### Data binding

Data binding provide bridge between component to template or vice-versa.

Using data binding we can share the data between component to template or template to component.

2 types of data binding

```
1. One way data binding: uni directional
```

```
a. String interpolation: it is a type of one way data binding
   Component to View or template
   .ts ----→ .html
   Syntax
   {{}}
   Example
   {{variableName}}
   {{5+7}}
   {{functionName()}}
b. Property binding: it is a type of one way data binding
   If we want to use property binding we need to use tag or dom elements.
   Component to View or Template
   .ts →.html
   Syntax
   <input type="text"/>
                                         in html
   <input type="text" value="Raj">
                                         text field will create and inside that textfield
                                         Raj default value present.
   <input type="text" value="fname"> then value itself is fname.
   <input type="text" [value]="fname">
                                         then angular compiler check fname value
                                         Present in component and that fname value
                                         Will display in text filed.
   Vs
   {{}}
                                  []
```

<div [innerText]="fname"></div>

ng g c property-binding

{{fname}}

c. Event binding : flow the application template to component. .html  $--\rightarrow$  .ts





Angular use same event provided by JavaScript. Only different in angular on pre-fix removed and event name wrap with ().

JS Event Angular event

onClick (click)
onDblClick (dblclick)
onMouseOver (mouseover)
onSubmit (ngSubmit)

etc etc

ng g c event-binding

## template reference

if we want to pass any tag value to component we can take the help of template reference.

<input type="text" #nameRef />

nameRef is a template reference of input text field.

Two way data binding using Event binding and string interpolation or property binding

2. Two way data binding: bi directional

Create new project with name as angular-data-binding

# ng new angular-data-binding

routing  $\rightarrow$  no

styling → css enter

cd angular-data-binding

ng serve -o

then open the project in vs code

please open app.component.html: remove all code and write below code.

```
<div>
  <h2>Angular data binding concept</h2>
</div>
```

### ng g c string-interpolation

## Two – way data binding using ngModel

Angular provided two way data binding: if we do any changes in component it will update in template and vice-versa.

## [(ngModel)]

ngModel is a pre defined attribute we can use with [(ngModel)] to achieve two way data binding.

ngModel is a pre defined attribute part of FormsModule.

In app.module.ts file we need to import FormsModule in import section.

ng g c two-way-data-binding

#### **Angular directives**

Angular directive help us to add extra behaviour or functionality to dom or html code.

3 types of directive

## 1. Component directive:

Component is a type of directive which help to create user defined tags with help of selector attribute.

```
@Component({
Selector:"my-tag",
templateUrl:"./my-page.html"
})
class MyComponent{
}
```

#### 2. Structure directive

Using structure directive we can add or remove html code in existing dom.

```
ng-if
```

ng-for

in angular we can use if and for inside html page.

3. Attribute directive : attribute directive mainly use to apply styling. ngStyle and ngClass

Please create new project

ng new angular-directive

move inside a project

cd angular-directive

then create two components

ng g c structure-directive

ng g c attribute-directive

using

ng serve -o start the project

and open the project in vs code.

Then open app.component.html page and remove pre-defined contents.

<img src="nameoftheimage.jpeg" (mouseover)="big()" (mouseout)="small()" [width]="widthVar" [height]="heightVar"/>