:enter, :leave animations

- There are two repeating scenarios when animating elements

  ▸ animating an entering element

  ▸ animating a leaving element

- Those kind of animation will direct the user attention to the change in the screen.

- In this lesson we will learn how to create those kind of animations

EX animate *ngIf

- Our first exercise for this lesson is to practice basic entering and leaving element.

- We will create a simple component and a text, the text will have an *ngIf that when clicking the button will be toggled true/false

- The text will have an entering and exiting animation.

* => void, void => *, :enter, :leave

- Angular defines an animation state of **void**, when the element is removed

- Angular defines a catch all state with *

- in the **transition** you can specify *** => void** to specify a remove of an elements

- in the **transition** you can specify **void => *** to specify animation for entering element

- Angular provide shortcuts for entering and leaving animations: **:enter, :leave**

```
import { style } from '@angular/animations';


style({
  opacity: 1
})
```

fadeInLeft, fadeOutRight

- so a transition for entering and leaving element with a fade and movement can look like this:

```
transition(':enter', [
    style({
        opacity: 0,
        transform: 'translate3d(-100%, 0, 0)'
    }),
    animate('2s ease-out', style({
        opacity: 1,
        transform: 'translate3d(0, 0, 0)'
    }))
]),
```

```
transition(':leave', [
    style({
        opacity: 1,
        transform: 'translate3d(0, 0, 0)'
    }),
    animate('2s ease-in', style({
        opacity: 0,
        transform: 'translate3d(100%, 0, 0)'
    }))
])
```

keyframes

- **keyframes** are attached to the **animate** to specify steps along the animation

- similar to **@keyframes** in **css**

- you can specify offset to specify the percentage when this keyframe is applied

EX Bouncing effect

- using the **keyframes** we can add a bouncing effect to our enter animation

```
transition(':enter', [
  animate('1s ease-out', keyframes([
    style({
      opacity: 0,
      transform: 'translate3d(-100%, 0, 0)',
      offset: 0
    }),
    style({
      transform: 'translate3d(5%, 0, 0)',
      offset: 0.9,
      opacity: 0.9,
    }),
    style({
      opacity: 1,
      transform: 'translate3d(0, 0, 0)',
      offset: 1
    })
  ]))
])
```

Summary

- In this lesson we learned how angular gives us tools to transition enter and leave animation for elements

- On the next lesson we will take it a bit further and learn to add the principles we learned to animate a list of elements.