Data-Binding

It is a mechanism in Angular that creates a connection between your component(ie TypeScript class) and its template(the HTML).

it is responsible for keeping the view and data in sync.

Data binding in Angular includes several different techniques:-

→ From Component to Template (One-Way)

- Interpolation { { } } : Display component data as text in the template.

  ex.

  app.ts

  ```
  import { Component } from '@angular/core'
  @Component({
      selector: 'app-root',
      templateUrl: './app.html',
  })
  export class App{
      pageTitle: string = "My Awesom App";
      visionCount: number = 100;
      getGreeting():string{
          return 'Hello, welcome';
      }
  }
  ```

  app.html

  ```
  <h1>{{pageTitle}}</h1>
  <p>You are visiting number {{visitorCount+1}}</p>
  <h2>{{getGreeting()}}</h2>
  ```

- Property Binding [ ]: it lets you set a property of a target HTML element(or a directives) to the value of property from your component class.

  it is used to dynamically control an element's properties using component class

  ex.

  app.ts

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

  @Component({

      selector: 'app-root',

      templateUrl: './app.html',

  })

  export class App{

      profileImageUrl: string = 'assets/default-avatar.png';

      loadUserImage(){

          this.profileImageUrl = 'assets/user-specific-image.png';

      }

  }

  app.html

  <img [src]="profileImageUrl">

  <button (click)="loadUserImage()">Load My Image</button>

- Event Binding ( ) :- It lets you listen for and respond to user action in the template, such as clicks, mouse movement, or keyboard input.

  syntax: parentheses ( )

  ex.

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

```
@Component({
    selector: 'app-root',
    templateUrl: './ app.html',
})
export class App{
    message: string = "Please save your changes";
    onSave(){
        this.message = "Your data has been saved!";
        consol.log("Save method called");
        }
}


app.html
<p>{{message}}</p>
<button (click)="onSave()">Save</button>
```