



ANGULAR 2 FUNDAMENTALS

December 13, 2017

PART 6

PROJECT 1: IMAGE GALLERY

➤ BUILD A NEW ANGULAR APP

```
#ng new nggallery --prefix ng
```

```
# cd nggallery
```

```
# ng serve
```

MAINPAGE

Welcome to ng!



INTEGRATE THE FOLLOWING

- Install bootstrap
- Install query
- Run again

CREATE A NAVIGATION BAR

- `ng g c navbar -is --flat`
- `is` (inline style), `flat` (no folder will be created)
- `ng generate c —help`

IN THE NAVBAR HTML

```
<!-- Fixed navbar -->
<nav class="navbar navbar-inverse navbar-fixed-top">
  <div class="container">
    <div class="navbar-header">
      <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#navbar" aria-expanded="false" aria-controls="navbar">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a class="navbar-brand" href="#">Bootstrap theme</a>
    </div>
    <div id="navbar" class="navbar-collapse collapse">
      <ul class="nav navbar-nav">
        <li class="active"><a href="#">Home</a></li>
        <li><a href="#about">About</a></li>
        <li><a href="#contact">Contact</a></li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown" role="button" aria-haspopup="true" aria-expanded="false">Dropdown <span class="caret"></span></a>
          <ul class="dropdown-menu">
            <li><a href="#">Action</a></li>
            <li><a href="#">Another action</a></li>
            <li><a href="#">Something else here</a></li>
            <li role="separator" class="divider"></li>
            <li class="dropdown-header">Nav header</li>
            <li><a href="#">Separated link</a></li>
            <li><a href="#">One more separated link</a></li>
          </ul>
        </li>
      </ul>
    </div><!-- /.nav-collapse -->
  </div>
</nav>
```

In the bootstrap template get fixed nabber till the end nav

THE TEMPLATE TO BE USED

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Bootstrap theme

Home

About

Contact

Dropdown ▾

Theme example

This is a template showcasing the optional theme stylesheet included in Bootstrap. Use it as a starting point to create something more unique by building on or modifying it.

Buttons

Default

Primary

Success

Info

Warning

Danger

Link

Default

Primary

Success

Info

Warning

Danger

Link

Default

Primary

Success

Info

Warning

Danger

Link

IN APP.COMPONENT.HTML

➤ Delete everything and add

`<ng-navbar> </ng-navbar>`

NO WE BUILD OUR GALLERY

➤ ng g c gallery

GALLERY.COMPONENT.HTML

```
<div class="container">
  <div class="row">
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
    <a href="#"><div class="col-md-3 col-sm-4 col-xs-6"></div></a>
  </div>
</div>
```

GALLERY.COMPONENT.CSS

```
img {  
  -webkit-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);  
  -moz-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);  
  box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);  
  margin-bottom: 20px;  
}  
  
img:hover {  
  filter: gray; /* IE6-9 */  
  -webkit-filter: grayscale(1); /* Google Chrome, Safari 6+ & Opera 15+ */  
}
```

ADD TO APP.COMPONENT.HTML

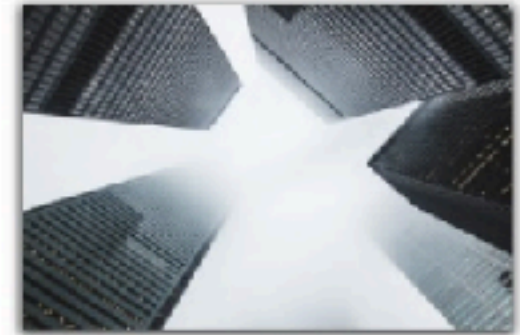
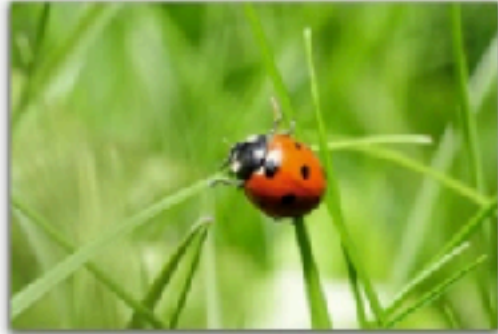
➤ `<ng-gallery> </ng-gallery>`

APP.COMPONENT.HTML

```
<ng-navbar></ng-navbar>  
<ng-gallery></ng-gallery>
```


HOW IT SHOULD LOOK

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BUT WAIT

- To harness the power of angular we should not put all in on file and not hard code the image links.
- Lets do it the angular way and separate it by components
 - Image list component (stores a collection of images)
 - Image component (stores a single image)

CREATE IMAGE LIST COMPONENT

- `cd src/app/gallery`
- `ng g c image-list -is`

CREATE IMAGE COMPONENT

- `cd image-list`
- `ng g c image -is —flat`

CREATE IMAGE MODEL IN TYPESCRIPT

- `cd ../../`
- `mkdir models`
- `cd models`
- `ng g cl image`
- A new file `image.ts` was created

IMAGE.TS

```
export class Image {  
  constructor(public id:string, public title:string, public description:string, public  
  thumbnail:string, public imageLink:string) {  
  }  
}
```


THE CLASS WILL CONTAIN THE FOLLOWING

- id: ID of the image.
- title: The title of the image.
- description: description of the image.
- thumbnail: the image's thumbnail link.
- imageLink: the direct link to the image.

UPDATE THE IMAGE LIST COMPONENT

- Open gallery.component.html and paste it in image-list/image-list.component.html
- On gallery.component.html replace everything with
 - `<ng-image-list> </ng-image-list>`

WILL UPDATE AGAIN

- Open `image-list.component.html` and move all code to `image.component.html`

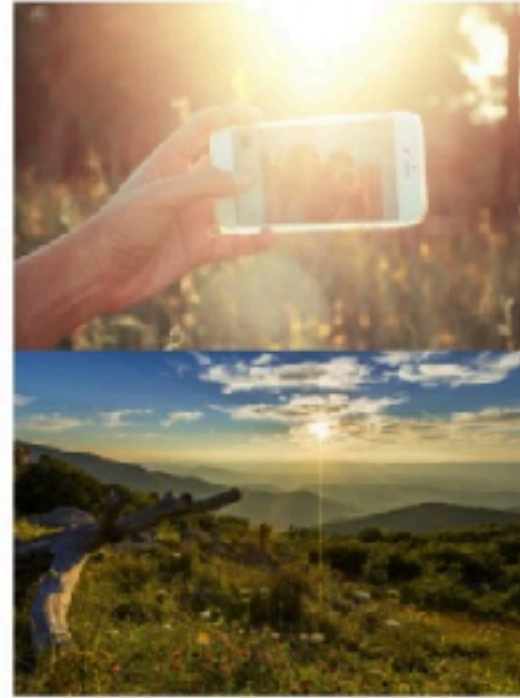
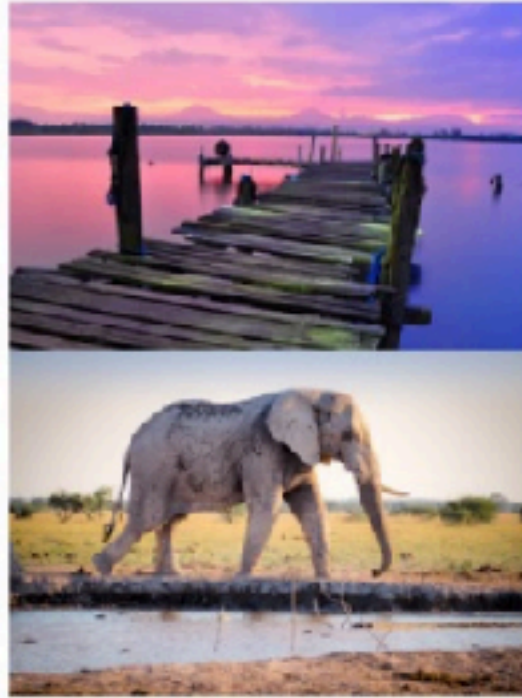
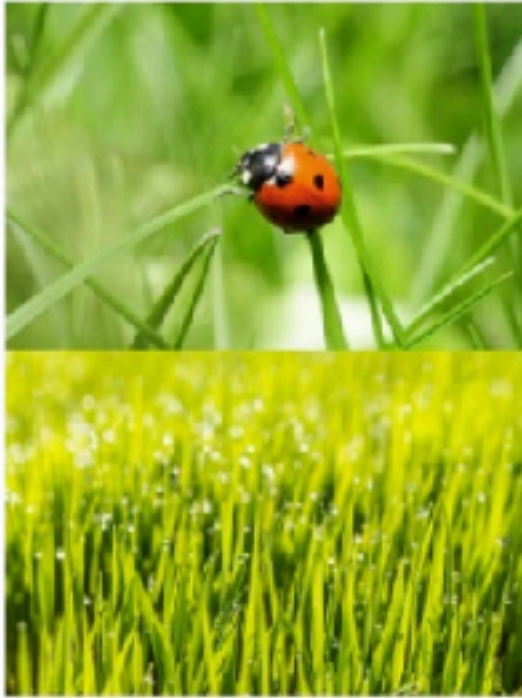
WILL UPDATE AGAIN

- Open image-list.component.html and replace all with

```
<div class="container">  
  <div class="row">  
    <ng-image></ng-image>  
  </div>  
</div>
```

VISIT APP

.....



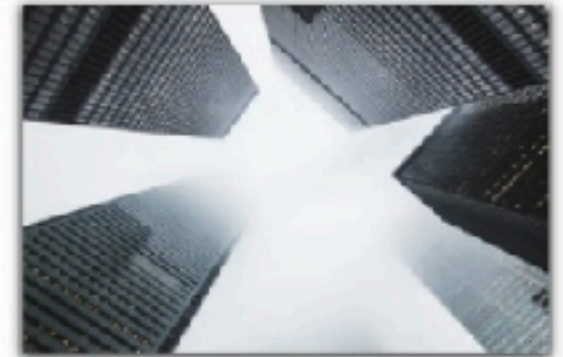
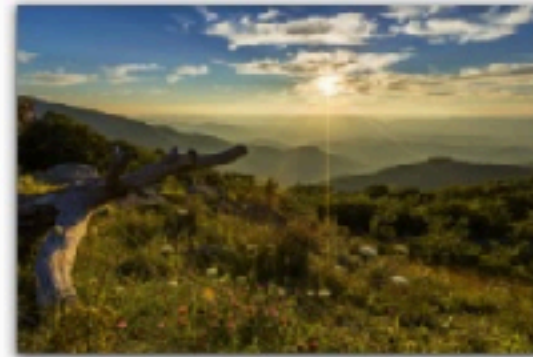
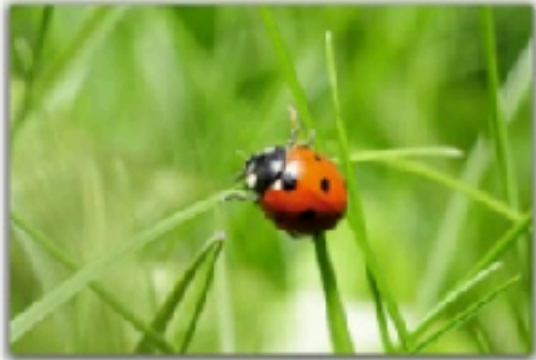
CSS RULES NOT WORKING EDIT IMAGE.COMPONENT.TS

```
@Component({
  selector: 'ng-image',
  templateUrl: './image.component.html',
  styles: [`
    img {
      -webkit-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      -moz-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      margin-bottom: 20px;
    }

    img:hover {
      filter: gray; /* IE6-9 */
      -webkit-filter: grayscale(1); /* Google Chrome, Safari 6+ & Opera 15+ */
    }
  `]
})
```


CHECK AGAIN

.....



OPEN IMAGE-LIST.COMPONENT.TS

➤ Find:

```
import { Component, OnInit } from '@angular/core';
```

➤ Add below:

```
import { Image } from '../models/image';
```

➤ We use import to get image model now we use it:

➤ Find:

```
export class ImageListComponent implements OnInit {
```

IMAGE MODEL

➤ Add below:

```
image = new Image ('1', 'First image', 'First image description', 'https://angularbooks.com/  
img/angular4/img1.jpg', 'https://angularbooks.com/img/angular4/img1-1.jpg');
```

UPDATED IMAGE LIST COMPONENTS

```
import { Component, OnInit } from '@angular/core';
import { Image } from '../../models/image';

@Component({
  selector: 'ng-image-list',
  templateUrl: './image-list.component.html',
  styles: []
})
export class ImageListComponent implements OnInit {
  image = new Image ('1', 'First image', 'First image description', 'https://angularbooks.com/img/angular4/img1.jpg', 'https://angularbooks.com/img/angular4/img1-1.jpg');

  constructor() { }

  ngOnInit() {
  }
}
```

OPEN IMAGE-LIST COMPONENT

- Change: `<ng-image> </ng-image>`
- To: `<ng-image [image]="image"> </ng-image>`
- Remember ? (input/property binding)

OPEN IMAGE COMPONENT

➤ Find:

```
import {Component, OnInit} from '@angular/core';
```

➤ Modify to:

```
import {Component, OnInit, Input} from '@angular/core';  
import { Image } from '../models/image';
```


WE CAN GET DATA IN IMAGE COMPONENT

```
export class ImageComponent implements OnInit {  
  @Input() image: Image;  
  
  constructor() { }  
  
  ngOnInit() {  
  }  
  
}
```

THE UPDATED IMAGE.COMPONENT.TS

```
import {Component, OnInit, Input} from '@angular/core';
import { Image } from '../models/image';

@Component({
  selector: 'ng-image',
  templateUrl: './image.component.html',
  styles: [`
    img {
      -webkit-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      -moz-box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      box-shadow: 0px 1px 6px 1px rgba(0,0,0,0.75);
      margin-bottom:20px;
    }

    img:hover {
      filter: gray; /* IE6-9 */
      -webkit-filter: grayscale(1); /* Google Chrome, Safari 6+ & Opera 15+ */
    }
  `]
})
```

THE UPDATED IMAGE.COMPONENT.TS CONTINUED

```
export class ImageComponent implements OnInit {  
  @Input() image: Image;  
  constructor() { }  
  
  ngOnInit() {  
  }  
  
}
```

IMAGE.COMPONENT.HTML

```
<a href="#">
  <div class="col-md-3 col-sm-4 col-xs-6"></div>
</a>
```

CHECK BROWSER



CREATING A LIST OF IMAGES

- Open image-list.component.ts
- Find:

```
image = new Image ('1', 'First image', 'First image description', 'https://angularbooks.com/img/angular4/img1.jpg', 'https://angularbooks.com/img/angular4/img1-1.jpg');
```

- Replace:

```
images: Image[] = [  
  new Image('1', 'First image', 'First image description', 'https://angularbooks.com/img/angular4/img1.jpg', 'https://angularbooks.com/img/angular4/img1-1.jpg'),  
  new Image('2', 'Second image', 'Second image description', 'https://angularbooks.com/img/angular4/img2.jpg', 'https://angularbooks.com/img/angular4/img2-1.jpg'),  
  new Image('3', 'Third image', 'Third image description', 'https://angularbooks.com/img/angular4/img3.jpg', 'https://angularbooks.com/img/angular4/img3-1.jpg'),  
  new Image('4', 'Fourth image', 'Fourth image description', 'https://angularbooks.com/img/angular4/img4.jpg', 'https://angularbooks.com/img/angular4/img4-1.jpg'),  
  new Image('5', 'Fifth image', 'Fifth image description', 'https://angularbooks.com/img/angular4/img5.jpg', 'https://angularbooks.com/img/angular4/img5-1.jpg'),  
  new Image('6', 'Sixth image', 'Sixth image description', 'https://angularbooks.com/img/angular4/img6.jpg', 'https://angularbooks.com/img/angular4/img6-1.jpg'),  
  new Image('7', 'Seventh image', 'Seventh image description', 'https://angularbooks.com/img/angular4/img7.jpg', 'https://angularbooks.com/img/angular4/img7-1.jpg'),  
  new Image('8', 'Eighth image', 'Eighth image description', 'https://angularbooks.com/img/angular4/img8.jpg', 'https://angularbooks.com/img/angular4/img8-1.jpg'),  
];
```

USING NGFOR NOW:

➤ Open image-list.component.html

➤ Find:

```
<ng-image [image]="image"></ng-image>
```

➤ Replace:

```
<ng-image *ngFor="let image of images" [image]="image"></ng-image>
```

END OF PART 6