1. what is the position property used for?

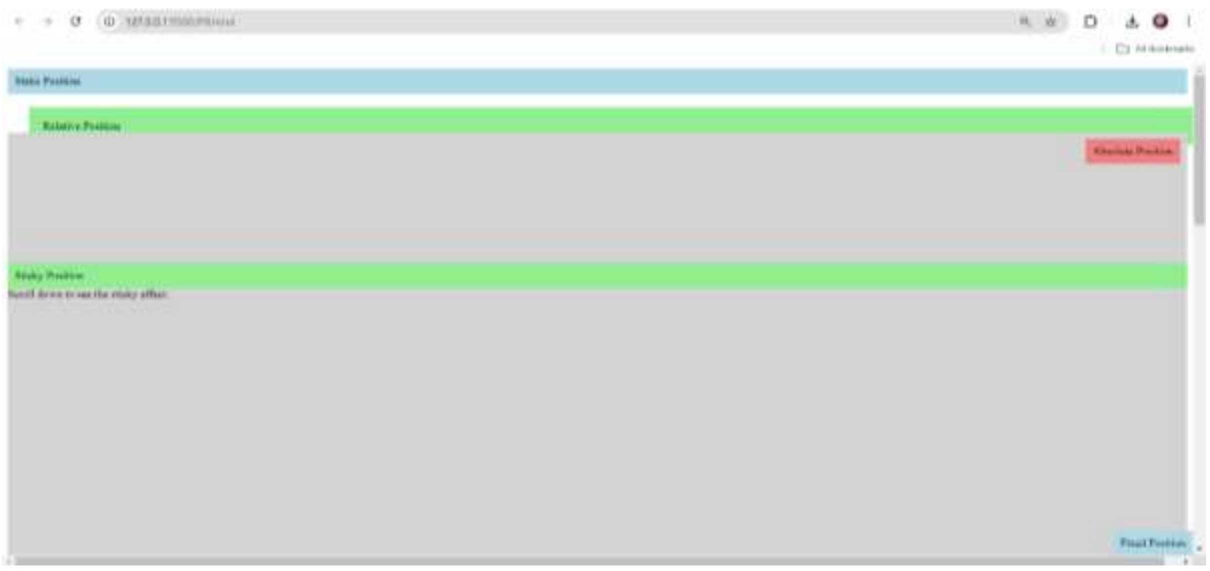
Value	Description	Effect on Layout
static	Default value. Elements are positioned according to the normal document flow.	No effect on position; elements follow the natural flow of the page.
relative	Elements are positioned relative to their normal position.	Allows for adjustment of the element's position using top, right, bottom, and left properties.
absolute	Elements are positioned relative to their nearest positioned ancestor (non-static).	Removed from the normal document flow; positioned using top, right, bottom, and left relative to the nearest positioned ancestor.
fixed	Elements are positioned relative to the viewport.	Stays in the same position even when the page is scrolled. Positioned using top, right, bottom, and left relative to the viewport.
sticky	Elements are positioned based on the user's scroll position.	Behaves like relative until it crosses a specified threshold, at which point it behaves like fixed. Positioned using top, right, bottom, and left relative to the viewport.

Code:-

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Position Property</title>

    <style>

        .static {

            position: static;

            background-color: lightblue;

            padding: 10px;

        }

        .relative {

            position: relative;
    top: 20px;
    left: 30px;
    background-color: lightgreen;
    padding: 20px;
}
.container {
    position: relative;
    height: 200px;
    background-color: lightgray;
}
.absolute {
    position: absolute;
    top: 10px;
    right: 10px;
    background-color: lightcoral;
    padding: 10px;
}
.fixed {
    position: fixed;
    bottom: 0;
    right: 0;
    background-color: lightblue;
    padding: 10px;
}
.sticky {
    position: sticky;
    top: 0;
```

```
            background-color: lightgreen;
            padding: 10px;
        }
        .content {
            height: 2000px;
            background-color: lightgray;
        }
    </style>
</head>
<body>
    <div class="static">Static Position</div>
    <div class="relative">Relative Position</div>
    <div class="container">
        <div class="absolute">Absolute Position</div>
    </div>
    <div class="fixed">Fixed Position</div>
    <div class="sticky">Sticky Position</div>
    <div class="content">Scroll down to see the sticky effect.</div>
</body>
</html>
```

<u>Screenshot of Output:-</u>



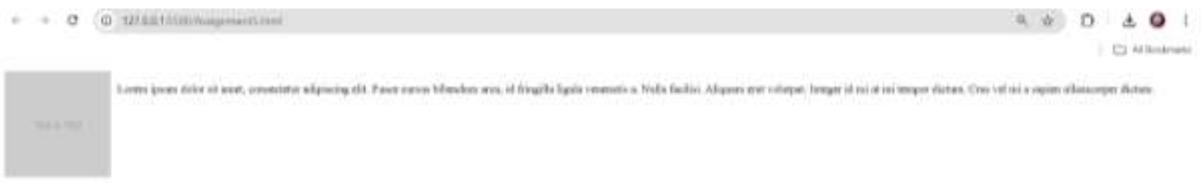
2. What is the use of float property.

The float property in CSS is used to control the positioning of an element within its container, allowing text and other inline elements to wrap around it. Originally designed for creating multi-column layouts and text wrapping, it can also be used to achieve various layout effects.

Uses of the float Property

1. **Text Wrapping:**
    - **Description:** Allows text to wrap around an element such as an image.
    - **Example:**

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-
scale=1.0">
   <title>Float Example</title>
   <style>
      .float-left {
         float: left;
         margin-right: 10px;
      }
      .content {
         overflow: hidden; /* Clearfix to contain floated content */
      }
   </style>
</head>
<body>
   <div class="content">
      <img src="https://via.placeholder.com/150" class="float-left"
alt="Placeholder Image">
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Fusce cursus bibendum arcu, id fringilla ligula venenatis a. Nulla
facilisi. Aliquam erat volutpat. Integer id mi ut mi tempor dictum.
Cras vel mi a sapien ullamcorper dictum.</p>
   </div>
</body>
</html>
```



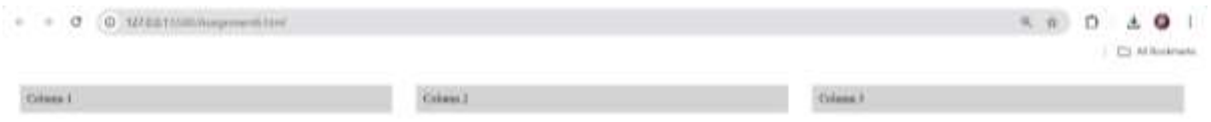
127.0.0.1:5500/Assignment5.html

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce cursus bibendum arcu, id fringilla ligula venenatis a. Nulla facilisi. Aliquam erat volutpat. Integer id nisi at nisi tempor dictum. Cras vel nisi a sapien ullamcorper dictum.

2. **Creating Layouts:**
   - **Description:** Used to create simple column layouts by floating multiple elements side by side.
   - **Example:**

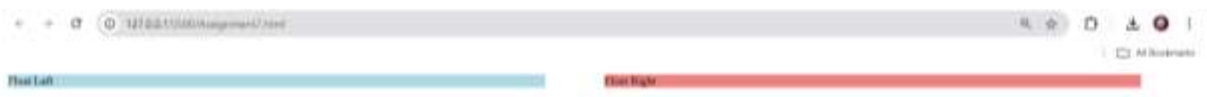
```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-
scale=1.0">
   <title>Float Layout</title>
   <style>
      .container {
         overflow: hidden; /* Clearfix to contain floated elements */
      }
      .column {
         float: left;
         width: 30%;
         margin: 1%;
         background-color: lightgray;
         padding: 10px;
      }
   </style>
</head>
<body>
```

```
    <div class="container">
        <div class="column">Column 1</div>
        <div class="column">Column 2</div>
        <div class="column">Column 3</div>
    </div>
</body>
</html>
```



3. **Clearing Floats:**
   - **Description:** To ensure that containers properly wrap around floated elements, you may need to clear floats using the clear property or a clearfix method.
   - **Example:**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Clearfix Example</title>
    <style>
        .clearfix::after {
            content: "";
            display: table;
            clear: both;
        }
        .float-left {
            float: left;
            width: 45%;
            background-color: lightblue;
            margin-right: 5%;
        }
        .float-right {
            float: left;
            width: 45%;
            background-color: lightcoral;
        }
    </style>
</head>
<body>
    <div class="clearfix">
        <div class="float-left">Float Left</div>
        <div class="float-right">Float Right</div>
    </div>
</body>
</html>
```



Float Left

Float Right

Key Points

- **Float Values:**
    - left: Floats the element to the left of its containing block.
    - right: Floats the element to the right of its containing block.
    - none: Default value, which means the element does not float.
    - inherit: Inherits the float value from its parent element.
- **Clearing Floats:** When using float, it's often necessary to clear floats to ensure that the containing block encompasses the floated elements. This can be done using the clear property or clearfix techniques.