Tuesday: Pipes

Pipes

In Angular, a pipe takes in data as input and transforms it into the desired output. Imagine having a date that reads like this:

Fri Feb 15 1998 00:00:00 GMT-0700 (Pacific Daylight Time).

This date is a correct and viable date but it has too much detail. This same date in a simple and readable format would look something like this:

February 15, 1998

In Angular, we can do such transformations with the help of pipes. Angular has several inbuilt pipes that we can use. We can also create our own custom pipes if we want to. We'll use some inbuilt pipes first and later create our own custom pipes to understand what this really means.

In our case, we will use an inbuilt Angular pipe to simplify our dates. To do this, we'll add a completion date to our goal blueprint class so that each goal can have a `completeDate` property.

src/app/goal.ts

```
export class Goal {
  public showDescription: boolean;
  constructor(public id: number,public name: string,public description: string, public completeDat
e: Date){
    this.showDescription=false;
  }
}
```

We have added the `completeDate` property in our constructor for the goal blueprint and set its datatype to `Date`. We now need to update our `Goals` array to add a completion date to each goal.

src/app/goal/goal.component.ts

```
...
export class GoalComponent implements OnInit {

  goals: Goal[] = [
    new Goal(1, 'Watch finding Nemo', 'Find an online version and watch merlin find his son',new Da
te(2020,3,14)),
    new Goal(2,'Buy Cookies','I have to buy cookies for the parrot',new Date(2019,6,9)),
    new Goal(3,'Get new Phone Case','Diana has her birthday coming up soon',new Date(2022,1,12)),
    new Goal(4,'Get Dog Food','Pupper likes expensive snacks',new Date(2019,0,18)),
    new Goal(5,'Solve math homework','Damn Math',new Date(2019,2,14)),
    new Goal(6,'Plot my world domination plan','Cause I am an evil overlord',new Date(2030,3,14)),
  ];
...
```

The `Date` instance takes 3 arguments the first one is the year, the second argument is the month the third argument is the date. The month is calculated from 0-11 where 0 is January and 11 is December.

Let's now display the completion date along with our goals.

src/app/goal/goal.component.html

```
...
  <div *ngFor='let goal of goals;let i = index'>
    <li appStrikethrough>{{goal.name}} due on {{goal.completeDate}}</li>
...
```

We have added the completion date to our template beside the goal name. If we serve our application, we can see the completion date. This date does not look user-friendly, it looks complicated. Let's use the inbuilt date pipe in Angular to convert it to a readable format.

src/app/goal/goal.component.html

```
...
  <div *ngFor='let goal of goals;let i = index'>
    <li appStrikethrough>{{goal.name}} due on {{goal.completeDate|date}}</li>
...
```

If we look at our application now, the date is in a simpler format that looks user-friendly. We have added the date pipe `|date` in our template, which has converted the initial date we had to a simple readable format. The date pipe has made it simple for us to convert our date into a readable format.

Chaining Pipes

We can also chain pipes to extend the transformation of the input that we give to a pipe.

src/app/goal/goal.component.html

```
...
  <div *ngFor='let goal of goals;let i = index'>
    <li appStrikethrough>{{goal.name}} due on {{goal.completeDate|date|uppercase}}</li>
...
```

We have added the `uppercase` pipe to our completion date, which as the name suggests, converts the completion date to capital characters. When we serve our application, we see the date is now in all caps.