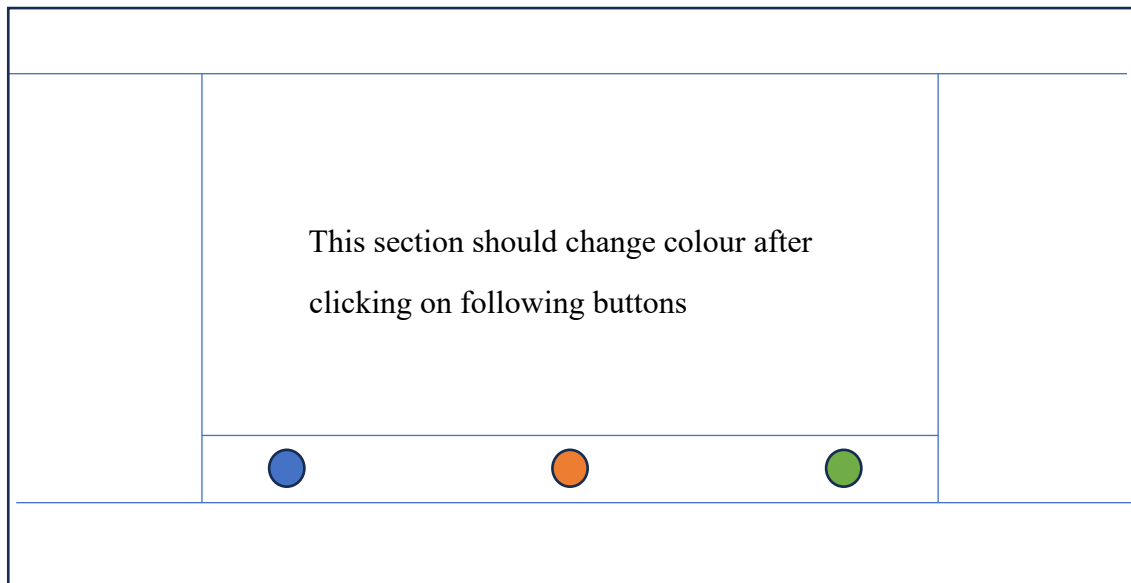


3. Design following responsive layout using html.

Use <header>, <footer>, <div> and appropriate tags



To design the layout you provided in HTML with responsive behavior, we can use HTML structure with <header>, <footer>, <div>, and CSS for styling. The layout consists of a section with buttons below that change the section's color.

Here's the HTML and CSS code to achieve this:

### HTML Code:

```
html
Copy code
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Responsive Layout</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

  <header>
    <h1>Responsive Color Changing Section</h1>
  </header>

  <div class="content">
    <section id="color-section">
      <p>This section should change colour after clicking on
following buttons</p>
```

```
        </section>

        <div class="buttons">
            <button class="color-button" id="blue">Blue</button>
            <button class="color-button" id="orange">Orange</button>
            <button class="color-button" id="green">Green</button>
        </div>
    </div>

    <footer>
        <p>&copy; 2024 Responsive Layout Example</p>
    </footer>

    <script src="script.js"></script>

</body>
</html>
```

## CSS Code (styles.css):

```
css
Copy code
/* General Styles */
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}

body {
    font-family: Arial, sans-serif;
    line-height: 1.6;
}

header, footer {
    background-color: #333;
    color: white;
    padding: 20px;
    text-align: center;
}

footer {
    font-size: 14px;
}

h1 {
    margin-bottom: 20px;
}

/* Content Section */
```

```
.content {
  display: flex;
  flex-direction: column;
  align-items: center;
  padding: 20px;
}

/* Color Changing Section */
#color-section {
  width: 80%;
  height: 200px;
  margin-bottom: 20px;
  border: 2px solid #333;
  display: flex;
  justify-content: center;
  align-items: center;
  text-align: center;
  background-color: white;
}

/* Button Styles */
.buttons {
  display: flex;
  gap: 10px;
}

.color-button {
  width: 60px;
  height: 60px;
  border-radius: 50%;
  border: none;
  cursor: pointer;
  transition: background-color 0.3s ease;
}

.color-button:hover {
  opacity: 0.8;
}

/* Color Button Colors */
#blue {
  background-color: blue;
}

#orange {
  background-color: orange;
}

#green {
  background-color: green;
}
```

```

/* Responsive Styles */
@media (max-width: 768px) {
    .content {
        width: 100%;
    }

    #color-section {
        width: 90%;
    }

    .buttons {
        flex-direction: column;
        align-items: center;
    }
}

```

## JavaScript Code (script.js):

javascript  
Copy code

```

// JavaScript to change the section color based on button click
document.getElementById('blue').addEventListener('click', function()
{
    document.getElementById('color-section').style.backgroundColor =
'blue';
});

document.getElementById('orange').addEventListener('click',
function() {
    document.getElementById('color-section').style.backgroundColor =
'orange';
});

document.getElementById('green').addEventListener('click',
function() {
    document.getElementById('color-section').style.backgroundColor =
'green';
});

```

## Explanation:

1. **HTML Structure:** The <header> contains a title. The main content is wrapped in a <div class="content"> which contains the color-changing section and buttons.
2. **CSS Layout:**
  - o The layout is designed to be responsive with a @media query for devices with a width of 768px or less.

- Buttons are styled as circular elements, and the section changes color depending on the clicked button.
3. **JavaScript Functionality:** When a button is clicked, the background color of the section changes according to the button's color.