**Sample Program on Attributes:**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>HTML Attributes Example</title>

</head>

<body>

<h1>HTML Attributes Example</h1>

<!-- Image with attributes -->

<img src="https://via.placeholder.com/150" alt="Placeholder Image" width="150" height="150">

<!-- Anchor tag with attributes -->

<a href="https://www.example.com" target="\_blank" title="Visit Example Website">Visit Example.com</a>

<!-- Input field with attributes -->

<form>

<label for="username">Username:</label>

<input type="text" id="username" name="username" placeholder="Enter your username" required>

<br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

**Explanation of Attributes:**

1. **src** - Specifies the source of an image.
2. **alt** - Provides alternate text if the image doesn't load.
3. **width and height** - Set the dimensions of the image.
4. **href** - Specifies the link destination for an anchor tag.
5. **target** - Defines where to open the linked document (\_blank opens in a new tab).
6. **title** - Displays additional information as a tooltip.
7. **id**, **name**, **placeholder**, **required** - Used in form elements to define unique identifiers, display hints, and ensure input validation.

**Example Tags**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>HTML Tags Example</title>

</head>

<body>

    <h1>HTML Tags Demonstration</h1>

    <hr>

    <!-- Subscript and Superscript -->

    <p>Water's chemical formula is H<sub>2</sub>O. Einstein's equation is E = mc<sup>2</sup>.</p>

    <!-- Deleted and Inserted Text -->

    <p>This <del>word is incorrect</del> <ins>word is correct</ins>.</p>

    <!-- Inline Code -->

    <p>To print "Hello, World!" in Python, use <code>print("Hello, World!")</code>.</p>

    <!-- Quotation -->

    <p>A wise quote: <q>The journey of a thousand miles begins with one step.</q></p>

    <!-- Citation -->

    <p>This is referenced from <cite>Lao Tzu's teachings.</cite></p>

    <!-- Big and Small Text -->

    <p>This is <big>big text</big> and this is <small>small text</small>.</p>

    <!-- Bold and Strong Text -->

    <p><b>This text is bold</b>, and <strong>this text has strong emphasis.</strong></p>

    <!-- Italic and Emphasized Text -->

    <p><i>This text is italic</i>, and <em>this text is emphasized.</em></p>

    <!-- Line Break and Horizontal Rule -->

    <p>Line 1.<br>Line 2.</p>

    <hr>

    <p>End of the demonstration.</p>

</body>

</html>