45a049;  
}
```



Devika Kollur

Front-end Developer | UI/UX Enthusiast | Learner

[Follow](#)

CSS flexbox:

Theory question:

Question1: what is CSS flexbox, and how is it useful for layout design? Explain the terms flex-container and flex-item.

Answer: CSS flexbox (flexible box layout) is a CSS layout module designed to make it easier to arrange elements in a one-dimensional layout-either horizontally (row) or vertically (column)-with flexible sizing and spacing.

It is especially useful for building responsive web designs and aligning content both vertically and horizontally without using floats or complex CSS hacks.

Flex Container:

- The parent element that has `display:flex` or `display:inline-flex`.

- It enables flexbox behavior for its child elements.

Ex:

```
.container {  
    display: flex;  
}
```

Flex items:

- The direct children of a flex container
- They are laid out according to the rules of the flexbox model.

Ex:

```
<div class="container">  
    <div class="item">1</div>  
    <div class="item">2</div>  
</div>
```

Question 2: describe the properties justify-content, align-item, and flex-direction used in flexbox.

Answer:

Flex-direction:

Defines the main axis—the direction in which the flex items are placed inside the flex container.

Values:

Row(Default): left to right (horizontal)

Row-reverse: right to left

Column: top to bottom(vertical)

Column-reverse: bottom to top

Ex: .container {

Display: flex;

Flex-direction: row;

}

Justify-content:

Aligns flex items along the main axis(based on flex-direction).

Controls horizontal spacing when flex-direction: row.

Values:

- Flex-start (default): items aligned to the start
- Flex-end: items aligned to the end
- Center: items centered
- Space-between: equal space between items
- Space-around: equal space around items
- Space-evenly: equal space between and around items

Ex:

.container: {

```
Display: flex;  
Justify-content: center;  
}
```

Align-items:

Aligns flex items along the cross axis
(perpendicular to the main axis).

Controls vertical alignment when flex-direction: row.

Value:

- Stretch (default): items stretch to fill container
- Flex-start: aligned to the top
- Flex-end: aligned to the bottom
- Center: vertically centered
- Baseline: aligned based on text baseline

Ex:

```
.container {  
  Display: flex;  
  Align-items: center;  
}
```

Lab Assignment • Task: Create a simple webpage layout using Flexbox. The layout should include:

- A header.
- A sidebar on the left.
- A main content area in the center.
- A

footer. Additional Requirements:

- Use Flexbox to position and align the elements.
- Apply different justify-content and align-items properties to observe their effects.
- Ensure the layout is responsive, adjusting for smaller screens.

```
<!DOCTYPE html>
<html>
<head>
  <title>Web Page</title>
  <style>
    * {
      box-sizing: border-box;
    }

    .row {
      display: flex;
    }
    .row1 {
      display: flex;
      flex-wrap: wrap;
    }

    [class*="col-"] {
```

```
width:100%;  
}  
  
@media only screen and ( min-width: 600px)  
{  
    .col-1 { width: 8.33%; }  
    .col-2 { width: 16.66%; }  
    .col-3 { width: 25%; }  
    .col-4 { width: 33.33%; }  
    .col-5 { width: 41.66%; }  
    .col-6 { width: 50%; }  
    .col-7 { width: 58.33%; }  
    .col-8 { width: 66.66%; }  
    .col-9 { width: 75%; }  
    .col-10 { width: 83.33%; }  
    .col-11 { width: 91.66%; }  
    .col-12 { width: 100%; }  
  
}  
.heading {  
    background-color: black;  
    font-size: 16px;  
    color: white;  
    padding: 10px;
```

```
}
```

```
.head-content {  
    display: flex;  
    justify-content: space-between;  
    align-items: center;  
}
```

```
.head-content1 {  
    font-size: 24px;  
    margin: 0;  
}
```

```
.search-bar select,  
.search-bar input[type="button"]  
.search-bar input[type="text"]{  
    padding: 10px;  
    margin: 10px;  
    border: none;  
    border-radius: 4px;  
}
```

```
.search-bar input[type="button"]{  
    padding: 10px;  
    margin: 10px;  
    cursor: pointer;
```

}

.links {

background-color:darkcyan;
color: white;
font-size: 15px;
height: auto;
display: flex;
padding: 10px;
margin: 0px;
flex-wrap: wrap;
gap: 15px;
justify-content: space-between;

}

.links a {

color: white;
margin-right: 60px;

}

.sidebar {

```
background-color: darkgray;  
padding: 10px;  
text-align: center;  
}
```

```
.mainbar {  
background-color: lightblue;  
padding: 10px;  
}
```

```
.photo {  
padding: 10px;  
border: solid 2px black;  
margin: 10px;  
border-width: 2px;  
background-color:  
lightgoldenrodyellow;  
}
```

```
.photo img {  
width: 100%;  
}
```

```
h1, h2, h4, p {  
margin: 5px 0;  
}
```

```
a {  
    text-decoration: none;  
    color: black;  
}  
  
.footer {  
    background-color:black;  
    height: auto;  
    color: white;  
}  
.footer a {  
    color: white;  
}  
}  
</style>  
</head>  
<body>  
    <div class="row">  
        <div class="heading col-12 head-content">  
            <h1><b>Amazon.in</b></h1>  
            <div class="search-bar head-content1"  
                style="display: inline;">
```

```
<select>
    <option>All Categories</option>
    <option>Alexa Skills</option>
    <option>Amazon Devices</option>
    <option>Amazon Fashion</option>
    <option>Amazon
Pharmacy</option>
    <option>Appliances</option>
    <option>Apps & Games</option>
    <option>Audible
Audiobooks</option>
    <option>baby toys</option>
    <option>Beauty</option>
    <option>Books</option>
    <option>CAr &
Motorbike</option>
    <option>Clothing &
Accessories</option>
    <option>Collectibles</option>
    <option>Computers &
Accessories</option>
    <option>Deals</option>

<option>Electronics</option>
    <option>Furniture</option>
```

```
        <option>Garden &
Outdoors</option>
        <option>Gift
Cards</option>

        </select>
        <input type="text" placeholder="Search
electronics...">
        <input type="button" value="Search">
    </div>
</div>
</div>
<div class="row">
<div class="col-12 links">
<div class="links">
    <a
    href="https://www.amazon.in/minity?ref_=nav_avod_desktop_topnav">MX Player</a>
    <a
    href="https://www.amazon.in/b/32702023031?node=32702023031&Id=AZINSOANavDeskt
op_T3&ref_=nav_cs_sell_T3"> Sell</a>
    <a
    href="https://www.amazon.in/gp/bestsellers/
?ref_=nav_cs_bestsellers">Bestsellers</a>
```

Mobiles

Today's Deals

Customer Service

Fashion

New Releases

Amazon Pay

Login/SignUp

```
</div>

</div>
</div>
<div class="row">
    <div class="col-2 sidebar">
        <h2>Categories</h2>
        <dt>Computers &
Accessories</dt><br>
        <a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375248031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_1">Acc
essories & Peripherals</a><br><br>
        <a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375344031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_2">Co
mponents</a><br><br>
        <a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375392031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_3">Des
ktop</a><br><br>
        <a
href="https://www.amazon.in/s?rh=n%3A976
```

392031%2Cn%3A1375393031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_4">Ext
ernal Devices & Data Storage

<a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375424031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_5">Lap
top

<a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375425031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_6">Mo
nitors

<a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375427031&dc&qid=17491
88258&rnid=976392031&ref=sr_nr_n_7">Net
working Devices

<a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A14784019031&dc&qid=1749
188258&rnid=976392031&ref=sr_nr_n_8">Pri
nters, inks & Accessories

<a
href="https://www.amazon.in/s?rh=n%3A976
392031%2Cn%3A1375452031&dc&qid=17491

88258&rnid=976392031&ref=sr_nr_n_9">Scanners

Tables

<h2>Item Condition</h2>

New

Renewed

<h2>Price</h2>

Under

₹1,000

₹1,000 -
₹5,000

₹5,000 -
₹10,000

₹10,000 -
₹20,000

Over ₹20,000

<h2>Deals & Discounts</h2>

All Discounts

Today's Deals

<h3>Made for Amazon
Brands</h3>

Made for
Amazon

<h2>Seller</h2>
Cocoblu
Retail

Clicktech Retail Private
Ltd

TheGiftKart

Clicktech
Business

Spigen India

DIZORO

KARWAN

<h2>New Arrivals</h2>
Last 30 days

Last 90 days

<h2>Availability</h2>
Include Out of
Stock

<h2>Discount</h2>
10% Off or
more

25% Off or
more

35% Off or
more

50% Off or
more

60% Off or
more

70% Off or
more

Pay On
Delivery

Eligible for Pay On
Delivery

</div>

<div class="col-8 mainbar">
 <h1 style="font-style: italic;">PC
Accessories & Gaming Accessories</h1>

<div class="row">
 <div class="col-4 photo">

<p>Corsair Katar Pro Ultra-Light Optical USB Gaming Mouse with Backlit RGB LED, 12400 DPI (Black)</p>

<h3>₹1,399.00</h3>

<h4 style="text-decoration:line-through;">₹2,400.00</h4>

</div>

<div class="col-4 photo">

<p>Razer Huntsman Mini - Mercury Edition - 60% Optical Gaming Keyboard (Clicky Purple Switch)</p>

<h3>₹7,002.00</h3>

<h4 style="text-decoration:line-through;">₹15,999.00</h4>

</div>

<div class="col-4 photo">

<p>Corsair Katar Pro Ultra-Light Optical USB Gaming Mouse with Backlit RGB LED, 12400 DPI (Black)</p>

<h3>₹1,399.00</h3>

<h4 style="text-decoration:line-through;">₹2,400.00</h4>

</div>

<div class="col-4 photo">

<p>Razer Huntsman Mini - Mercury Edition - 60% Optical Gaming Keyboard (Clicky Purple Switch)</p>

<h3>₹7,002.00</h3>

<h4 style="text-decoration:line-through;">₹15,999.00</h4>

</div>

</div>

<div class="row">

<div class="col-8 col-s-12 mainbar">

```
  
</div>  
</div>
```

```
<h1>Trending Now...</h1>  
<div class="row">  
    <div class="col-4 photo">  
        <a  
        href="https://www.amazon.in/dp/B0F2FTC64  
C/ref=QAHzEditorial_en_IN_1?pf_rd_r=3FWC  
RT251QTADPAGRY02&pf_rd_p=e579b4bf-  
efad-4087-b298-  
90536459625c&pf_rd_m=A1VBAL9TL5WCBF&  
pf_rd_s=merchandised-search-  
29&pf_rd_t=&pf_rd_i=1389401031&ie=UTF8  
&ref_=MiviC1">
```

```
      
    </a>  
</div>
```

```
<div class="col-4 photo">
```

```
        <a href="https://www.amazon.in/dp/B0F8BL3MNT/ref=QAHzEditorial_en_IN_2?pf_rd_r=3FWCRT251QTADPAGRY02&pf_rd_p=e579b4bf-efad-4087-b298-90536459625c&pf_rd_m=A1VBAL9TL5WCBF&pf_rd_s=merchandised-search-29&pf_rd_t=&pf_rd_i=1389401031">  
              
        </a>  
    </div>
```

```
    <div class="col-4 photo">  
        <a href="https://www.amazon.in/b/ref=QAHzEditorial_en_IN_3?pf_rd_r=3FWCRT251QTADPAGRY02&pf_rd_p=e579b4bf-efad-4087-b298-90536459625c&pf_rd_m=A1VBAL9TL5WCBF&pf_rd_s=merchandised-search-29&pf_rd_t=&pf_rd_i=1389401031&node=207504675031">  
            
```

```
</a>
</div>
</div>

<div class="row">
    <div class="col-3 photo">
        
    </div>
    <div class="col-3 photo">
        
    </div>
    <div class="col-3 photo">
        
    </div>
    <div class="col-6 photo">
        
    </div>
```

```
</div>
```

```
<div class="row">
```

```
<div class="col-3 photo">
```

```
<a
```

```
href="https://www.amazon.in/Nothing-  
Storage-Dimensity-Processor-  
Display/dp/B0DC8F2X6T?pf_rd_p=e40307b2-  
fbf4-4ff3-b85f-  
cf2f9631bd1c&pf_rd_r=Y85ZS4N49RH912XD0  
ABD&ref_=Smartphones-S3P_B0DC8F2X6T">  
    
```

```
    </a>
```

```
</div>
```

```
<div class="col-3 photo">
```

```
<a
```

```
href="https://www.amazon.in/realme-Pro-  
Monet-Gold-  
128GB/dp/B0DBM2XQYF?pf_rd_p=e40307b2-  
fbf4-4ff3-b85f-
```

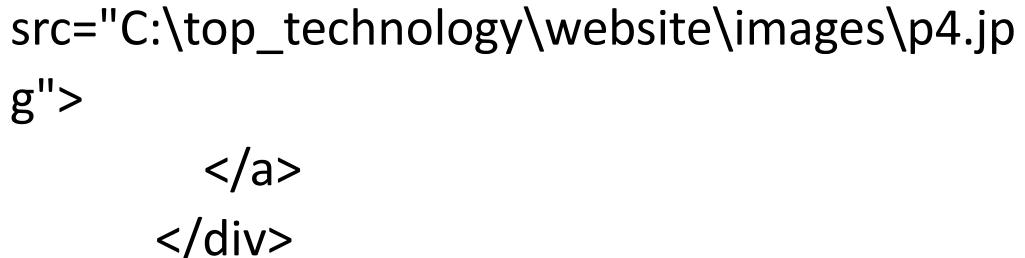
cf2f9631bd1c&pf_rd_r=Y85ZS4N49RH912XD0
ABD&ref_=Smartphones-S3P_B0DBM2XQYF">

 </div>

 <div class="col-3 photo">
 <a
 href="https://www.amazon.in/Nothing-
Phone-Black-256GB-
Storage/dp/B0DZNP6L5B?pf_rd_p=e40307b2-
fbf4-4ff3-b85f-
cf2f9631bd1c&pf_rd_r=Y85ZS4N49RH912XD0
ABD&ref_=Smartphones-S3P_B0DZNP6L5B">

 </div>

 <div class="col-3 photo">
 <a
 href="https://www.amazon.in/Nothing-
Storage-Snapdragon-Charging-
-

Expansion/dp/B0DZTMZL4X?pf_rd_p=e40307
b2-fbf4-4ff3-b85f-
cf2f9631bd1c&pf_rd_r=Y85ZS4N49RH912XD0
ABD&ref_=Smartphones-S3P_B0DZTMZL4X">
 

 </div>
</div>

</div>

<div class="col-2 sidebar">
 <h1>Electronics</h1>

 Mobiles & Accessories

 <a href="https://www.amazon.in/b/?_encoding="

UTF8&node=976392031&ref_=sv_top_elec_mega_2">Laptop & Accessories

TV & Home Entertainment

Audio

Cameras

Computers Peripherals

Smart Technology


```
    <a href="https://www.amazon.in/b/?_encoding=UTF8&node=3677697031&ref_=sv_top_elec_mega_8">Musical Instruments</a><br><br><br>    <a href="https://www.amazon.in/b/?_encoding=UTF8&node=2454172031&ref_=sv_top_elec_mega_9">Office & Stationery</a><br><br><br>  </div></div>
```

```
<div class="row">  <div class="col-4 footer">    <div class="foot-links">      <h2><b>Get to Know Us</b></h2><br>      <a href="https://www.aboutamazon.in/?utm_source=gateway&utm_medium=footer">Careers</a><br><br>      <a href="https://press.aboutamazon.in/?utm_source=gateway&utm_medium=footer">Press Releases</a><br><br>
```

```
<a href="https://www.amazon.science/">Amazon Science</a><br><br></div></div>
```

```
<div class="col-4 footer">
    <div class="foot-links">
        <h2><b>Connect with
Us</b></h2><br>
        <a
            href="https://www.amazon.in/gp/redirect.ht
ml/ref=footer_fb?location=http://www.facebo
ok.com/AmazonIN&token=2075D5EAC7BB214
089728E2183FD391706D41E94&6">Facebook
        </a><br><br>
        <a
            href="https://www.amazon.in/gp/redirect.ht
ml/ref=footer_twitter?location=http://twitter.
com/AmazonIN&token=A309DFBFCB1E37A80
8FF531934855DC817F130B6&6">Twitter</a>
        <br><br>
        <a
            href="https://www.amazon.in/gp/redirect.ht
ml?location=https://www.instagram.com/ama
```

zondotin&token=264882C912E9D005CB1D9B
61F12E125D5DF9BFC7&source=standards">In
stagram

</div>
</div>

<div class="col-4 footer">
 <div class="foot-links">
 <h2>Make Money with
Us</h2>

 <a
 href="https://www.amazon.in/b/?node=2838
 698031&Id=AZINSOANavDesktopFooter_C&re
 f_=nav_footer_sell_C">Sell on
Amazon

 <a
 href="https://accelerator.amazon.in/?ref_=ma
 p_1_b2b_GW_FT">Sell under Amazon
Accelerator

 <a
 href="https://brandservices.amazon.in/?ref=A
 OINABRLGNRFOOT&Id=AOINABRLGNRFOOT">
Protect and Build your Brand

 Amazon Global Selling

Supply to Amazon

Become an Affiliate

Fulfilment by Amazon

Advertise your Products

Amazon pay on Merchants


```
</div>
</div>

</div>

</body>
</html>
<section style="background-color: black;
padding: 60px 40px;">
    <div style="display: flex; flex-direction:
column; gap: 30px;">

        <!-- "NEW" Tag with Horizontal Line -->
        <div style="display: flex; align-items:
center;">
            <div style="background-color: red; color:
black; font-weight: bold; font-size: 28px;
padding: 8px 18px;">NEW</div>
            <div style="flex-grow: 1; height: 4px;
background-color: red;"></div>
        </div>

        <!-- "ARRIVALS" and Button -->
```

```
<h1 style="color: white; font-size: 100px;  
font-weight: bold; margin: 0;">ARRIVALS</h1>  
    <a href="#" style="background-color: white;  
color: black; font-weight: bold; padding: 10px  
20px; text-decoration: none; width: fit-  
content;">EXPLORE NOW</a>
```

```
<!-- Product Image Carousel -->  
    <div style="display: flex; gap: 40px;  
overflow-x: auto; padding-top: 30px;">  
          
          
          
    </div>
```

</div>
</section>

<section>
<div>

</section>

Amazon.in

All Categories Search electronics Search

MX Player Sell Bestsellers Mobiles Today's Deals Customer Service Fashion New Releases Amazon Pay Login/SignUp

Categories

- Computers & Accessories
- Accessories & Peripherals
 - Components
 - Desktop
 - External Devices & Data Storage
 - Laptop
 - Monitors
 - Networking Devices
 - Printers, inks & Accessories
 - Scanners
 - Tables

Item Condition

- New
- Renewed

Price

- Under ₹1,000
- ₹1,000 - ₹5,000
- ₹5,000 - ₹10,000
- ₹10,000 - ₹20,000
- Over ₹20,000

Deals & Discounts

PC Accessories & Gaming Accessories

ELECTRONIC AND Accessories

Corsair K55 RGB Mechanical Gaming Keyboard

Logitech G304 Lightspeed Wireless Gaming Mouse

Corsair K70 RGB Mechanical Gaming Keyboard

Razer Huntsman Mini - Mercury Edition - 60% Optical Gaming Keyboard (Clicky Purple Switch)

Corsair K55 RGB Mechanical Gaming Keyboard

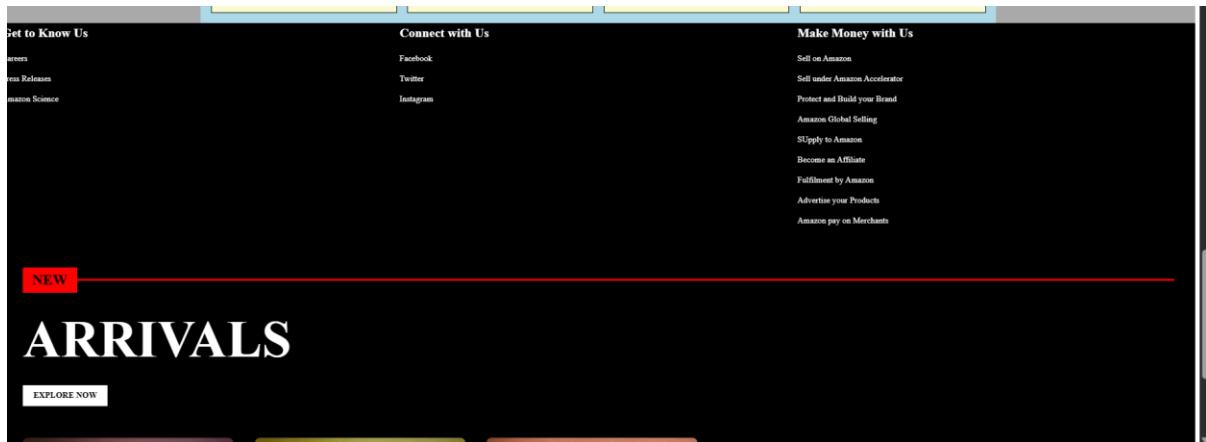
Logitech G304 Lightspeed Wireless Gaming Mouse

Corsair K70 RGB Mechanical Gaming Keyboard

Razer Huntsman Mini - Mercury Edition - 60% Optical Gaming Keyboard (Clicky Purple Switch)

Electronics

- Mobiles & Accessories
- Laptop & Accessories
- TV & Home Entertainment
- Audio
- Cameras
- Smart Technology
- Musical Instruments
- Office & Stationery



- CSS Grid

Theory Assignment

- Question 1: Explain CSS Grid and how it differs from Flexbox. When would you use Grid over Flexbox?

Answer: **CSS Grid** is a powerful layout system in CSS that allows you to create **two-dimensional layouts** (both rows and columns). It divides a webpage into major regions or defines the relationship in terms of size, position, and layer between parts of a control built from HTML primitives.

Flexbox vs grid

Flexbox: one dimensional (row or column), aligning items in a row or column (e.g., navbars, menus), good

for distributing space and alignment between items,
flexible for items that flow

Grid: two-dimensional (row and columns), creating full-page layout or complex grids (e.g., dashboards, galleries), excellent for precise placement of items in both directions, great for defining areas and adjusting at breakpoints

When use grid over flexbox: Use **Grid** when you need a structured **2D layout** like a webpage with a header, sidebar, main content, and footer.

Use **Flexbox** when arranging elements **in a single line** (horizontal or vertical) such as navigation bars or buttons.

- Question 2: Describe the grid-template-columns, grid-template-rows, and grid-gap properties. Provide examples of how to use them.

Answer:

grid-template-columns

- Defines the number and size of columns in the grid.
- Example:

- .container {
- display: grid;
- grid-template-columns: 200px 1fr 2fr;
- /* First column fixed, second flexible, third double size */

}

grid-template-rows

- Defines the number and size of rows in the grid.
- Example:
- .container {
- display: grid;
- grid-template-rows: 100px auto 50px;
- /* Header fixed 100px, main auto, footer 50px */

}

grid-gap (or gap in modern CSS)

- Defines the spacing between rows and columns.
- Example:
- .container {

```
    • display: grid;  
    • grid-template-columns: repeat(3, 1fr); /* 3 equal  
      columns */  
    • grid-template-rows: 100px 200px;  
    • gap: 20px; /* Adds 20px space between rows &  
      columns */  
  }  
  
  .grid-item {  
    background-color: #f0f0f0;  
    border: 1px solid #ccc;  
    padding: 10px;  
    text-align: center;  
  }  
  
  .grid-item:hover {  
    background-color: #e0e0e0;  
  }
```

Lab Assignment

- Task: Create a 3x3 grid of product cards using CSS Grid. Each card should contain:
 - A product image.
 - A product title.
 - A price. Additional Requirements:
 - Use grid-template-columns to create the grid layout.
 - Use grid-gap to add spacing between the grid items.
 - Apply hover effects to each card for better interactivity.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Product Grid</title>

    <link rel="stylesheet" href="styles.css">

</head>

<body>

    <h1 class="title">Product Grid</h1>

    <div class="grid-container">

        <div class="card">

            <h2>Product 1</h2>

            <p>$25.00</p>

        </div>

        <div class="card">
```

```
  
  
<h2>Product 2</h2>  
  
<p>$35.00</p>  
  
</div>  
  
<div class="card">  
  
  
  
<h2>Product 3</h2>  
  
<p>$45.00</p>  
  
</div>  
  
<div class="card">  
  
  
  
<h2>Product 4</h2>  
  
<p>$30.00</p>  
  
</div>  
  
<div class="card">
```

```
  
  
<h2>Product 5</h2>  
  
<p>$40.00</p>  
  
</div>  
  
<div class="card">  
  
  
  
<h2>Product 6</h2>  
  
<p>$55.00</p>  
  
</div>  
  
<div class="card">  
  
  
  
<h2>Product 7</h2>  
  
<p>$60.00</p>  
  
</div>  
  
<div class="card">
```

```
  
  
<h2>Product 8</h2>  
  
<p>$75.00</p>  
  
</div>  
  
<div class="card">  
  
  
  
<h2>Product 9</h2>  
  
<p>$90.00</p>  
  
</div>  
  
</div>  
  
</body>  
  
</html>
```

Css file:

```
body {  
font-family: Arial, sans-serif;
```

```
background: #f5f5f5;  
margin: 0;  
padding: 20px;  
}
```

```
.title {  
    text-align: center;  
    margin-bottom: 20px;  
}
```

```
.grid-container {  
    display: grid;  
    grid-template-columns: repeat(3, 1fr);  
    grid-gap: 20px;  
    padding: 10px;  
}
```

```
.card {  
    background: white;  
    border-radius: 8px;
```

```
padding: 15px;  
text-align: center;  
box-shadow: 0px 2px 8px rgba(0,0,0,0.1);  
transition: transform 0.3s, box-shadow 0.3s;  
}
```

```
.card img {  
    max-width: 100%;  
    border-radius: 5px;  
}
```

```
.card h2 {  
    font-size: 18px;  
    margin: 10px 0;  
}
```

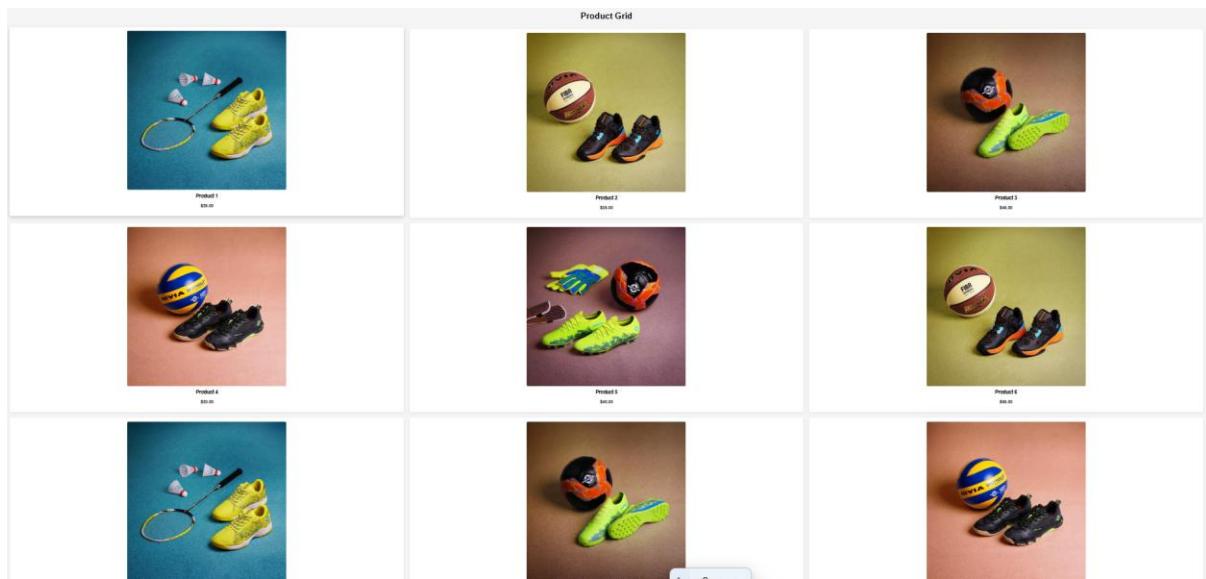
```
.card p {  
    font-size: 16px;  
    color: #333;  
    font-weight: bold;
```

```
}
```

```
.card:hover {  
    transform: translateY(-8px);  
    box-shadow: 0px 6px 15px rgba(0,0,0,0.2);  
}
```

```
/* Responsive design */  
@media (max-width: 900px) {  
    .grid-container {  
        grid-template-columns: repeat(2, 1fr);  
    }  
}  
}
```

```
@media (max-width: 600px) {  
    .grid-container {  
        grid-template-columns: 1fr;  
    }  
}
```



- Responsive Web Design with Media Queries

Theory Assignment

- Question 1: What are media queries in CSS, and why are they important for responsive design?

- Answer: **Media queries** in CSS are rules that allow you to apply styles only when certain conditions about the device's characteristics (such as screen width, height, orientation, or resolution) are met.
- They are written using the @media rule.

Importance in responsive design:

- 1. Adaptability:** They allow websites to adjust their layout and appearance for different devices (desktop, tablet, mobile).
- 2. Improved User Experience:** Users can view content comfortably regardless of their screen size.
- 3. Mobile-first design:** Developers can design websites that scale naturally from small to large screens.
- 4. Accessibility:** Ensures that designs remain functional and readable across various devices.

- Question 2: Write a basic media query that adjusts the font size of a webpage for screens smaller than 600px

Answer:

```
body {  
    font-size: 18px; /* Default font size for larger screens  
*/  
}  
  
@media screen and (max-width: 600px) {
```

```
body {  
    font-size: 14px; /* Smaller font size for mobile  
screens */  
}  
}
```

By default, the font size is 18px for desktops or larger screens.

When the screen width is **600px or smaller**, the font size changes to 14px.

Lab Assignment

- Task: Build a responsive webpage that includes:
 - A navigation bar.
 - A content section with two columns.
 - A footer. Additional Requirements:
 - Use media queries to make the webpage responsive for mobile devices.
 - On smaller screens (below 768px), stack the columns vertically.
 - Adjust the font sizes and padding to improve readability on mobile.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Responsive Webpage</title>
<style>
  * {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
  }
  body {
    font-family: Arial, sans-serif;
    line-height: 1.6;
  }
  /* Navigation Bar */

```

```
nav {  
    background: #333;  
    color: #fff;  
    padding: 15px;  
    text-align: center;  
}  
  
nav a {
```

```
    color: #fff;  
    text-decoration: none;  
    margin: 0 15px;  
    font-size: 18px;  
}  
  
nav a:hover {
```

```
    text-decoration: underline;  
}  
  
/* Content Section */  
.container {
```

```
display: grid;  
grid-template-columns: 2fr 1fr;  
gap: 20px;  
padding: 20px;  
}
```

```
.content, .sidebar {  
padding: 20px;  
background: #f4f4f4;  
border-radius: 5px;  
}
```

```
/* Footer */  
footer {  
background: #333;  
color: #fff;  
text-align: center;  
padding: 15px;  
margin-top: 20px;  
}
```

```
@media (max-width: 768px) {  
  .container {  
    grid-template-columns: 1fr;  
  }  
  
  nav {  
    font-size: 16px;  
    padding: 10px;  
  }  
  
  nav a {  
    display: block;  
    margin: 8px 0;  
  }  
  
  .content, .sidebar {  
    font-size: 16px;  
    padding: 15px;  
  }  
}
```

```
footer {  
    font-size: 14px;  
    padding: 10px;  
}  
}  
  
@media (max-width: 480px) {  
    nav {  
        font-size: 14px;  
    }  
}
```

```
.content, .sidebar {  
    font-size: 14px;  
    padding: 10px;  
}  
  
}
```

```
footer {  
    font-size: 12px;  
}  
}
```

```
    }

</style>

</head>

<body>

<nav>

    <a href="#">Home</a>
    <a href="#">About</a>
    <a href="#">Services</a>
    <a href="#">Contact</a>

</nav>
```

```
<div class="container">
    <div class="content">
        <h2>Main Content</h2>
        <p>
```

This is the main content area. On large screens, it appears beside the sidebar.

On smaller screens, the layout stacks vertically for better readability.

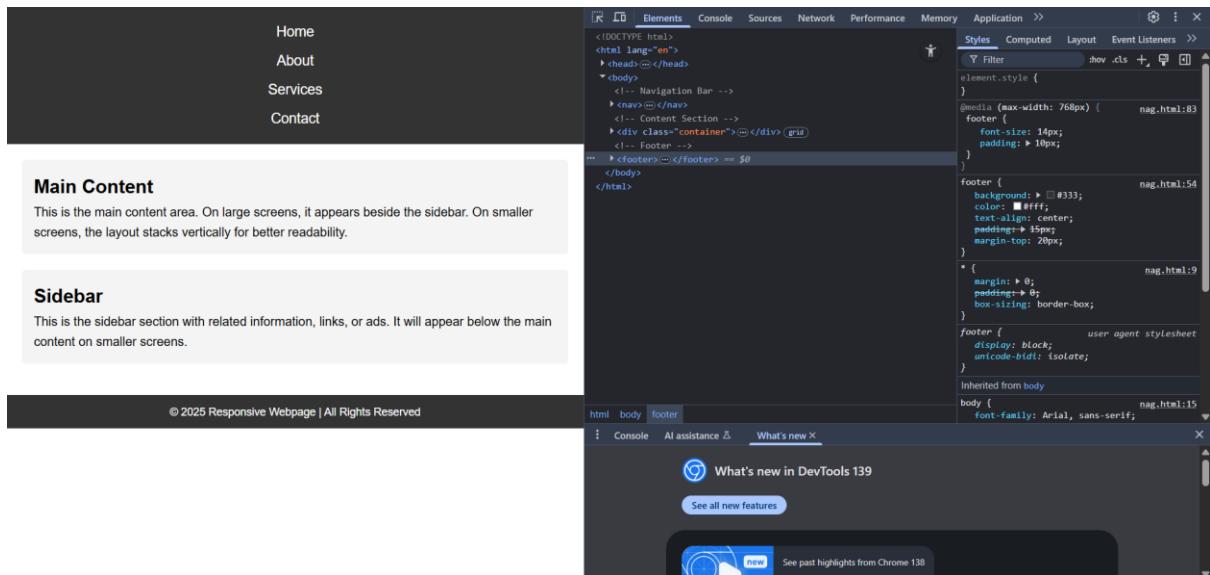
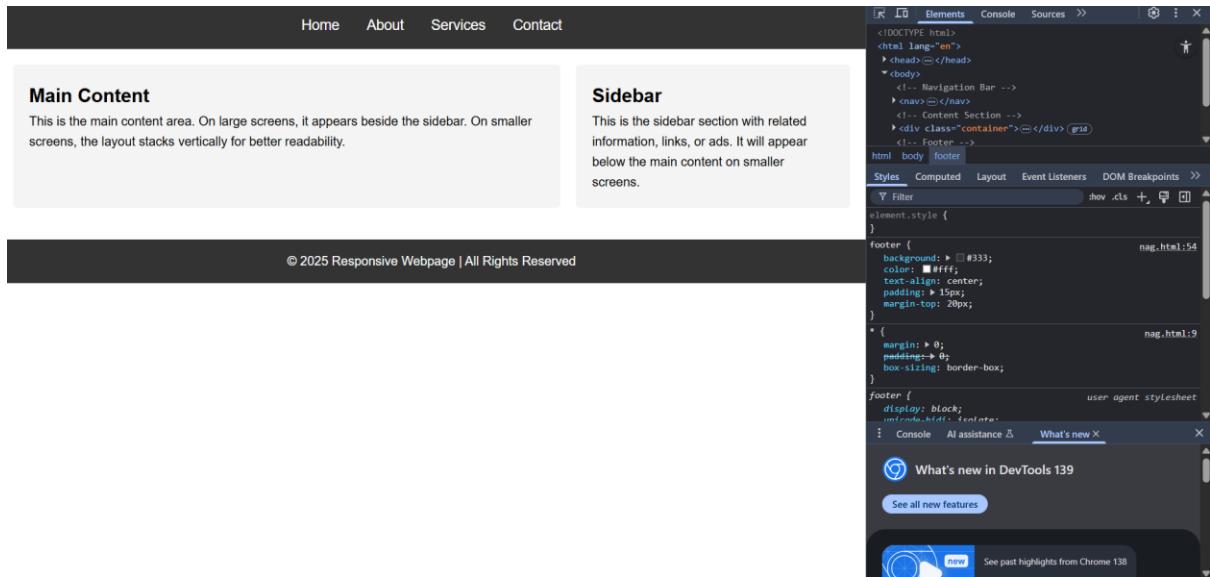
```
</p>
```

```
</div>

<div class="sidebar">
    <h2>Sidebar</h2>
    <p>
        This is the sidebar section with related
        information, links, or ads.
        It will appear below the main content on smaller
        screens.
    </p>
</div>
</div>

<footer>
    <p>&copy; 2025 Responsive Webpage | All Rights
    Reserved</p>
</footer>

</body>
</html>
```



• Typography and Web Fonts

Theory Assignment

- Question 1: Explain the difference between web-safe fonts and custom web fonts. Why might you use a web-safe font over a custom font?

Answer:

- **Web-safe fonts:**

Web-safe fonts are a set of fonts that are pre-installed on most operating systems and devices. Examples include **Arial**, **Times New Roman**, **Verdana**, **Courier New**, and **Georgia**. Since these fonts are already available on users' devices, they don't need to be downloaded from the internet, making them **fast and reliable**.

- **Custom web fonts:**

Custom web fonts (like those from **Google Fonts**, **Adobe Fonts**, or **custom @font-face imports**) are fonts that are not pre-installed on devices. Instead, they are downloaded from a server when the webpage loads. They provide **greater design flexibility** and allow developers to use unique typography.

- **Why use web-safe fonts over custom fonts?**

- Faster page loading speed (no extra font files to download).
- More consistent rendering across different browsers and devices.
- Useful in cases where performance is critical (e.g., low-bandwidth conditions).
- Avoids dependency on external font providers.

In short, **web-safe fonts prioritize performance and compatibility**, while **custom fonts prioritize design and branding**.

- Question 2: What is the font-family property in CSS? How do you apply a custom Google Font to a webpage?

Answer:

- The **font-family property** in CSS specifies the font style to be applied to text on a webpage. It can include multiple fonts as a **fallback system**, in case the preferred font is not available on the user's device.

Example:

```
p {  
    font-family: "Arial", "Helvetica", sans-serif;  
}
```

Here:

- The browser tries **Arial** first.
- If Arial is not available, it tries **Helvetica**.
- If neither is available, it defaults to a **generic sans-serif** font.

Lab Assignment

- Task: Create a blog post layout with the following:
- A title, subtitle, and body content.
- Use at least two different fonts (one for headings, one for body content).
- Style the text to be responsive and easy to read.

Additional Requirements:

- Use a custom font from Google Fonts.
- Adjust line-height, font-size, and spacing for improved readability.

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Blog Post Layout</title>

<link
  href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700&family=Merriweather:wght@400;700&display=swap" rel="stylesheet">
```

```
<style>

body {
    font-family: 'Roboto', sans-serif; /* Body font */
    margin: 20px;
    background: #f9f9f9;
    color: #333;
    line-height: 1.6;
}

.blog-post {
    max-width: 800px;
    margin: auto;
    background: #fff;
    padding: 20px;
    border-radius: 8px;
    box-shadow: 0px 2px 8px rgba(0, 0, 0, 0.1);
}

h1, h2 {
```

```
    font-family: 'Merriweather', serif;  
    margin-bottom: 15px;  
}  
  
h1 {
```

```
    font-size: 2.5rem;  
    color: #222;  
}
```

```
h2 {  
    font-size: 1.5rem;  
    color: #555;  
    margin-bottom: 20px;  
}
```

```
p {  
    font-size: 1.1rem;  
    margin-bottom: 15px;  
}
```

```
@media (max-width: 768px) {  
    h1 {  
        font-size: 2rem;  
    }  
    h2 {  
        font-size: 1.3rem;  
    }  
    p {  
        font-size: 1rem;  
    }  
}
```

```
@media (max-width: 480px) {  
    h1 {  
        font-size: 1.6rem;  
    }  
    h2 {  
        font-size: 1.1rem;  
    }  
    p {
```

```
    font-size: 0.95rem;  
    line-height: 1.5;  
}  
}  
</style>  
</head>  
<body>  
  
<div class="blog-post">  
    <h1>The Future of Web Design</h1>  
    <h2>Responsive layouts and modern  
    typography</h2>  
    <p>  
        Web design has evolved significantly over the years,  
        shifting from static layouts to fully  
        responsive and interactive user experiences. With  
        the rise of mobile-first design, ensuring  
        that websites adapt seamlessly across devices is  
        more important than ever.  
    </p>  
    <p>
```

Typography plays a critical role in readability and aesthetics. Using a combination of

web-safe fonts and custom Google Fonts allows designers to balance performance and creativity.

Good typography improves user engagement and ensures content is both accessible and beautiful.

</p>

<p>

As web technologies continue to advance, we can expect even more innovative ways to deliver

content that is fast, accessible, and visually engaging.

</p>

</div>

</body>

</html>

