Project Report: Simple Webpage Projects

1. Simple Calculator Webpage

Objective:

To create a basic calculator webpage that allows users to perform arithmetic operations such as addition, subtraction, multiplication, and division.

Technologies Used:

- HTML : Used to create the structure of the webpage (buttons, input fields, etc.).
- CSS : Used to style the calculator, providing a user-friendly and clean layout.
- JavaScript : Used to add interactivity to the calculator, handling button clicks and performing the calculations.

Features:

1. Basic Arithmetic Operations : The calculator can perform addition, subtraction, multiplication, and division.
2. Clear Button : Allows users to clear the display.
3. Result Calculation : After entering a valid expression, users can press the "=" button to calculate the result.
4. Error Handling : If the user enters an invalid expression (e.g., syntax error), an error message ("Error") will be displayed.

Code Overview:

HTML:

- A simple structure with buttons for numbers (0-9) and arithmetic operators (+, -, *, /).
- An input field (`<input>`) to display the current expression and results.

CSS:

- Styled the calculator to be visually appealing, with a grid layout for the buttons.

- Added hover and active states to buttons for better user interaction.

JavaScript:

- The `appendNumber()` function adds a number or operator to the display.

- The `clearDisplay()` function clears the display.

- The `calculate()` function evaluates the expression entered by the user using JavaScript's `eval()` function.

Code Sample (JavaScript - `script.js`):

```javascript
function appendNumber(number) {
    document.getElementById('display').value += number;
}

function appendOperator(operator) {
    document.getElementById('display').value += operator;
}

function clearDisplay() {
    document.getElementById('display').value = '';
}

function calculate() {
    try {
        let result = eval(document.getElementById('display').value);
        document.getElementById('display').value = result;
    } catch (e) {
        document.getElementById('display').value = 'Error';
    }
}
```

Outcome:

This simple calculator performs well for basic arithmetic. It demonstrates a solid understanding of HTML for structure, CSS for styling, and JavaScript for functionality. The webpage is user-friendly and can be easily expanded with additional features such as decimal points or more advanced functions.

2. Simple Personal Webpage

Objective:

To create a personal webpage showcasing a user's profile, including a profile picture, brief bio, and social media links.

Technologies Used:

- HTML : Used to structure the webpage with sections like header, bio, and social links.
- CSS : Used to style the page, making it visually appealing and responsive.
- Responsive Design : The design ensures the page looks good on both desktop and mobile devices.

Features:

1. Profile Picture : Displays the user's profile picture at the top of the page.
2. Brief Bio : Includes a short biography of the user, describing who they are.
3. Social Media Links : Provides clickable links to the user's social media profiles (Twitter, LinkedIn, GitHub, etc.).
4. Responsive Design : The page adjusts to different screen sizes for mobile and desktop views.
5. Footer : Displays copyright information at the bottom of the page.

Code Overview:

HTML:

- The page includes a `<header>` with the user's profile image, name, and bio.
- A `<section>` contains the social media links in an unordered list (`<ul>`).
- The `<footer>` includes copyright information.

CSS:

- Applied styles to center the content, add padding, and ensure the page has a clean layout.

- The profile image is styled to be circular, and social media links have hover effects.

- The footer is placed at the bottom with smaller text for a subtle effect.

Code Sample (HTML - `index.html`):

```html
<header>
  <div class="profile-container">
    <img src="https://via.placeholder.com/150" alt="Your Name" class="profile-img">
    <h1>Your Name</h1>
    <p class="bio">A brief bio about yourself. You can talk about your profession, passions, or hobbies.</p>
  </div>
</header>

<section class="social-links">
  <h2>Find Me On</h2>
  <ul>
    <li><a href="https://twitter.com/yourprofile" target="_blank">Twitter</a></li>
    <li><a href="https://www.linkedin.com/in/yourprofile" target="_blank">LinkedIn</a></li>
    <li><a href="https://github.com/yourprofile" target="_blank">GitHub</a></li>
  </ul>
</section>
```

Outcome:

The personal webpage is functional and provides an easy way to showcase your profile. It can be customized with your own information, including social media links and a profile picture. The page layout is simple and modern, and the use of CSS ensures the design looks good on different devices.

Conclusion:

Both projects are designed to be simple yet functional, with the aim of demonstrating basic web development skills in HTML, CSS, and JavaScript. The Simple Calculator Webpage provides hands-on experience with user interactions and basic JavaScript functions, while the Personal Webpage showcases a more professional, portfolio-style design that can be used to highlight personal details and social media presence.

Both projects serve as a strong foundation for learning web development, and they can be easily expanded to include more complex features and functionalities as you progress in your web development journey.