Angular:❤️Day5

Custom Directive→

1. Create new folder called Directives
2. Open integrated terminal
3. Apply this command ng g d name - -skip-tests

   Once directive created will add it at app.modules in declaration part

```
import { Directive } from '@angular/core';

@Directive({
  selector: '[appCustom]'
})
export class CustomDirective {

  constructor() { }

}
```

Use it out this class by its name appCustom

وانا شغالة جوا ال directive لازم يكون معايا ال element reference عشان يعرف
انا شغالة على مين (make this in Constructor)

Note →can use custom declarative with html tags or custom tags

```
  constructor(myRef:ElementRef) {
    console.log(myRef);
  }
//In html part i made this
<h1 appCustom> Hello</h1>
```

myRef object return nativeElement "كدا انا مسكاة فى ايدى واقدر اعمل علية اى حاجة"

```
  myRef.nativeElement.style.color="red";
```

طب دلوقتى عايزين نعمل event لما مثلا click على الـ element يعمل حاجة معينة

Create event:

```
  @HostListener('click')hamade(){
    this.myRef.nativeElement.style.color="Green"
  }
//hamada da esm el event
```

If we need path value to directive

appCustom=”Red” ???نعملها ازاى

بما ان هستقبل حاجة جاية من برا

إذن هنستخدم ال @Input()

```
@Input('appCustom') color:any;
In html be → appCustom=”yellow”
```

Note →any parameter need convert it to property use before it any access modifier

طب لو فى الـ html محتاج اخلى ال appCustom ياخد color and background ??

appCustom must be binding

```
<h1 [appCustom]="{fgcolor:'red',bgcolor:'blue'}">Hello Ra7oob</h1>
```

In ts

```
  @Input('appCustom') sobj:any
```

Pipes→ change representation for data whatever what is it in database

Built in pipes:

- |uppercase

```
<h1>{{name|uppercase}}</h1>
In database was → Rehab
Output REHAB
```

- |lowercase

- **Currency**

```
<h2>{{salary|currency:"USD"}}</h2>
In database=1000
Output $1,000.00
```

Custom Pipes:

1. Create folder called pipes
2. Open integrated terminal
3. Apply this command ng g p name - -skip-tests

   Once folder created will add it to declaration

```
@Pipe({
  name: 'custom'
})
export class CustomPipe implements PipeTransform {

  transform(value: unknown, ...args: unknown[]): unknown {
    return null;
  }

}
```

ال pipeTransform دا interface جواه method called transform
بتحول شكل الداتا للشكل اللى انت عايزة

Call it out this class by Custom

To return string splits by any char

```
  transform(value: string, ...args: string[]): unknown {
    return value.split("").join(args[0]);
  }
```

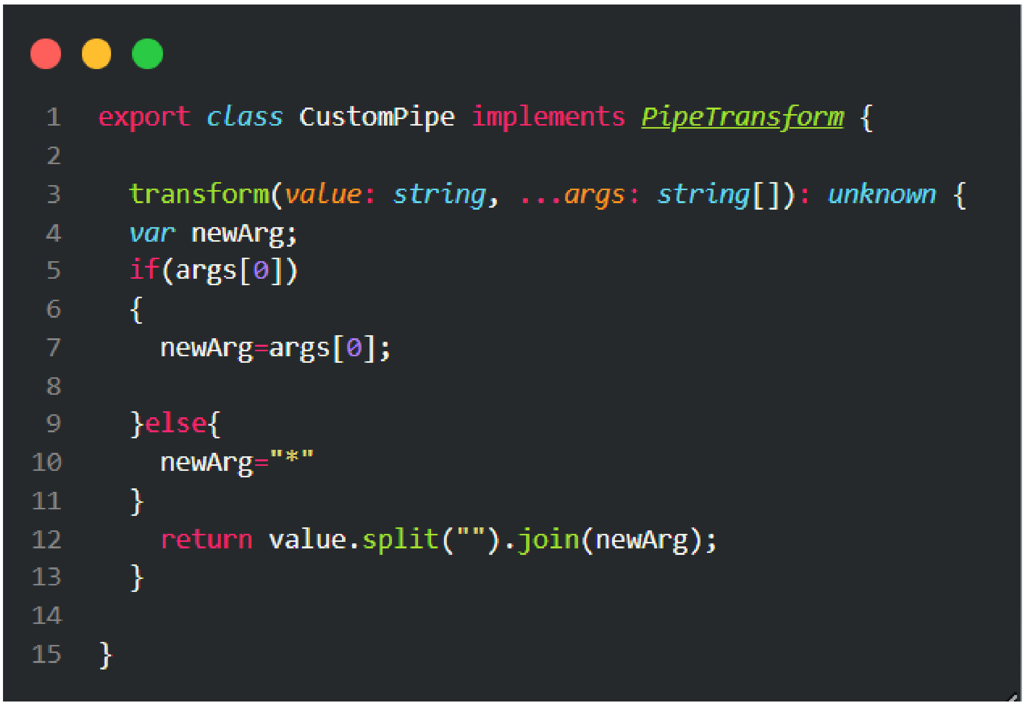
Calling {{name|Custom:"&"}}

//if name =Rehab

// output R&h&a&b

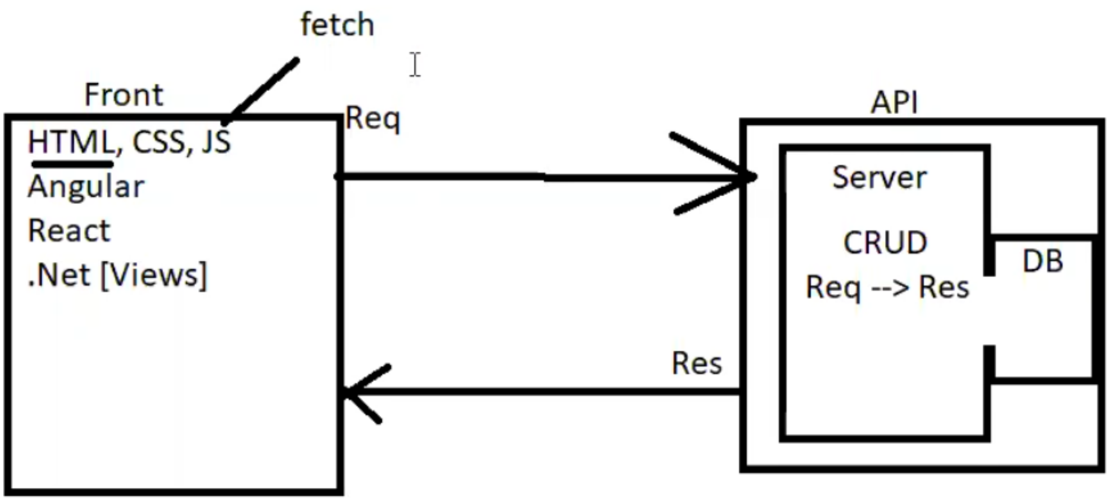
لو محطش انا العلامة اللى عايزة افصل بيها ال default هيكون ,

لو عايزة اغيرها==



```
export class CustomPipe implements PipeTransform {

  transform(value: string, ...args: string[]): unknown {
  var newArg;
  if(args[0])
  {
    newArg=args[0];

  }else{
    newArg="*"
  }
    return value.split("").join(newArg);
  }

}
```

Normal Structure

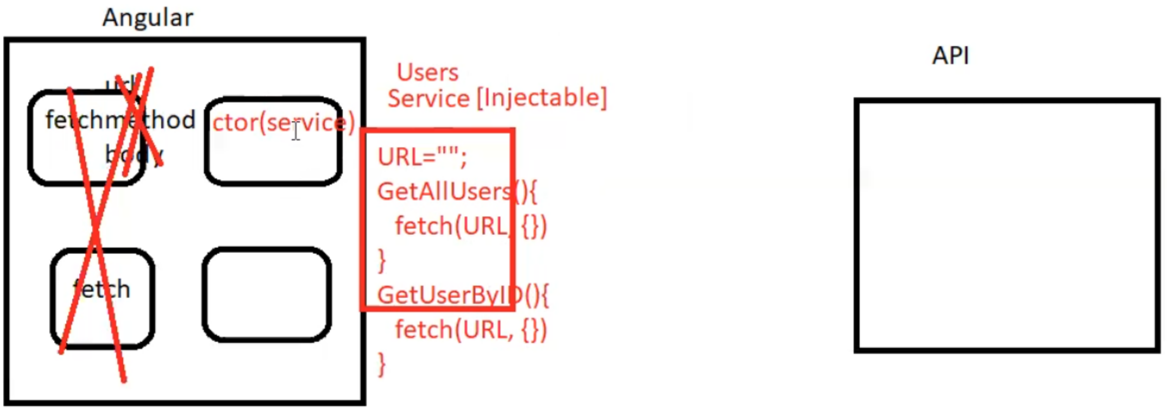


In Angular 💤

ال service هيا طريقة تكلم بيها ال Api انما هيا مش server

عشان تستخدم ال service لازم تعملها Inject جوا ال component وتعرفها As Property

ال service من نوع Injectable



```
URL="";
GetAllUsers(){
  fetch(URL, {})
}
GetUserByID(){
  fetch(URL, {})
}
```

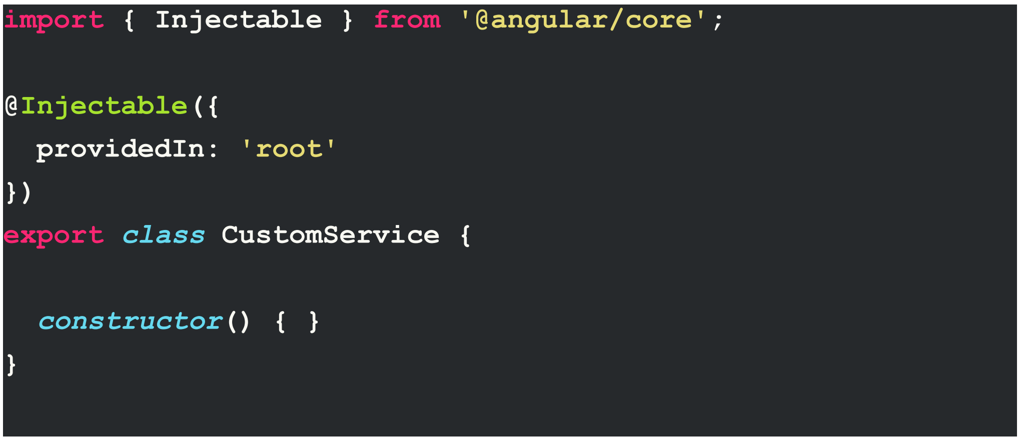
Ways for injection

- Property
- Method
- constructor

  How to create services?

  1. Create folder called Services

2. Open integrated terminal run this command ng g s name - -skip-tests

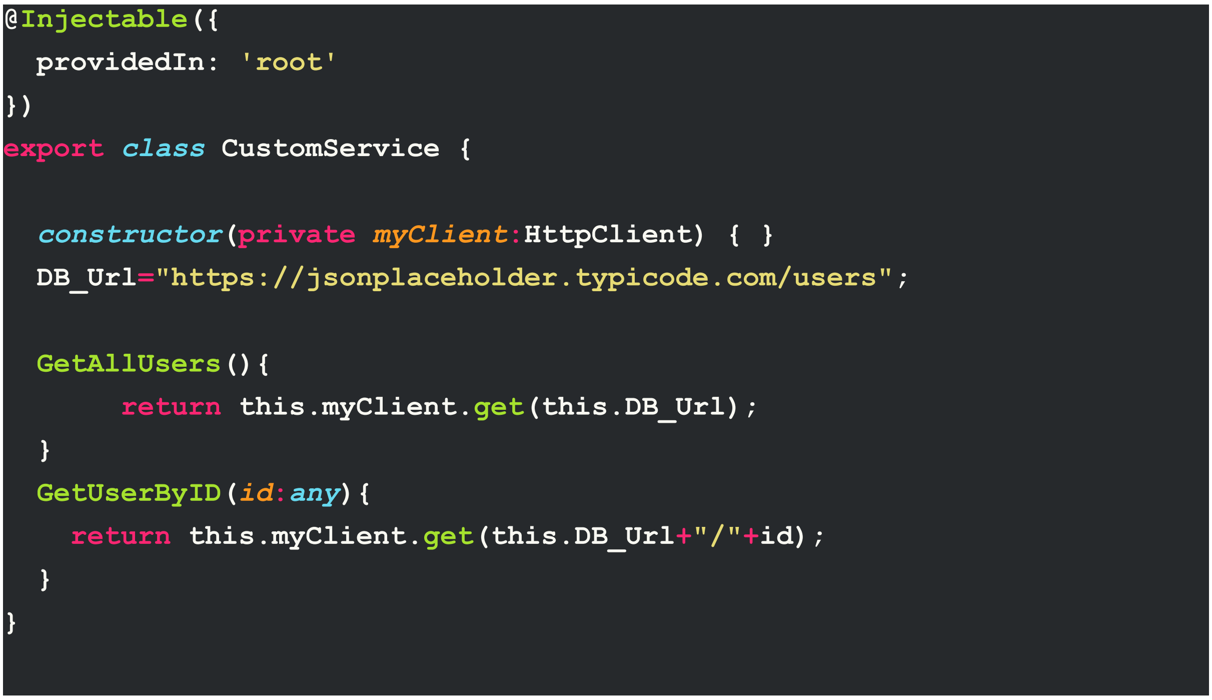


```
import { Injectable } from '@angular/core';

@Injectable({
  providedIn: 'root'
})
export class CustomService {

  constructor() { }
}
```

3. Use method service called Http request [HttpClientModule]//from @angular/common/http
4. Import at app.module
5. API URL “Fake APi” https://jsonplaceholder.typicode.com/users

In service:

Inject httpclient in constructor and add access modifier to make property that can use it inside the code

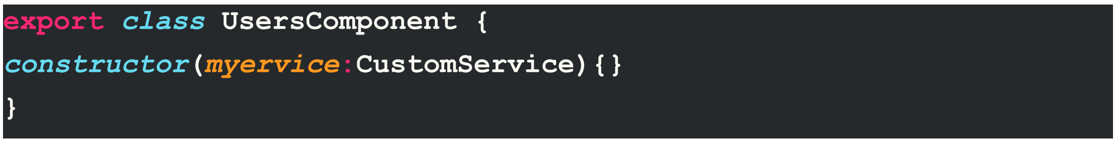


```
@Injectable({
  providedIn: 'root'
})
export class CustomService {

  constructor(private myClient:HttpClient) { }
  DB_Url="https://jsonplaceholder.typicode.com/users";

  GetAllUsers(){
        return this.myClient.get(this.DB_Url);
  }
  GetUserByID(id:any){
    return this.myClient.get(this.DB_Url+"/"+id);
  }
}
```

After creating service need to use it ba2a in our components

Steps:

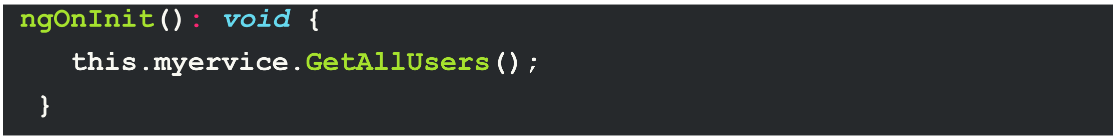
1. Inject service in the constructor of component



```
export class UsersComponent {
constructor(myervice:CustomService){}
}
```

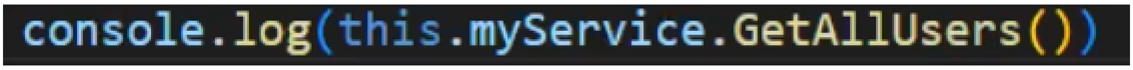
2. Use it on onInit function →can fetch api here

   By implements OnInit Interface



```
 ngOnInit(): void {
    this.myervice.GetAllUsers();
  }
```

لو عملنا console log ليها



```
console.log(this.myService.GetAllUsers())
```

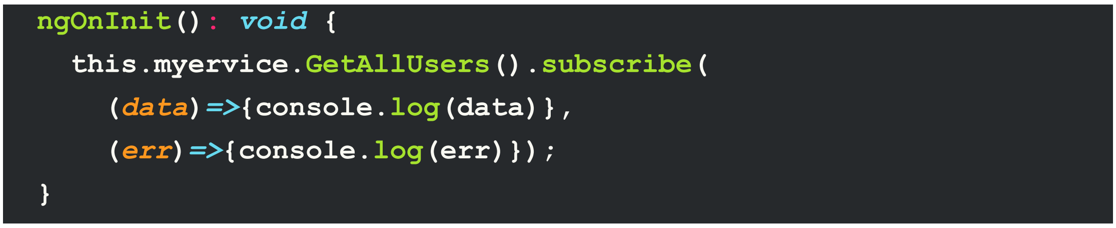
هترجع حاجة من نوع observable عنده prototype,source, operator

ال prototype عندها حاجات كتير اهمها

- constructor
- Subscribe→to send notification if new data added
- Topromise→ convert subscribe to promise

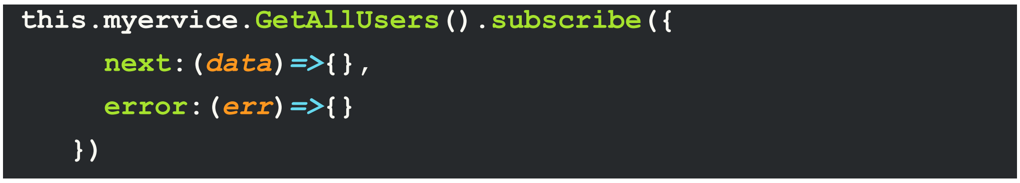
ال promise بترجع الداتا كلها مرة واحدة عن طريقdot thenوبعدين بيقفل ال connection

❖ Old implementation for subscribe take 2 call back function



```
  ngOnInit(): void {
    this.myervice.GetAllUsers().subscribe(
      (data)=>{console.log(data)},
      (err)=>{console.log(err)});
  }
```

❖ Now take object has 2 property (next,error)

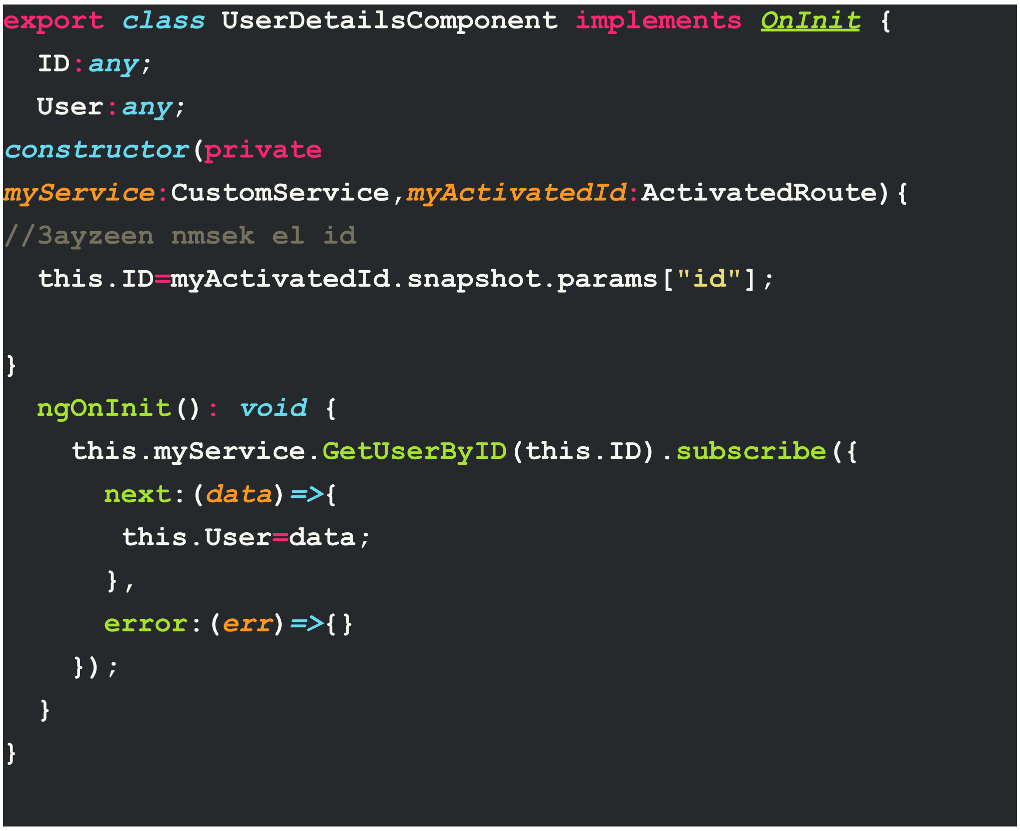


```
 this.myervice.GetAllUsers().subscribe({
      next:(data)=>{},
      error:(err)=>{}
    })
```

If made console log for data will return array of 10 objects *we need to loop on this data so saved it into array And do *ngFor in html to display all users in Users component

*Now deed to →select a specific user and display all details for it .

**In Constructor (ActivatedRoute⇒ID,Inject Service)



```
export class UserDetailsComponent implements OnInit {
  ID:any;
  User:any;
constructor(private
myService:CustomService,myActivatedId:ActivatedRoute){
//3ayzeen nmsek el id
  this.ID=myActivatedId.snapshot.params["id"];

}
  ngOnInit(): void {
    this.myService.GetUserByID(this.ID).subscribe({
      next:(data)=>{
       this.User=data;
      },
      error:(err)=>{}
    });
  }
}
```

بما ان احنا شغالين على fake api فمش نافع اعمل update , delete
or add on this data

الحل -? ن create our own object ونقومه ك fake server
Can do all Crud operation

Json Server →

1. npm i -g json-server
2. Create Folder Called it Data and create file.json
3. Open integrate terminal and run this command

3shan n2awm el server (json-server - -watch filename)

Note:

بدل فى ال routes بنعمل اتنين واحد فاضى عشان يفتح مثلا على students
ومرة كمان واحد بس مكتوب فيه students
دا بيسبب انة يعمل reload لـ component تانى
الحل

```
,{"path:"",redirectTo:"students",pathMatch:"full}
,{path:"students",component:StudentsComponent}
```

فى ال pathmatch ممكن تكون full او prefix
ال prefix ؟- لو جيت فى ال url وكتبت add مثلا هتلاقى قبلها student/add
لو مش عايزين كده نعملها full