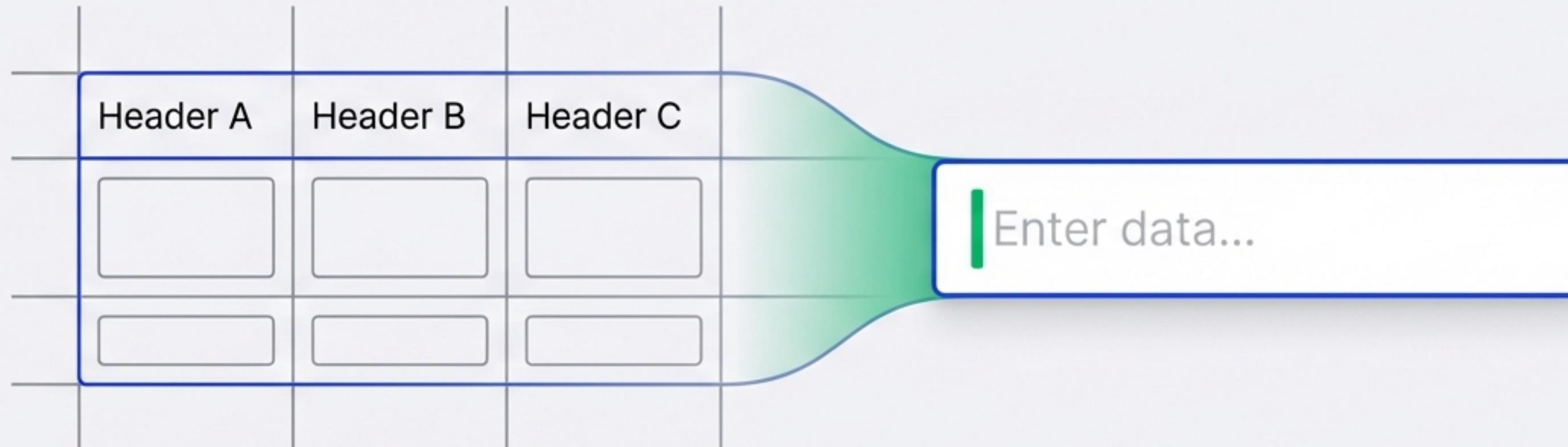


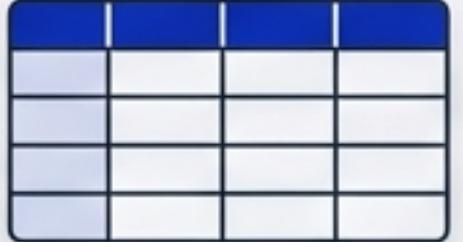
Structuring Data & User Input

HTML Lesson 3: Tables + Forms



LESSON 3: TABLES + FORMS (USER INPUT)

The Developer's Toolkit



Create Grids

Organize complex data using HTML Tables (rows, headers, data cells).

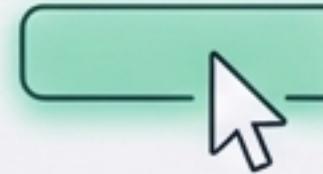
```
<table class="data-grid">
  <thead>
    <tr>
      <th scope="col">Header 1</th>
      <th scope="col">Header 2</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td class="cell">Data 1</td>
      <td class="cell">Data 2</td>
    </tr>
  </tbody>
</table>
```



Control Data Types

Implement specific inputs for text, passwords, dates, and numbers.

```
<!-- Text Input -->
<input type="text" placeholder="Username">
<!-- Password Input -->
<input type="password" placeholder="*****">
<!-- Date Input -->
<input type="date" value="2024-05-20">
<!-- Number Input -->
<input type="number" min="0" max="100" step="1" value="50">
```



Facilitate Interaction

Build interfaces for user input using Forms.

```
<form action="/submit" method="post" class="interaction-form">
  <label for="email">Email:</label>
  <input type="email" id="email" name="email" placeholder="user@example.com" required>
  <button type="submit" class="btn-primary">Submit Request</button>
</form>
```



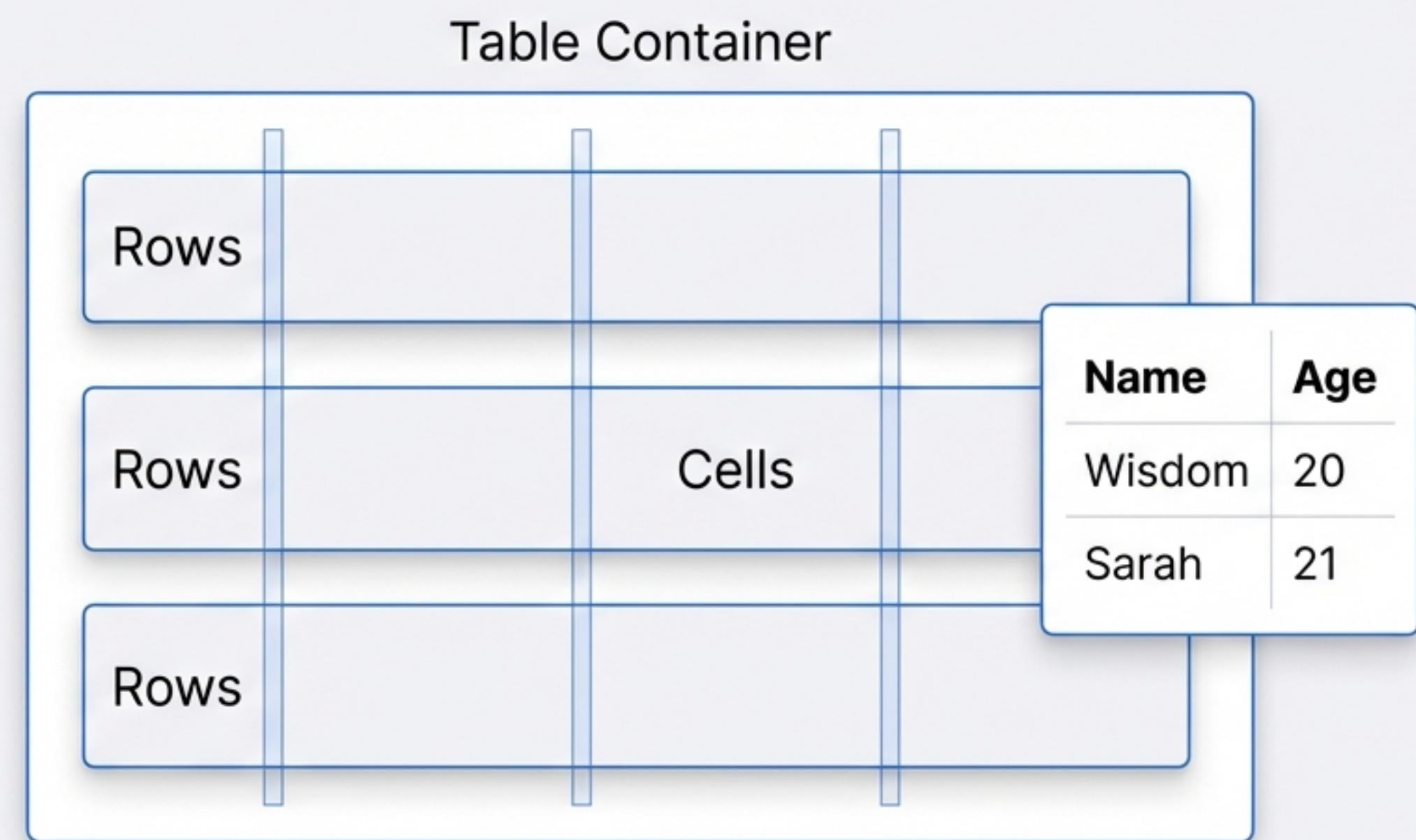
Manage Selections

Deploy logic for single choices (Radios) and multiple choices (Checkboxes).

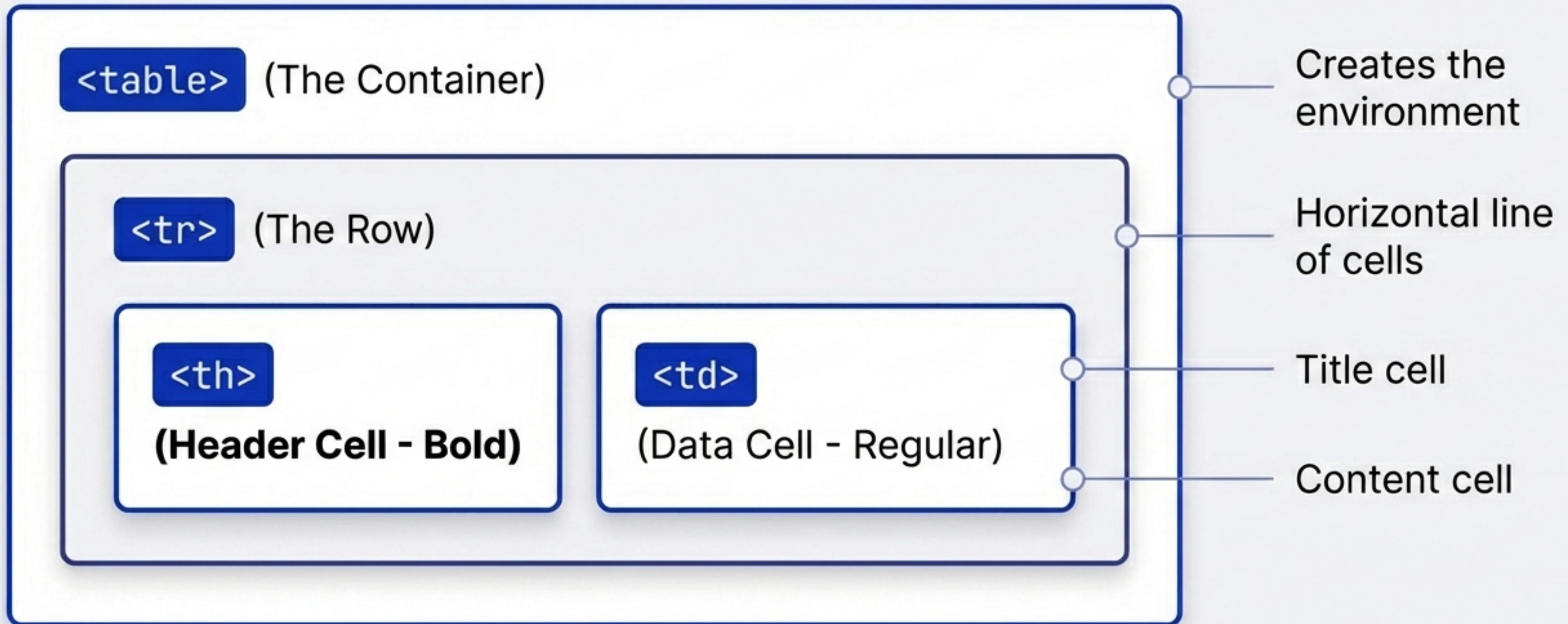
```
<fieldset>
  <legend>Choose your plan (Radio)</legend>
  <label><input type="radio" name="plan" value="basic" checked> Basic</label>
  <label><input type="radio" name="plan" value="pro"> Pro</label>
</fieldset>
<fieldset>
  <legend>Add-ons (Checkbox)</legend>
  <label><input type="checkbox" name="addon" value="support"> Priority Support</label>
  <label><input type="checkbox" name="addon" value="storage"> Extra Storage</label>
</fieldset>
```

The Grid: Organizing Static Information

Tables are semantically designed to display data in rows and columns. Think of them as the skeleton for structured content.



Anatomy of a Table



Headers vs. vs. Standard Data

```
<table>
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Wisdom</td>
    <td>20</td>
  </tr>
  <tr>
    <td>Sarah</td>
    <td>21</td>
  </tr>
</table>
```

Generated by `<th>` tags

Name	Age
Wisdom	20
Sarah	21

Defining Boundaries

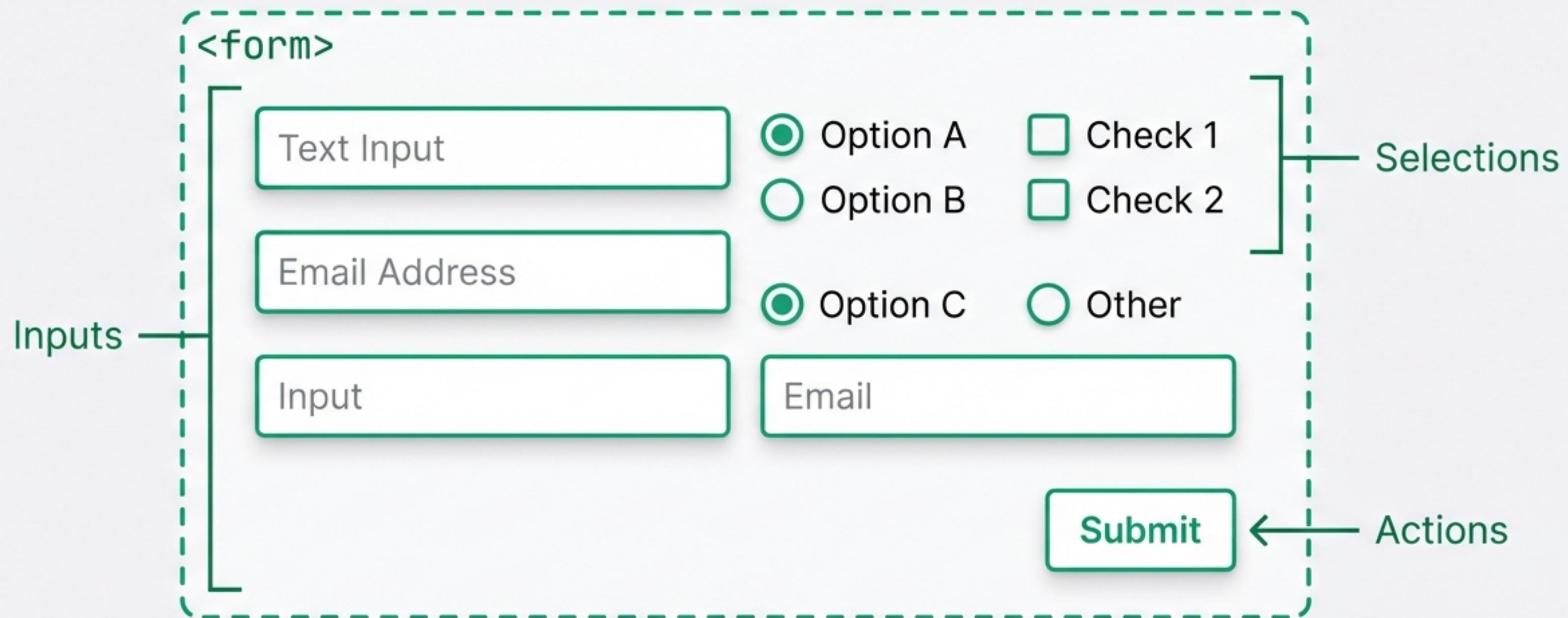
```
<table border="1"> ←  
  <tr>  
    <th>Course</th>  
    <th>Grade</th>  
  </tr>  
  <tr>  
    <td>Math</td>  
    <td>A</td>  
  </tr>  
  <tr>  
    <td>Physics</td>  
    <td>B</td>  
  </tr>  
</table>
```

Visual Switch

Course	Grade
Math	A
Physics	B

The Interaction: Talking to Users

While tables display information, Forms allow users to enter it.
They are the primary method for collecting data on the web.

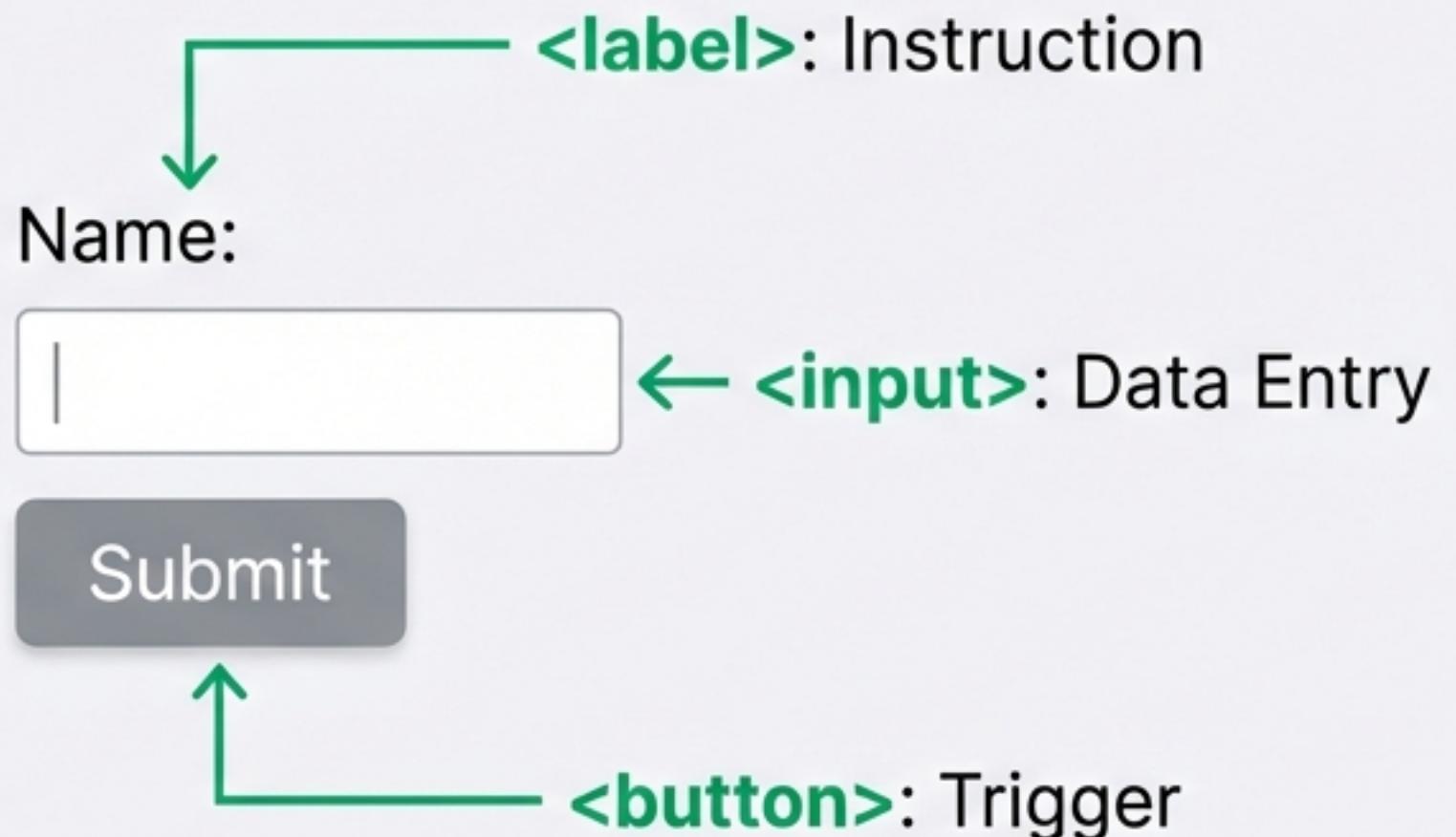


Basic Form Anatomy

Code

```
<form>  
  <label>Name:</label>  
  <input type="text">  
  <button>Submit</button>  
</form>
```

Render



The Input Spectrum

Code Attribute

```
<input type="text">
```

```
<input type="email">
```

```
<input type="password">
```

```
<input type="number">
```

```
<input type="date">
```

Visual Render (Interactive UI)



Exclusive Choices: Radio Buttons

Logic: Choose ONE option

Code

```
<label>Choose your gender:</label>
<input type="radio" name="gender"
       value="female"> Female
<input type="radio" name="gender"
       value="male"> Male
```

Render

Choose your gender:

- Female
- Male

Important: Radio buttons must share the same 'name' value to function as a group.

Multiple Choices: Checkboxes

Logic: Choose multiple options

Code

```
<label>Select your hobbies:</label>
<input type="checkbox"> Reading
<input type="checkbox"> Music
<input type="checkbox"> Sports
```

Render

Select your hobbies:

- Reading
- Music
- Sports

Dropdowns & Long Form Text

Code

```
<select>
  <option>China</option>
  ...
</select>
```

Render

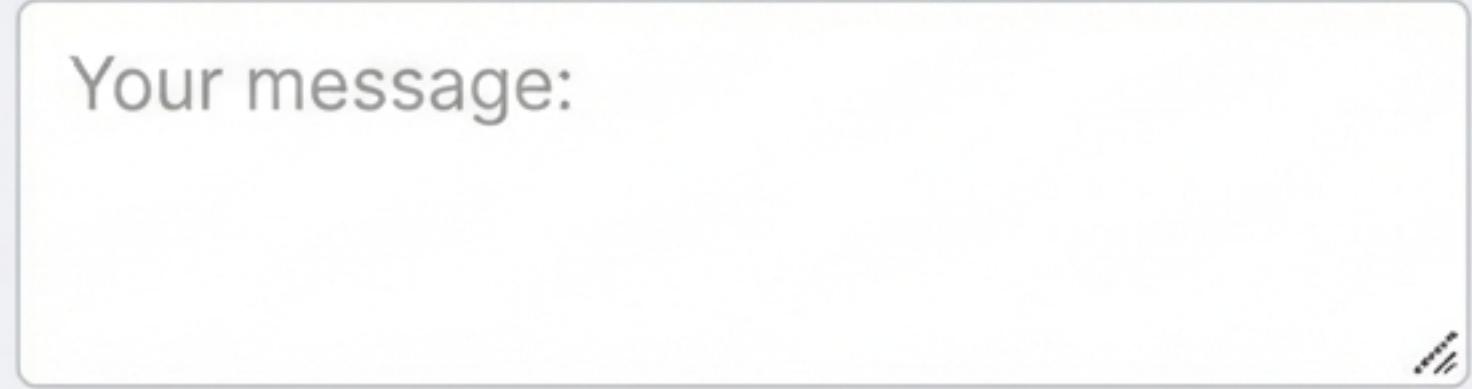


China ▾

Code

```
<textarea>Your message:</textarea>
```

Render



Your message:

Build It: The Study Table

```
<h2>My Study Table</h2>
<table border="1">
  <tr>
    <th>Subject</th>
    <th>Hours</th>
  </tr>
  <tr>
    <td>HTML</td>
    <td>2</td>
  </tr>
  <tr>
    <td>Electronics</td>
    <td>3</td>
  </tr>
</table>
```

My Study Table

Subject	Hours
HTML	2
Electronics	3

Build It: The Contact Form

Code

```
<form>
  <input type="text" placeholder="Name">
  <input type="email" placeholder="Email">
  <input type="password" placeholder="Password">
  <input type="number" placeholder="Age">
  <input type="date" placeholder="D08">
  <fieldset>
    <legend>Gender</legend>
    <label><input type="radio" name="gender"> Female</label>
    <label><input type="radio" name="gender"> Male</label>
  </fieldset>
  <fieldset>
    <legend>Hobbies</legend>
    <label><input type="checkbox" name="hobby"> Reading</label>
    <label><input type="checkbox" name="hobby"> Music</label>
    <label><input type="checkbox" name="hobby"> Sports</label>
  </fieldset>
  <select>
    <option>China</option>
    ...
  </select>
  <textarea placeholder="Message"></textarea>
  <button type="submit">Submit</button>
</form>
```

Render

Contact Form

Full Name

Email

Password ······

Age Date of Birth

Gender Female Male

Hobbies Reading Music Sports

Country

Message

Syntax Reference Card

TABLES

```
<table class="blue-tag">           Container  
  
<tr class="blue-tag">             Row  
  
<th class="blue-tag">            Header (Bold)  
  
<td class="blue-tag">            Data (Regular)  
  
<table border="1" class="purple-attribute" style="border-collapse: collapse; width: 100%; height: 100%;">  
    <tr>  
        <td>Grid lines</td>  
    </tr>  
</table>
```

FORMS

```
<form class="blue-tag">          Container  
  
<label class="blue-tag">          Text Description  
  
<button class="blue-tag">         Submit Action
```

INPUTS

<input type="text" class="purple-attr" value="text" class="green-string">	Standard
<input type="password" class="purple-attr" value="password" class="green-string">	Masked
<input type="radio" class="purple-attr" value="radio" class="green-string">	Single Choice
<input type="checkbox" class="purple-attr" value="checkbox" class="green-string">	Multiple Choice
<select class="blue-tag">	Dropdown
<textarea class="blue-tag">	Long Text