**Angular Property Binding**

Property binding is a one-way data binding technique in Angular.1 It allows you to bind a property of an HTML element to a property defined in your Angular component's TypeScript class.2 This means that changes to the component's property will automatically update the corresponding property of the HTML element.3

**Syntax:**

HTML

<element [property]="componentProperty">

* element: The HTML element whose property you want to bind.
* property: The name of the property of the HTML element (e.g., value, src, disabled).
* componentProperty: The name of the property in your Angular component class.

**Example:**

TypeScript

import { Component } from '@angular/core';

@Component({

selector: 'app-my-component',

template: `

<input type="text" [value]="name">

`

})

export class MyComponent {

name: string = "John Doe";

}

In this example:

* [value]="name" binds the value property of the <input> element to the name property of the MyComponent class.
* Initially, the input field will display "John Doe".
* If you change the value of the name property in the component class (e.g., in a method), the input field's value will automatically update.

**Key Points:**

* **One-way data flow:** Changes in the component's property affect the HTML element, but changes made directly to the HTML element will not update the component's property.
* **Common Use Cases:**
  + Setting the value of input fields (<input>)
  + Displaying images (<img>)
  + Controlling the visibility of elements ([hidden])
  + Enabling/disabling elements ([disabled])
  + Applying CSS classes ([class])

**Benefits:**

* **Improved Readability:** Makes your templates cleaner and more declarative.
* **Enhanced Maintainability:** Changes to data are automatically reflected in the view.4
* **Increased Responsiveness:** Applications become more reactive to data changes.5
* **Reduced Boilerplate Code:** Eliminates the need for manual DOM manipulation.6

By effectively using property binding, you can create dynamic and interactive Angular applications that respond to changes in your component's data.7