# **PIPES**

## **Definition**

* Pipes in angular are small, reusable functions that transforms and format data within templates, allowing one to display information in more user-friendly and presentable ways.
* There are 2 types of pipes
  1. **Built-in Pipes** :
* Angular comes with a set of built-in pipes that you can use in your templates. Some common built-in pipes include **date**, **currency**, **uppercase**, **lowercase**, and **decimal**, among others.
* **Example :**

name = ‘Pipe’

name1 = ‘angular’

* 1. **Lowercase:** {{ name | lowercase }} 🡺 pipe
  2. **Uppercase:** {{ name | uppercase }} 🡺 PIPE
  3. **Titlecase:** {{ name1 | titlecase }} 🡺 Angular
  4. **Slice:**

{{ name1 | slice:3 }} 🡺ular

{{ name1 | slice:2:5 }} 🡺gul

* 1. **Json:**

messageClasses = {

    "text-sucess": “true”,

    "text-danger": “false”,

    "text-special": “true”

  }

{{ messageClasses }} 🡺 [object object]

{{ messageClasses | json }} 🡺 { "text-sucess": true, "text-danger": false, "text-special": true }

* 1. **Number:**

{{ 2.367 | number: ‘1.2-3’ }} 🡺 2.367

{{ 2.367 | number: ‘3.4-5’ }} 🡺 002.3670

{{ 2.367 | number: ‘3.1-2’ }} 🡺 002.37

* 1. **Percent :** {{ 0.25 | percent }} 🡺 25%
  2. **Currency:**

{{ 0.25 | currency }} 🡺 $0.25

{{ 0.25 | currency:'INR' }} 🡺 ₹0.25

{{ 0.25 | currency:'INR': 'code' }} 🡺 INR0.25

* 1. **Date:**

date = new Date()

{{date}}

{{date| date:'short'}}

{{date| date:'shortDate'}}

{{date| date:'shortTime'}}

{{date| date:'medium'}}

{{date| date:'mediumDate'}}

{{date| date:'mediumTime'}}

{{date| date:'long'}}

{{date| date:'longDate'}}

{{date| date:'longTime'}}

**Output**

Thu Oct 12 2023 02:52:23 GMT+0530 (India Standard Time)  
10/12/23, 2:52 AM  
10/12/23  
2:52 AM  
Oct 12, 2023, 2:52:23 AM  
Oct 12, 2023  
2:52:23 AM  
October 12, 2023 at 2:52:23 AM GMT+5  
October 12, 2023  
2:52:23 AM GMT+5

* 1. **Custom Pipes**
* Sometimes, the built-in pipes may not meet your specific requirements. You can create custom pipes by defining a class with the **Pipe** decorator and implementing the **PipeTransform** interface.
* **Example:** Custom pipe for square root
  1. Create a ts file **app.sqrt.ts**

import { Pipe, PipeTransform } from '@angular/core';

@Pipe({

name: ‘sqrt’

})

export class SqrtPipe implements PipeTransform {

transform(value: number): number {

return Math.sqrt(value);

}

}

* 1. Add **SqrtPipe** in declaration array in **app.module.ts**
  2. Now we can use it in our template

{{ 25 | sqrt }} 🡺 5