Bootstrapping :

When we bootstrap with the AppComponent class (see main.ts), Angular looks for a <my-app> in theindex.html, finds it, instantiates an instance of AppComponent, and renders it inside the <my-app> tag.

**Template Syntax**

Displaying data

Data interpolation : {{}}

**Prohibited expressions:**

**=,;,new,++,--,**

ngFor new Syntax :

<li \*ngFor="let hero of heroes">

{{ hero .me}}

</li>

ngIf new syntax:

<p \*ngIf="heroes.length> 3">There are many heroes!</p>

**Template Statements:**

(event)="statement".

Cannot refer to global context, document.

**HTML has attributes while DOM has properties. And angularJs works with prpoperties and not attributes.**

**Source and target:**

**Target = source**

**Target:** Element property or event (rarely attribute).

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| --- | --- | --- |
| **Binding type** | **Target** | **Examples** |
| Property | Element property Component property Directive property | <img [src] ="heroImageUrl">  <hero-detail [hero]="currentHero"></hero-detail>  <div [ngClass] ="{selected: isSelected}"></div> |
| Event | Element event Component event Directive event | <button (click) ="onSave()">Save</button>  <hero-detail (deleteRequest)="deleteHero()"></hero-detail>  <div (myClick)="clicked=$event">click me</div> |
| Two-way | Event and property | <input [(ngModel)]="heroName"> |
| Attribute | Attribute (the exception) | <button [attr.aria-label]="help">help</button> |
| Class | class property | <div [class.special]="isSpecial">Special</div> |
| Style | style property | <button [style.color] ="isSpecial ? 'red' : 'green'"> |

|  |  |  |
| --- | --- | --- |
| **Data direction** | **Syntax** | **Binding type** |
| One-way from data source to view target | {{expression}}  [target]="expression"  bind-target ="expression"  [hero]=”selected.hero” | Interpolation Property Attribute Class Style |
| One-way from view target to data source | (target)="statement"  on-target ="statement"  (onclick) = onSelectHero(hero) | Event |
| Two-way | [(target)]="expression"  bindon-target ="expression"  [(ngModel)] = “hero” | Two-way |

In simple words,

Src ={{title}} can be written ass [src] = “titile”

Property is declared in [] if it’s a target.

**<my-hero-detail [hero]="selectedHero"></my-hero-detail>**

Here, hero property is the target as we will be passing the selected hero from app.component to hero details component’s property hero.

**Services:**

**Injectable()** is the required component.

Import gives us the concrete service, while to access the function we need an instance.

We cannot instantiate the service.

Reasons:

* If service constructor is change, you hava to change wherever you created the instance.
* Use your java brain and you know this, that if a property is cached by the service, the new instance will not be able to use it.

Solution:

Class MyComponent{

constructor(**private** heroServiceProp: **HeroService**) { }

}

If u miss private, you wil not be able to access it.

providers: [HeroService];

Now its available as this.heroServiceProp everywhere.

Here, param is the hero, understands that this(heroServiceProp) is the injection site of the service. Angular is now ready to give an instance of HeroService whenever**MyComponent**is instantiated.

The providers array tells Angular to create a fresh instance of the HeroService when it creates a new AppComponent.

**ROUTER**

1. Base href=/
2. Router\_Provider in bootstrap
3. Router Directive in main shell comp

Main.ts –

* Imports a route from app.route.ts
* this route is provided in the bootstrap function array.

App.route.ts –

* Imports provideRouter and routerConfig.
* An object of routerConfig type is created.
* provideRouter takes the above and returns the route .

Activated Route:

* To pass param across routing.
* Instantiated as service in constructor.
* Hence this instance now give the param.
* Contains the information about a component loaded in an outlet. The information is provided through the params, urlSegments, and data observables.

Router:

**import** { Router } **from '@angular/router'**;

This helps in routing to the next url via, route.navigate.

**Forms:**

1. disableDeprecatedForms()
2. provideForms()  **For the new Form API**
3. Template reference variable bind u to that dom element

<input type=”text” #name>

#name is of type HtmlInputElement and is now a property of your class.

**Observable & HTTP:**

Observables are:

* Stream of events published by some source (ex. http requests).
* We subscribe to them and take actions for the events (success or failure).
* Rx-js.operator.ts exports all operator and we can use the one we want (ex. Catch,throw,map).

Observable operators have defined function definition for the functions passed to them.

In our example,

**Catch,**expects (err: any, caught: Observable<any>) => Observable<{}>.