

**PSG COLLEGE OF TECHNOLOGY, COIMBATORE – 641 004**  
**Department of Applied Mathematics and Computational Sciences**  
**MSc SOFTWARE SYSTEMS – Semester IV**  
**20XW48 – Web Designing Lab**  
**PROBLEM SHEET – CSS3 Basics**

1. Write a CSS rule to a web page with a background color (light gray) and a color (dark blue).

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_1</title>
  <style>
    body {
      background-color: lightgray;
      color: darkblue;
    }
  </style>
</head>

<body>
  <h1>This is a line of text to demonstrate the darkblue coloring.</h1>
</body>

</html>
```

2. Write a CSS rule that places a background image halfway down the page, tiling it horizontally and vertically. The image should remain in place when the user scrolls up or down.

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_2</title>
  <style>
    * {
      margin: 0;
    }
  </style>
</head>

<body>
  <div>
    <img alt="Background image" data-bbox="112 702 687 912"/>
  </div>
</body>

</html>
```

```

    .img-container {
      height: 3000px;
      background-image: url('https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c');
      background-position: 0 50vh;
      background-attachment: fixed;
    }
  </style>
</head>

<body>
  <div class="img-container">
  </div>
</body>

</html>

```

3. Write the CSS code to display a page with background image with different “repeat” values and another image in the center of the page.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_3</title>
  <style>
    * {
      margin: 0;
    }

    h1 {
      font-family: Fira Sans, Arial, Helvetica, sans-serif;
      font-weight: bold;
    }

    .img-container0 {
      height: 100px;
      background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
      background-repeat: repeat;
      background-size: 50px 50px;
    }

    .img-container1 {
      height: 100px;

```

```
        background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
        background-repeat: repeat-x;
        background-size: 50px 50px;
    }

    .img-container2 {
        height: 100px;
        background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
        background-repeat: repeat-y;
        background-size: 50px 50px;
    }

    .img-container3 {
        height: 100px;
        background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
        background-repeat: no-repeat;
        background-size: 50px 50px;
    }

    .img-container4 {
        height: 100px;
        background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
        background-repeat: space;
        background-size: 50px 50px;
    }

    .img-container5 {
        height: 100px;
        background-image: url("https://qph.fs.quoracdn.net/main-qimg-
eb7571ce3ff48216cdf4622957c0c125-c");
        background-repeat: round;
        background-size: 50px 50px;
    }
</style>
</head>

<body>
    <h1>This is 'repeat'</h1>
    <div class="img-container0">
    </div>
    <h1>This is 'repeat-x'</h1>
    <div class="img-container1">
    </div>
    <h1>This is 'repeat-y'</h1>
    <div class="img-container2">
```

```

</div>
<h1>This is 'no-repeat'</h1>
<div class="img-container3">
</div>
<h1>This is 'space'</h1>
<div class="img-container4">
</div>
<h1>This is 'round'</h1>
<div class="img-container5">
</div>
</body>
</html>

```

4. Create a page with three paragraphs and write the CSS code to put an image as background image in each one of the paragraphs.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_4</title>
  <style>
    * {
      margin: 0;
    }

    .p1 {
      background-image: linear-gradient(white, lightgray);
    }

    .p2 {
      color: white;
      background-image: linear-gradient(blue, darkblue);
    }

    .p3 {
      background-image: linear-gradient(red, darkred);
    }
  </style>
</head>

<body>
  <p class="p1">Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus necessitatibus, a
omnis corporis
maxime aut itaque. Deserunt quos possimus cum?</p>

```

```

    <p class="p2">Lorem ipsum dolor sit amet consectetur adipisicing elit. Quo fugit iusto laboriosam
delectus, sint
    dignissimos perferendis laudantium obcaecati vel placeat?</p>
    <p class="p3">Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptates perferendis
culpa atque qui
    reprehenderit repellat, distinctio placeat nesciunt quam ipsam.</p>
</body>

</html>

```

- Write a CSS rule to set the background color for block level element. Use different color models like color names, hexadecimal colors, rgb and others.

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>20PW14_PS5_5</title>
    <style>
        *{
            margin: 0;
            color: white;
        }

        .p1{
            background-color: black;
        }

        .p2{
            background-color: #000000;
        }

        .p3{
            background-color: rgb(0, 0, 0);
        }

        .p4{
            background-color: hsl(0, 0%, 0%);
        }
    </style>
</head>

<body>
    <p class="p1">Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus necessitatibus, a
omnis corporis
    maxime aut itaque. Deserunt quos possimus cum?</p>

```

```

    <p class="p2">Lorem ipsum dolor sit amet consectetur adipisicing elit. Quo fugit iusto laboriosam
delectus, sint
    dignissimos perferendis laudantium obcaecati vel placeat?</p>
    <p class="p3">Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptates perferendis
culpa atque qui
    reprehenderit repellat, distinctio placeat nesciunt quam ipsam.</p>
    <p class="p4">Lorem ipsum, dolor sit amet consectetur adipisicing elit. Doloremque, nam nisi. Et
optio odit iure
    aperiam blanditiis illo autem ratione?</p>
</body>

</html>

```

- Write a CSS code using different text properties to add some special styles to make the headings stand out more from the main text and also make the text in the paragraphs look more clean and attractive.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_6</title>
  <style>
    h1 {
      font-weight: 900;
      font-style: italic;
      font-family: Segoe UI;
      letter-spacing: 0.2em;
      word-spacing: 0.3em;
    }

    p {
      text-indent: 3em;
      line-height: 1.2;
      letter-spacing: 0.04rem;
    }

    p::first-letter {
      text-transform: capitalize;
      font-size: 3em;
    }
  </style>
</head>

<body>

```

```

<h1>
  want some LoremIpsum? here.
</h1>
<hr>
<p>lorem ipsum dolor sit amet consectetur adipisicing elit. Nesciunt voluptas reprehenderit
consectetur hic
  asperiores facilis vero tenetur consequuntur provident doloribus iste quasi maxime, eius
dolores aliquid, animi,
  corrupti voluptatem quas corporis dolor magni dolore. Unde, ut quaerat explicabo, esse cum
fugiat sapiente neque
  ea aperiam facilis minima soluta nesciunt nobis!</p>
</body>
</html>

```

- Write a CSS rule that makes all text 1.5 times larger than the base font of the system and color it red.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_7</title>
  <style>
    p {
      font-size: 1.5rem;
    }
  </style>
</head>

<body>
  <p>lorem ipsum dolor sit amet consectetur adipisicing elit. Nesciunt voluptas reprehenderit
consectetur hic
  asperiores facilis vero tenetur consequuntur provident doloribus iste quasi maxime, eius
dolores aliquid, animi,
  corrupti voluptatem quas corporis dolor magni dolore. Unde, ut quaerat explicabo, esse cum
fugiat sapiente neque
  ea aperiam facilis minima soluta nesciunt nobis!</p>
</body>
</html>

```

- Create a CSS rule that changes the effect of an *EM* element from italic text to underlined text.

```

<!DOCTYPE html>
<html lang="en">

```

```

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_8</title>
  <style>
    p {
      font-size: 1.5rem;
    }

    em {
      font-style: normal;
      text-decoration: underline;
    }
  </style>
</head>

<body>
  <p><em>lorem ipsum</em> dolor sit amet consectetur adipisicing elit. Nesciunt voluptas
reprehenderit consectetur hic
    asperiores facilis vero tenetur consequuntur provident doloribus iste quasi maxime, eius
dolores aliquid, animi,
    corrupti voluptatem quas corporis dolor magni dolore. Unde, ut quaerat explicabo, esse cum
fugiat sapiente neque
    ea aperiam facilis minima soluta nesciunt nobis!</p>
</body>

</html>

```

- Write a CSS rule that changes the color of all elements with attribute CLASS="greenMove" to green and shifts them down 25 pixels and right 15 pixels.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_9</title>
  <style>
    * {
      margin: 0;
    }

    .greenMove {
      color: green;
      position: absolute;

```



```

        top: 25px;
        left: 15px;
    }
</style>
</head>

<body>
    <div class="greenMove">
        <h3>here's a smiling bootin :</h3>
        
        </div>
    </body>

</html>

```

10. Design a webpage with three titles and four paragraph as shown below:

**The title of the book** ← h1

**The first chapter** ← h2

This is the first paragraph. Bla, bla, bla, bla. ← First paragraph of first chapter

This is the second paragraph. Bla, bla, bla, bla. ← Important paragraph

**The second chapter** ← h2

This is the third paragraph. Bla, bla, bla, bla.

This is the third paragraph. Bla, bla, bla, bla. ← Important paragraph

Write the CSS rule as following:

- The main title (h1) is color white on black
- The chapter titles (h2) are blue on yellow
- The default color of paragraphs is green
- The first paragraph of the first chapter is black
- An important paragraph is yellow on red

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>20PW14_PS5_10</title>

```

```

<style>
  h1 {
    background-color: black;
    color: white;
  }

  h2 {
    background-color: yellow;
    color: blue;
  }

  p {
    color: green;
  }

  .first {
    color: black;
  }

  .important {
    background-color: red;
    color: yellow;
  }
</style>
</head>

<body>
  <h1>The title of the book</h1>
  <h2>The first chapter</h2>
  <p class="first">This is the first paragraph. Bla, bla, bla, bla.</p>
  <p class="important">This is the second paragraph. Bla, bla, bla, bla.</p>
  <h2>The second chapter</h2>
  <p class="third">This is the third paragraph. Bla, bla, bla, bla.</p>
  <p class="important">This is the third paragraph. Bla, bla, bla, bla.</p>
</body>

</html>

```

11. Write CSS code to implement the following :

- Colorize text of a paragraph where RGB value is (51, 204, 0).
- Put a background image called BKG.GIF behind a single word "TEXT" written with a font size of 39 pixels.
- Place an image in the background of a page such that the image tiles only in the horizontal direction and the starting position is the horizontal and vertical center of the page.

```

<!DOCTYPE html>
<html lang="en">

```

```

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_11</title>
  <style>
    body {
      background-image: url('https://pbs.twimg.com/media/Dmv-
Jq_XoAMkYbn?format=jpg&name=small');
      background-size: 300px 300px;
      background-repeat: repeat-x;
      background-position: 50vw 50vh;
    }

    p {
      color: rgb(51, 204, 0);
    }

    h1 {
      font-size: 39px;
      background-image: url('https://c.tenor.com/vyFJI0xnP9kAAAAC/tv-static.gif');
      background-size: auto;
      background-repeat: no-repeat;
    }
  </style>
</head>

<body>
  <p>
    Lorem, ipsum dolor sit amet consectetur adipisicing elit. Earum at possimus dolorem
    repudiandae pariatur. Nam a
    nobis architecto consectetur magni.
  </p>
  <h1>
    TEXT
  </h1>
</body>

</html>

```

12. Write CSS code to implement the following :

A border around an image element such that the top and bottom borders are 3 pixels wide and of type “dashed” while the left and right borders are 5 pixels wide and of type “solid”. All borders are green in color.

```

<!DOCTYPE html>
<html lang="en">

```

```

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_12</title>
  <style>
    *{
      margin: 0;
    }

    img {
      border-top: 3px dashed red;
      border-bottom: 3px dashed red;
      border-left: 5px solid red;
      border-right: 5px solid red;
    }
  </style>
</head>

<body>
  
</body>

</html>

```

13. Write the CSS code for an image 100 by 100 pixels in dimension and place it at the center of a page. Arrange to change the shape of the cursor to a “crosshair” when positioned over the image.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_13</title>
  <style>
    *{
      margin: 0;
    }

    body {
      height: 100vh;
      display: flex;
      align-items: center;
      justify-content: center;
    }
  </style>
</head>

<body>
  <img alt="A 100x100 pixel image placeholder." data-bbox="450 450 550 550">
</body>

</html>

```

```

    }

    img {
        height: 100px;
        width: 100px;
    }

    img:hover {
        cursor: crosshair;
    }
</style>
</head>

<body>
    
</body>

</html>

```

14. Use CSS to write the text string “Cascading Style Sheet” dark red in color and in small caps as in a size that approximately covers 50% of the page width. The text should be a hyperlink pointing to a file STYLE.HTM, but without any underline. The stylesheet should remain in an external file.

**index.html**

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>20PW14_PS5_14</title>
    <style>
        * {
            margin: 0;
        }
    </style>
    <link rel="stylesheet" href="/styles.css">
</head>

<body>
    <a href="style.htm">
        <p></p>
    </a>
</body>

```

```
</html>
```

styles.css

```
p {  
  text-align: justify;  
}  
p::after {  
  font-size: 5.7em;  
  content: "Cascading Style Sheets";  
  color: darkred;  
  font-variant: small-caps;  
  display: inline-block;  
  width: 100%;  
}
```

15. Write the CSS rule to display the webpage as shown below

This is the first paragraph. Bla, bla, bla, bla.

This is the second paragraph. Bla, bla, bla, bla.

This is the third paragraph. Bla, bla, bla, bla.

```
<!DOCTYPE html>  
<html lang="en">  
  
<head>  
  <meta charset="UTF-8">  
  <meta http-equiv="X-UA-Compatible" content="IE=edge">  
  <meta name="viewport" content="width=device-width, initial-scale=1.0">  
  <title>20PW14_PS5_15</title>  
  <style>  
    .first::after {  
      content: "This is the first paragraph. Bla, bla, bla, bla.";  
      color: blue;  
    }  
  </style>  
</head>  
</html>
```

```

        .second::after {
            content: "This is the second paragraph. Bla, bla, bla, bla.";
            color: red;
            background-color: yellow;
        }

        .third::after {
            content: "This is the first paragraph. Bla, bla, bla, bla.";
            color: yellow;
            background-color: red;
        }
    </style>
</head>

<body>
    <p class="first"></p>
    <p class="second"></p>
    <p class="third"></p>
</body>

</html>

```

16. Replicate the following Web page using CSS



## One of my favorite things to do:

Walk into a used book store for the very first time. Feel myself drawn into the dark, holy silence of muffled pages turning and words humming. Breathe in the earthy, fermented air of leather bindings, yellowed paper, and comfortable dust.

Bring them into my own life.

Continue the great chain of books.

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>20PW14_PS5_16</title>
    <style>
        * {

```

```

    margin: 0;
  }

  body {
    height: 100vh;
    display: flex;
    flex-direction: column;
    align-items: center;
  }

  img {
    height: 100px;
  }

  .text {
    width: 600px;
  }

  .title {
    font-size: 2em;
    font-weight: bold;
    white-space: pre-line;
  }

  .title::first-letter {
    font-size: 2em;
    border-top: 2px solid red;
    border-left: 4px solid red;
  }
</style>
</head>

<body>
  <div class="img-container">
    
  </div>
  <div class="text">
    <p class="title">One of my favorite things to do:</p>
    <p>
      Lorem ipsum dolor sit amet consectetur adipisicing elit. Eligendi, ipsa et libero eaque iusto
vitae
      dignissimos, assumenda dolor recusandae magnam sapiente excepturi earum deleniti
saepe. Possimus laboriosam
      alias ea commodi? Molestiae quia voluptatum quos doloremque incidunt aliquam illum ullam
iste enim. Cum
      error provident deserunt ullam! Recusandae dolorem doloremque quod.
    </p>
  </div>
</body>

```



```
</p>
</div>

</body>

</html>
```

17. Write a CSS rule to display the nested list items. The main category list items should be in the ordered list with property value of upper alpha and all sub category list items should be in the unordered list with property value of square.

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_17</title>
  <style>
    ol {
      list-style-type: upper-alpha;
    }

    ol ul {
      list-style-type: square;
    }
  </style>
</head>

<body>
  <ol>
    <li>1</li>
    <li>2</li>
    <li>
      <ul>
        <li>a</li>
        <li>b</li>
      </ul>
    </li>
  </ol>
</body>

</html>
```

18. Write the CSS following rules for the link in the web page

- a) normal and visited state a background-color of #95b7cd and make their text color the same as the regular text on the page
- b) links in their hover state a background-color of #aaddee
- c) links in their active state a background-color of #3cc7f0

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_18</title>
  <style>
    a {
      background-color: #95b7cd;
    }

    a:visited {
      background-color: #95b7cd;
      color: auto;
    }

    a:hover {
      background-color: #aaddee;
    }

    a:active {
      background-color: #3cc7f0;
    }
  </style>
</head>

<body>
  <a href="https://www.google.co.in/">Google</a>
</body>

</html>
```

19. Create a text shadow on the phrase "New features in CSS3" with a horizontal offset of 2px, a vertical offset of 5px, a blur radius of 6px and a text-shadow color deepskyblue.

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>20PW14_PS5_19</title>
<style>
  p {
    text-shadow: 2px 5px 6px deepskyblue;
  }
</style>
</head>

<body>
  <p>New features in CSS3</p>
</body>

</html>

```

20. Create a *div* element with a width and height of 500px. Create a diagonal linear gradient using the colors of the rainbow—Red, Orange, Yellow, Green, Blue, Indigo, Violet.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_20</title>
  <style>
    div {
      width: 500px;
      height: 500px;
      background-image: linear-gradient(to bottom right, red, orange, yellow, green, blue, indigo,
violet);
    }
  </style>
</head>

<body>
  <div>
  </div>
</body>

</html>

```

21. Create a *div* element with a width and height of 500px. Create a radial gradient with three colors. Start the gradient in the bottom-left corner with the colors changing as they move along the gradient line to the right.

```

<!DOCTYPE html>

```

```

<html lang="en">

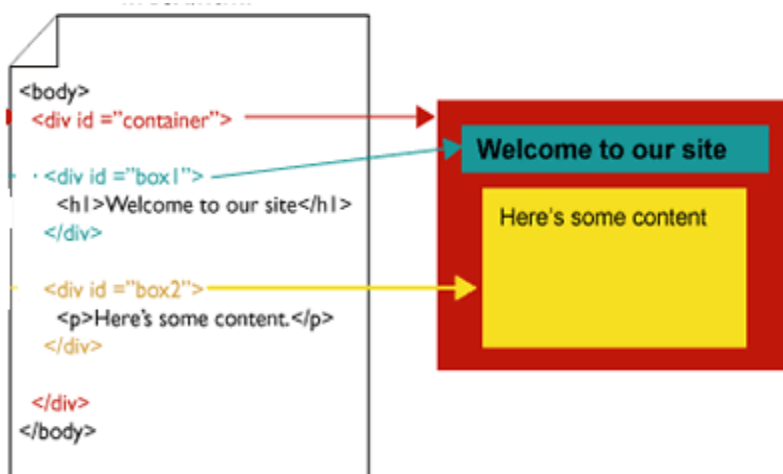
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_21</title>
  <style>
    div {
      width: 500px;
      height: 500px;
      background-image: radial-gradient(red, orange, yellow, green, blue, indigo, violet);
    }
  </style>
</head>

<body>
  <div>
  </div>
</body>

</html>

```

22. Write the CSS code for below webpage:



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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>20PW14_PS5_21</title>
  <style>
    body {
      display: flex;
      justify-content: center;
    }

    .container {
      font-family: "Helvetica Neue";
      height: 500px;
      width: 700px;
      display: flex;
      flex-direction: column;
      align-items: center;
      background-color: #BF180A;
      justify-content: space-around;
    }

    .title {
      display: flex;
      align-items: center;
      width: 300px;
      height: 50px;
      background-color: #189698;
      text-align: center;
    }

    .content {
      width: 300px;
      height: 200px;
      background-color: #F6DF20;
      text-align: center;
      font-size: 20px;
    }

    p,
    h1 {
      font-weight: bold;
    }
  </style>
</head>
```

```
<body>
  <div class="container">
    <div class="title">
      <h1>Welcome to our site</h1>
    </div>
    <div class="content">
      <p>Here's some content</p>
    </div>
  </div>
</body>

</html>
```