

# Positions in CSS

## Assignment

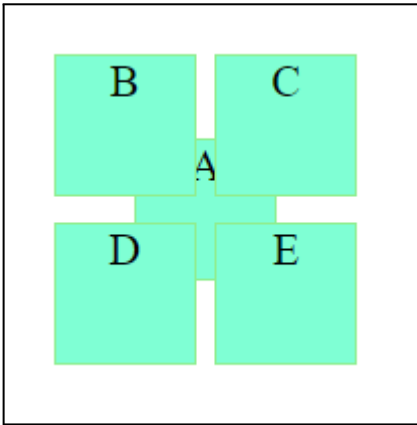
### Assignment Question:

1. Write code to position 5 equal-sized (50 X 50px) boxes A, B, C, D, and E as follows,
  1. box A 200px from the left, and 200px from the top of the viewport
  2. box B -30px left, and -30px above from the center of box A
  3. box C -30px right, and -30px above from the center of box A
  4. box D -30px left, and -30px below from the center of box A
  5. box E -30px right, and -30px below from the center of box A.

Answer:

```
1  <head>
2      <meta charset="UTF-8">
3      <meta name="viewport" content="width=device-width, initial-scale=1.0">
4      <title>Assignment</title>
5      <style>
6          .box {
7              width: 50px;
8              height: 50px;
9              background-color: aquamarine;
10             border: 1px solid lightgreen;
11             text-align: center;
12         }
13         .boxA {
14             position: relative;
15             top: 200px;
16             left: 200px;
17         }
18         .boxB {
19             position: absolute;
20             left: -30px;
21             bottom: 30px;
22         }
23         .boxC {
24             position: absolute;
25             right: -30px;
26             bottom: 30px;
27         }
28         .boxD {
29             position: absolute;
30             left: -30px;
31             top: 30px;
32         }
33         .boxE {
34             position: absolute;
35             right: -30px;
36             top: 30px;
37         }
38     </style>
39 </head>
40 <body>
41     <div class="box boxA">A
42         <div class="box boxB">B</div>
43         <div class="box boxC">C</div>
44         <div class="box boxD">D</div>
45         <div class="box boxE">E</div>
46     </div>
47 </body>
48 </html>
```

## Output:



## 2. Explain the difference between Absolute and Relative positioning.

### Answer:

#### Absolute Positioning:

- With absolute positioning, an element is positioned relative to its nearest positioned (not static) ancestor, if any. If there is no such ancestor, it is positioned relative to the initial containing block (usually the <html> element).
- The element is removed from the normal document flow, meaning it does not affect the layout of other elements on the page.
- Absolute positioning is often used when you want to precisely place an element in a specific location, regardless of the surrounding content.

Example CSS:

```
.absolute-positioned {  
    position: absolute;  
    top: 50px;  
    left: 20px;  
}
```

#### Relative Positioning:

- With relative positioning, an element is positioned relative to its normal position in the document flow. It still occupies space in the layout as if it were not positioned.
- When an element is relatively positioned, you can use the top, right, bottom, and left properties to move it from its normal position.
- Relative positioning is often used when you want to make minor adjustments to the positioning of an element without taking it completely out of the document flow.

Example CSS:

```
.relative-positioned {  
    position: relative;
```

top: 10px;

left: 5px;

}

**3. Create a card as shown in the picture below. (You can use CSS float property only for layout).**

**Answer:**

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>Assignment</title>
7     <style>
8         .card{
9             background-color: beige;
10            padding: 10px;
11            border-radius: 5px;
12        }
13        .card-image{
14            height: 120px;
15            width: 200px;
16            float: right;
17            padding-left: 10px;
18            padding-right: 10px;
19        }
20    </style>
21 </head>
22 <body>
23     <div class="card">
24         
25         <div class="card-body">
26             <h3 class="card-title">The Earth!!!</h3>
27             <p>
28                 Nature is Earth's masterpiece, a symphony of life composed through
29                 millennia. Its landscapes whisper tales of ancient mountains, winding
30                 rivers, and flourishing forests, reminding us of the planet's
31                 boundless beauty. From delicate petals to towering redwoods, nature's
32                 artistry stirs awe and reconnects us to the essence of existence.
33                 Nature is Earth's masterpiece, a symphony of life composed through
34                 millennia. Its landscapes whisper tales of ancient mountains, winding
35                 rivers, and flourishing forests.
36             </p>
37         </div>
38     </div>
39 </body>
40 </html>
```

## Browser Output:

### The Earth!!!

Nature is Earth's masterpiece, a symphony of life composed through millennia. Its landscapes whisper tales of ancient mountains, winding rivers, and flourishing forests, reminding us of the planet's boundless beauty. From delicate petals to towering redwoods, nature's artistry stirs awe and reconnects us to the essence of existence. Nature is Earth's masterpiece, a symphony of life composed through millennia. Its landscapes whisper tales of ancient mountains, winding rivers, and flourishing forests.



## 4. Create a simple header that sticks to the top of a webpage upon scrolling.

Answer: Index.html-

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Assignment</title>
7      <link rel="stylesheet" href="./style.css">
8  </head>
9  <body>
10     <div class="main">
11         <header class="header">
12             <div class="logo">LOGO</div>
13             <div class="nav">
14                 <ul>
15                     <li class="nav-item active">Home</li>
16                     <li class="nav-item">Pricing</li>
17                     <li class="nav-item">Contact</li>
18                     <li class="nav-item">Terms and Condition</li>
19                     <li class="nav-item button"><button>Get Started</button></li>
20                 </ul>
21             </div>
22         </header>
23         <main>
24             <section>
25                 <h3>Heading 1</h3>
26                 <p>...
27             </p>
28             </section>
29             <section>
30                 <h3>Heading 2</h3>
31                 <p>...
32             </p>
33             </section>
34             <section>
35                 <h3>Heading 3</h3>
36                 <p>...
37             </p>
38             </section>
39         </main>
40     </div>
41 </body>
42 </html>
```

```
1  * {
2      padding: 0px;
3      margin: 0px;
4  }
5  .header {
6      position: sticky;
7      top: 0px;
8      height: 80px;
9      color: #f0efee;
10     background-color: #2b2922;
11 }
12 .logo {
13     position: absolute;
14     top: 0px;
15     bottom: 0px;
16     left: 20px;
17     margin: auto 0px;
18     height: fit-content;
19     font-weight: bold;
20 }
21 .nav {
22     position: absolute;
23     top: 0px;
24     bottom: 0px;
25     right: 0px;
26     margin: auto 0px;
27     height: fit-content;
28     font-family: "Red Rose", cursive;
29 }
30 .nav-item {
31     display: inline;
32     margin: 0px 15px;
33     color: #63615a;
34 }
35 .nav-item.active {
36     color: #ffffff;
37 }
38 .nav-item.button > button {
39     padding: 10px 20px;
40     background: transparent;
41     border: 2px solid #a08f36;
42     border-radius: 10px;
43     color: #a08f36;
44     font-family: "Red Rose", cursive;
45 }
46 main {
47     padding: 20px;
48 }
49 section {
50     margin-top: 20px;
```

LOGO

[Home](#)[Pricing](#)[Contact](#)[Terms and Condition](#)

Get Started

### Heading 1

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### Heading 2

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### Heading 3

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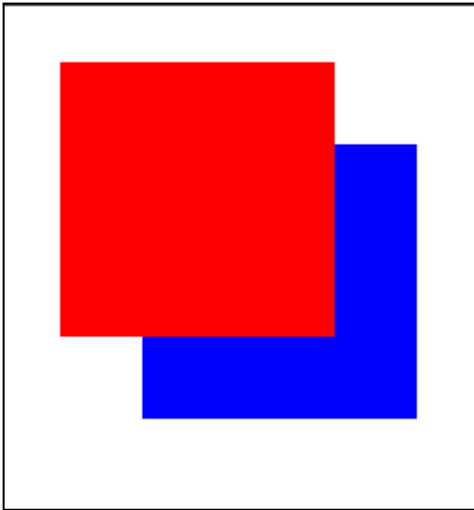
## 5. Explain the z-index, with a code example.

**Answer:** The `z-index` property in CSS is used to control the stacking order of positioned elements along the z-axis (front-to-back order). It specifies the stack level of an element, determining which elements should appear on top of others. Elements with a higher `z-index` value are stacked above elements with lower values.

Here's a simple example to illustrate the use of `z-index`:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Assignment</title>
7   <style>
8     .box {
9       width: 100px;
10      height: 100px;
11      position: absolute;
12    }
13
14    #box1 {
15      background-color: red;
16      left: 20px;
17      top: 20px;
18      z-index: 2;
19    }
20
21    #box2 {
22      background-color: blue;
23      left: 50px;
24      top: 50px;
25      z-index: 1;
26    }
27  </style>
28 </head>
29 <body>
30   <div class="box" id="box1"></div>
31   <div class="box" id="box2"></div>
32 </body>
```

Browser Output:



In this example, we have two absolutely positioned boxes (`#box1`` and `#box2``). The `z-index`` property is used to specify their stacking order. `#box1`` has a higher `z-index`` value (2) than `#box2`` (1). As a result, `#box1`` will appear above `#box2`` in the stacking order.

You can experiment with different `z-index`` values to control the stacking order of elements on your webpage. Keep in mind that `z-index`` only applies to positioned elements (i.e., elements with a `position`` value other than `static``). If two elements have the same `z-index``, the one that appears later in the HTML document will be stacked on top.