

# Angular 18

# Setup Environment & Install Angular 18

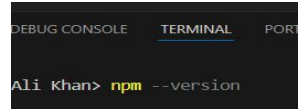
Step 1 :- Install Node Js latest - <https://nodejs.org/en>



Step 2 :- Install visual studio code - <https://code.visualstudio.com/download>

Step 3 :- Open VS code and Check if node installed or not - goto Terminal →

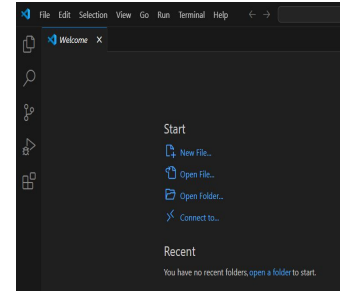
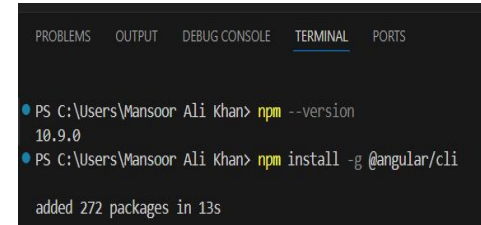
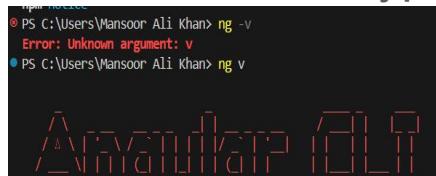
Type “npm --version”



Step 4 :- Again in Terminal need to Install Angular Cli -> Type

“npm install -g @angular/cli”

Step 5 :- Check if Installed or not ->type “ng v”



# Create Project

Step 1 :- Open Terminal and type below command

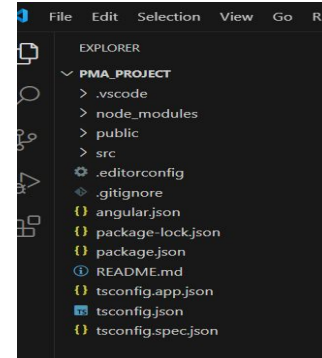
ng new Project\_Name → **Yes** for css.

**No** for enable server side rendering.

Step 2 :- Check files created in the location.

Step 3 :- Vs Code -> Open folder -> select your project.

Name	Date modified	Type	Size
.vscode	31-12-2024 12:47	File folder	
node_modules	31-12-2024 12:48	File folder	
public	31-12-2024 12:47	File folder	
src	31-12-2024 12:47	File folder	
.editorconfig	31-12-2024 12:47	Editor Config Sour...	1 KB
.gitignore	31-12-2024 12:47	Git Ignore Source ...	1 KB
angular.json	31-12-2024 12:47	JSON File	3 KB
package.json	31-12-2024 12:47	JSON File	2 KB
package-lock.json	31-12-2024 12:48	JSON File	519 KB
README	31-12-2024 12:47	Markdown Source ...	2 KB
tsconfig.app.json	31-12-2024 12:47	JSON File	1 KB
tsconfig.json	31-12-2024 12:47	JSON File	1 KB
tsconfig.spec.json	31-12-2024 12:47	JSON File	1 KB



# Test your project

One way :- Open Terminal → `ng serve - -o` → enter.

Another Best way :- From upside tools → Run → Start Debugging (if get popup click “Debug anyway” ).

Output :- It will run and open the browser.

## What is Data Binding in angular?

Data binding in Angular is a powerful feature that allows you to establish a connection between the data in your component and the user interface (UI). It enables you to keep the UI in sync with the underlying data, ensuring that any changes to the data are automatically reflected in the UI, and vice versa.

**There are two types of data binding in Angular**

1:-One-Way Data Binding

2:-Two-Way Data Binding

# One-Way Data Binding

- One-way data binding in Angular means that you can connect data from your code (**component**) to your web page (template) so that when the data changes, it automatically updates what you see on the screen."

**There are three types of data binding in Angular.**

1:-Interpolation (One-way binding)

2:-Property Binding (One-way binding)

3:-Event Binding (One-way binding)

## What is Interpolation ?

- **Interpolation (One-way binding):-** Interpolation is denoted by double curly braces (`{{}}`). It allows you to embed expressions within the HTML template to display dynamic values. The expressions are evaluated and the result is interpolated into the HTML. Interpolation is a one-way binding, meaning it updates the UI when the component data changes, but it does not update the component data when the UI is modified.

**Example:**`<p>Welcome, {{ username }}!</p>`



## What is Property Binding ?

- **Property Binding (One-way binding):** Property binding allows you to bind the value of a component property to an element property or attribute in the HTML template. It is denoted by square brackets ([]). The data flows in one direction from the component property to the HTML element. When the component property changes, the bound element property or attribute is updated.

**Example:-**`<input [value]="username">`



# What is Event Binding ?

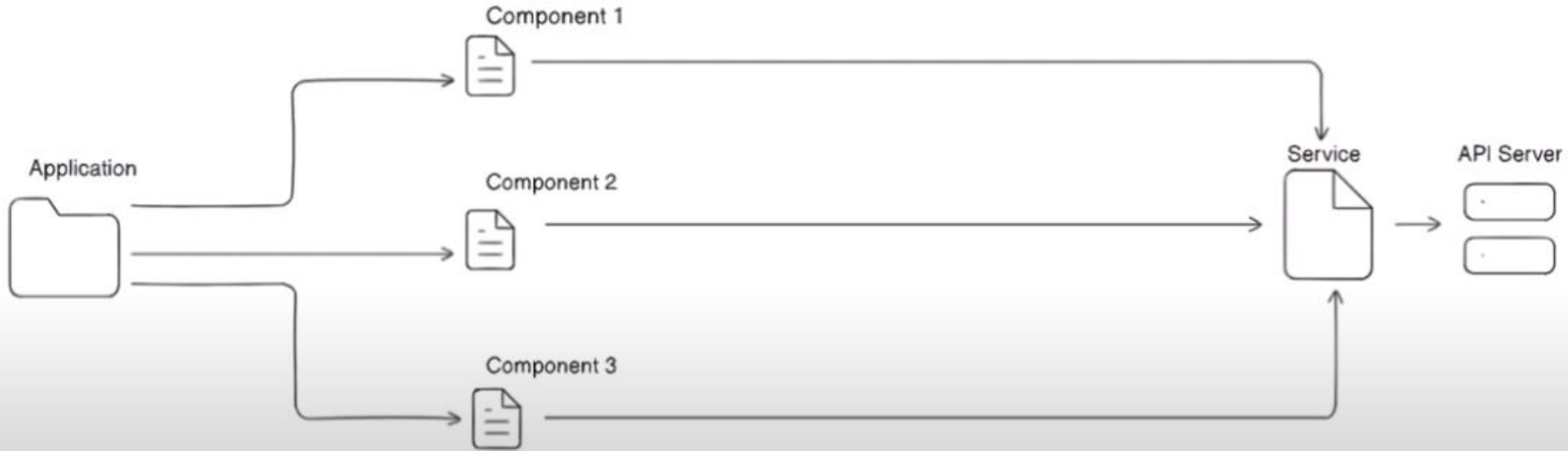
- **Event Binding (One-way binding):-** Event binding allows you to bind an event in the HTML template to a method in the component class. It is denoted by parentheses (). When the specified event occurs (such as a button click or input change), the associated method is executed in the component.

**Example:-** `<button (click)="submitForm()">Submit</button>`

- **Two-Way Binding:** Two-way binding combines property binding and event binding into a single syntax using the `[(ngModel)]` directive. It allows you to establish a bi-directional binding between a component property and an input element value. When the input value changes, the component property is updated, and vice versa.
- Two-way binding requires the `FormsModule` to be imported and enabled in your Angular application.

**Example:-**`<input [(ngModel)]="username">`

# Service in Angular



**What Is Observables?**

**What Is synchronous or asynchronous?**

**What is Subscribe?**

**How to Call Api ?**



