Front End Development 1
Sesi 22

Angular Pipes

Angular Pipes

Pipes merupakan fungsi sederhana dalam template expression yang menerima input dan me-return value input yang sudah diubah. (Formatting data)

Perubahan value ini akan ditampilkan / di-render di html. Menggunakan simbol **|.**

```
{{ input | pipeName }}
```

Macam-macam built-in pipes yang bisa digunakan antara lain: DatePipe, UpperCasePipe, LowerCasePipe, JsonPipe, CurrencyPipe, DecimalPipe, PercentPipe, dll. (Lebih detail, dapat dilihat di: https://angular.io/api/common#pipes)

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Pipes: DatePipe

```
export class AppComponent {
  birthday = new Date(1988, 3, 15); // April 15, 1988
}
```

```
<h2>Birthday DatePipe</h2>
<p>(1) The hero's birthday is {{ birthday }}</p>
<p>(2) The hero's birthday is {{ birthday | date }}</p>
<p>(3) The hero's birthday is {{ birthday | date: 'MM/dd/yy' }}</p>
```

Birthday DatePipe

(1) The hero's birthday is Fri Apr 15 1988 00:00:00 GMT+0700 (Western Indonesia Time)

(2) The hero's birthday is Apr 15, 1988

(3) The hero's birthday is 04/15/88

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Pipes: JSONPipe

```
heroes = [
  { id: 1, name: 'Dr Nice',   emotion: 'happy'},
  { id: 2, name: 'Narco',     emotion: 'sad' },
  { id: 3, name: 'Windstorm', emotion: 'confused' },
  { id: 4, name: 'Magneta'}
];
```

```
<h2>Heroes Display</h2>
<p> (1) The heroes: </p>
{{heroes}}

<p> (2) The heroes: </p>
{{heroes | json}}
```

Heroes Display

(1) The heroes:

[object Object],[object Object],[object Object],[object Object]

(2) The heroes:

[{ "id": 1, "name": "Dr Nice", "emotion": "happy" }, { "id": 2, "name": "Narco", "emotion": "sad" }, { "id": 3, "name": "Windstorm", "emotion": "confused" }, { "id": 4, "name": "Magneta" }]

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Pipes: Chaining

```
export class AppComponent {
  birthday = new Date(1988, 3, 15); // April 15, 1988
}
```

```
<h2>Birthday Pipe Chaining</h2>
<p>
  (1) The chained hero's birthday is
  {{ birthday | date | uppercase }}
</p>

<p>
  (2) The chained hero's birthday is
  {{ birthday | date: 'fullDate' | uppercase }}
</p>
```

Birthday Pipe Chaining

(1) The chained hero's birthday is APR 15, 1988

(2) The chained hero's birthday is FRIDAY, APRIL 15, 1988

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Pipes: Custom

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

@Pipe({name: 'customFileSizePipe'})

export class FileSizePipe implements PipeTransform {
  transform(size: number, extension: string = 'MB'): string {
    return (size / (1024 * 1024)).toFixed(2) + extension;
  }
}
```

Gunakan decorator **@Pipe** untuk mendefinisikan sebuah pipe. Dan cantumkan nama pipe. Nantinya nama pipe akan digunakan di template expression.

Gunakan PipeTransform untuk mendefinisi perubahan suatu value

```ts
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';

import { AppComponent } from './app.component';

import {FileSizePipe} from './file-size-pipe'


@NgModule({
  declarations: [
    AppComponent,
    FileSizePipe
  ],
  imports: [
    BrowserModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

Daftarkan custom pipe yang sudah dibuat ke app.module.

Referensi: https://angular.io/guide/pipes

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Pipes: Custom - Penggunaan

```html
<h2>Custom Pipe</h2>
<p>{{129392 | customFileSizePipe }}</p>
<p>{{5000 | customFileSizePipe:'GB' }}</p>
```

Custom Pipe

0.12MB

0.00GB

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