



Visual Studio **LIVE!** | San Diego
EXPERT SOLUTIONS FOR .NET DEVELOPERS

Angular 101

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Developer | Author | MVP | GDE
InStep Technologies, Inc

Level: Beginner

Code Again for the First Time!

Visual Studio 25 YEARS OF CODING INNOVATION

Deborah Kurata

Developer

Angular v2 Documentation Team Member (angular.io)

Pluralsight Author

- Angular Getting Started

- Angular Reactive Forms

- Angular Routing

- Angular Component Communication

- Angular NgRx: Getting Started

- C# Best Practices

Microsoft Most Valuable Professional (**MVP**)

Google Developer Expert (**GDE**)

[@deborahkurata](https://twitter.com/deborahkurata)



<https://github.com/DeborahK/MovieHunter>



Rate Yourself on Angular
AngularJS



What is Angular?



Web Browser

Web Server

SPA

(https://mysite)

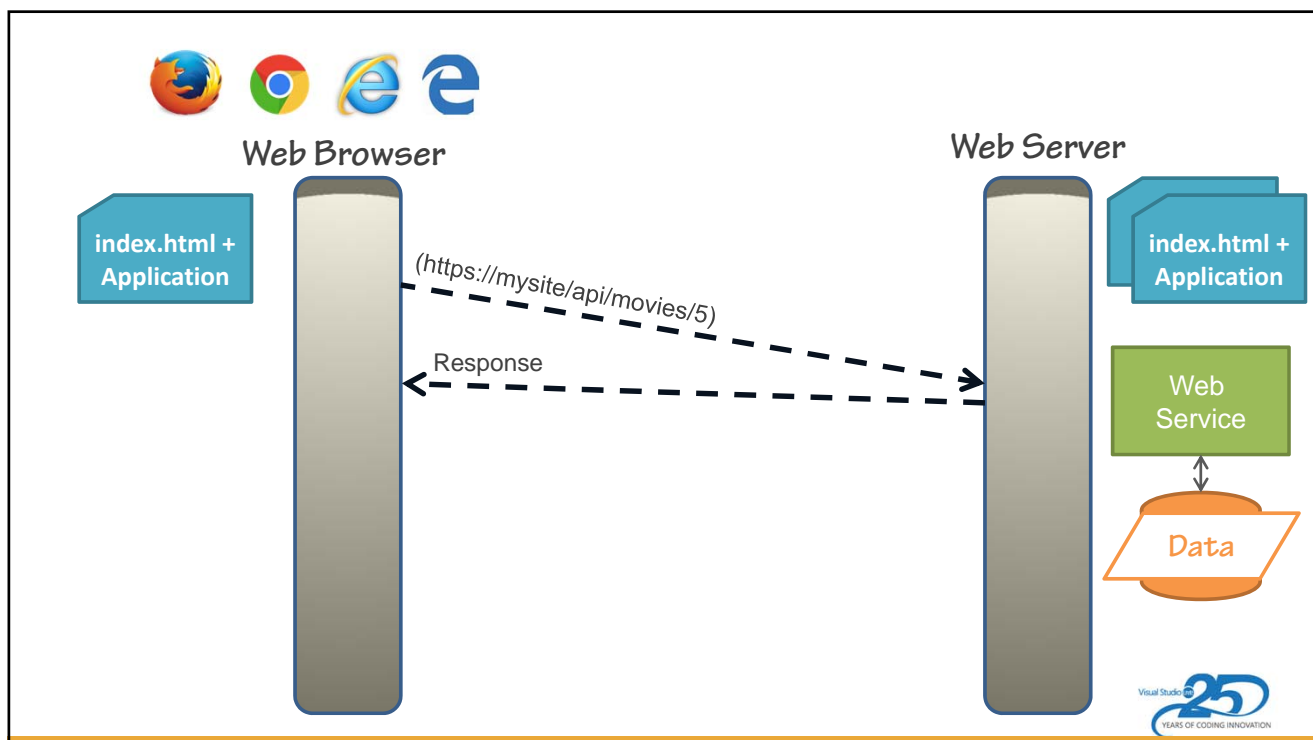
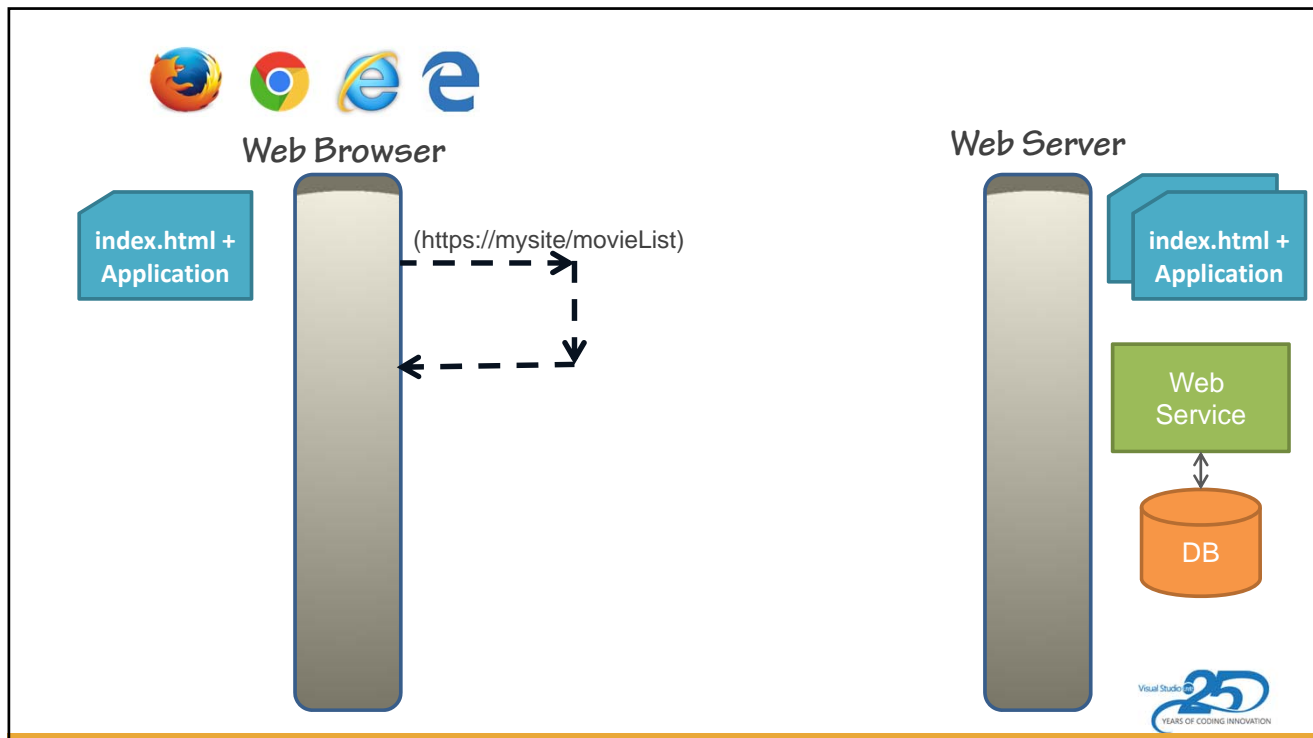
Response

index.html +
Application

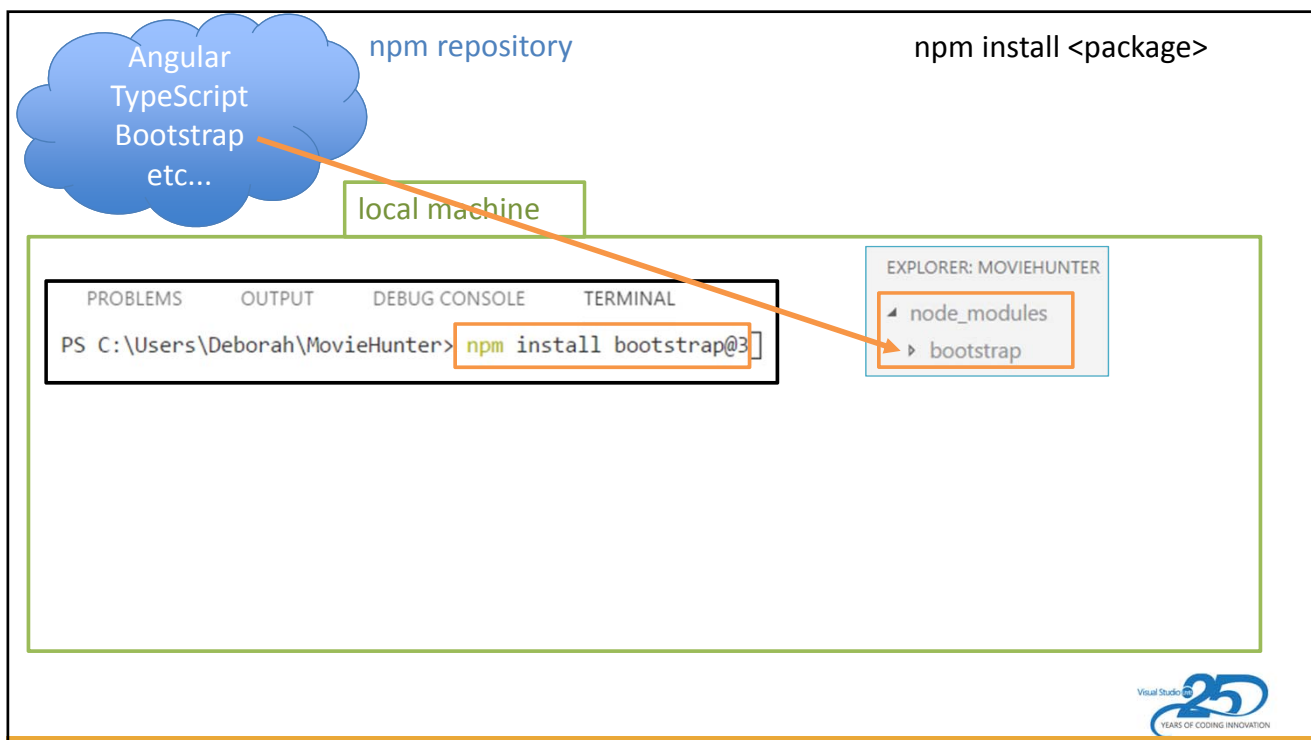
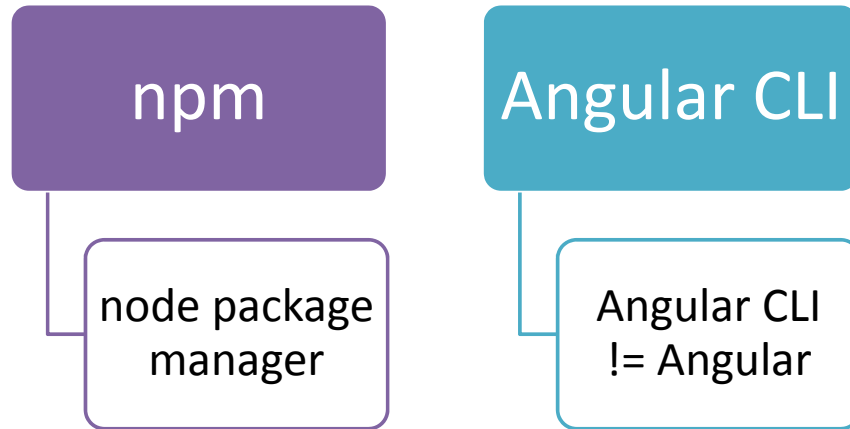
Web
Service

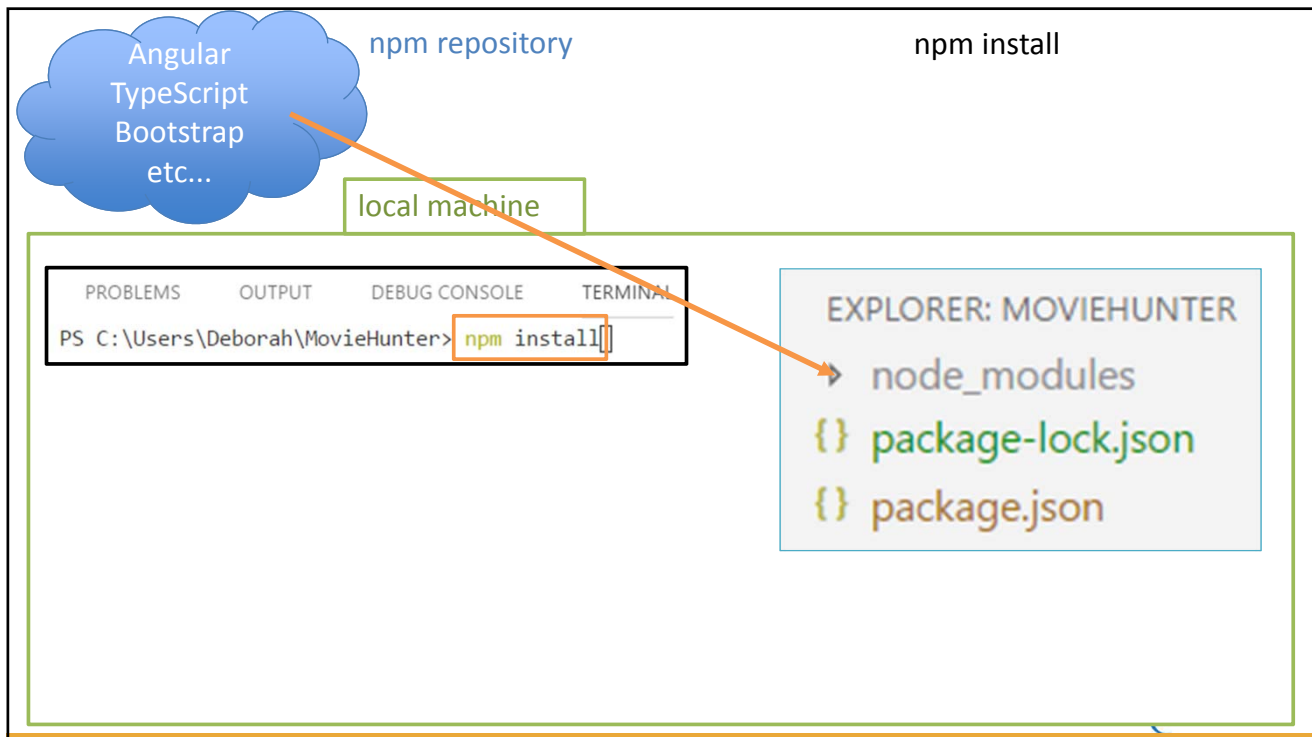
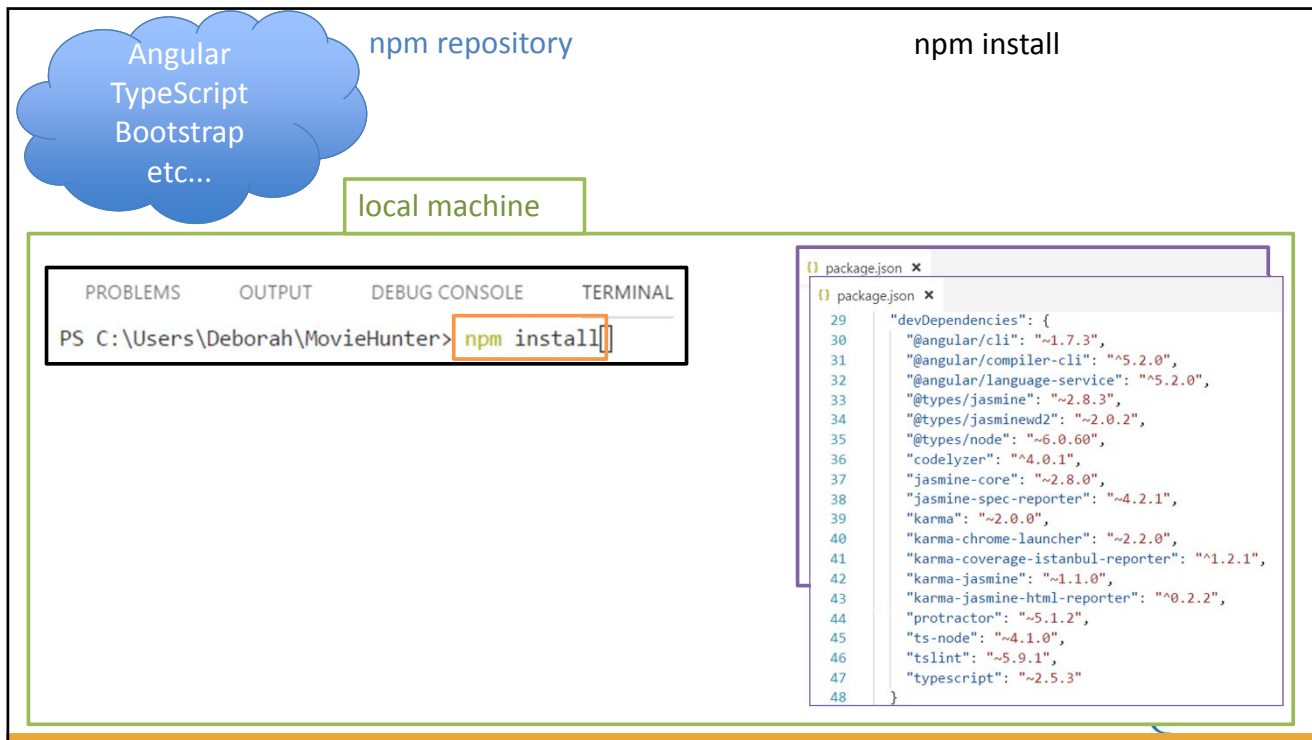
DB

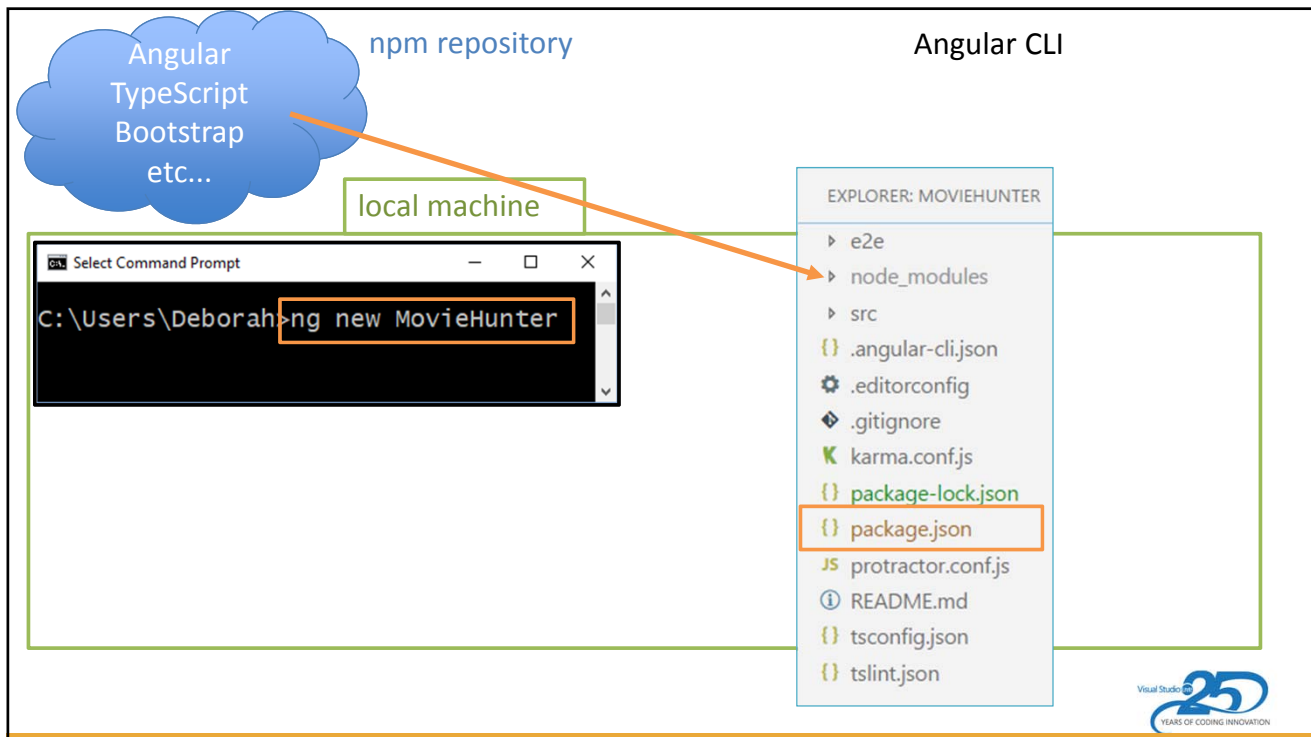
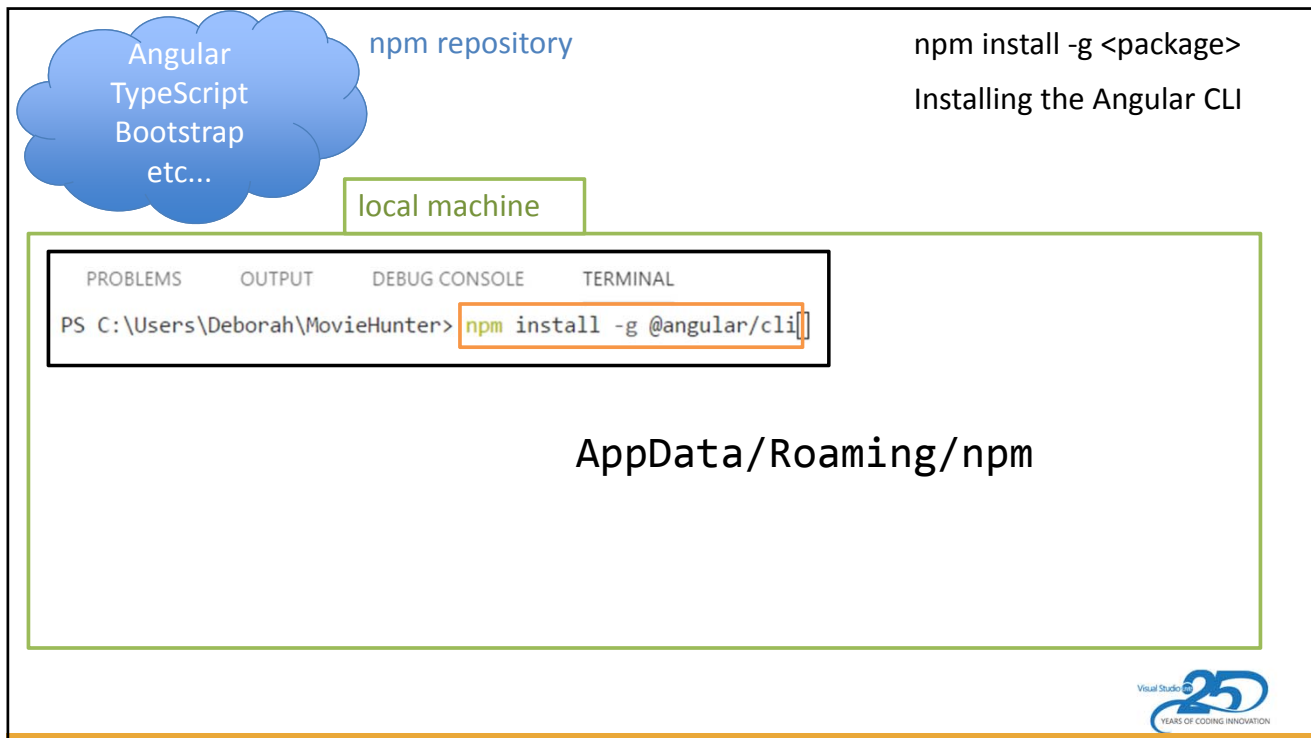




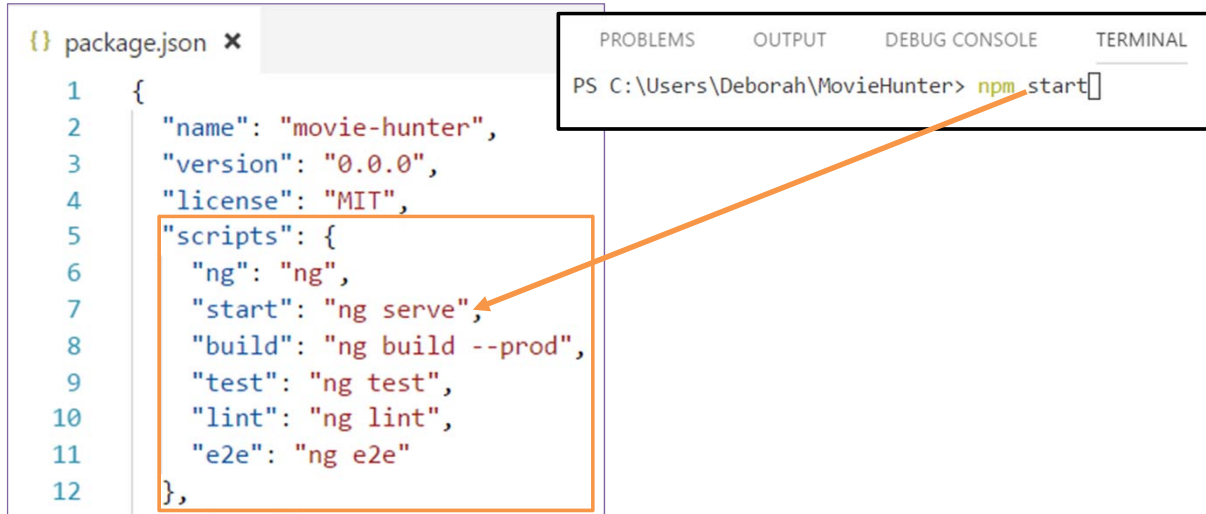
Prerequisites







package.json Scripts



```
{} package.json x
1  {
2    "name": "movie-hunter",
3    "version": "0.0.0",
4    "license": "MIT",
5    "scripts": {
6      "ng": "ng",
7      "start": "ng serve",
8      "build": "ng build --prod",
9      "test": "ng test",
10     "lint": "ng lint",
11     "e2e": "ng e2e"
12   },

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\Deborah\MovieHunter> npm start



Demo



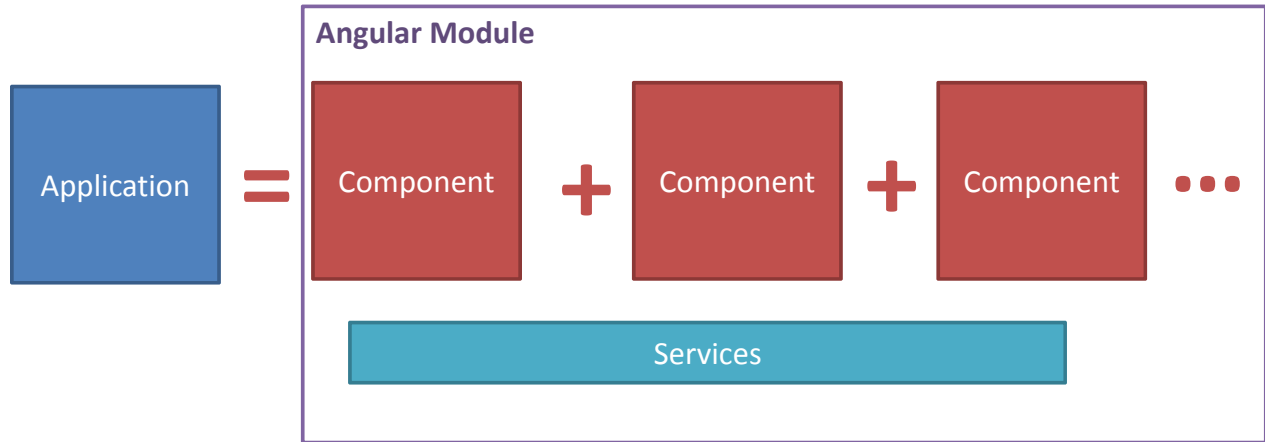
Angular CLI

ng new movieHunter

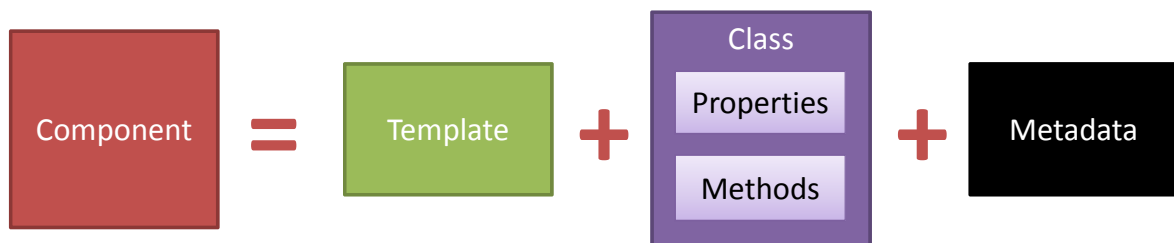
ng new movieHunter --skip-install



Angular Application



Component

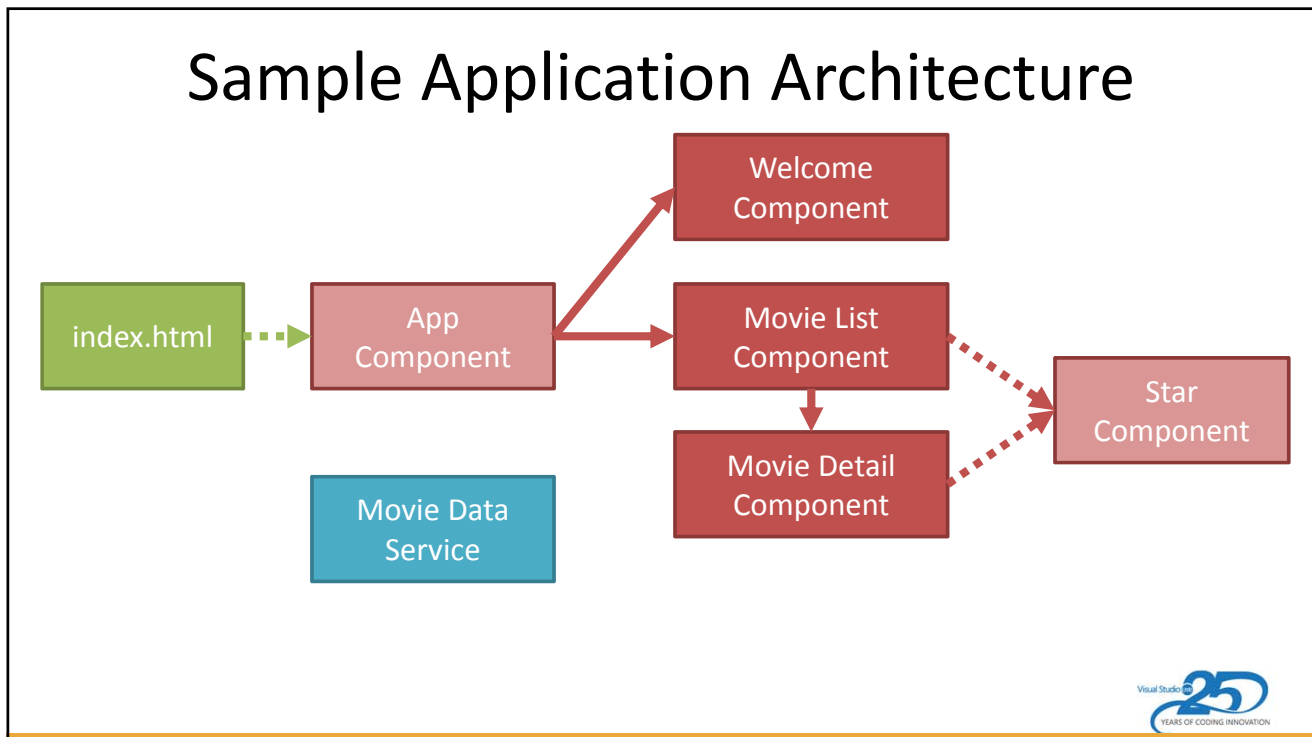


Demo



MovieHunter Sample Application





Component

app.component.ts

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

ES 2015
Import Syntax

```
@Component({  
  selector: 'app-root',  
  template: `  
    <div><h1>{{pageTitle}}</h1>  
      <div>My First Component</div>  
    </div>  
  `,  
})
```

Metadata:
Component
Decorator

```
export class AppComponent {  
  pageTitle: string = 'InStep Movie Hunter';  
}
```

ES 2015
Class Syntax



Hosting the Application

index.html

```
<body>  
  <app-root></app-root>  
</body>
```

app.component.ts

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

```
@Component({  
  selector: 'app-root',  
  template: `  
    <div><h1>{{pageTitle}}</h1>  
      <div>My First Component</div>  
    </div>  
  `,  
})
```

```
export class AppComponent {  
  pageTitle: string = 'InStep Movie Hunter';  
}
```



Template

app.component.ts

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

@Component({
  selector: 'app-root',
  template: `
    <div><h1>{{pageTitle}}</h1>
      <div>My First Component</div>
    </div>
  `
})
export class AppComponent {
  pageTitle: string = 'InStep Movie Hunter';
}
```



Template

Simple HTML

```
template:
"<h1>{{pageTitle}}</h1>"
```

Multi-line HTML

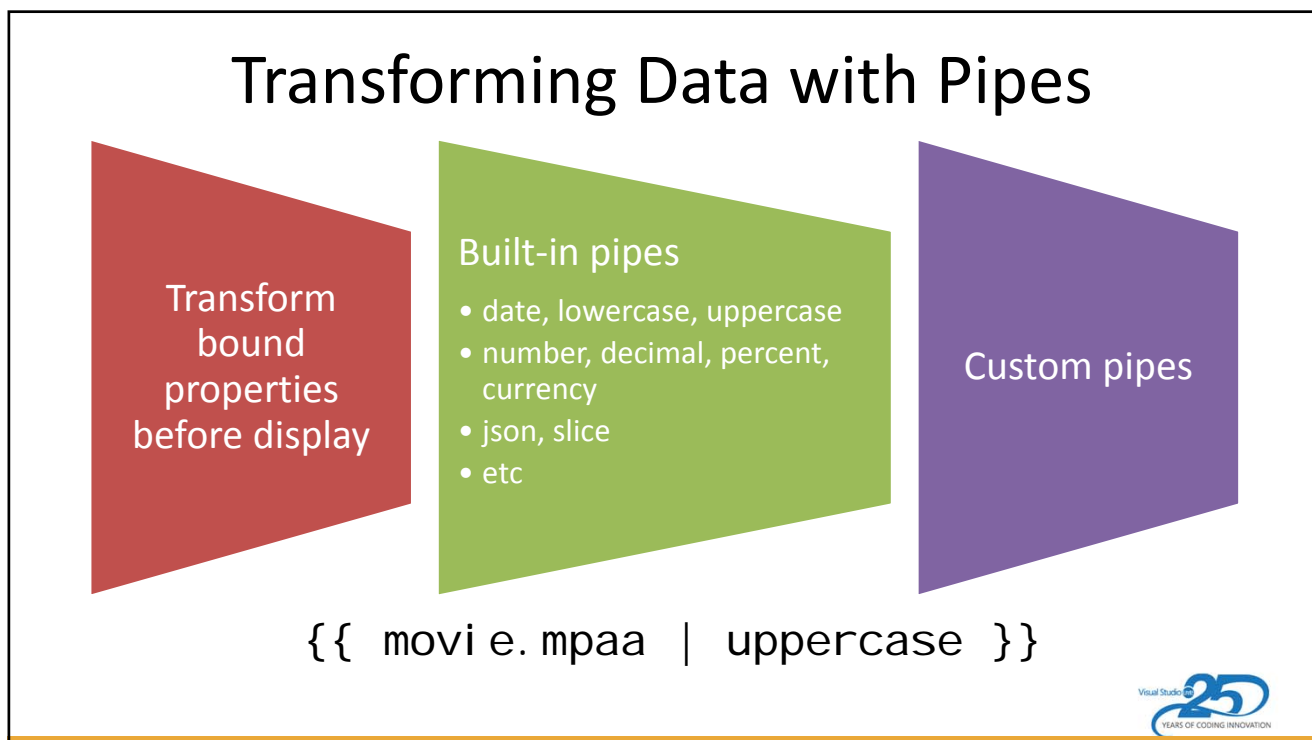
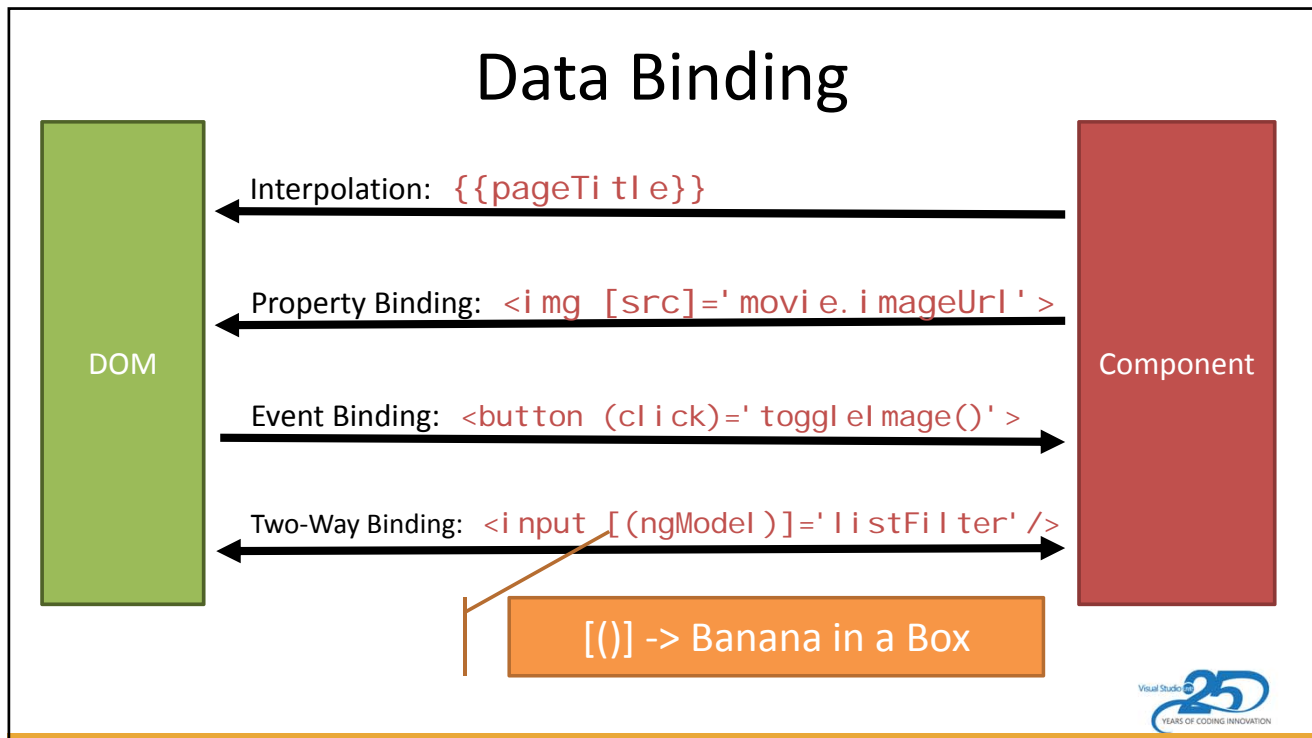
```
template: `
<div>
  <h1>{{pageTitle}}</h1>
  <div>
    My First Component
  </div>
</div>
`
```

ES 2015
Back Ticks
Template Literal

URL

```
templateUrl:
'./movie-list.component.
html'
```





Directives

Structural Directives

```
<table *ngIf="movies.length">  
<tr *ngFor="let movie of movies">
```



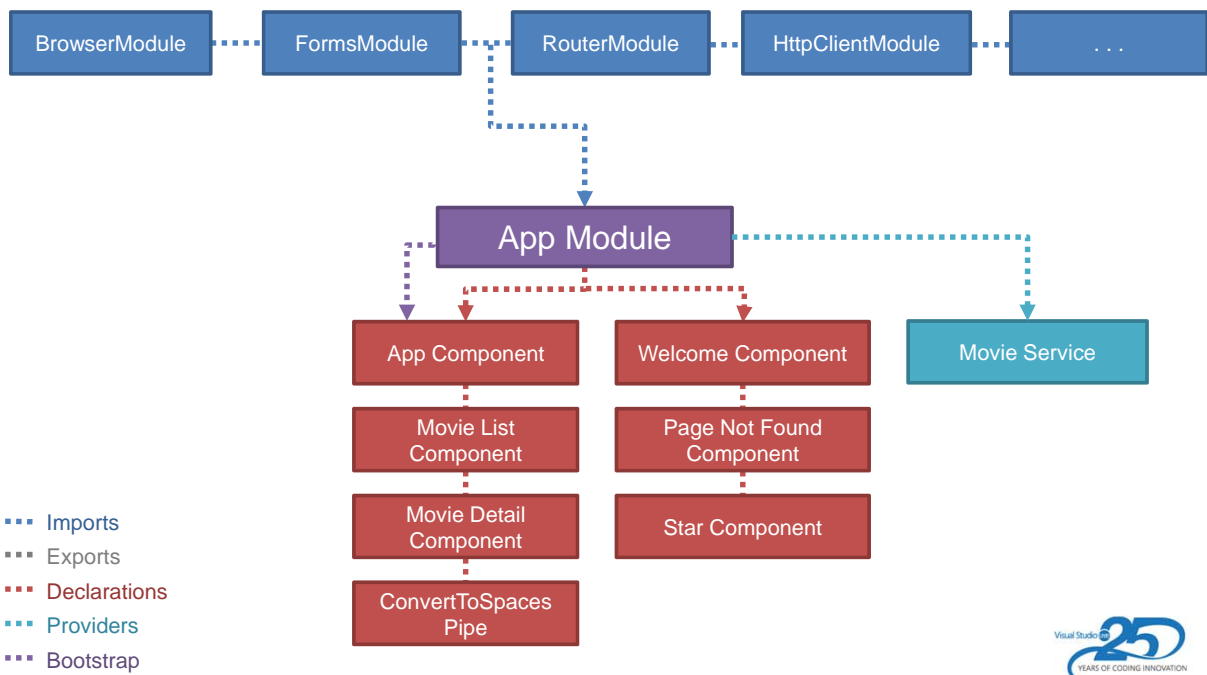
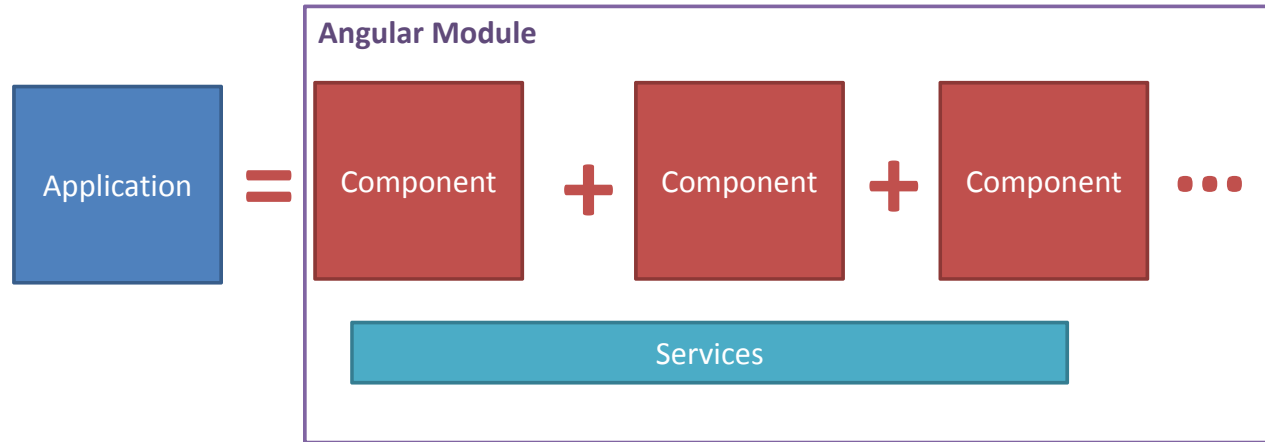
Demo

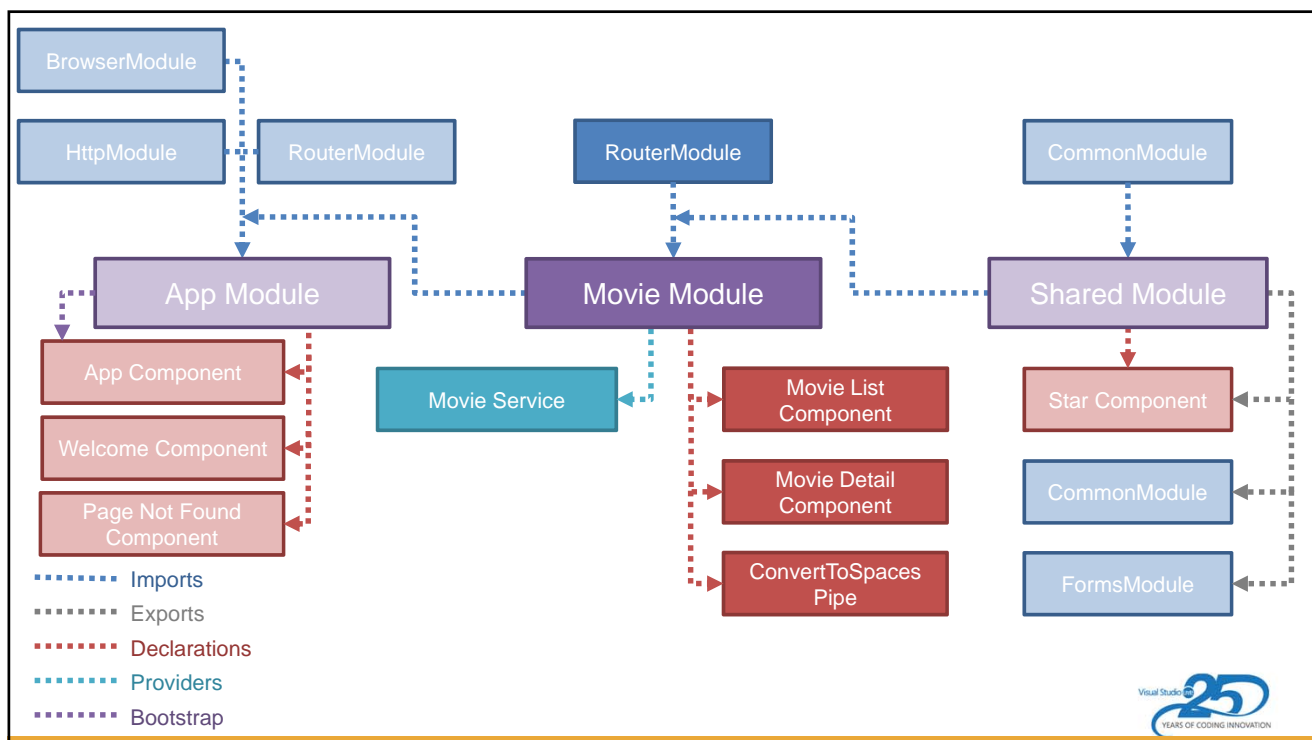
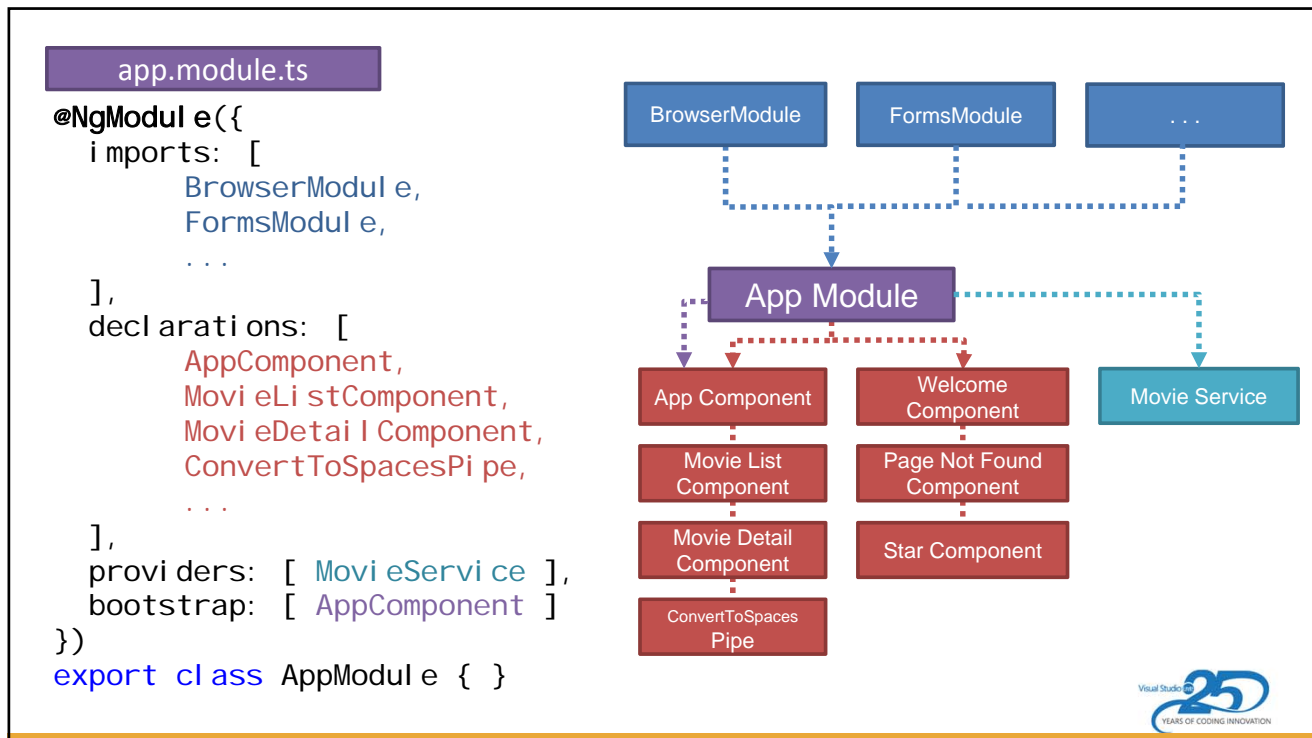


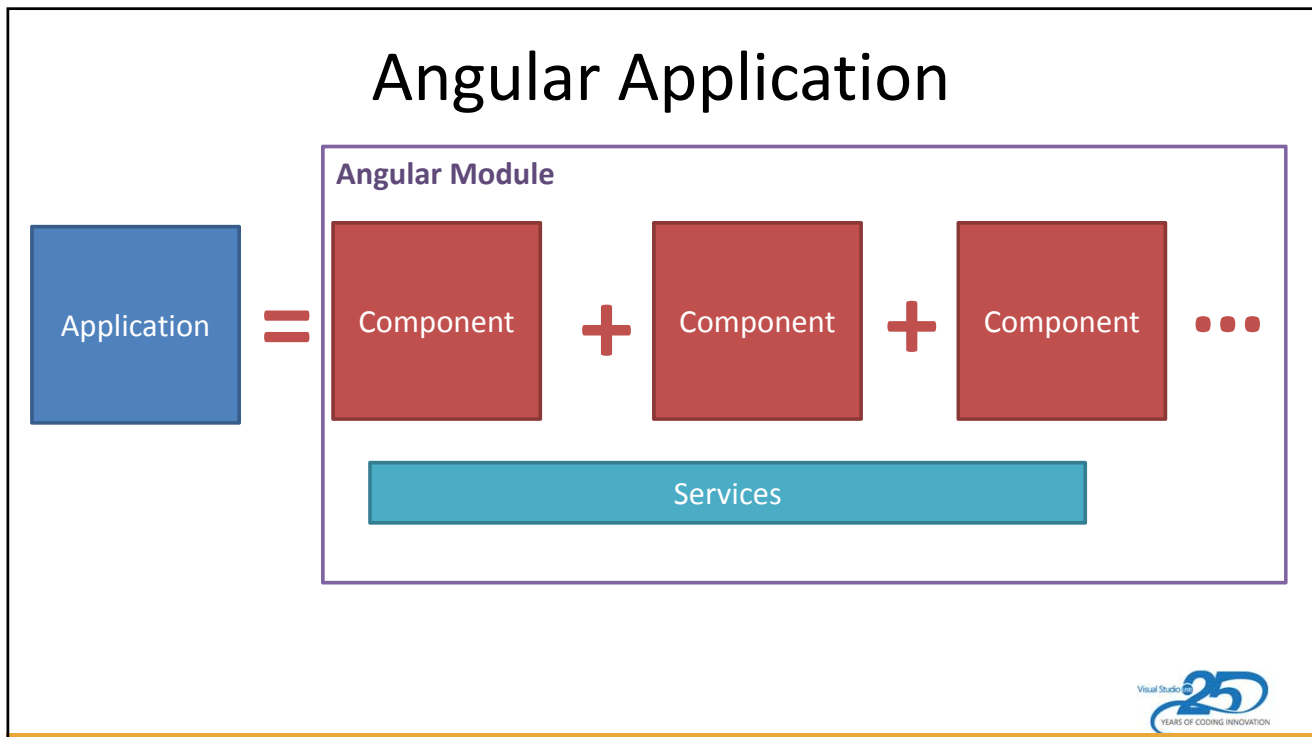
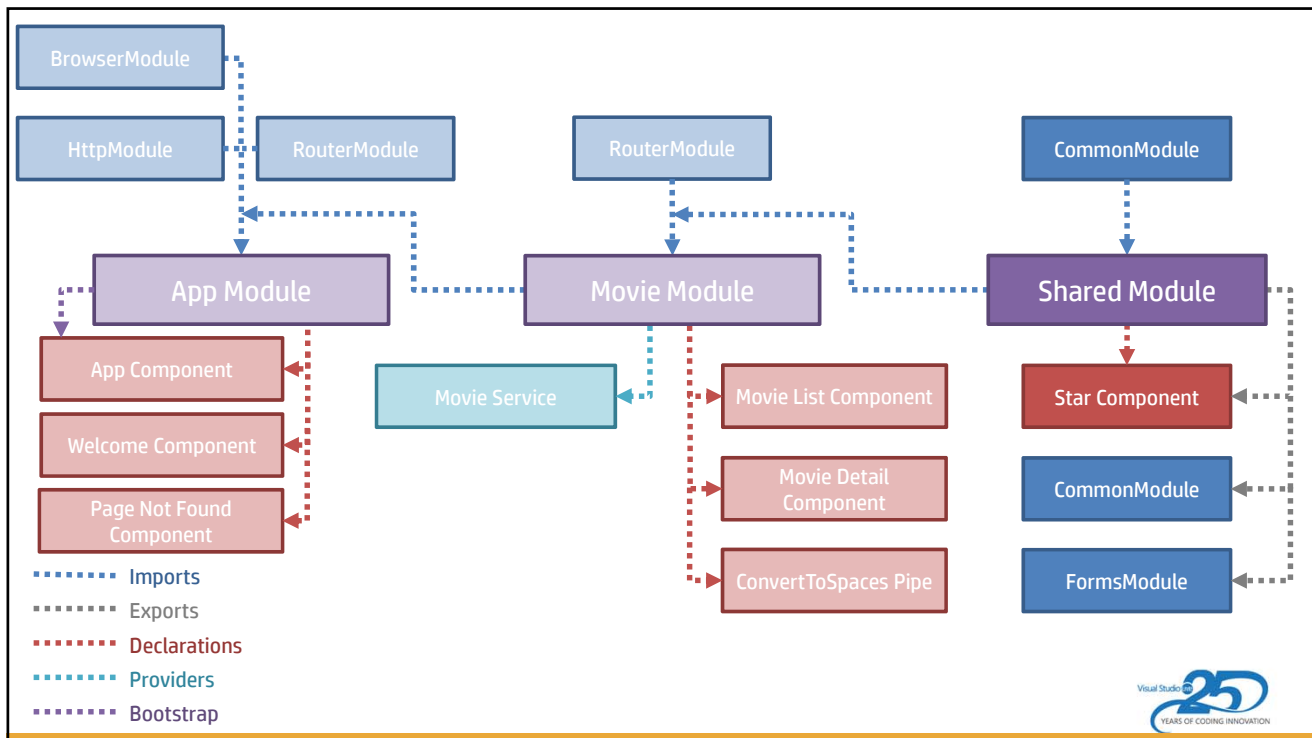
Movie List Template



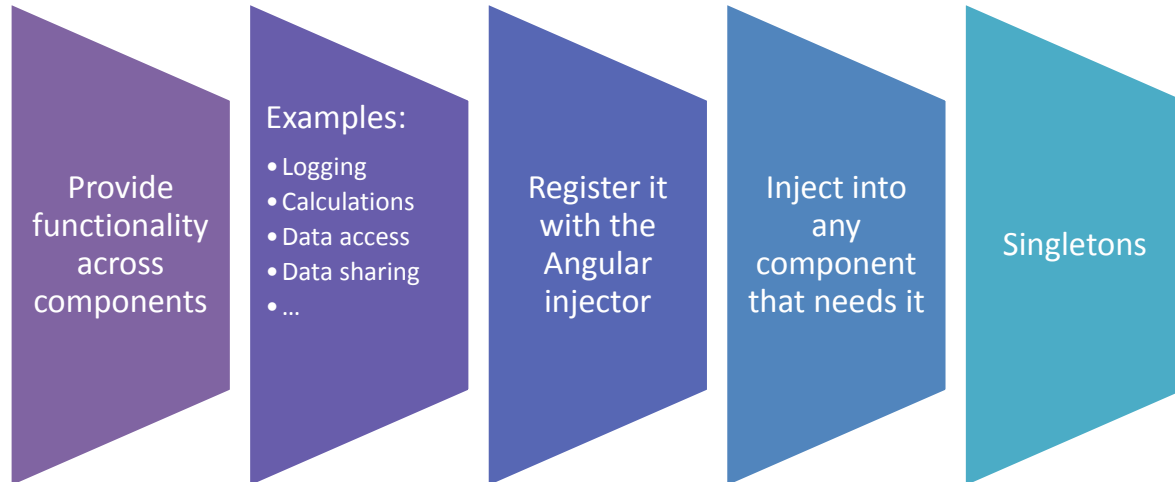
Angular Application







Services



Building a Service

movie.service.ts

```
import { Injectable }  
  from '@angular/core' ;
```

```
@Injectable()  
export class MovieService {  
  getMovies() { }  
}
```



Registering a Service

app.module.ts

```
...

@NgModule({
  imports: [ BrowserModule,
            FormsModule,
            RouterModule.forRoot(... ) ],
  declarations: [ AppComponent,
                 MovieListComponent ],
  providers: [ MovieService ],
  bootstrap: [ AppComponent ]
})
export class AppModule { }
```

movie.service.ts

```
import { Injectable }
       from '@angular/core';

@Injectable()
export class MovieService {
  getMovies() { }
}
```



Registering a Service - v6

app.module.ts

```
...

@NgModule({
  imports: [ BrowserModule,
            FormsModule,
            RouterModule.forRoot(... ) ],
  declarations: [ AppComponent,
                 MovieListComponent ],
  providers: [ MovieService ],
  bootstrap: [ AppComponent ]
})
export class AppModule { }
```

movie.service.ts

```
import { Injectable }
       from '@angular/core';

@Injectable({
  providedIn: 'root'
})
export class MovieService {
  getMovies() { }
}
```



Using a Service

movie-list.component.ts

```
import { Component } from '@angular/core';
import { MovieService } from './movie.service';

@Component({
  templateUrl: './movie-list.component.html'
})
export class MovieListComponent {
  constructor(private movieService: MovieService) { }
```

movie.service.ts

```
import { Injectable }
      from '@angular/core';

@Injectable()
export class MovieService {
  getMovies() { }
```

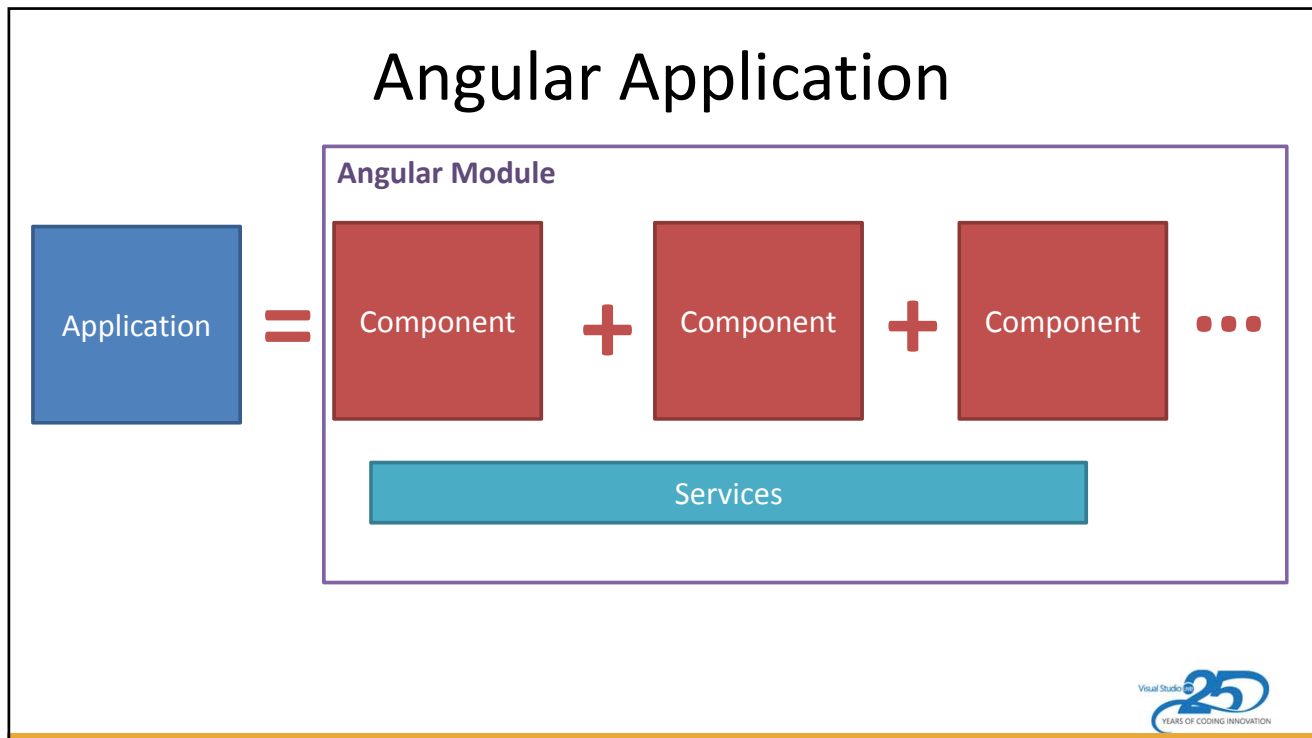


Demo



Movie Parameter Service





Angular CLI

- Command line tool for generating, testing, and deploying an Angular application

`ng new MovieHunter`

`ng generate component movie-list`

`ng build --prod`

`...`

Demo



More
Angular CLI



Thank You!

@deborahkurata

<https://github.com/DeborahK/MovieHunter>

<http://bit.ly/Angular-GettingStarted>

