Basic Structure of HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Your Page Title</title>
</head>
<body>
    <!-- Content of your web page goes here -->
</body>
</html>
```

Explanation:

- **<!DOCTYPE html>**: Declaration of the HTML version being used. In this case, it's HTML5.
- **<html lang="en">**: The root element of the HTML document. The **lang** attribute specifies the language of the document (in this case, English).
- **<head>**: Contains meta-information about the HTML document, such as character set, viewport settings, title, and links to external resources (stylesheets, scripts, etc.).
    - **<meta charset="UTF-8">**: Specifies the character encoding for the document (UTF-8 is widely used for web documents).
    - **<meta name="viewport" content="width=device-width, initial-scale=1.0">**: Configures the viewport settings for responsive design on various devices.
    - **<title>**: Sets the title of the web page, which is displayed in the browser's title bar or tab.
- **<body>**: Contains the content of the HTML document.

This basic structure provides a foundation for building web pages. You can add your content within the **<body>** element, and additional elements can be included in the **<head>** section for styling, scripts, and other metadata.

Steps to execute an HTML program using Notepad:

Here are the steps to execute an HTML program using Notepad:

1. **Open Notepad:**
    - Click on the Start menu.
    - Type "Notepad" in the search bar.
    - Open Notepad from the search results.

2. **Write Your HTML Code:**
    Type or copy your HTML code into Notepad.

For example:

```
<!DOCTYPE html>
<html>
<head>
    <title>My First HTML Page</title>
</head>
<body>
    <h1>Hello, World!</h1>
</body>
</html>
```

3. **Save the File:**
   - Go to File > Save As.
   - Choose a location to save your HTML file.
   - In the "Save as type" dropdown, select "All Files."
   - Name your file with a ".html" extension (e.g., **index.html**).
   - Click "Save."

4. **Open the HTML File in a Web Browser:**
   - Locate the saved HTML file on your computer.
   - Right-click on the file and choose "Open with" and select your preferred web browser (e.g., Chrome, Firefox, Edge).

5. **View Your HTML Page:**
   - Your default web browser will open, displaying your HTML page.

Now you can see your HTML program executed in the web browser. If you make changes to your HTML file, simply save the file and refresh the browser to see the updated result.

Steps to execute an HTML program using TextEdit:
If you're using a Mac, you can use TextEdit to create and execute HTML programs. Here are the steps:

1. **Open TextEdit:**
   - Open Finder and go to the "Applications" folder.
   - Find and open "TextEdit."

2. **Set TextEdit to Plain Text Mode:**
   - In TextEdit, go to "Format" in the menu bar.
   - Select "Make Plain Text" if it's not already in plain text mode.

3. **Write Your HTML Code:**
   Type or paste your HTML code into TextEdit.

For example:

```
<!DOCTYPE html>
<html>
<head>
    <title>My First HTML Page</title>
</head>
<body>
    <h1>Hello, World!</h1>
</body>
</html>
```

4. **Save the File:**
   - Go to File > Save.
   - Choose a location to save your HTML file.
   - Name your file with a ".html" extension (e.g., **index.html**).
   - Make sure the "Plain Text" option is selected in the save dialog.
   - Click "Save."

5. **Open the HTML File in a Web Browser:**
   - Locate the saved HTML file on your computer.
   - Right-click on the file and choose "Open With" and select your preferred web browser (e.g., Safari, Chrome, Firefox,etc.).

6. **View Your HTML Page:**
   - Your default web browser will open, displaying your HTML page.

Now you can see your HTML program executed in the web browser. If you make changes to your HTML file, simply save the file and refresh the browser to see the updated result.

01. Hello world program in HTML:

"Hello, World!" program is often the first program learners encounter in any programming language. In HTML, this basic program is displayed in the browser as a webpage. Here's an example:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Hello, World! - My First HTML Page</title>
</head>
<body>
    <h1>Hello, World!</h1>
    <p>This is my first HTML page.</p>
</body>
</html>
```

Output:

Explanation:

- **<!DOCTYPE html>**: Declaration of the HTML version being used (HTML5).
- **<html lang="en">**: The root element of the HTML document with the language attribute set to English.
- **<head>**: Contains meta-information about the HTML document.
  - **<meta charset="UTF-8">**: Specifies the character encoding for the document (UTF-8).
  - **<meta name="viewport" content="width=device-width, initial-scale=1.0">**: Configures the viewport settings for responsive design.
  - **<title>**: Sets the title of the web page.
- **<body>**: Contains the content of the HTML document.
  - **<h1>**: Defines a top-level heading.
  - **<p>**: Defines a paragraph.

Save this code in an HTML file (e.g., **index.html**) and open it in a web browser. You should see a webpage with the heading "Hello, World!" and a paragraph below it.

02. Hello world program using body attributes in HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Hello, World! - My First HTML Page</title>
</head>
<body bgcolor="lightblue" text="green">
    <h1>Hello, World!</h1>
    <p>This is my first HTML page.</p>
</body>
</html>
```

03. Hello world program using <style> tag in HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Hello, World! - My First Styled HTML Page</title>
    <style>
      body
      {
          background-color: #f0f8ff; /* Light Blue background color */
          text-align: center; /* Center-align text */
          padding: 50px; /* Add some padding for better visibility */
      }

        h1
        {
        color: #333; /* Dark Gray text color */
        }

        p
        {
        color: #555; /* Slightly lighter Gray text color */
        }
    </style>
</head>
<body>
    <h1>Hello, World!</h1>
    <p>This is my first styled HTML page.</p>
</body>
</html>
```

4.1. List: Ordered:

To represent different ordered lists, there are 5 types of attributes in <ol> tag.

Type	Description
Type "1"	This is the default type. In this type, the list items are numbered with numbers.
Type "I"	In this type, the list items are numbered with upper case roman numbers.
Type "i"	In this type, the list items are numbered with lower case roman numbers.
Type "A"	In this type, the list items are numbered with upper case letters.
Type "a"	In this type, the list items are numbered with lower case letters.

Program 01:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title> Ordered List</title>
</head>
<body>
    <ol type="1">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

Program 02:

```
<html lang="en">
<head>
    <title> Ordered List</title>
</head>
<body>
    <ol type="I">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

Program 03:

```html
<html lang="en">
<head>
    <title> Ordered List</title>
</head>
<body>
    <ol type="i">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

Program 04:

```html
<html lang="en">
<head>
    <title> Ordered List</title>
</head>
<body>
    <ol type="A">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

Program 05:

```html
<html lang="en">
<head>
    <title> Ordered List</title>
</head>
<body>
    <ol type="a">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

4.2. List: Ordered with type = "i" with start attribute:

The start attribute is used with ol tag to specify from where to start the list items.

\<ol type="1" start="5">: It will show numeric values starting with "5".
\<ol type="A" start="5">: It will show capital alphabets starting with "E".
\<ol type="a" start="5">: It will show lower case alphabets starting with "e".
\<ol type="I" start="5">: It will show Roman upper case value starting with "V".

Program 01:
```
<html lang="en">
<head><title> Ordered List </title></head>
<body>
     <ol type="1" start="5">
          <li>HTML</li>
          <li>Java</li>
          <li>JavaScript</li>
          <li>SQL</li>
     </ol>
</body>
</html>
```

Program 02:
```
<html lang="en">
<head>
     <title> Ordered List </title>
</head>
<body>
     <ol type="A" start="5">
          <li>HTML</li>
          <li>Java</li>
          <li>JavaScript</li>
          <li>SQL</li>
     </ol>
</body>
</html>
```

Program 03:
```
<html lang="en">
<head>
     <title> Ordered List </title>
</head>
<body>
     <ol type="a" start="5">
          <li>HTML</li>
          <li>Java</li>
          <li>JavaScript</li>
          <li>SQL</li>
     </ol>
</body>
</html>
```

Program 04:
```
<html lang="en">
<head><title> Ordered List </title></head>
<body>
      <ol type="I" start="5">
            <li>HTML</li>
            <li>Java</li>
            <li>JavaScript</li>
            <li>SQL</li>
      </ol>
</body>
</html>
```

Program 05:
```
<html lang="en">
<head><title> Ordered List </title></head>
<body bgcolor=yellow>
      <ol type="A">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
            <li>MySQl</li>
      </ol>
      <ol type="A" start="5">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
            <li>MySQl</li>
      </ol>
      <ol type="a" start="10">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
      </ol>
      <ol type="I" start="4">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
      </ol>
      <ol type="i" start="1">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
      </ol>
```

```
        <ol type="1" start="201">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
        </ol>
</body>
</html>
```

4.3. List: Unordered List:

To represent different ordered lists, there are 4 types of attributes in <ul> tag.

Type	Description
Type "disc"	This is the default style. In this style, the list items are marked with bullets.
Type "circle"	In this style, the list items are marked with circles.
Type "square"	In this style, the list items are marked with squares.
Type "none"	In this style, the list items are not marked.

Program 01:
```
<!DOCTYPE html>
<html>
<body>
<ul type="disc">
    <li>HTML</li>
    <li>Java</li>
    <li>JavaScript</li>
    <li>SQL</li>
</ul>
</body>
</html>
```

Program 02:
```
<!DOCTYPE html>
<html>
<body>
<ul type="circle">
    <li>HTML</li>
    <li>Java</li>
    <li>JavaScript</li>
    <li>SQL</li>
</ul>
</body>
</html>
```

Program 03:

```
<!DOCTYPE html>
<html>
<body>
<ul type="square">
      <li>HTML</li>
      <li>Java</li>
      <li>JavaScript</li>
      <li>SQL</li>
</ul>
</body>
</html>
```

Program 04:

```
<!DOCTYPE html>
<html>
<body>
<ul type="none">
      <li>HTML</li>
      <li>Java</li>
      <li>JavaScript</li>
      <li>SQL</li>
</ul>
</body>
</html>
```

Program 05:

```
<!DOCTYPE>
<html>
<body bgcolor=yellow>
      <ol type="A">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
            <li>MySQl</li>
      </ol>
      <ol type="A" start="5">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
            <li>MySQl</li>
      </ol>
      <ol type="a" start="10">
            <li>Aries</li>
            <li>Bingo</li>
            <li>Leo</li>
            <li>Oracle</li>
      </ol>
```

```html
    <ol type="I" start="4">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
    <ol type="i" start="1">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
    <ol type="1" start="201">
        <li>Aries</li>
        <li>Bingo</li>
        <li>Leo</li>
        <li>Oracle</li>
    </ol>
</body>
</html>
```

05. Headings:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Headings Example</title>
</head>
<body bgcolor="lightblue" text="purple">
    <h1>This is Heading 1</h1>
    <h2>This is Heading 2</h2>
    <h3>This is Heading 3</h3>
    <h4>This is Heading 4</h4>
    <h5>This is Heading 5</h5>
    <h6>This is Heading 6</h6>
</body>
</html>
```

Explanation:

- The **<h1>** to **<h6>** elements are used to define headings in HTML. **<h1>** is the largest and **<h6>** is the smallest.
- The content within each heading element is displayed with different sizes, where **<h1>** is the largest and **<h6>** is the smallest.
- The **<head>** section includes meta information such as character set and viewport settings, and it sets the title of the webpage.

Save this code in an HTML file (e.g., **headings.html**) and open it in a web browser. You will see a webpage with various headings, each styled with different sizes.

6.1. HTML program that includes a simple table with some data:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Table Example</title>
</head>
<body>
    <h2>Student Information</h2>
    <table border="1">
            <tr>
                <th>Student ID</th>
                <th>Name</th>
                <th>Grade</th>
            </tr>
            <tr>
                <td>001</td>
                <td>John Doe</td>
                <td>A</td>
            </tr>
            <tr>
                <td>002</td>
                <td>Jane Smith</td>
                <td>B</td>
            </tr>
            <tr>
                <td>003</td>
                <td>Bob Johnson</td>
                <td>C</td>
            </tr>
    </table>
</body>
</html>
```

6.2. HTML program that includes a simple table with some data:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Table Example</title>
</head>
<body>
    <h2>Student Information</h2>
    <table border="1">
        <thead>
            <tr>
                <th>Student ID</th>
                <th>Name</th>
                <th>Grade</th>
            </tr>
        </thead>
```

```html
        <tbody>
            <tr>
                <td>001</td>
                <td>John Doe</td>
                <td>A</td>
            </tr>

            <tr>
                <td>002</td>
                <td>Jane Smith</td>
                <td>B</td>
            </tr>
            <tr>
                <td>003</td>
                <td>Bob Johnson</td>
                <td>C</td>
            </tr>
        </tbody>
    </table>
</body>
</html>
```

- The **<table>** element is used to define a table.
- The **border="1"** attribute adds a border around the table for better visibility.
- The **<thead>** element is used to define the header (containing column headings) of the table.
- The **<tbody>** element contains the body of the table, where the actual data is placed.
- **<tr>** defines a table row.
- **<th>** is used for table header cells (in the header row).
- **<td>** is used for table data cells.

Save this code in an HTML file (e.g., **table.html**) and open it in a web browser. You will see a webpage with a simple table displaying student information.

6.3. HTML table program with attributes applied to the `<body>` tag:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>HTML Table Example</title>
</head>
<body bgcolor="#f4f4f4" text="#333">
    <h2>Student Information</h2>
    <table border="1">
        <thead>
            <tr>
                <th>Student ID</th>
                <th>Name</th>
                <th>Grade</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>001</td>
                <td>John Doe</td>
                <td>A</td>
            </tr>
            <tr>
                <td>002</td>
                <td>Jane Smith</td>
                <td>B</td>
            </tr>
            <tr>
                <td>003</td>
                <td>Bob Johnson</td>
                <td>C</td>
            </tr>
        </tbody>
    </table>
</body>
</html>
```

Explanation:
- The **bgcolor** attribute in the **`<body>`** tag sets the background color to a light gray (**#f4f4f4**).
- The **text** attribute in the **`<body>`** tag sets the default text color to a dark gray (**#333**).

These attributes directly apply styles to the entire body of the document. Save this code in an HTML file (e.g., **table_with_body_attributes.html**) and open it in a web

7.1. HTML program that includes a simple form without CSS:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Basic Form Design</title>
</head>
<body bgcolor=#DFFF00>
    <!-- Marquee with scrolling speed, bouncing text behavior -->
    <marquee scrollamount="10" behavior="alternate" bgcolor=#9FE2BF>
        <H1>THIS IS MY FORM.</H1?<>
    </marquee></br></br></br>
    <form>
        <label for="firstName">First Name:</label>
        <input type="text" id="firstName" name="firstName" required></br></br>

        <label for="lastName">Last Name:</label>
        <input type="text" id="lastName" name="lastName" required></br></br>

        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required></br></br>

        <label for="gender">Gender:</label>
        <select id="gender" name="gender">
            <option value="male">Male</option>
            <option value="female">Female</option>
            <option value="other">Other</option>
        </select></br></br>

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

Explanation:
- The **<form>** element contains various form elements such as **<input>**, **<select>**, and **<button>**.
- The **required** attribute is added to some input fields to indicate that they must be filled out before submitting the form.

Feel free to customize this basic form according to your requirements. Save this code in an HTML file (e.g., **basic_form.html**) and open it in a web browser to see the designed form.

7.2. HTML program that includes basic HTML form with default styling:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Basic Form Design</title>
</head>
<body bgcolor=#DFFF00>
    <!-- Marquee with scrolling speed, bouncing text behavior -->
    <marquee scrollamount="10" behavior="alternate" bgcolor=#9FE2BF>
     <H1>THIS IS MY FORM.</H1?<>
    </marquee></br></br></br>

    <form style="max-width: 400px; margin: 20px auto; padding: 20px; border:
    1px solid #ddd; border-radius: 8px; background-color: #f9f9f9;">

     <label for="firstName" style="display: block; margin-bottom: 8px;">
         First Name:
     </label>
     <input type="text" id="firstName" name="firstName" required style="width:
     100%; padding: 8px; margin-bottom: 16px; box-sizing: border-box;">

     <label for="lastName" style="display: block; margin-bottom: 8px;">
         Last Name:
     </label>
     <input type="text" id="lastName" name="lastName" required style="width:
     100%; padding: 8px; margin-bottom: 16px; box-sizing: border-box;">

      <label for="email" style="display: block; margin-bottom: 8px;">
         Email:
     </label>
     <input type="email" id="email" name="email" required style="width: 100%;
     padding: 8px; margin-bottom: 16px; box-sizing: border-box;">

     <label for="gender" style="display: block; margin-bottom: 8px;">
         Gender:
     </label>

     <select id="gender" name="gender" style="width: 100%; padding: 8px;
     margin-bottom: 16px; box-sizing: border-box;">
         <option value="male">Male</option>
         <option value="female">Female</option>
         <option value="other">Other</option>
      </select>

     <button type="submit" style="background-color: #4caf50; color: white;
     padding: 10px 15px; border: none; border-radius: 4px; cursor:
     pointer;">Submit</button>

     </form>
</body>
</html>
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Basic Form Design with CSS</title>
    <style>
      marquee
      {
                font-size: 30px;
                font-weight: 800;
                color: #8ebf42;
                font-family: sans-serif;
          }
        body
      {
            font-family: Arial, sans-serif;
        }

        form
      {
            max-width: 400px;
            margin: 20px auto;
            padding: 20px;
            border: 1px solid #ddd;
            border-radius: 8px;
            background-color: #f9f9f9;
        }

        label
      {
            display: block;
            margin-bottom: 8px;
        }

        input, select
      {
            width: 100%;
            padding: 8px;
            margin-bottom: 16px;
            box-sizing: border-box;
        }

        button
      {
            background-color: #4caf50;
            color: white;
            padding: 10px 15px;
            border: none;
            border-radius: 4px;
            cursor: pointer;
        }
    </style>
</head>
```

```html
<body bgcolor=#CCCCFF>
    <!-- Marquee with scrolling speed, bouncing text behavior -->
    <marquee>THIS IS MY FORM.</marquee>
    <form>
        <label for="firstName">First Name:</label>
        <input type="text" id="firstName" name="firstName" required>

        <label for="lastName">Last Name:</label>
        <input type="text" id="lastName" name="lastName" required>

        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required>

        <label for="gender">Gender:</label>
        <select id="gender" name="gender">
            <option value="male">Male</option>
            <option value="female">Female</option>
            <option value="other">Other</option>
        </select>
        <button type="submit">Submit</button>
    </form>

</body>
</html>
```

Explanation:

- The **<form>** element contains various form elements such as **<input>**, **<select>**, and **<button>**.
- CSS styles are applied to enhance the visual appearance of the form. This includes styling for form elements, labels, and the form itself.
- The **required** attribute is added to some input fields to indicate that they must be filled out before submitting the form.

7.4. HTML program that includes various input elements with different types and attributes to demonstrate the possibilities of the <input> tag:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>All Input Types</title>
</head>
<body bgcolor=#40E0D0>
    <form>
        <label for="text">Text Input:</label>
        <input type="text" id="text" name="text" placeholder="Enter text" required><br/><br/>

        <label for="password">Password Input:</label>
        <input type="password" id="password" name="password" placeholder="Enter password" required><br/><br/>
```

```html
        <label for="email">Email Input:</label>
        <input type="email" id="email" name="email" placeholder="Enter email"
required><br/><br/>

        <label for="number">Number Input:</label>
        <input type="number" id="number" name="number" placeholder="Enter
number" required><br/><br/>

        <label for="date">Date Input:</label>
        <input type="date" id="date" name="date" required><br/><br/>

        <label for="checkbox">Checkbox:</label>
        <input type="checkbox" id="checkbox" name="checkbox" value="checked">
Check me<br/><br/>

        <label for="radio1">Radio Button 1:</label>
        <input type="radio" id="radio1" name="radioGroup" value="option1">
Option 1<br/><br/>

        <label for="radio2">Radio Button 2:</label>
        <input type="radio" id="radio2" name="radioGroup" value="option2">
Option 2<br/><br/>

        <label for="file">File Input:</label>
        <input type="file" id="file" name="file"><br/><br/>

        <label for="color">Color Input:</label>
        <input type="color" id="color" name="color"><br/><br/>

        <label for="range">Range Input:</label>
        <input type="range" id="range" name="range" min="0"
max="100"><br/><br/>

        <label for="submit">Submit Button:</label>
        <input type="submit" id="submit" value="Submit"><br/><br/>

        <label for="reset">Reset Button:</label>
        <input type="reset" id="reset" value="Reset">
    </form>

</body>
</html>
```

Explanation:

- Various **<input>** elements are used with different types such as **text, password, email, number, date, checkbox, radio, file, color, range, submit,** and **reset.**
- Attributes like **placeholder, required, min, max,** and **value** are used to demonstrate their functionality.
- Labels are used to provide a description for each input element.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>All Input Types with Tables</title>
    <style>
      marquee
      {
                font-size: 30px;
                font-weight: 800;
                color: #8ebf42;
                font-family: sans-serif;
          }
        body
      {
            font-family: Arial, sans-serif;
        }

        table
      {
            width: 100%;
            border-collapse: collapse;
            margin-bottom: 20px;
        }

        table, th, td
      {
            border: 1px solid #ddd;
        }

        th, td {
            padding: 8px;
            text-align: left;
        }

        th {
            background-color: #f2f2f2;
        }

        input[type="submit"], input[type="reset"]
      {
            background-color: #4caf50;
            color: white;
            padding: 10px 15px;
            border: none;
            border-radius: 4px;
            cursor: pointer;
        }
    </style>
</head>
```

```html
<body bgcolor=#FFBF00>
    <form>
        <table>
            <tr>
                <th><label for="text">Text Input:</label></th>
                <td><input type="text" id="text" name="text" placeholder="Enter
text" required></td>
            </tr>
            <tr>
                <th><label for="password">Password Input:</label></th>
                <td><input type="password" id="password" name="password"
placeholder="Enter password" required></td>
            </tr>
            <tr>
                <th><label for="email">Email Input:</label></th>
                <td><input type="email" id="email" name="email"
placeholder="Enter email" required></td>
            </tr>
            <tr>
                <th><label for="number">Number Input:</label></th>
                <td><input type="number" id="number" name="number"
placeholder="Enter number" required></td>
            </tr>
            <tr>
                <th><label for="date">Date Input:</label></th>
                <td><input type="date" id="date" name="date" required></td>
            </tr>
            <tr>
                <th><label for="checkbox">Checkbox:</label></th>
                <td><input type="checkbox" id="checkbox" name="checkbox"
value="checked"> Check me</td>
            </tr>
            <tr>
                <th><label for="radio1">Radio Button 1:</label></th>
                <td><input type="radio" id="radio1" name="radioGroup"
value="option1"> Option 1</td>
            </tr>
            <tr>
                <th><label for="radio2">Radio Button 2:</label></th>
                <td><input type="radio" id="radio2" name="radioGroup"
value="option2"> Option 2</td>
            </tr>
            <tr>
                <th><label for="file">File Input:</label></th>
                <td><input type="file" id="file" name="file"></td>
            </tr>
            <tr>
                <th><label for="color">Color Input:</label></th>
                <td><input type="color" id="color" name="color"></td>
            </tr>
```

```html
    <tr>
                <th><label for="range">Range Input:</label></th>
                <td><input type="range" id="range" name="range" min="0"
max="100"></td>
            </tr>
        </table>
        <input type="submit" value="Submit">
        <input type="reset" value="Reset">
    </form>

</body>
</html>
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Form_Field Set</title>
</head>
<body bgcolor=#40E0D0>
    <form>
        <!-- Fieldset to group related form elements with a common legend -->
        <fieldset>
            <legend>Personal Details of a Customer</legend>

            <!-- Dropdown for Salutation -->
            <p>
                <label>Salutation
                    <select name="salutation">
                        <option>--None--</option>
                        <option>Mr.</option>
                        <option>Ms.</option>
                        <option>Mrs.</option>
                        <option>Dr.</option>
                        <option>Prof.</option>
                    </select>
                </label>
            </p>

            <!-- Input field for First Name -->
            <p>
                <label>First name: <input name="firstName" /></label>
            </p>

            <!-- Input field for Last Name -->
            <p>
                <label>Last name: <input name="lastName" /></label>
            </p>

            <!-- Radio buttons for Gender -->
            <p>
                Gender :
```

```html
                    <label><input type="radio" name="gender" value="male" />
Male</label>
                    <label><input type="radio" name="gender" value="female" />
Female</label>
            </p>

            <!-- Input field for Email -->
            <p>
                <label>Email:<input type="email" name="email" /></label>
            </p>

            <!-- Input field for Date of Birth -->
            <p>
                <label>Date of Birth:<input type="date"
name="birthDate"></label>
            </p>

            <!-- Textarea for Address -->
            <p>
                <label>
                    Address :
                    <br />
                    <textarea name="address" cols="30" rows="3"></textarea>
                </label>
            </p>

            <!-- Submit button for form submission -->
            <p>
                <button type="submit">Submit</button>
            </p>

        </fieldset>
    </form>
</body>
</html>
```

Explanation:

- **<!DOCTYPE html>**: Declaration of the HTML version being used.
- **<html lang="en">**: The root element of the HTML document with the language attribute set to English.
- **<head>**: Contains meta-information about the HTML document, including the title of the webpage.
- **<body>**: Contains the content of the HTML document, which includes a form.
- **<form>**: Represents an HTML form that contains various input elements.
- **<fieldset>**: Groups related form elements together with a common legend. In this case, it's used for the personal details of a customer.
- **<legend>**: Provides a caption for the content of the **<fieldset>**.
- Various form elements such as **<select>, <input>, <textarea>,** and **<button>** are used to collect information from the user.
- Attributes like **name** are added to form elements to identify them when the form is submitted.

8. HTML program to convert HTML to PDF:

```html
<!DOCTYPE html>
<html>
<body bgcolor=#DFFF00>
      <h2>Tutorial to print HTML page</h2>
      <p>Click the button to print this page.</p>
      <button onclick="printFunction()">Print</button>
      <script>
           function printFunction()
           {
                window.print();
           }
      </script>
</body>
</html>
```