



Building Web Apps With Angular 2

About myself

Front-end engineer with @WalmartLabs
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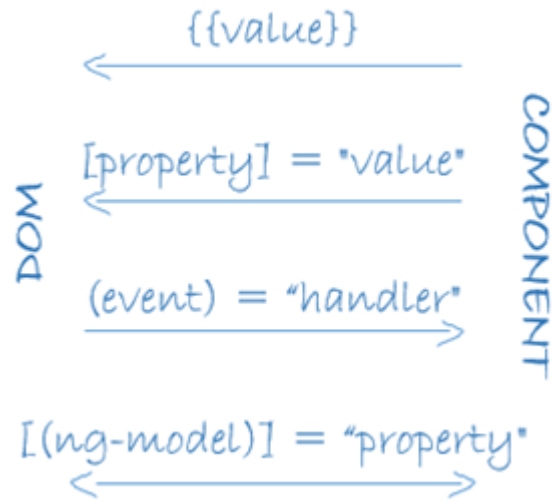
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Differences in Angular 1.x vs. 2

- More language choices (ES5, ES6, Dart, Typescript)
- Filters are now called pipes. Many filters are still available
- Controllers no longer exist, now it's all about components
- No more `$scope` or `$watch`

Changes in directives (structural, attribute):

Angular 1.x	Angular 2
ng-repeat	*ngFor="let movie of movies"
ng-if	*ngIf="some truthy falsey value"
ng-class	[class.some-class]="some truthy falsey value"
ng-hide	[hidden]="some truthy falsey value"
ng-click	(click)="eventHandlerInComponent()"
ng-model (2 way data binding)	[(ngModel)]="obj.value"



...And a new type of directive is components!

High level overview of Angular 2 app architecture

Modules

```
import { NgModule } from '@angular/core';
import { Service } from '../service';
import { Component } from '../component';
import { Routing } from '../routing';

@NgModule({
  imports:      [ Routing ],
  declarations: [ Component ],
  exports:      [ /* ... */ ],
  providers:    [ Service ]
})
export class Module { }
```

Components

```
import { Component, OnInit, Input } from '@angular/core';
import { FooService } from '../services';
@Component({
  selector: 'my-app',
  styleUrls: ['./home.component.css'],
  template: '{{foo}}'
})
export class HomeComponent implements OnInit {
  foo: string = 'foo';
  constructor(private _fooService: FooService) { }
  ngOnInit() {
    console.log('component initialized');
  }
  someMethod() { /*code for method*/ }
}
```


Component Interaction

```
import { Component, OnInit, Input } from '@angular/core';
@Component({
  selector: 'parent-component',
  template: `<child-component [conf]="conf"
    (onButtonClicked)="outputMessage($event)">
  </child-component>`
})
export class ParentComponent {
  conf: string = 'Windy City DevCon 2016';
  outputMessage(msg: String){console.log(msg);}
}
```

```
import { Component, OnInit, Input, EventEmitter, Output } from
  '@angular/core';
@Component({
  selector: 'child-component',
  template: `<p>{{conf}}</p>
  <button (click)="buttonHandler()">Sends event to parent</button>`
})
export class ChildComponent {
  @Input() conf: String;
  @Output() onButtonClicked = new EventEmitter <string>();
  buttonHandler() {
    this.onButtonClicked.emit('button clicked in child');}
}
```

Rollback

16⁸⁸

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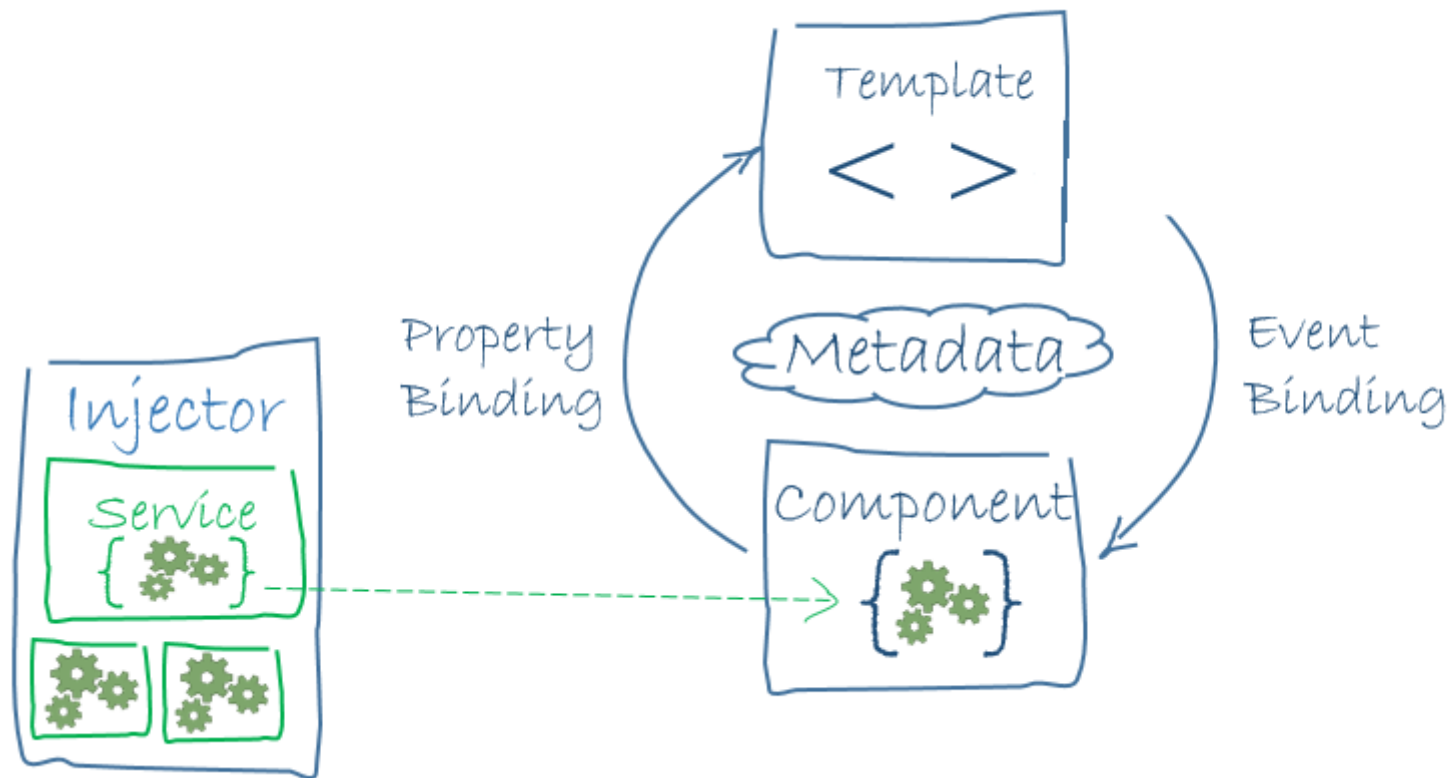
COVERGIR Eyeshadow

\$9.98

★★★★★

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Services



Service:

```
import { Injectable } from '@angular/core';
@Injectable()
export class FooService {
  conference = 'WindyCity DevCon 2016';
}
```

Component:

```
import { Component, OnInit, Input } from '@angular/core';
import { FooService } from '../services';
@Component({
  selector: 'my-app',
  styleUrls: ['./home.component.css'],
  template: 'Welcome to {{_fooService.conference}}'
})
export class HomeComponent implements OnInit {
  constructor(private _fooService: FooService) { }
  ngOnInit() {
    console.log(_fooService.conference); //WindyCity DevCon 2016
  }
}
```

Observables

```
import { Injectable } from '@angular/core';
import { Http, Response, Headers } from '@angular/http';
import { Observable } from 'rxjs/Rx';
@Injectable()
export class TodoService {
  baseUrl = 'http://www.api-url.com/data';
  constructor(private _http: Http) { }
  getData() {
    return this._http.get(this.baseUrl)
      .map((res: Response) => res.json());
  }
}
```

```
import { Component, OnInit, Input } from '@angular/core';
import { FooService } from '../services';
@Component({...})
export class HomeComponent implements OnInit {
  constructor(private _fooService: FooService) { }
  ngOnInit() {
    this._fooService.getData().subscribe(
      data => { this.someData = data; }
    );
  }
}
```

Forms

Template driven

```
<form (submit)="onSubmit()" #mysimpleform="ngForm">
  <div class="form-group">
    <label for="item">Name:</label>
    <input type="text" required=""
      [(ngModel)]="model.name" name="name"
      #name="ngModel" class="form-control"/>
    <div [hidden]="name.valid || name.pristine">
      Name is required
    </div>
  </div>
  <button type="submit" [disabled]="!mySimpleForm.form.valid">
    Register!
  </button>
</form>
```

Model Driven / Reactive

```
<form (submit)="onSubmit()" [formgroup]="form">
  <div class="form-group">
    <label for="item">Name:</label>
    <input type="text" formcontrolname="name">
  </div>
  <button type="submit" [disabled]="!form.valid">Register!</button>
</form>
```

```
import { FormGroup, FormControl, Validators, FormBuilder }
  from '@angular/forms';
@Component({...})
export class ModelDrivenForm {
  form: FormGroup;
  constructor(fb: FormBuilder) {
    this.form = fb.group({
      "name":["", Validators.required]
    });
  }
  ...
}
```


Awesome resources to get you started with Angular 2 today

- **<https://cli.angular.io/>**
- 5 min. quick start guide -
<https://angular.io/docs/ts/latest/quickstart.html>
- Framework updates - **<https://angularjs.blogspot.com/>**
- Todo App w/ Angular 2.0.0 - **<https://github.com/shansm/todo-app>**
- Upgrading from 1.x to 2 -
<https://angular.io/docs/ts/latest/guide/upgrade.html>