Angular Data Bindings – Two Way Data Bindings

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**✅ Task 3: Data Binding (One-Way / Two-Way)**

**1️⃣ 🎯 Purpose**

Understand how data flows:

* ✅ From **component to view** (One-Way Binding)
* ✅ From **view to component** (Two-Way Binding)
* ✅ How to bind **events**, **properties**, and **user inputs**

**2️⃣ 📚 Theory**

| **Binding Type** | **Syntax** | **Direction** | **Use Case** |
| --- | --- | --- | --- |
| **Interpolation** | {{ variable }} | One-way (TS ➜ HTML) | Show text or variables in HTML |
| **Property** | [property]="value" | One-way | Bind HTML element attributes |
| **Event** | (event)="handler()" | One-way (HTML ➜ TS) | Listen to user events like click |
| **Two-Way** | [(ngModel)]="value" | Two-way | Sync input with component property |

ℹ️ Note: Two-way binding requires FormsModule import, even in standalone.

**3️⃣ 🧱 Prerequisites**

Make sure:

* FormsModule is imported in your component
* You have a working Angular 18 project with app.config.ts

**4️⃣ 👨‍💻 Code Example (Angular 18)**

**✅ Folder Structure**

src/

├── app/

│ ├── app.component.ts

│ ├── app.config.ts

│ └── components/

│ └── databinding/

│ ├── databinding.component.ts

│ ├── databinding.component.html

│ └── databinding.component.css

**📁 databinding.component.ts**

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

import { FormsModule } from '@angular/forms';

@Component({

selector: 'app-databinding',

standalone: true,

imports: [FormsModule],

templateUrl: './databinding.component.html',

styleUrls: ['./databinding.component.css']

})

export class DataBindingComponent {

title = 'Angular Data Binding Example';

username = '';

message = '';

showMessage() {

this.message = `Hello, ${this.username}!`;

}

}

**📁 databinding.component.html**

<h2>{{ title }}</h2>

<!-- Two-Way Binding -->

<label>Enter your name:</label>

<input type="text" [(ngModel)]="username" />

<!-- Event Binding -->

<button (click)="showMessage()">Submit</button>

<!-- One-Way Binding -->

<p \*ngIf="message">{{ message }}</p>

**📁 databinding.component.css**

input {

margin: 10px;

padding: 5px;

}

button {

margin-left: 5px;

}

**📁 app/app.component.ts**

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

import { DataBindingComponent } from './components/databinding/databinding.component';

@Component({

selector: 'app-root',

standalone: true,

imports: [DataBindingComponent],

template: `

<h1>Angular 18 - Task 3</h1>

<app-databinding></app-databinding>

`

})

export class AppComponent {}

**📁 app.config.ts**

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

import { provideRouter } from '@angular/router';

import { bootstrapApplication } from '@angular/platform-browser';

import { AppComponent } from './app.component';

export const appConfig: ApplicationConfig = {

providers: [provideRouter([])]

};

bootstrapApplication(AppComponent, {

providers: appConfig.providers,

}).catch(err => console.error(err));

**5️⃣ 📷 Project Snapshot**

src/

├── app/

│ ├── app.component.ts

│ ├── app.config.ts

│ └── components/

│ └── databinding/

│ ├── databinding.component.ts

│ ├── databinding.component.html

│ └── databinding.component.css

├── main.ts

**6️⃣ 📌 Summary**

| **✅ Concept** | **💡 Covered** |
| --- | --- |
| One-Way Interpolation | ✔️ |
| Property/Event Binding | ✔️ |
| Two-Way Binding | ✔️ |
| Angular 18 Compatible | ✔️ |