

Universidad Politécnica de Pachuca



Practica03

**Carrera: Ingeniería en Tecnologías de la
Información e Innovación Digital**

Materia: Aplicaciones Web

Alumnos:

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Maestro

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28 de Enero del 2026

Sección; Crear el Proyecto de angular



Hello, Practica01

Congratulations! Your app is running. 🎉

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[Angular Language Service](#)

[Angular DevTools](#)



Sección de Instalacion de Bootstrap

```
PS C:\Users\AlexV\OneDrive\Documents\GitHub\Practicas_Meb_AlejandroVargasLazca\practica04-angular> npm install bootstrap
h
Shortcuts
press r + enter to force reload browser
press u + enter to show server url
press o + enter to open in browser
press c + enter to clear console
press q + enter to quit
q
PS C:\Users\AlexV\OneDrive\Documents\GitHub\Practicas_Meb_AlejandroVargasLazca\practica04-angular> npm install bootstrap
added 2 packages, and audited 495 packages in 4s
111 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
PS C:\Users\AlexV\OneDrive\Documents\GitHub\Practicas_Meb_AlejandroVargasLazca\practica04-angular>
```

```
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS GIT LENS
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng serve
Application bundle generation complete. [1.620 seconds] - 2026-01-22T19:55:11.313Z

Match mode enabled. Watching for file changes...
NOTE: Raw file sizes do not reflect development server per-request transformations.
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
  → local: http://localhost:4200/
  → press h + enter to show help
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
  → local: http://localhost:4200/
  → press h + enter to show help
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
  → local: http://localhost:4200/
  → press h + enter to show help
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
  → local: http://localhost:4200/
  → press h + enter to show help
1:55:11 PM [vite] (warn) Re-optimizing dependencies because lockfile has changed (x2)
  → local: http://localhost:4200/
  → press h + enter to show help

Ln 31, Col 17 Spaces: 2 UTF-8 CRLF
```

```
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS GIT LENS
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng serve
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng generate component components/header
CREATE src/app/components/header/header.spec.ts (554 bytes)
CREATE src/app/components/header/header.ts (197 bytes)
CREATE src/app/components/header/header.css (0 bytes)
CREATE src/app/components/header/header.html (22 bytes)
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng generate component components/navbar
CREATE src/app/components/navbar/navbar.spec.ts (554 bytes)
CREATE src/app/components/navbar/navbar.ts (197 bytes)
CREATE src/app/components/navbar/navbar.css (0 bytes)
CREATE src/app/components/navbar/navbar.html (22 bytes)
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng generate component components/footer
CREATE src/app/components/footer/footer.spec.ts (554 bytes)
CREATE src/app/components/footer/footer.ts (197 bytes)
CREATE src/app/components/footer/footer.css (0 bytes)
CREATE src/app/components/footer/footer.html (22 bytes)
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular> ng serve
Error: Schema validation failed with the following errors:
  Data path "/styles/W" must be object.
  Data path "/styles/W" must match pattern "^\\.?(css|scss|sass|less)?$".
  Data path "/styles/W" must match exactly one schema in union.
PS C:\Users\Alejo\OneDrive\Documents\Github\Practicas_Meb_AlejandroVargasIzaca\practica04-angular>

Ln 11, Col 7 Spaces: 4 UTF-8 CRLF
```

Crea las Paginas del sitio

The screenshot shows the VS Code editor interface. On the left is the Explorer sidebar showing the project structure:

- EXPLORADOR
 - EDITORES ABIERTOS
 - home.html practica04-angular/src/app/page...
 - PRACTICAS_WEB_DAVIDHERNANDEZ
 - practica04-angular
 - .vscode
 - node_modules
 - public
 - img
 - 1399980.jpeg
 - 123456789.png
 - favicon.ico
 - src
 - app
 - components
 - page
 - home
 - home.css
 - home.html
 - home.spec.ts
 - home.ts
 - pages
 - contact
 - contact.css
 - contact.html
 - contact.spec.ts
 - contact.ts
 - home
 - listado
 - app.config.server.ts
 - app.config.ts
 - app.css
 - app.html

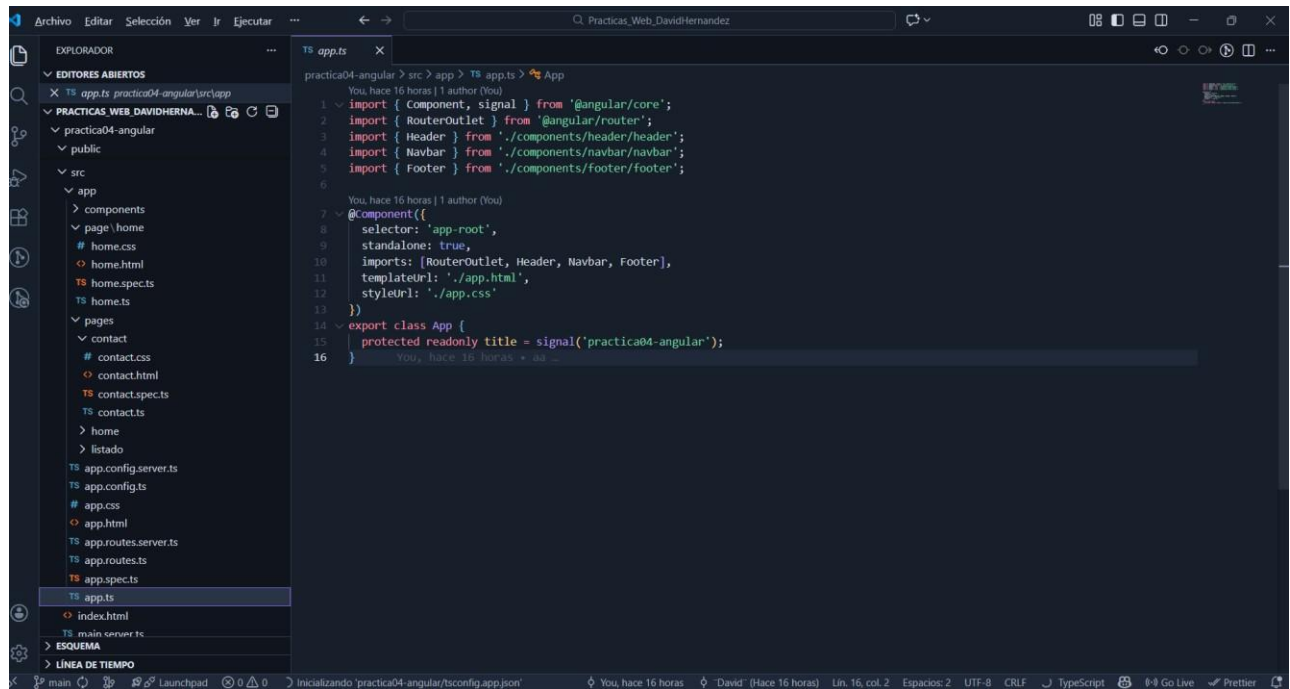
The main editor area shows the code for `home.html`:

```

1 <section class="container mt-4">
2
3
4   <div class="row">
5     <div class="col-md-6 mb-3">
6       <div class="card shadow">
7         
8         <div class="card-body">
9           <p class="card-text">Mexico en su maxima Expresion.</p>
10        </div>
11      </div>
12    </div>
13
14    <div class="col-md-6 mb-3">
15      <div class="card shadow">
16        
17        <div class="card-body">
18          <p class="card-text">La ciudad de Mexico iluminada.</p>
19        </div>
20      </div>
21    </div>
22  </section>
23
  
```

The status bar at the bottom shows the current file is `home.html` and the active editor is `practica04-angular`.

SECCIÓN F: Armar el layout principal (práctica anterior)

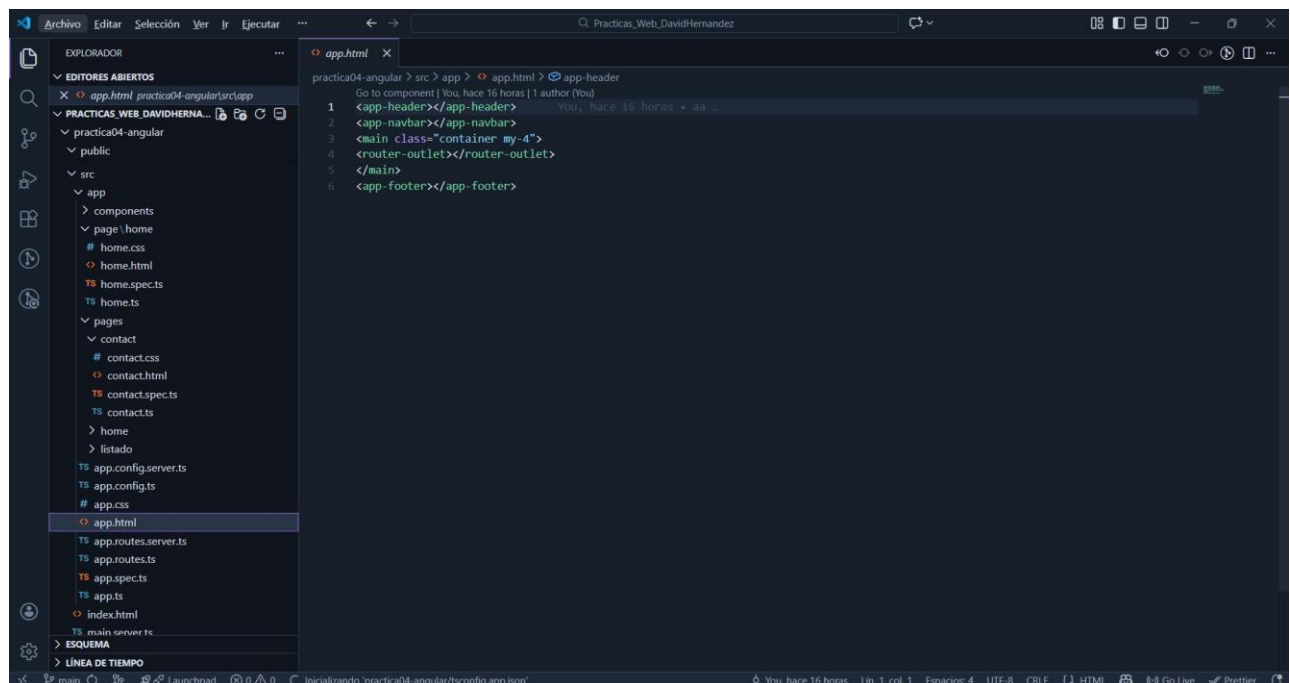


The screenshot shows the Visual Studio Code editor with the file explorer on the left and the editor window displaying the `app.ts` file. The file explorer shows the project structure with the following folders and files:

- EXPLORADOR
 - EDITORIOS ABIERTOS
 - TS app.ts practica04-angular/src/app
 - PRACTICAS_WEB_DAVIDHERNA...
 - practica04-angular
 - public
 - src
 - app
 - components
 - page\home
 - home.css
 - home.html
 - home.spec.ts
 - home.ts
 - pages
 - contact
 - contact.css
 - contact.html
 - contact.spec.ts
 - contact.ts
 - home
 - listado
 - app.config.server.ts
 - app.config.ts
 - app.css
 - app.html
 - app.routes.server.ts
 - app.routes.ts
 - app.spec.ts
 - app.ts
 - index.html
 - main.server.ts
 - ESQUEMA
 - LÍNEA DE TIEMPO

The editor window shows the following code in `app.ts`:

```
1 import { Component, signal } from '@angular/core';
2 import { RouterOutlet } from '@angular/router';
3 import { Header } from '../components/header/header';
4 import { Navbar } from '../components/navbar/navbar';
5 import { Footer } from '../components/footer/footer';
6
7 You, hace 16 horas | 1 author (You)
8 @Component({
9   selector: 'app-root',
10  standalone: true,
11  imports: [RouterOutlet, Header, Navbar, Footer],
12  templateUrl: './app.html',
13  styleUrls: ['./app.css']
14 })
15 export class App {
16   protected readonly title = signal('practica04-angular');
17 }
```



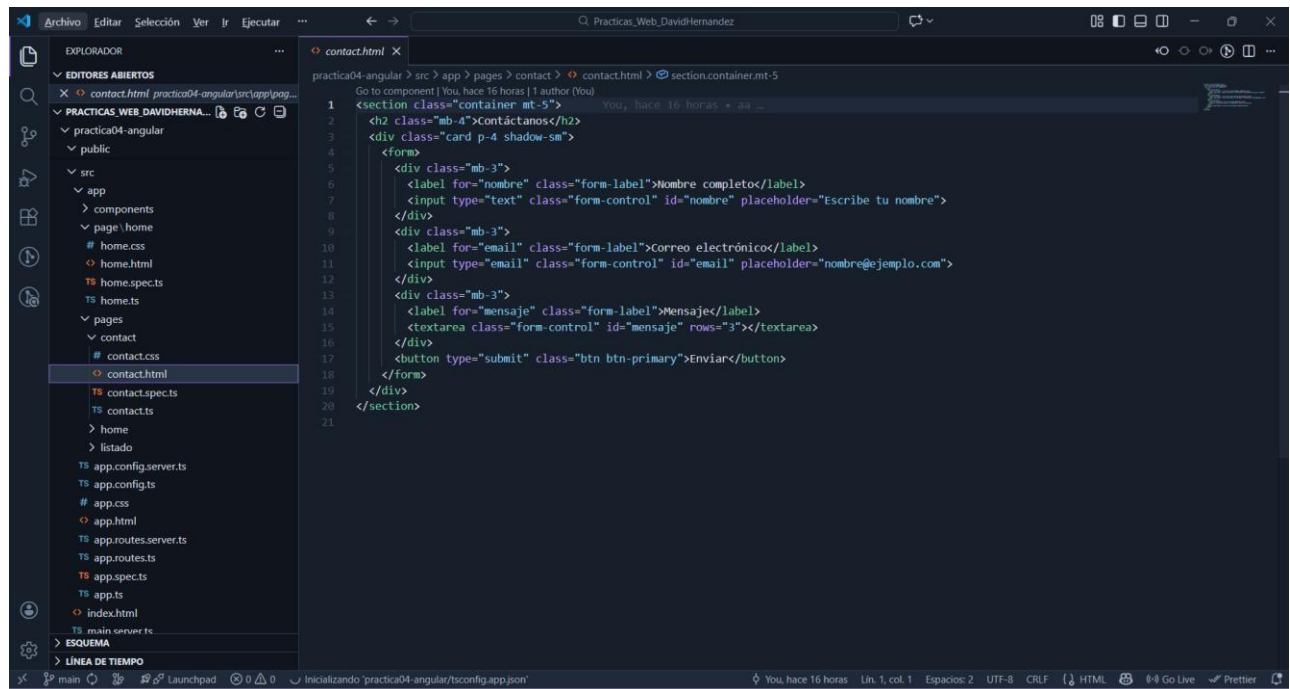
The screenshot shows the Visual Studio Code editor with the file explorer on the left and the editor window displaying the `app.html` file. The file explorer shows the project structure with the following folders and files:

- EXPLORADOR
 - EDITORIOS ABIERTOS
 - app.html practica04-angular/src/app
 - PRACTICAS_WEB_DAVIDHERNA...
 - practica04-angular
 - public
 - src
 - app
 - components
 - page\home
 - home.css
 - home.html
 - home.spec.ts
 - home.ts
 - pages
 - contact
 - contact.css
 - contact.html
 - contact.spec.ts
 - contact.ts
 - home
 - listado
 - app.config.server.ts
 - app.config.ts
 - app.css
 - app.html
 - app.routes.server.ts
 - app.routes.ts
 - app.spec.ts
 - app.ts
 - index.html
 - main.server.ts
 - ESQUEMA
 - LÍNEA DE TIEMPO

The editor window shows the following code in `app.html`:

```
1 <app-header></app-header>
2 <app-navbar></app-navbar>
3 <main class="container my-4">
4   <router-outlet></router-outlet>
5 </main>
6 <app-footer></app-footer>
```

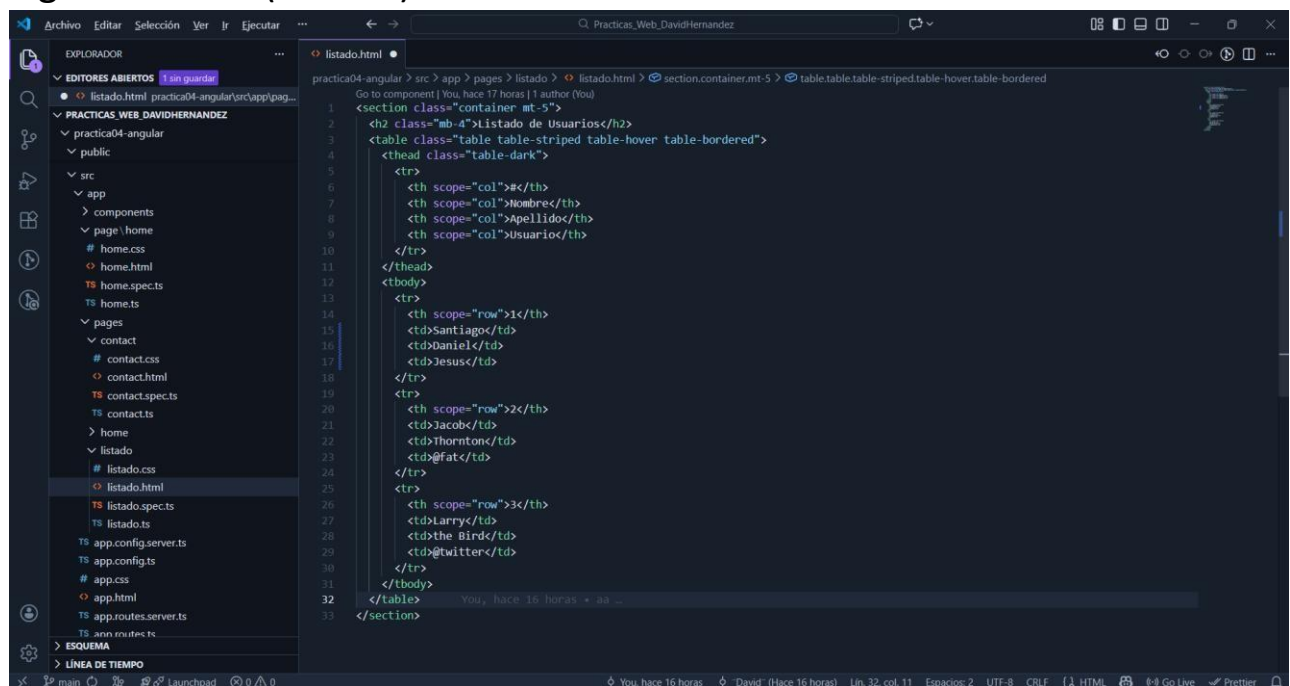
SECCIÓN G: Crear páginas adicionales



The screenshot shows the VS Code editor with the file explorer on the left and the code editor on the right. The file explorer shows the project structure for 'practica04-angular', including 'src' and 'pages' folders. The code editor displays the 'contact.html' file, which contains the following HTML code:

```
1 <section class="container mt-5">
2   <h2 class="mb-4">Contáctanos</h2>
3   <div class="card p-4 shadow-sm">
4     <form>
5       <div class="mb-3">
6         <label for="nombre" class="form-label">Nombre completo</label>
7         <input type="text" class="form-control" id="nombre" placeholder="Escribe tu nombre">
8       </div>
9       <div class="mb-3">
10        <label for="email" class="form-label">Correo electrónico</label>
11        <input type="email" class="form-control" id="email" placeholder="nombre@ejemplo.com">
12      </div>
13      <div class="mb-3">
14        <label for="mensaje" class="form-label">Mensaje</label>
15        <textarea class="form-control" id="mensaje" rows="3"></textarea>
16      </div>
17      <button type="submit" class="btn btn-primary">Enviar</button>
18    </form>
19  </div>
20 </section>
21
```

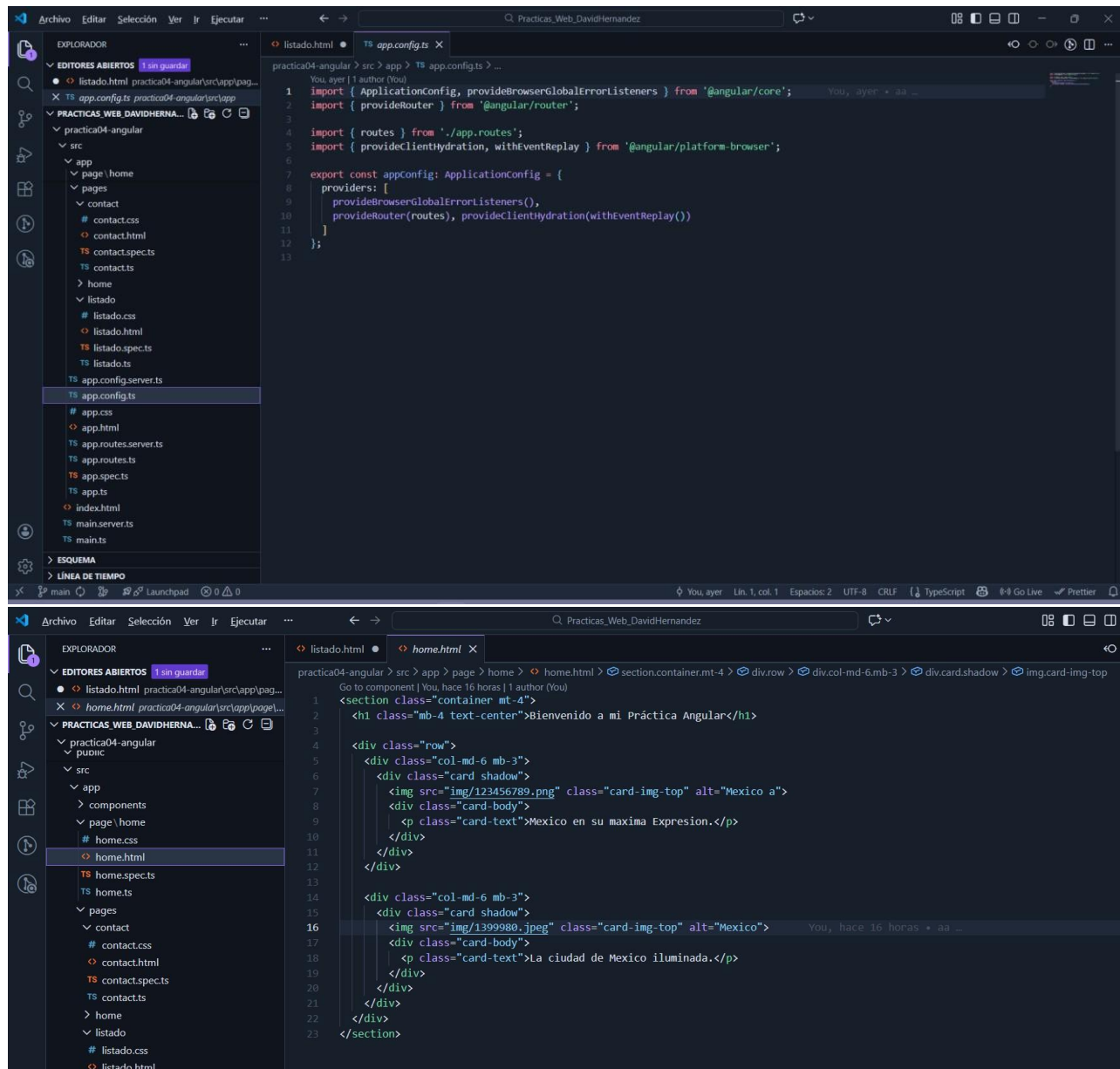
Página 2: Tabla (Listado)



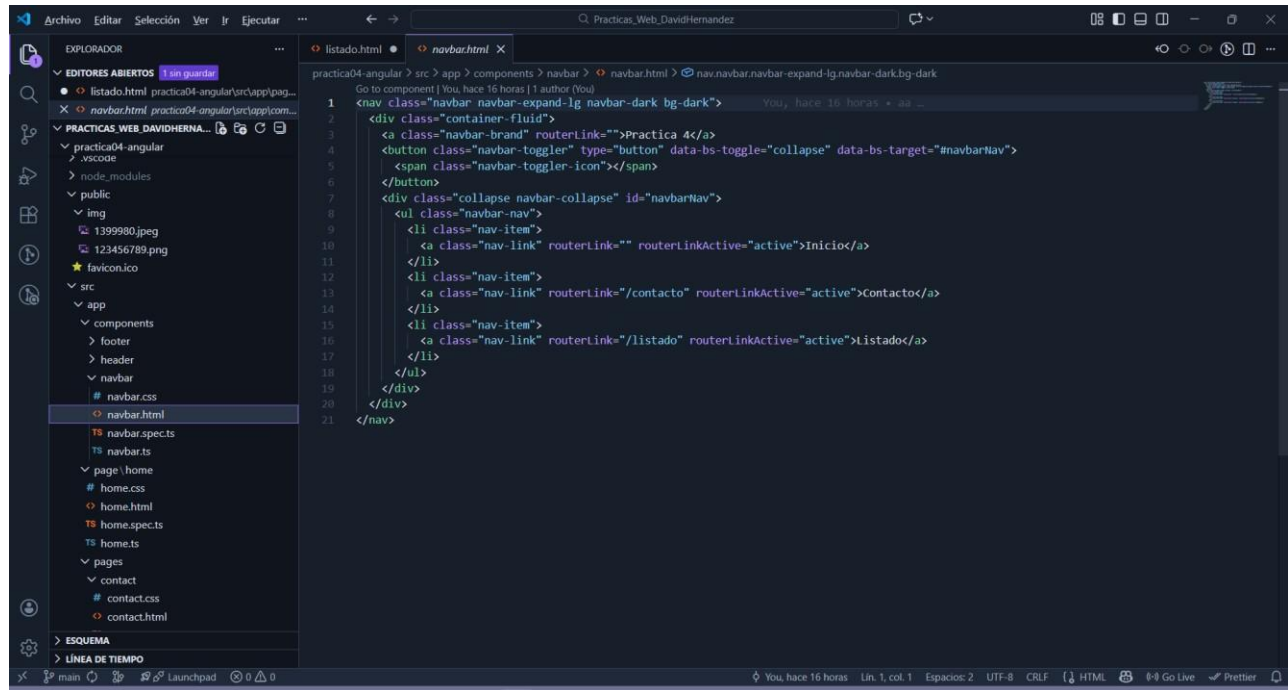
The screenshot shows the VS Code editor with the file explorer on the left and the code editor on the right. The file explorer shows the project structure for 'practica04-angular', including 'src' and 'pages' folders. The code editor displays the 'listado.html' file, which contains the following HTML code:

```
1 <section class="container mt-5">
2   <h2 class="mb-4">Listado de Usuarios</h2>
3   <table class="table table-striped table-hover table-bordered">
4     <thead class="table-dark">
5       <tr>
6         <th scope="col">#</th>
7         <th scope="col">Nombre</th>
8         <th scope="col">Apellido</th>
9         <th scope="col">Usuario</th>
10      </tr>
11    </thead>
12    <tbody>
13      <tr>
14        <th scope="row">1</th>
15        <td>Santiago</td>
16        <td>Daniel</td>
17        <td>Jesus</td>
18      </tr>
19      <tr>
20        <th scope="row">2</th>
21        <td>Jacob</td>
22        <td>Thornton</td>
23        <td>@fat</td>
24      </tr>
25      <tr>
26        <th scope="row">3</th>
27        <td>Larry</td>
28        <td>the Bird</td>
29        <td>@twitter</td>
30      </tr>
31    </tbody>
32  </table>
33 </section>
```

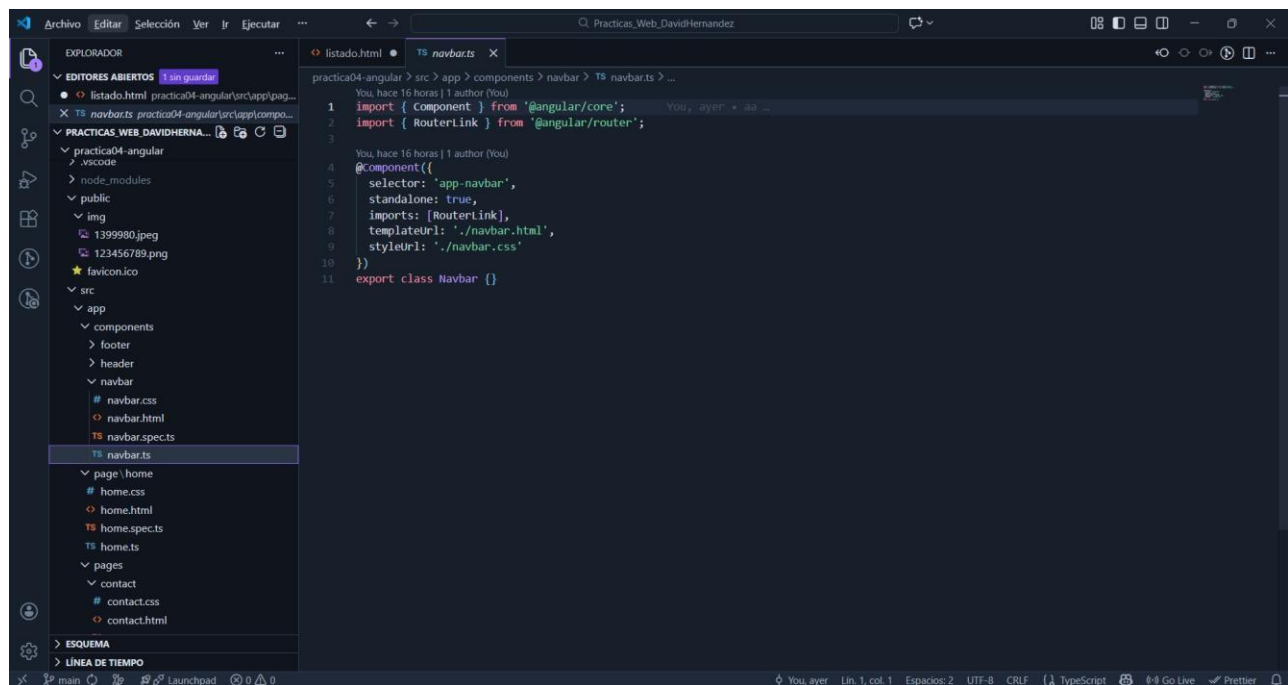
SECCIÓN H: Configurar rutas



SECCIÓN I: Navegación con RouterLink



```
1 <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
2   <div class="container-fluid">
3     <a class="navbar-brand" routerLink="">Practica 4</a>
4     <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav">
5       <span class="navbar-toggler-icon"></span>
6     </button>
7     <div class="collapse navbar-collapse" id="navbarNav">
8       <ul class="navbar-nav">
9         <li class="nav-item">
10          <a class="nav-link" routerLink="" routerLinkActive="active">Inicio</a>
11        </li>
12        <li class="nav-item">
13          <a class="nav-link" routerLink="/contacto" routerLinkActive="active">Contacto</a>
14        </li>
15        <li class="nav-item">
16          <a class="nav-link" routerLink="/listado" routerLinkActive="active">Listado</a>
17        </li>
18      </ul>
19    </div>
20  </div>
21 </nav>
```



```
1 import { Component } from '@angular/core';
2 import { RouterLink } from '@angular/router';
3
4 @Component({
5   selector: 'app-navbar',
6   standalone: true,
7   imports: [RouterLink],
8   templateUrl: './navbar.html',
9   styleUrls: ['./navbar.css']
10 })
11 export class Navbar {}
```

SECCIÓN J: Visualización de imágenes

Práctica04Angular

localhost:4200



FPS N/A | GPU 0% | CPU 71% | LAT N/A

Práctica 04: Angular

Desarrollo de Aplicaciones Web - David de Jesus

Practica 4 Inicio Contacto Listado

Bienvenido a mi Práctica Angular



Práctica04Angular

localhost:4200/contacto

FPS N/A | GPU 0% | CPU 48% | LAT N/A

Desarrollo de Aplicaciones Web - David de Jesus

Practica 4 Inicio Contacto Listado

Contáctanos

Nombre completo

Escribe tu nombre

Correo electrónico

nombre@ejemplo.com

Mensaje

Enviar

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Practica04Angular

localhost:4200/listado

FPS N/A | GPU 0% | CPU 16% | LAT N/A

Práctica 04: Angular

Desarrollo de Aplicaciones Web - David de Jesus

Practica 4InicioContactoListado

Listado de Usuarios

#	Nombre	Apellido	Usuario
1	Santiago	Pluna	El Tamal
2	Daniel	Uriel	El Pelusa
3	Jesus	Tetetla	La Pulga