

[CGA-JAVA-WFDA] Web Front-end Development Angular 2.1

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[Thực hành] Xây dựng ứng dụng Gallery

Mục tiêu

Nắm bắt được về các thao tác với NgModule và DI trong Angular.

Mô tả

Xây dựng ứng dụng Gallery để hiển thị các ảnh

Hướng dẫn

Bước 1: Mở cửa sổ terminal và gõ lệnh **ng new angular-gallery-app** để tạo mới một dự án Angular

❏ Select npm

E:\CodeGym\Hoc-lieu-Java\Demo Code\Module-5>ng new angular-gallery-app
? Would you like to add Angular routing? (y/N) █

Tại cửa sổ tiếp theo gõ chữ **y** và ấn enter để tạo routing cho dự án

```
C:\ npm
E:\CodeGym\Hoc-lieu-Java\Demo Code\Module-5>ng new angular-gallery-app
? Would you like to add Angular routing? (y/N) y
```

Tiếp theo chọn CSS và ấn enter và chờ ứng dụng được khởi tạo

```
C:\Windows\System32\cmd.exe

The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/app/app.component.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/app/app.module.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/environments/environment.prod.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/environments/environment.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/index.html.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/main.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/polyfills.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/styles.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in src/test.ts.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in tsconfig.app.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in tsconfig.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in tsconfig.spec.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in tslint.json.
The file will have its original line endings in your working directory
Successfully initialized git.

E:\CodeGym\Hoc-lieu-Java\Demo Code\Module-5>
```

Bước 2: Gõ lệnh `ng g m image-gallery` để tạo ImageGalleryModule

Bước 3: Gõ lệnh `ng g c image-gallery` để tạo ImageGalleryComponent

Bước 4: Gõ lệnh `ng g c image-gallery/image-card` để tạo ImageCardComponent và import vào trong ImageGalleryModule

Bước 5: Trong file image-card.component.ts thêm đoạn code sau để thêm các xử lý logic cho component này:

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

@Component({
  selector: 'app-image-card',
  templateUrl: './image-card.component.html',
  styleUrls: ['./image-card.component.css']
})
export class ImageCardComponent implements OnInit {
  @Input() src = '';

  constructor() {
  }

  ngOnInit() {
  }
}
```

Bước 6: Truy cập vào file image-card.component.html để cập nhật lại giao diện của component này như sau:

```
<div class="card">
  <img *ngIf="src" [src]="src" alt="" class="img-card">
</div>
```

Bước 7: Trong file image-gallery.component.ts chúng ta thêm đoạn code khai báo danh sách các ảnh như sau:

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

@Component({
  selector: 'app-image-gallery',
  templateUrl: './image-gallery.component.html',
  styleUrls: ['./image-gallery.component.css']
})
export class ImageGalleryComponent implements OnInit {
  listImage = [
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=1',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=2',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=3',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=4'
  ];
  constructor() { }

  ngOnInit() {
  }
}
```

Bước 8: Cập nhật lại file image-gallery.component.html để hiển thị như sau:

```
<div class="gallery-container">
  <div class="gallery-item" *ngFor="let img of listImage">
    <app-image-card [src]="img"></app-image-card>
  </div>
</div>
```

Bước 9: Thêm các style sau cho:

image-gallery.component.css

```
.gallery-container {
  display: flex;
  flex-wrap: wrap;
}

.gallery-item {
  flex: 1;
  max-width: 25%;
  padding: 0 5px
}
```

image-card.component.css

```
:host {
  display: block;
}

.card {
  box-shadow: 0 3px 1px -2px rgba(0,0,0,.2), 0 2px 2px 0 rgba(0,0,0,.14), 0 1px 5px 0 rgba(0,0,0,.12);
}

.img-card {
  max-width: 100%;
  display: block;
}
```

Bước 10: Import ImageGalleryModule vào trong app.module.ts

```
import {BrowserModule} from '@angular/platform-browser';
import {NgModule} from '@angular/core';

import {AppRoutingModule} from './app-routing.module';
import {AppComponent} from './app.component';
import {ImageGalleryModule} from './image-gallery/image-gallery.module';

@NgModule({
  declarations: [
    AppComponent,
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    ImageGalleryModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule {
}
```

Bước 11: Trong file app.component.html thêm đoạn code sau:

```
<app-image-gallery></app-image-gallery>
```

Bước 12: Tạo một file token.ts trong thư mục image-gallery và cấu hình như sau:

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

export const GalleryConfig = new InjectionToken<number>('GalleryConfig');
```

Bước 13: Cập nhật lại file image-gallery.component.ts:

```
import {Component, Inject, OnInit, Optional} from '@angular/core';
import {GalleryConfig} from './token';

@Component({
  selector: 'app-image-gallery',
  templateUrl: './image-gallery.component.html',
  styleUrls: ['./image-gallery.component.css']
})
export class ImageGalleryComponent implements OnInit {
  listImage = [
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=1',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=2',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=3',
    'https://via.placeholder.com/1280x420/e91e63/ffffff?text=4'
  ];
  itemWidth: number;
  config = 4;
  constructor(
    @Inject(GalleryConfig)
    @Optional()
    config: number
  ) {
    if (config) {
      this.config = config;
    }
  }

  ngOnInit() {
    this.itemWidth = 100 / this.config;
  }
}
```

Bước 14: Cập nhật lại file image-gallery.component.html như sau:

```
<div class="gallery-container">
  <div class="gallery-item" *ngFor="let img of listImage"
    [style.max-width.%]="itemWidth" [style.flex-basis.%]="itemWidth">
    <app-image-card [src]="img"></app-image-card>
  </div>
</div>
```

Cập nhật lại file image-gallery.component.css:

```
.gallery-container {
  display: flex;
  flex-wrap: wrap;
}

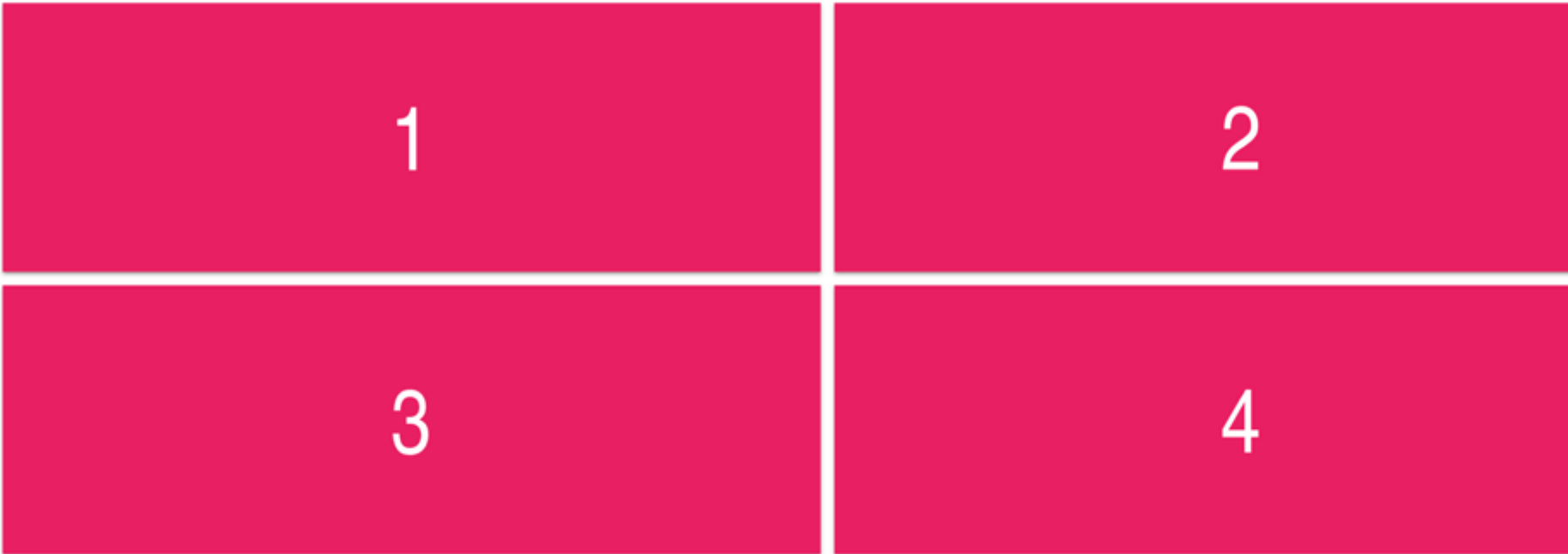
.gallery-item {
  flex: 1;
  max-width: 25%;
  padding: 5px
}
```

Và cập nhật lại file app.module.ts:

```
import {BrowserModule} from '@angular/platform-browser';
import {NgModule} from '@angular/core';

import {AppRoutingModule} from './app-routing.module';
import {AppComponent} from './app.component';
import {ImageGalleryModule} from './image-gallery/image-gallery.module';
import {GalleryConfig} from './image-gallery/token';

@NgModule({
  declarations: [
    AppComponent,
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    ImageGalleryModule
  ],
  providers: [
    {provide: GalleryConfig, useValue: 3}
  ],
  bootstrap: [AppComponent]
})
export class AppModule {
}
```



Checkout sang nhánh develop để xem mã nguồn tham khảo: <https://github.com/codegym-vn/wfda-angular-image-gallery-app>

Hướng dẫn nộp bài:

up bài tập lên github

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