Phase 4

Total session 9

Day 6 : 29 Jan 2024

Frontend technologies

Data binding : which is use to share the data between component to view and vice-versa

1. One way data binding
   a. String interpolation
      {{}}
      Component to View
      {{variableName}}
      {{functionName()}}
      {{7+10}}

   b. Property binding : it is a type of one data binding. The flow component to view.
      []
      <input type="text" name="uname"/>
      <input type="text" name="uname" value="Ravi"/>
      <input type="text" value="uname"/> value itself is uname consider
      <input type="text" [value]="uname"/> now it will check the variable name with uname and that uname value it will display.

      <p [innerText]="uname"></p>
      <div [innerText]="uname"></div>

      ng g c property-binding

      String interpolation vs property binding

We can access the value using string interpolation without using any tags.
But to achieve property binding we need mandatory tags.

In string interpolation always values consider as string
But in property binding we can use other data type also.

c. Event binding : event binding also type of one way data type. The flow is template to component.
To achieve event binding we need to use
()

Angular use same event provided by JavaScript. But removed on prefixed and wrap by ()

JavaScript event	angular event
onClick	(click)
onDblClick()	(dblclick)
onSubmit()	(ngSubmit)
onMouseOver	(mouseover)

ng g c event-binding

using event binding and string interpolation or property binding we can achieve two way data binding.

Passing the value from template to component using template reference concept.
If we want to access the value of text field inside component we need to create the text field reference using # followed by name.

<input type=”text” #nameRef />

Then we need to pass this reference to component using function there we can access the values.

Ng g c template-reference

2. Two way data binding :
   Angular support two way data binding using ngModel attribute. If we do any changes in component automatically update in template and vice-versa.

   [()]

   <input type=”text” name=”age” [(ngModel)]=”age”/>

   Age variable must be part of component.
   ngModel pre defined attribute part of FormsModule. So in app.module.ts file in import section we need to import FormsModule.

   Ng g c two-way-data-binding

Angular Forms

Ng new angular-forms
Routing →no
Styling → css

Angular forms

Using Template Reference we can pass the value from view to component. Template reference is good if we want to pass one or two values.

But if want to pass more values. Using Angular forms we can pass group of values from view to components.

Angular support two types of forms

1. Template Driven Forms
   a. It is use to created. Good for simple type of forms.
   b. Flow template to component ie html -→ ts file
   c. In template driven form first we need work on template side and then base upon template we need write the code on component side.
   d. In template driven form we use ngModel and ngForm attribute part of FormsModule. ngModel and ngForm attribute we need to use on template side and FormsModule we need to import in app.module.ts file.
2. Model Driven Form or Reactive forms.
   a. Complex to create. Good for complex type of forms
   b. Flow component to template ie ts -→ html file
   c. In Model driven form first we need to work on component side and then base upon component we need to write the code on template side.
   d. In Model Driven form first we need to create FormGroup and FormControl class reference in component and formGroup and formControlName attribute we need to use in template side. These attribute part of ReactiveFormsModule. So we need to import in app.module.ts file ReactiveFormsModule.

angular-forms

```
cd angular-forms
```

```
ng g c tdf-login-page
ng g c mdf-login-page
```

in Template Driven Form in Angular we can create form reference.

```
<form #loginRef=”ngForm”>
<input type=”email” name=”emailid” ngModel/>
</form>
```

ngForm is pre defined attribute and loginRef is reference of form it can be any name.

ngForm is pre defined attribute part of FormModules. So we need to import FormsModule in app.module.ts file.

So now open app.module.ts file and import FormsModule in import section. For each form member like text field, password field, radio button,checkbox we need to use ngModel attribute which help to add the value through that objects.

In Model Driven form or Reactive form
Angular provided few classes or API which help to bind component to view.

FormGroup : FormGroup is a collection more than one form control.
FormControl : form control is use to describe form member like text field, password field, radio button, checkbox etc.

Login page : Form Group

Which contains emailed and password ie FormControl