NAME:SAURABH RAJ
REGISTERED EMAIL :saurabhraj25aug2004@gmail.com
COURSE NAME:FULL STACK DEVELOPMENT
BATCH:APRIL 24
MODULE NAME:STARTING WITH CSS
MOBILE NUMBER:8434283953

—------------------STARTING WITH CSS—-------------------
Question:1

1. Create a simple page with some div tags and show different ways to add CSS as well as what happens when you target the same elements with inline, internal, and external CSS. Also, utilize comments in the project where required.

Answer:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Different methods to add CSS</title>
    <link rel="stylesheet" href="style.css">

    <!-- Internal CSS -->
    <style>
        /* Styling the divs internally */
        .internal-style {
            color: blue;
            border: 2px solid blue;
        }
    </style>

    <!-- Link to External CSS -->
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <!-- Inline CSS -->
    <div class="inline-style" style="color: red; border: 2px solid
red;">
```

```html
        This div uses inline CSS
    </div>
  </br>


    <!-- Internal CSS -->
    <div class="internal-style">
        This div uses internal CSS
    </div>
  </br>


    <!-- External CSS -->
    <div class="external-style">
        This div uses external CSS
    </div>
    </br>


    <!-- Combination of Inline, Internal, and External CSS -->
    <div class="internal-style external-style" style="color: green;
border: 2px solid green;">
        This div uses inline, internal, and external CSS
    </div>
</body>
</html>
```
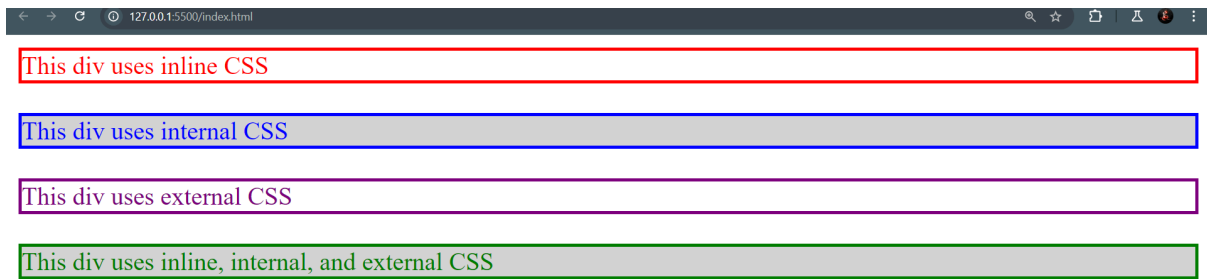
Css code

```css
/* External CSS to style the divs */
.external-style {
    color: purple;
    border: 2px solid purple;
}

/* External CSS targeting internal-style class */
.internal-style {
    background-color: lightgray;
}
```

Output:

This div uses inline CSS

This div uses internal CSS

This div uses external CSS

This div uses inline, internal, and external CSS

Question 2:

2. Build an HTML page with multiple paragraphs, each assigned a unique class name. Write CSS rules using class selectors to apply distinct styling to each paragraph. Follow the BEM naming convention and explain how you've named the classes.

Answer:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>BEM Naming Convention Example</title>
    <link rel="stylesheet" href="p2.css">
</head>
<body>
    <div class="content">
        <p class="content__paragraph content__paragraph--primary">
            This is the primary paragraph with a unique style.
        </p>
        <p class="content__paragraph content__paragraph--secondary">
            This is the secondary paragraph with another unique style.
        </p>
        <p class="content__paragraph content__paragraph--highlight">
            This paragraph is highlighted with distinct styling.
        </p>
        <p class="content__paragraph content__paragraph--note">
            This is a note paragraph with different styling.
        </p>
    </div>
</body>
</html>
```

Css code

```css
/* Base styles for the content block */
.content {
    margin: 20px;
    padding: 10px;
}

/* Base styles for paragraphs within the content block */
.content__paragraph {
    margin: 10px 0;
    padding: 10px;
    font-family: Arial, sans-serif;
}

/* Modifier for primary paragraph */
.content__paragraph--primary {
    color: white;
    background-color: blue;
    border: 1px solid darkblue;
}

/* Modifier for secondary paragraph */
.content__paragraph--secondary {
    color: white;
    background-color: green;
    border: 1px solid darkgreen;
}

/* Modifier for highlighted paragraph */
.content__paragraph--highlight {
    color: black;
    background-color: yellow;
    font-weight: bold;
    border: 1px solid orange;
}

/* Modifier for note paragraph */
.content__paragraph--note {
    color: white;
    background-color: gray;
    font-style: italic;
    border: 1px solid darkgray;
}
```

Output:

This is the primary paragraph with a unique style.

This is the secondary paragraph with another unique style.

This paragraph is highlighted with distinct styling.

This is a note paragraph with different styling.

Explanation of BEM Naming Convention :

1. **Block :** Represents the higher-level component.
   - Here, the block is content.
2. **Element :** Represents a part of the block that performs a certain function.
   - The element here is paragraph within the content block, so it is named content_paragraph.
3. **Modifier :** Represents a different state or version of a block or element.
   - Modifiers are added to denote different styles : --primary, --secondary, --highlight, **and** --note.

Question:3

3. Develop an HTML form with various input elements. Use CSS to style the form, including setting background colors for input fields. Create a custom color palette for the form elements, and demonstrate how to apply opacity to one of the form sections.

Answer:

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

```html
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Styled Form Example</title>
    <link rel="stylesheet" href="p3.css">
</head>
<body>
    <div class="form-container">
        <form>
            <!-- Personal Information Section -->
            <fieldset class="form-section form-section--personal">
                <legend>Personal Information</legend>
                <label for="name">Name:</label>
                <input type="text" id="name" name="name"
class="form-input">

                <label for="email">Email:</label>
                <input type="email" id="email" name="email"
class="form-input">

                <label for="phone">Phone:</label>
                <input type="tel" id="phone" name="phone"
class="form-input">
            </fieldset>

            <!-- Account Information Section with Opacity -->
            <fieldset class="form-section form-section--account">
                <legend>Account Information</legend>
                <label for="username">Username:</label>
                <input type="text" id="username" name="username"
class="form-input">

                <label for="password">Password:</label>
                <input type="password" id="password" name="password"
class="form-input">
            </fieldset>

            <!-- Preferences Section -->
            <fieldset class="form-section form-section--preferences">
                <legend>Preferences</legend>
                <label for="newsletter">Subscribe to
newsletter:</label>
```

```html
                <input type="checkbox" id="newsletter"
name="newsletter">

                <label for="color">Favorite Color:</label>
                <input type="color" id="color" name="color">
            </fieldset>

            <button type="submit" class="form-button">Submit</button>
        </form>
    </div>
</body>
</html>
```

Css code:

```css
/* Custom color palette */
:root {
    --primary-bg: #f0f8ff;
    --secondary-bg: #e6f7ff;
    --tertiary-bg: #cceeff;
    --primary-color: #333;
    --secondary-color: #666;
    --button-bg: #007bff;
    --button-bg-hover: #454545;
    --button-color: #fff;
    --input-bg: #fff;
    --input-border: #ccc;
    --input-focus-bg: #e0f7ff;
    --opacity-level: 0.9;
}

/* Base styles for the form container */
.form-container {
    width: 100%;
    max-width: 600px;
    margin: 0 auto;
    padding: 20px;
    background-color: var(--primary-bg);
    border: 1px solid var(--secondary-bg);
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}
```

```css
/* Styles for form sections */
.form-section {
    margin-bottom: 20px;
    padding: 15px;
    border: 1px solid var(--input-border);
    border-radius: 5px;
}

/* Apply opacity to the account information section */
.form-section--account {
    background-color: var(--tertiary-bg);
    opacity: var(--opacity-level);
}

/* Styles for input elements */
.form-input {
    display: block;
    width: 100%;
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid var(--input-border);
    border-radius: 4px;
    background-color: var(--input-bg);
    color: var(--primary-color);
    box-sizing: border-box;
}

.form-input:focus {
    background-color: var(--input-focus-bg);
    border-color: var(--button-bg);
    outline: none;
}

/* Styles for labels */
label {
    display: block;
    margin-bottom: 5px;
    color: var(--secondary-color);
    font-weight: bold;
}

/* Styles for buttons */
.form-button {
```

```css
    display: inline-block;
    padding: 10px 20px;
    border: none;
    border-radius: 4px;
    background-color: var(--button-bg);
    color: var(--button-color);
    cursor: pointer;
    font-size: 16px;
}

.form-button:hover {
    background-color: var(--button-bg-hover);
}
```

Output:

Name:

Email:

Phone:

Account Information

Username:

saurabhraj25aug2004@gmail.com

Password:

•••••••

Preferences

Subscribe to newsletter:

☐

Favorite Color:

■

Submit

Explanation :

1. HTML Form Structure :

- The form contains three sections: Personal Information, Account Information, and Preferences.
- Each section is wrapped in a <fieldset> for better grouping and accessibility.

2. CSS Styling :

- **Custom Color Palette :** Defined using CSS variables :root selector for easy maintenance and consistency.
- **Form Container :** Styled with a background color, padding, border, and box-shadow to create a card-like appearance.
- **Form Sections :** Each section .form-section has padding, a border, and rounded corners.
- **Opacity :** The Account Information section .form-section-- account is given a background color and an opacity level.
- **Inputs and Labels :** Styled for a clean look with proper spacing, borders, and focus effects.
- **Button :** Styled with a background color, padding, and hover effect for better interaction.