1. **Accessibility Testing (5 points extra credits)**

The four guiding principles of the Web Content Accessibility Guidelines (WCAG) 2.1 are commonly referred to by the acronym POUR:  
  
Perceivable: Information needs to be displayed in a way that people can understand.  
Operable: The interface must be usable by users.  
Understandable: The user interface's functionality and information must be clear.  
Robust: The content needs to be able to function with assistive technologies and other user agents, both present and future.

Implement Accessibility Features:

1. **Used Semantic HTML**

Semantic HTML means using HTML tags according to their intended purpose, which helps both users and browsers understand the content better. Here are key elements included:

* **Header**: Use <header> for introductory content or navigation links.

Eg:

<header>

<h1>Welcome to My Accessible Webpage</h1>

</header>

**Accessible Rich Internet Applications (ARIA)** roles and attributes enhance accessibility for users with disabilities, especially when using dynamic content.

Eg:

<nav role="navigation">

<ul>

<li><a href="#about">About</a></li>

</ul>

</nav>

**Label All Form Inputs Properly:**

Eg:

<label for="name">Name:</label>

<input type="text" id="name" name="name" required>

**Testing Results:**

1. **Tools Used for Contrast Checking:** The contrast ratios between the background and text colors were checked using the WebAIM Contrast Checker. Testing revealed that the contrast ratio between the dark grey text color #333333 and the light grey background color #f4f4f4 was roughly 6.3:1, exceeding the WCAG 2.1 minimum threshold of 4.5:1 for regular text.
2. **Tests of Keyboard Navigation:**  
   Tab Navigation: Only the keyboard was used to evaluate the webpage. The Tab key provided access to all interactive components, such as buttons, form fields, and links. Users could know which element was selected at any given time because of the clear visibility of focus states.  
   Form Submission: The keyboard was used to complete and submit the form. The form worked without the need for mouse input, and all fields were well labeled.
3. **Checks for Screen Reader Compatibility**:  
     
   NVDA Screen Reader: NVDA was used to test the webpage. Correct reading of the headings allowed for easy browsing across the text. Form fields were identified by their labels (e.g., "Name" and "Email"), and the aria-labeled attribute successfully conveyed the form's purpose.

This webpage's usability for people with impairments is much improved by the accessibility elements that have been included. Semantic HTML, appropriate ARIA responsibilities, and properly labeled form components make the webpage easier for screen reader users to navigate and comprehend. Users with visual impairments can read because of the adequate color contrast. All things considered, these characteristics help create a more welcoming online environment by facilitating access to and interaction with the information for all users.