



Graduação em Análise de
Sistemas

Tecnologia Web III

AppComponent

CabecalhoComponent

ConteudoComponent



File Edit Selection View Go Run Terminal Help package.json - projetoAngularLayout - Visual Studio Code

New File Ctrl+N
New Window Ctrl+Shift+N
Open File... Ctrl+O
Open Folder... Ctrl+K Ctrl+O
Open Workspace...
Open Recent >
Add Folder to Workspace...
Save Workspace As...
Save Ctrl+S
Save As... Ctrl+Shift+S
Save All Ctrl+K S
Auto Save
Preferences >
Revert File
Close Editor Ctrl+F4
Close Folder Ctrl+K F
Close Window Alt+F4
> TIMELINE

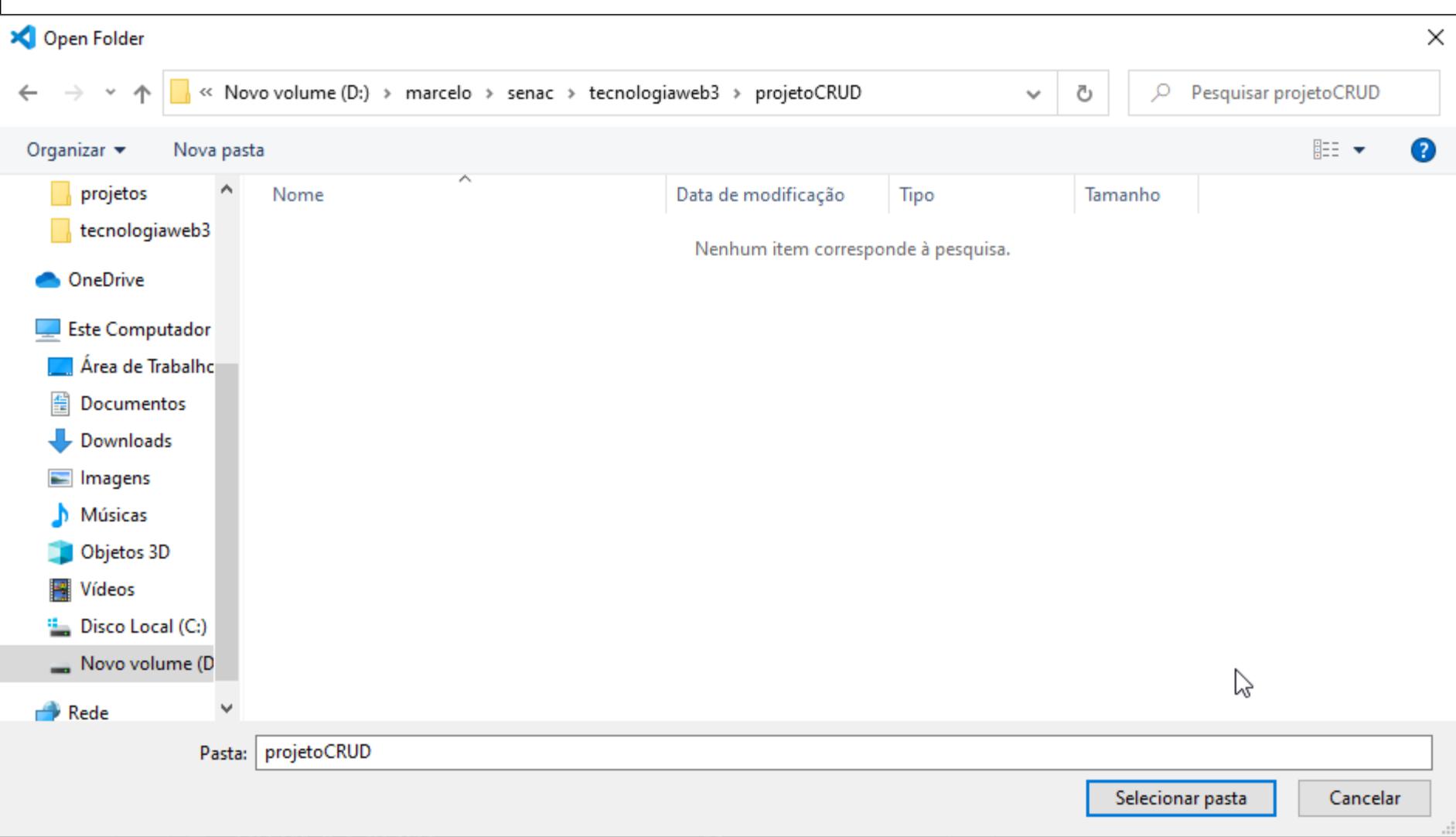
html U package.json A X navegacao.component.ts U contact.component.html U TS ap

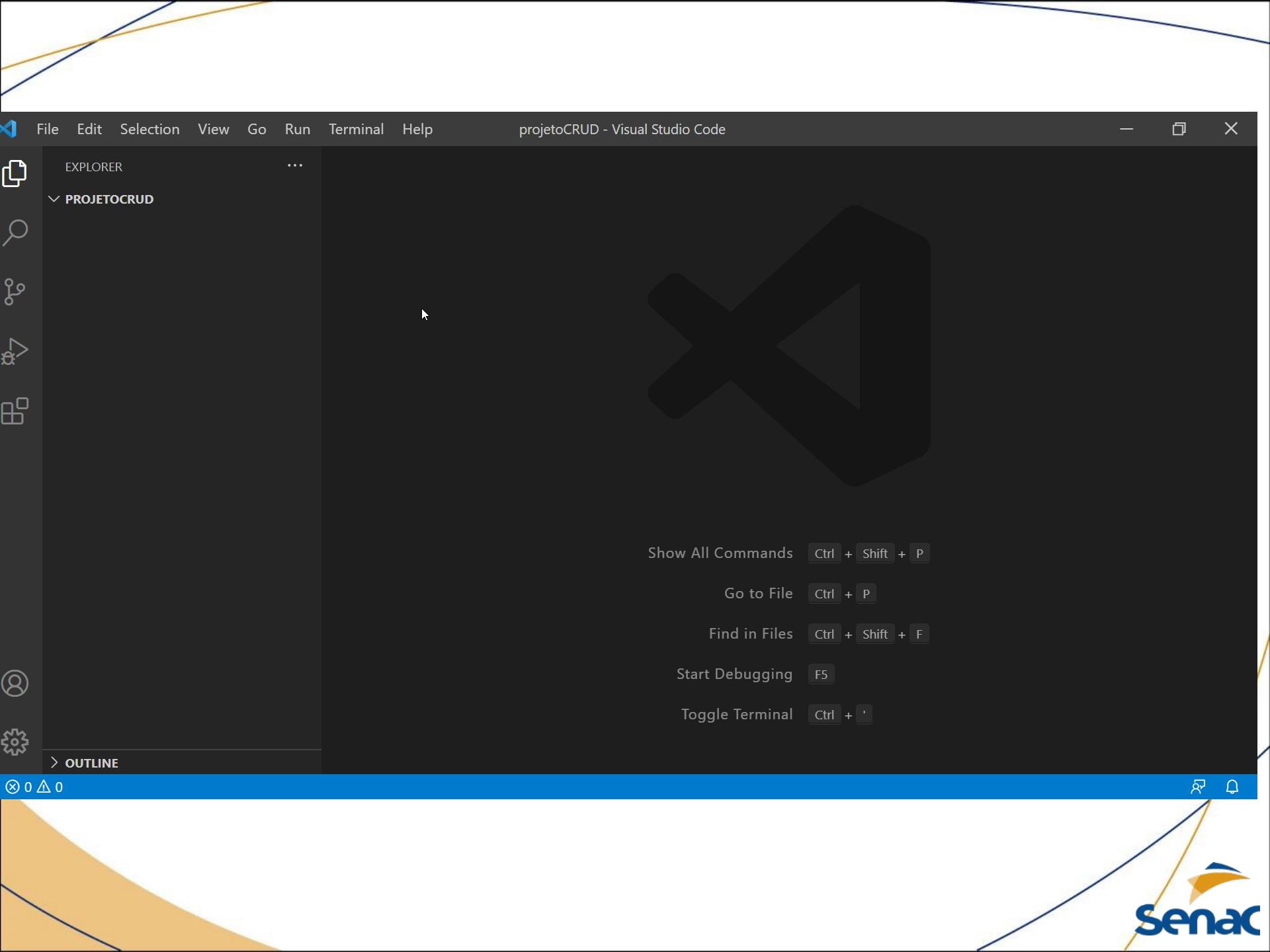
```
18  projetoAngularLayout > {} package.json > ...
19    "@angular/platform-browser": "~12.0.1",
20    "@angular/platform-browser-dynamic": "~12.0.1",
21    "@angular/router": "~12.0.1",
22    "rxjs": "~6.6.0",
23    "tslib": "^2.1.0",
24    "zone.js": "~0.11.4"
25  },
26  "devDependencies": {
27    "@angular-devkit/build-angular": "~12.0.1",
28    "@angular/cli": "~12.0.1",
29    "@angular/compiler-cli": "~12.0.1",
30    "@types/jasmine": "~3.6.0",
31    "@types/node": "^12.11.1",
32    "jasmine-core": "~3.7.0",
33    "karma": "~6.3.0",
34    "karma-chrome-launcher": "~3.1.0",
35  }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE powershell + ^ x

Copyright (C) Microsoft Corporation. Todos os direitos reservados.
Experimente a nova plataforma cruzada PowerShell <https://aka.ms/pscore6>
PS D:\marcelo\senac\tecnologiaweb3\projetoAngularLayout>

master*+ 0 0 △ 0 Initializing JS/TS language features Ln 24, Col 5 Spaces: 2 UTF-8 LF JSON Go Live





File Edit Selection View Go Run Terminal Help

projetoCRUD - Visual Studio Code

- □ X



EXPLORER

...



PROJETOCRUD



> OUTLINE

0 0 0

Show All Commands Ctrl + Shift + P

Go to File Ctrl + P

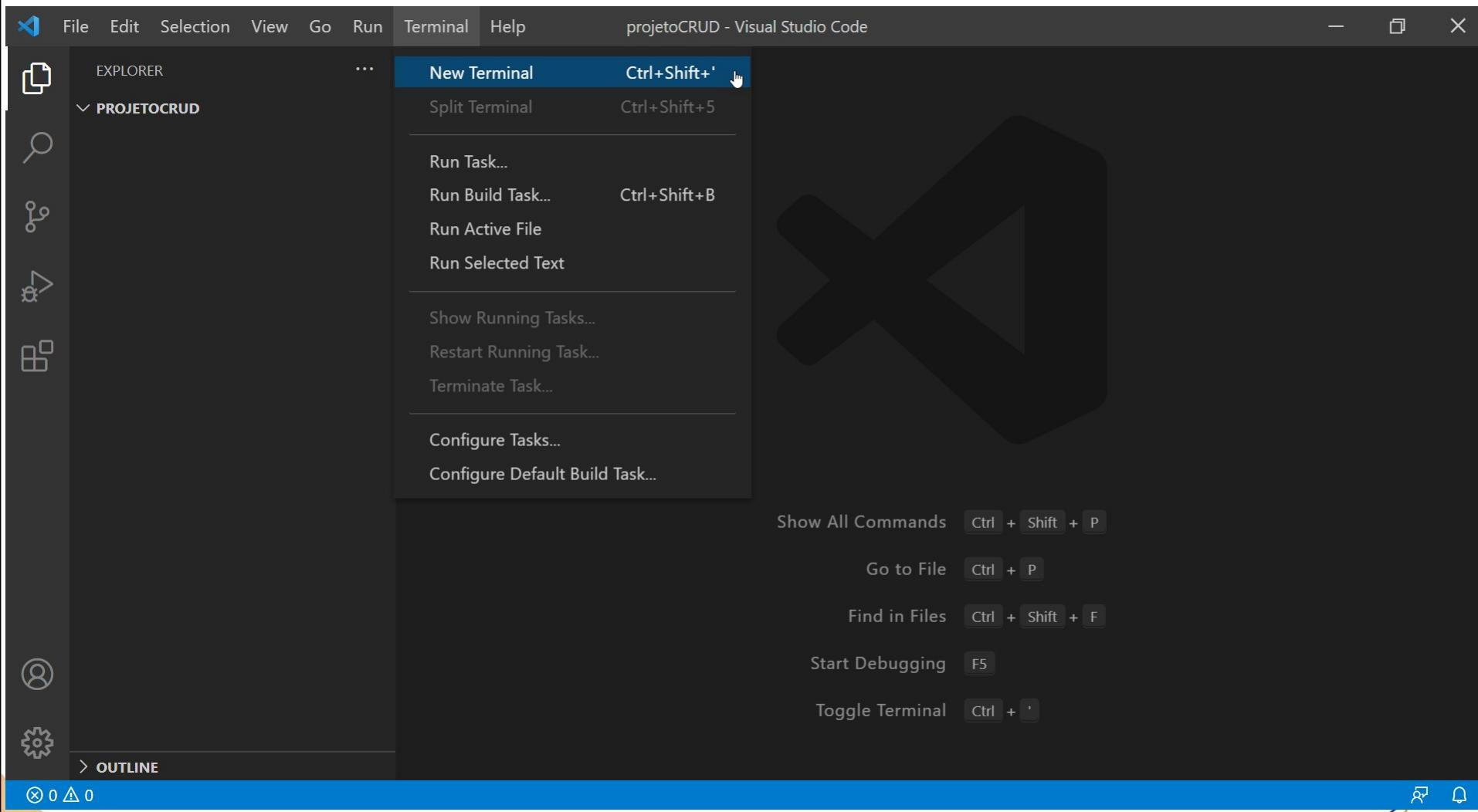
Find in Files Ctrl + Shift + F

Start Debugging F5

Toggle Terminal Ctrl + `



Senac



File Edit Selection View Go Run Terminal Help projetoCRUD - Visual Studio Code

EXPLORER ...
PROJETO CRUD

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^

Windows PowerShell
Copyright (C) Microsoft Corporation. Todos os direitos reservados.
Experimente a nova plataforma cruzada PowerShell <https://aka.ms/powershell>
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> **ng new projetoAngularCrud --prefix=senac**

> OUTLINE

0 △ 0

File Edit Selection View Go Run Terminal Help projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETOCRUD

> projetoAngularCrud

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + ^ x

Windows PowerShell
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Experimente a nova plataforma cruzada PowerShell <https://aka.ms/pssc0re6>

```
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> ng new projetoAngularCrud --prefix=senac
? Would you like to add Angular routing? No
? Which stylesheet format would you like to use? CSS
CREATE projetoAngularCrud/angular.json (3113 bytes)
CREATE projetoAngularCrud/package.json (1082 bytes)
CREATE projetoAngularCrud/README.md (1064 bytes)
CREATE projetoAngularCrud/tsconfig.json (783 bytes)
CREATE projetoAngularCrud/.editorconfig (274 bytes)
CREATE projetoAngularCrud/.gitignore (604 bytes)
CREATE projetoAngularCrud/.browserslistrc (703 bytes)
```

> OUTLINE

0 △ 0

File Edit Selection View Go Run Terminal Help projetoCRUD - Visual Studio Code

EXPLORER ...
PROJETO CRUD
> projetoAngularCrud

...
25

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + ^ x

```
fatal: unable to auto-detect email address (got 'marce@DESKTOP-4H6STEG.(none)')  
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> dir
```

Diretório: D:\marcelo\senac\tecnologiaweb3\projetoCRUD

Mode	LastWriteTime	Length	Name
d----	30/06/2021 09:11		projetoAngularCrud

```
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> cd projetoAngularCrud  
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud> ng serve
```

> OUTLINE
> TIMELINE

master+ 0 △ 0

A ProjetoAngularCrud x +

localhost:4200

Welcome

projetoAngularCrud app is running!

Resources

Here are some links to help you get started:

Learn Angular > CLI Documentation > Angular Blog >

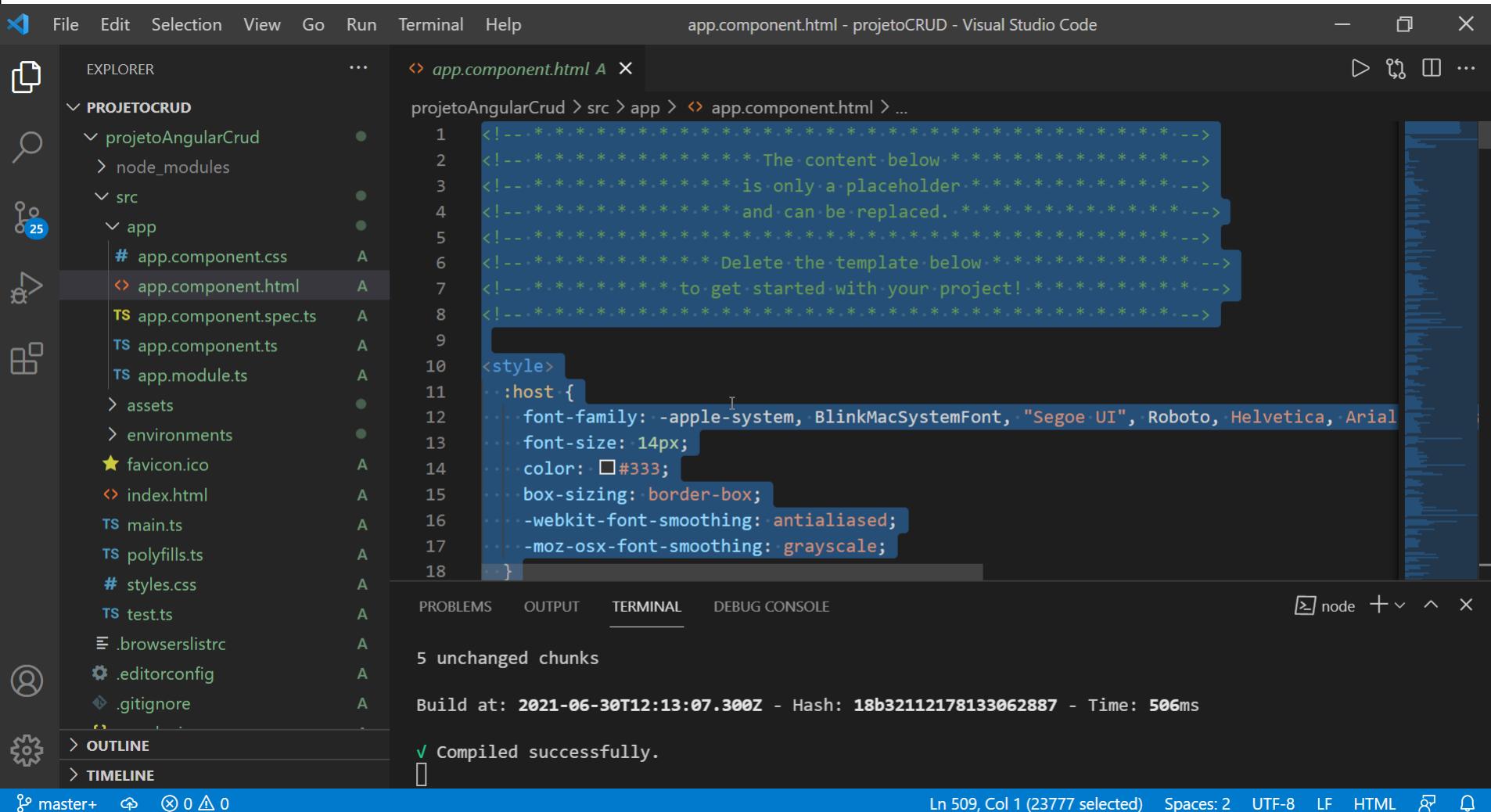
Next Steps

What do you want to do next with your app?

+ New Component + Angular Material + Add PWA Support + Add Dependency
+ Run and Watch Tests + Build for Production

ng generate component xyz

Love Angular? Give our repo a star. ★ Star >



File Edit Selection View Go Run Terminal Help • app.component.html - projetoCRUD - Visual Studio Code

EXPLORER 1

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - # app.component.css A
 - app.component.html A
 - TS app.component.spec.ts A
 - TS app.component.ts A
 - TS app.module.ts A
 - assets
 - environments
 - favicon.ico A
 - index.html A
 - TS main.ts A
 - TS polyfills.ts A
 - # styles.css A
 - TS test.ts A
- .browserslistrc A
- .editorconfig A
- .gitignore A

OUTLINE

TIMELINE

app.component.html A

projetoAngularCrud > src > app > app.component.html

1

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

node + ^ x

5 unchanged chunks

Build at: 2021-06-30T12:13:07.300Z - Hash: 18b32112178133062887 - Time: 506ms

Compiled successfully.

Ln 1, Col 1 Spaces: 2 UTF-8 LF HTML 🔍 🔒

Senac

File Edit Selection View Go Run Terminal Help app.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - # app.component.css
 - app.component.html M
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - assets
 - environments
 - favicon.ico
 - index.html
 - TS main.ts
 - TS polyfills.ts
 - # styles.css
 - TS test.ts
- .browserslistrc
- .editorconfig
- .gitignore
- OUTLINE
- TIMELINE

1 <div class="container-fluid">
2 <nav class="navbar navbar-default">
3 <div class="container-fluid">
4 <div class="navbar-header">
5
6 {{title}}
7
8 </div>
9 </div>
10 </div>
11 </div>
12 </div>
13 </div>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

node + ^ x

4 unchanged chunks

Build at: 2021-06-30T12:20:34.046Z - Hash: cb139cbeba805f93f9ef - Time: 164ms

✓ Compiled successfully.

Ln 7, Col 13 Spaces: 2 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help app.component.ts - projetoCRUD - Visual Studio Code

EXPLORER ... <> app.component.html M TS app.component.ts M X

PROJETOCRUD

projetoAngularCrud > src > app > TS app.component.ts > ...

```
1 import { Component } from '@angular/core';
2
3 @Component({
4   selector: 'senac-root',
5   templateUrl: './app.component.html',
6   styleUrls: ['./app.component.css']
7 })
8 export class AppComponent {
9   title = 'CRUD Funcionário';
10 }
11
```

node + ^ x

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

4 unchanged chunks

Build at: 2021-06-30T12:21:32.248Z - Hash: efc02031e38aa9fe53a0 - Time: 159ms

✓ Compiled successfully.

master*+ 0 △ 0 Ln 11, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ⚙

RUD Funcionário



File Edit Selection View Go Run Terminal Help • tsconfig.json - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETO CRUD

- app.module.ts
- assets
- environments
- favicon.ico
- index.html
- main.ts
- polyfills.ts
- styles.css
- test.ts
- .browserslistrc
- .editorconfig
- .gitignore
- angular.json
- karma.conf.js
- package-lock.json
- package.json
- README.md
- tsconfig.app.json
- tsconfig.json
- tsconfig.spec.json

tsconfig.json A ●

projetoAngularCrud > tsconfig.json > {} compilerOptions

```
1  /* To learn more about this file see: https://angular.io/config/tsconfig. */
2  {
3    "compileOnSave": false,
4    "compilerOptions": [
5      "baseUrl": "./",
6      "outDir": "./dist/out-tsc",
7      "forceConsistentCasingInFileNames": true,
8      "strict": false, ←
9      "noImplicitReturns": true,
10     "noFallthroughCasesInSwitch": true,
11     "sourceMap": true,
12     "declaration": false,
13     "downlevelIteration": true,
14     "experimentalDecorators": true,
15     "moduleResolution": "node",
16     "importHelpers": true,
17     "target": "es2017",
18     "module": "es2020",
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

node + ^ x

4 unchanged chunks

Build at: 2021-06-30T12:21:32.248Z - Hash: efc02031e38aa9fe53a0 - Time: 159ms

✓ Compiled successfully.

master*+ 0 0 △ 0 Ln 12, Col 26 Spaces: 2 UTF-8 LF JSON with Comments

File Edit Selection View Go Run Terminal Help • tsconfig.json - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETOCRUD

- > assets
- > environments
- ★ favicon.ico
- ↳ index.html
- TS main.ts
- TS polyfills.ts
- # styles.css
- TS test.ts
- Ξ .browserslistrc
- ⚙ .editorconfig
- ❖ .gitignore
- { } angular.json
- K karma.conf.js
- { } package-lock.json
- { } package.json
- ⓘ README.md
- { } tsconfig.app.json
- TS tsconfig.json
- { } tsconfig.spec.json

New Terminal Ctrl+Shift+I

Split Terminal Ctrl+Shift+5

Run Task... Ctrl+Shift+B

Run Build Task... Ctrl+Shift+B

Run Active File

Run Selected Text

Show Running Tasks...

Restart Running Task...

Terminate Task...

Configure Tasks...

Configure Default Build Task...

16 "importHelpers": true,

17 "target": "es2017",

18 "module": "es2020",

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

4 unchanged chunks

Build at: 2021-06-30T12:21:32.248Z - Hash: efc02031e38aa9fe53a0 - Time: 159ms

✓ Compiled successfully.

Ln 12, Col 26 Spaces: 2 UTF-8 LF JSON with Comments

node + ^ X

master*+ ↗ 0 △ 0

File Edit Selection View Go Run Terminal Help • tsconfig.json - projetoCRUD - Visual Studio Code

EXPLORER ... < app.component.html M TS app.component.ts M tsconfig.json A ●

projetoAngularCrud > tsconfig.json > {} compilerOptions

```
1  /* To learn more about this file see: https://angular.io/config/tsconfig. */  
2  {  
3      "compileOnSave": false,  
4      "compilerOptions": [  
5          "baseUrl": "./",  
6          "outDir": "./dist/out-tsc",  
7          "forceConsistentCasingInFileNames": true,  
8          "strict": false,  
9          "noImplicitReturns": true,  
10         "noFallthroughCasesInSwitch": true,  
11         "sourceMap": true,  
12         "declaration": false,  
13         "downlevelIteration": true,  
14         "experimentalDecorators": true,  
15         "moduleResolution": "node",  
16         "importHelpers": true,  
17         "target": "es2017",  
18         "module": "es2020",
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + ^ x

Experimente a nova plataforma cruzada PowerShell <https://aka.ms/pscore6>

```
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> cd projetoAngularCRUD  
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> npm install --save bootstrap  
[.....] / rollbackFailedOptional: verb npm-session 60c415e8481b0060
```

Ln 12, Col 26 Spaces: 2 UTF-8 LF JSON with Comments

File Edit Selection View Go Run Terminal Help • tsconfig.json - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD ... app.component.html M app.component.ts tsconfig.json A

projetoAngularCrud > tsconfig.json > {} compilerOptions

```
1  /* To learn more about this file see: https://angular.io/config/tsconfig. */
2  {
3      "compileOnSave": false,
4      "compilerOptions": {
5          "baseUrl": "./",
6          "outDir": "./dist/out-tsc",
7          "forceConsistentCasingInFileNames": true,
8          "strict": false,
9          "noImplicitReturns": true,
10         "noFallthroughCasesInSwitch": true,
11         "sourceMap": true,
12         "declaration": false,
13         "downlevelIteration": true.
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE powershell + ^ x

```
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
```

```
+ bootstrap@5.0.2
added 1 package from 2 contributors, removed 1 package and audited 1328 packages in 20.436s
```

```
88 packages are looking for funding
  run `npm fund` for details
```

```
found 1 moderate severity vulnerability
  run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>
```

Ln 12, Col 26 Spaces: 2 UTF-8 LF JSON with Comments

master*+ 0 0 △ 0

File Edit Selection View Go Run Terminal Help angular.json - projetoCRUD - Visual Studio Code

EXPLORER ... app.component.html M app.component.ts tsconfig.json A angular.json M X

PROJETOcrud app.module.ts

- > assets
- > environments
- ★ favicon.ico
- index.html
- TS main.ts
- TS polyfills.ts
- # styles.css
- TS test.ts
- .browserslistrc
- .editorconfig
- .gitignore
- { angular.json M
- K karma.conf.js A
- { package-lock.json M
- { package.json M
- README.md A
- { tsconfig.app.json A
- tsconfig.json A
- { tsconfig.spec.json A

projetoAngularCrud > { angular.json > {} projects > {} projetoAngularCrud > {} architect > {} build

```
11      ],
12    },
13    "root": "",
14    "sourceRoot": "src",
15    "prefix": "senac",
16    "architect": {
17      "build": [
18        "builder": "@angular-devkit/build-angular:browser",
19        "options": {
20          "outputPath": "dist/projetoAngularCrud",
21          "index": "src/index.html",
22          "main": "src/main.ts",
23          "polyfills": "src/polyfills.ts",
24          "tsConfig": "tsconfig.app.json",
25          "assets": [
26            "src/favicon.ico",
27            "src/assets"
28          ],
29          "styles": [
30            "src/styles.css",
31            "node_modules/bootstrap/dist/css/bootstrap.min.css"
32          ],
33        }
34      ]
35    }
36  }
37}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 34, Col 13 Spaces: 2 UTF-8 LF JSON

master*+ 0 0 △ 0

Senac



A screenshot of the Visual Studio Code interface showing a project named "projetoCRUD". The Explorer sidebar on the left lists files and folders, including "app.module.ts", "index.html", "main.ts", "polyfills.ts", "styles.css", "test.ts", ".browserslistrc", ".editorconfig", ".gitignore", "angular.json", "karma.conf.js", "package-lock.json", "package.json", "README.md", "tsconfig.app.json", "tsconfig.json", and "tsconfig.spec.json". The "tsconfig.json" file is currently selected and open in the main editor area. The code in "tsconfig.json" is as follows:

```
1  /* To learn more about this file see: https://angular.io/config/tsconfig. */
2  {
3    "compileOnSave": false,
4    "compilerOptions": {
5      "baseUrl": "./",
6      "outDir": "./dist/out-tsc",
7      "forceConsistentCasingInFileNames": true,
8      "strict": false,
9      "noImplicitReturns": true,
10     "noFallthroughCasesInSwitch": true,
11     "sourceMap": true,
12     "declaration": false,
13     "downlevelIteration": true.
```

The terminal tab at the bottom shows the message "Compiled successfully." with a green checkmark icon. A red arrow points to the terminal dropdown menu where "node" is selected. The status bar at the bottom right shows "Ln 19, Col 13" and "JSON with Comments".

File Edit Selection View Go Run Terminal Help tsconfig.json - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD app.module.ts assets environments favicon.ico index.html main.ts polyfills.ts styles.css test.ts .browserslistrc .editorconfig .gitignore angular.json karma.conf.js package-lock.json packagejson README.md tsconfig.app.json tsconfig.json tsconfig.spec.json

projetoAngularCrud > tsconfig.json > {} compilerOptions > [] lib

```
1  /* To learn more about this file see: https://angular.io/config/tsconfig. */
2  {
3    "compileOnSave": false,
4    "compilerOptions": {
5      "baseUrl": "./",
6      "outDir": "./dist/out-tsc",
7      "forceConsistentCasingInFileNames": true,
8      "strict": false,
9      "noImplicitReturns": true,
10     "noFallthroughCasesInSwitch": true,
11     "sourceMap": true,
12     "declaration": false,
13     "downlevelIteration": true.
```

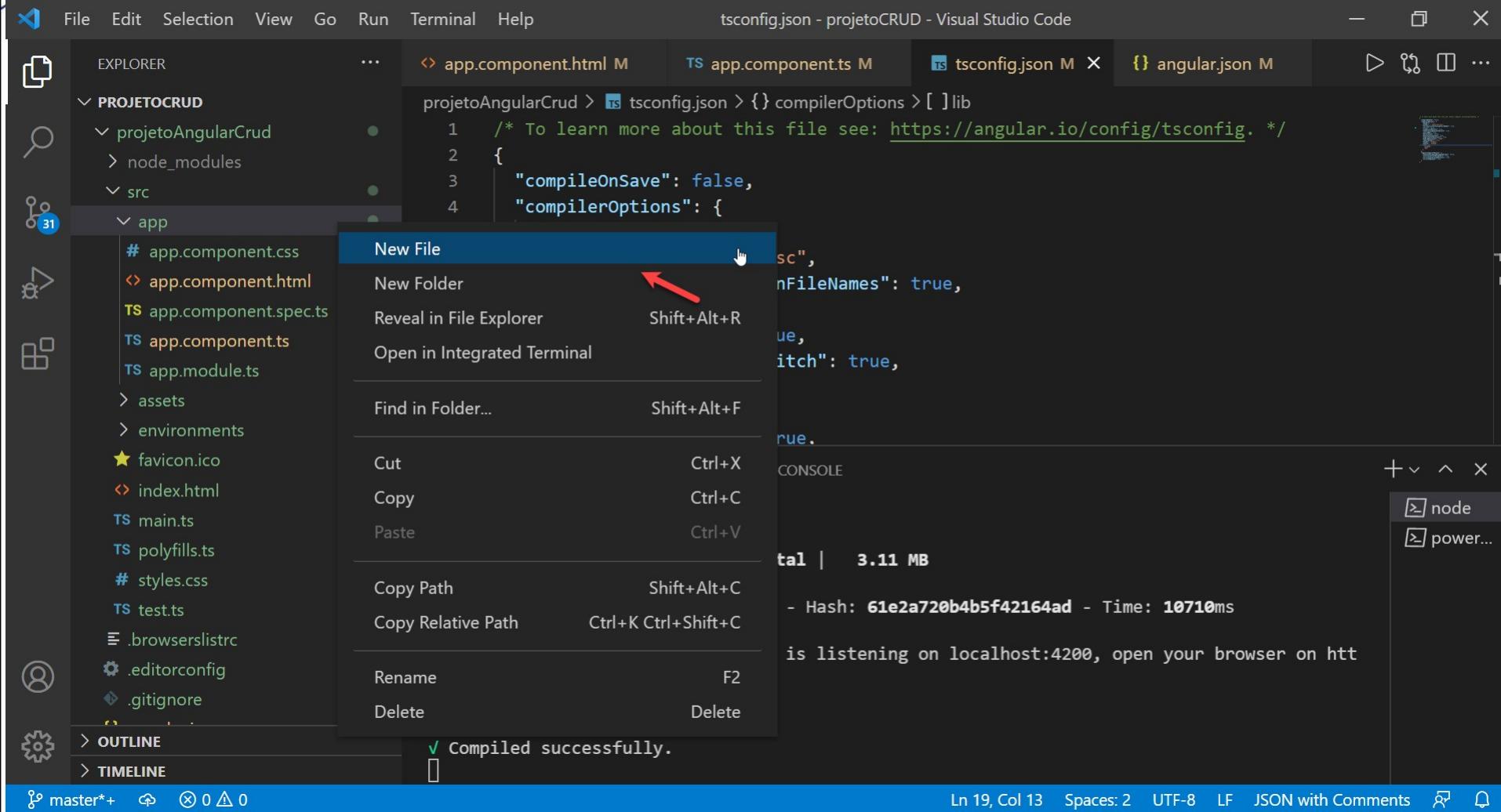
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Compiled successfully.
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud> ng serve

Ln 19, Col 13 Spaces: 2 UTF-8 LF JSON with Comments

CRUD Funcionário

↳





A screenshot of the Visual Studio Code (VS Code) interface showing an Angular project named "projetoAngularCrud".

The Explorer sidebar on the left shows the project structure:

- PROJETOCRUD
 - projetoAngularCrud
 - node_modules
 - src
 - app
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - assets
 - environments
 - favicon.ico
 - index.html
 - main.ts
 - polyfills.ts
 - styles.css
 - test.ts
 - .browserslistrc
 - .editorconfig
- OUTLINE
- TIMELINE

A red arrow points to the "app.routes.ts" file in the Explorer sidebar.

The top right status bar shows the current file is "app.routes.ts - projetoCRUD - Visual Studio Code".

The bottom status bar shows the build output:

```
| Initial Total | 3.11 MB
Build at: 2021-06-30T12:42:41.323Z - Hash: 61e2a720b4b5f42164ad - Time: 10710ms
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/
Compiled successfully.
```

The bottom right status bar also displays "Ln 1, Col 1" and other build details.



A screenshot of the Visual Studio Code (VS Code) interface showing an Angular project setup.

The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The title bar shows "app.routes.ts - projetoCRUD - Visual Studio Code".

The Explorer sidebar on the left lists the project structure:

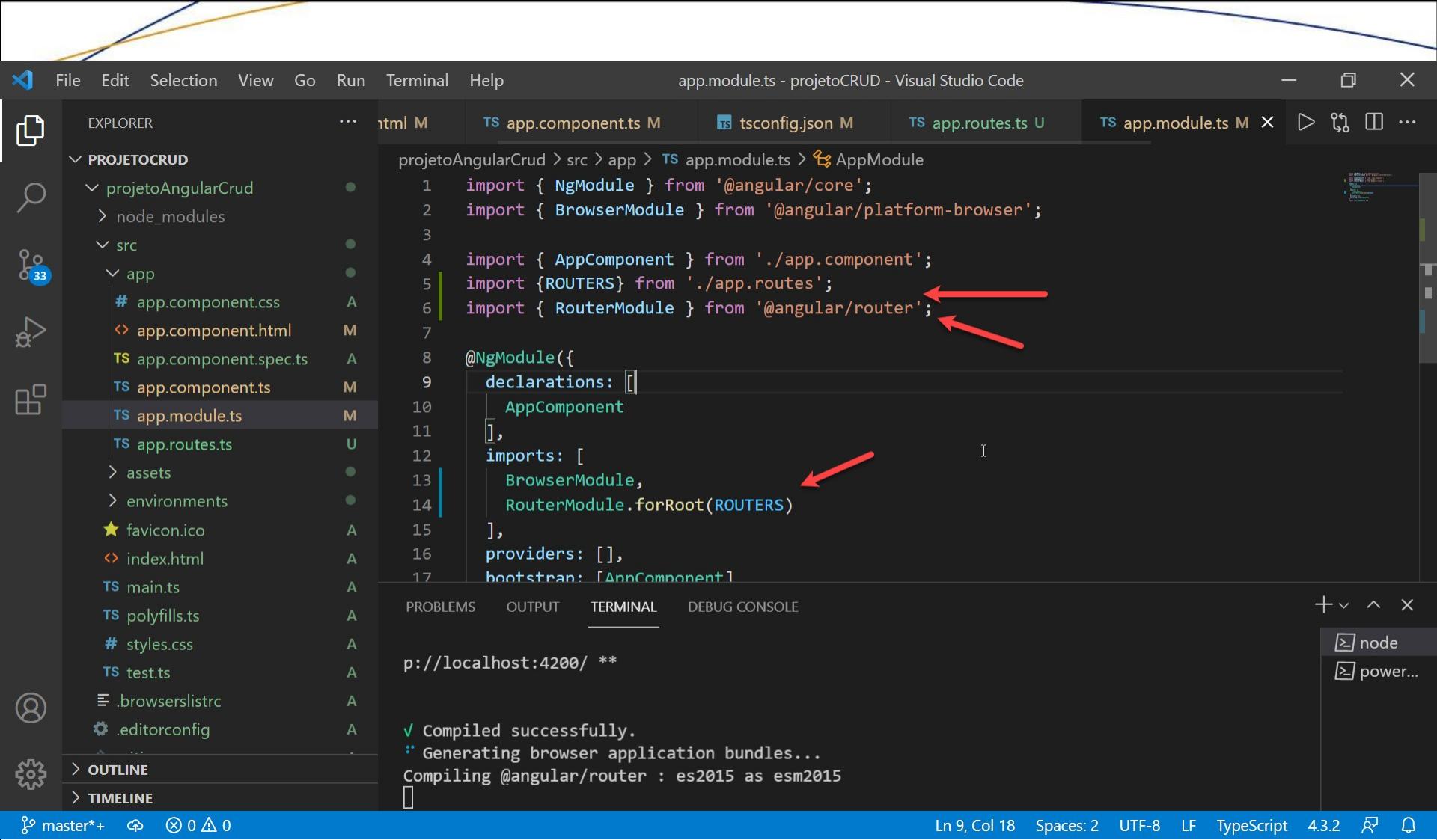
- PROJETOcrud
- projetoAngularCrud
- node_modules
- src
 - app
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - assets
 - environments
 - favicon.ico
 - index.html
 - main.ts
 - polyfills.ts
 - styles.css
 - test.ts
 - .browserslistrc
 - .editorconfig
- OUTLINE
- TIMELINE

The current file being edited is "app.routes.ts", which contains the following code:

```
import { Routes } from '@angular/router';
export const ROUTERS: Routes = [
]
```

The bottom right corner shows the build status: "Initial Total | 3.11 MB", "Build at: 2021-06-30T12:42:41.323Z - Hash: 61e2a720b4b5f42164ad - Time: 10710ms", and "Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/".

The status bar at the bottom displays "Ln 7, Col 4 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2" and icons for master+, diff, and timeline.



File Edit Selection View Go Run Terminal Help app.component.html - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETOcrud

- projetoAngularCrud
- node_modules
- src
- app
 - # app.component.css
 - app.component.html M
 - TS app.component.spec.ts A
 - TS app.component.ts M
 - TS app.module.ts M
 - TS app.routes.ts U
- assets
- environments
- favicon.ico
- index.html
- TS main.ts A
- TS polyfills.ts A
- # styles.css A
- TS test.ts A
- .browserslistrc A
- .editorconfig A

> OUTLINE

> TIMELINE

1 <div class="container-fluid">
2 <nav class="navbar navbar-def">
3 <div class="container-fluid">
4 <div class="navbar-header">
5
6 {{title}}
7
8 </div>
9 </div>
10 </nav>
11 <router-outlet></router-outlet>
12 </div>
13
14 </div>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

4 unchanged chunks

Build at: 2021-06-30T12:58:34.517Z - Hash: d679c8bc4cc18a5ee580 - Time: 221ms

✓ Compiled successfully.

Ln 12, Col 1 Spaces: 2 UTF-8 LF HTML

+ ^ X

node power...

File Edit Selection View Go Run Terminal Help app.module.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETOCRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - assets
 - environments
 - favicon.ico
 - index.html
 - main.ts
 - polyfills.ts
 - styles.css
 - test.ts
- .browserslistrc
- .editorconfig
- .gitignore
- angular.json
- karma.conf.js
- package-lock.json
- package.json
- README.md

OUTLINE

TIMELINE

html M app.component.ts M tsconfig.json M app.routes.ts U TS app.module.ts M X

```
projetoAngularCrud > src > app > TS app.module.ts > AppModule
6 | import { RouterModule } from '@angular/router';
7 |
8 | @NgModule({
9 |   declarations: [
10 |     AppComponent
11 |   ],
12 |   imports: [
13 |     BrowserModule,
14 |     RouterModule.forRoot(ROUTERS)
15 |   ],
16 |   providers: [],
17 |   bootstrap: [AppComponent]
18 | })
19 | export class AppModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g module funcionario
```

Ln 9, Col 18 Spaces: 2 UTF-8 LF TypeScript 4.3.2

File Edit Selection View Go Run Terminal Help funcionario.module.ts - projetoCRUD - Visual Studio Code

EXPLORER ... tsconfig.json M app.routes.ts U app.module.ts M funcionario.module.ts U X D ? ...

PROJETO CRUD 34

projetoAngularCrud > src > app > funcionario > TS funcionario.module.ts > ...

funcionario.module.ts U

TS app.component.css A

TS app.component.html M

TS app.component.spec.ts A

TS app.component.ts M

TS app.module.ts M

TS app.routes.ts U

app.component.css

<> app.component.html

TS app.component.spec.ts

TS app.component.ts

TS app.module.ts

TS app.routes.ts

> assets

> environments

★ favicon.ico

<> index.html

TS main.ts

TS polyfills.ts

styles.css

TS test.ts

OUTLINE

TIMELINE

1 import { NgModule } from '@angular/core';
2 import { CommonModule } from '@angular/common';
3
4
5 @NgModule({
6 declarations: [],
7 imports: [
8 CommonModule
9]
10 })
11
12 export class FuncionarioModule {}
13

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g module funcionario
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 1, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2

+ ^ x node power...

File Edit Selection View Go Run Terminal Help index.ts - projetoCRUD - Visual Studio Code

EXPLORER ... TS app.routes.ts U TS app.module.ts M TS funcionario.module.ts U TS index.ts U X D ⓘ ⌂ ⌄ ⌅ ⌆

PROJETOcrud projetoAngularCrud node_modules src app funcionario TS funcionario.module.ts U TS index.ts U # app.component.css A app.component.html M TS app.component.spec.ts A TS app.component.ts M TS app.module.ts M TS app.routes.ts U > assets A > environments A ★ favicon.ico A < index.html A TS main.ts A TS polyfills.ts A # styles.css A

projetoAngularCrud > src > app > funcionario > TS index.ts
1 export * from './funcionario.module';

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g module funcionario
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

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EXPLORER

PROJETOCRUD

projetoAngularCrud

> node_modules

< src

< app

< funcionario

TS funcionario.module.ts

TS index.ts

app.component.css

< app.component.html

TS app.component.spec.ts

TS app.component.ts

TS app.module.ts

TS app.routes.ts

> assets

> environments

★ favicon.ico

< index.html

TS main.ts

TS polyfills.ts

styles.css

> OUTLINE

> TIMELINE

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TS app.routes.ts U

TS app.module.ts M X

TS funcionario.module.ts U

TS index.ts U

▷ ⌂ ⌂ ...

projetoAngularCrud > src > app > TS app.module.ts > AppModule

```
4 import { AppComponent } from './app.component';
5 import {ROUTERS} from './app.routes';
6 import { RouterModule } from '@angular/router';
7 import { FuncionarioModule } from './funcionario';
8
9 @NgModule([
10   declarations: [
11     AppComponent
12   ],
13   imports: [
14     BrowserModule,
15     RouterModule.forRoot(ROUTERS),
16     FuncionarioModule
17   ],
18   providers: [],
19   bootstrap: [AppComponent]
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g module funcionario
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

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File Edit Selection View Go Run Terminal Help

funcionario.model.ts - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETO CRUD

projetoAngularCrud

- node_modules
- src
 - app
 - funcionario
 - funcionario.model.ts **U**
 - funcionario.module.ts **U**
 - index.ts **U**
 - # app.component.css **A**
 - app.component.html **M**
 - app.component.spec.ts **A**
 - app.component.ts **M**
 - app.module.ts **M**
 - app.routes.ts **U**
 - assets
 - environments
 - favicon.ico **A**
 - index.html **A**
 - main.ts **A**
 - polyfills.ts **A**

OUTLINE

TIMELINE

TS app.routes.ts U TS app.module.ts M TS funcionario.model.ts U X TS funcionario.module.ts D ⓘ ⌂ ⌃ ...

projetoAngularCrud > src > app > funcionario > **funcionario.model.ts**

1

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

run `npm audit fix` to fix them, or `npm audit` for details
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> **ng g module funcionario**
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

+ ⌄ ⌁ X

node

power...

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File Edit Selection View Go Run Terminal Help funcionario.model.ts - projetoCRUD - Visual Studio Code

EXPLORER ... TS app.routes.ts U TS app.module.ts M TS funcionario.model.ts U X TS funcionario.module.ts D ⓘ ⓘ ⌂ ⌂ ⌂

PROJETO CRUD
projetoAngularCrud
node_modules
src
app
funcionario
TS funcionario.model.ts U
TS funcionario.module.ts U
TS index.ts U
app.component.css A
app.component.html M
TS app.component.spec.ts A
TS app.component.ts M
TS app.module.ts M
TS app.routes.ts U
assets
environments
favicon.ico A
index.html A
TS main.ts A
TS polyfills.ts A
" " -

funcionario.model.ts
projetoAngularCrud > src > app > funcionario > TS funcionario.model.ts > Funcionario

```
1 export class Funcionario{  
2     constructor(public id?: number,public nome?:string){}  
3 }  
4  
5 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
run `npm audit fix` to fix them, or `npm audit` for details  
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g module funcionario  
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)  
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>
```

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File Edit Selection View Go Run Terminal Help funcionario.model.ts - projetoCRUD - Visual Studio Code

EXPLORER ... TS app.routes.ts U TS app.module.ts M TS funcionario.model.ts U X TS funcionario.module.ts U TS index.ts D 36 ...

projetoAngularCrud > src > app > funcionario > TS funcionario.model.ts > Funcionario

```
1 export class Funcionario{  
2     |  
3         constructor(public id?: number,public nome?:string){}  
4     |  
5 }
```

TS funcionario... U
TS funcionario... U
TS index.ts U
app.compon... A
↳ app.compo... M
TS app.compon... A
TS app.compo... M
TS app.module... M
TS app.routes.ts U
> assets U
> environments U
★ favicon.ico A
↳ index.html A
TS main.ts A
TS polyfills.ts A

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
run `npm audit fix` to fix them, or `npm audit` for details  
PS D:\marcelo\senac\tecnologiacode\projetoCRUD\projetoAngularCRUD> ng g module funcionario  
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)  
PS D:\marcelo\senac\tecnologiacode\projetoCRUD\projetoAngularCRUD> ng g service funcionario
```

+ ^ × node power...

> OUTLINE
> TIMELINE

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File Edit Selection View Go Run Terminal Help app.module.ts - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETO CRUD projetoAngularCrud node_modules src app funcionario funcionario.model.ts funcionario.module.ts index.ts # app.component.css app.component.html TS app.component.spec.ts TS app.component.ts app.module.ts M app.routes.ts U funcionario.service.spec.ts U funcionario.service.ts assets environments favicon.ico index.html

TS app.routes.ts U TS app.module.ts M X TS funcionario.model.ts U TS funcionario.module.ts U

projetoAngularCrud > src > app > TS app.module.ts > AppModule

```
9  @NgModule({
10    declarations: [
11      AppComponent
12    ],
13    imports: [
14      BrowserModule,
15      RouterModule.forRoot(ROUTERS),
16      FuncionarioModule
17    ],
18    providers: [],
19    bootstrap: [AppComponent]
20  })
21  export class AppModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g service funcionario

CREATE src/app/funcionario.service.spec.ts (382 bytes)
CREATE src/app/funcionario.service.ts (140 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

+ ✓ ^ × node power...

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File Edit Selection View Go Run Terminal Help

funcionario.module.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETOCRUD

- projetoAngularCrud
 - node_modules
- src
 - app
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts 
 - TS index.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - TS app.routes.ts
 - TS funcionario.service.spec.ts
 - TS funcionario.service.ts
 - assets
 - environments
 - favicon.ico
 - index.html
 - OUTLINE
 - TIMELINE

module.ts M TS funcionario.service.ts U TS funcionario.model.ts U TS funcionario.module.ts U X

projetoAngularCrud > src > app > funcionario > TS funcionario.module.ts > ...

```
1 import { NgModule } from '@angular/core';
2 import { CommonModule } from '@angular/common';
3
4 import { FuncionarioService } from '../funcionario.service';
5
6 @NgModule({
7   declarations: [],
8   imports: [
9     CommonModule
10   ]
11 })
12 export class FuncionarioModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g service funcionario

CREATE src/app/funcionario.service.spec.ts (382 bytes)
CREATE src/app/funcionario.service.ts (140 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 5, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2

+ ^ x

[] node
[] power...

master*+ 0 0 △ 0



EXPLORER

- ✓ PROJETOCRUD
 - ✓ projetoAngularCrud
 - > node_modules
 - ✓ src
 - ✓ app
 - ✓ funcionario
 - TS funcionario.model.ts U
 - TS funcionario.module.ts U
 - TS index.ts U
 - # app.component.css A
 - ▷ app.component.html M
 - TS app.component.spec.ts A
 - TS app.component.ts M
 - TS app.module.ts M
 - TS app.routes.ts U
 - TS funcionario.service.spec.ts U
 - TS funcionario.service.ts U
 - > assets
 - > environments
 - ★ favicon.ico A
 - ▷ index.html A
- > OUTLINE
- > TIMELINE

projetoAngularCrud > src > app > funcionario > **TS funcionario.module.ts** > FuncionarioModule

```
4 import { FuncionarioService } from '../funcionario.service';
5
6 @NgModule({
7   declarations: [],
8   imports: [
9     CommonModule
10 ],
11 providers:[
12   FuncionarioService
13 ]
14 })
15 export class FuncionarioModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
CREATE src/app/funcionario/funcionario.module.ts (197 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g service funcionario

CREATE src/app/funcionario.service.spec.ts (382 bytes)
CREATE src/app/funcionario.service.ts (140 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> 
```

Ln 12, Col 23 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ⚙



EXPLORER

PROJETOCRUD

projetoAngularCrud

> node_modules

> src

> app

> funcionario

TS funcionario.model.ts

TS funcionario.module.ts

TS index.ts

app.component.css

↳ app.component.html

TS app.component.spec.ts

TS app.component.ts

TS app.module.ts

TS app.routes.ts

TS funcionario.service.spec.ts

TS funcionario.service.ts

> assets

> environments

★ favicon.ico

↳ index.html

> OUTLINE

> TIMELINE

... module.ts M

TS funcionario.service.ts U ●

TS funcionario.model.ts U

TS funcionario.module.ts U

▷ ⌂ ⌂ ...

```
projetoAngularCrud > src > app > TS funcionario.service.ts > ...
1 import { Injectable } from '@angular/core';
2 import { Funcionario } from './funcionario/funcionario.model';
3
4 @Injectable({
5   providedIn: 'root'
6 })
7 export class FuncionarioService {
8
9   constructor() { }
10
11  listarTodos(): Funcionario[]{
12    const funcionarios = localStorage['funcionarios'];
13    return funcionarios ? JSON.parse(funcionarios) : [];
14  }
15}
16
```



PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

+

x

node

power...

4 unchanged chunks

Build at: 2021-06-30T13:22:38.070Z - Hash: 31aa0a4c4380d0dbdf84 - Time: 221ms

✓ Compiled successfully.

Ln 16, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ↻

File Edit Selection View Go Run Terminal Help

funcionario.service.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - TS app.routes.ts
 - TS funcionario.service.spec.ts
 - TS funcionario.service.ts
 - assets
 - environments
 - favicon.ico
 - index.html

OUTLINE

TIMELINE

funcionario.service.ts M

funcionario.service.ts U X

funcionario.model.ts U

funcionario.module.ts U

projetoAngularCrud > src > app > TS funcionario.service.ts > FuncionarioService

```
6  }
7  export class FuncionarioService {
8
9    constructor() { }
10
11   listarTodos(): Funcionario[]{
12     const funcionarios = localStorage['funcionarios'];
13     return funcionarios ? JSON.parse(funcionarios) : [];
14   }
15
16   cadastrar(funcionario: Funcionario):void{
17     const funcionarios = this.listarTodos();
18     funcionario.id = new Date().getTime();
19     funcionarios.push(funcionario);
20     localStorage['funcionarios'] = JSON.stringify(funcionarios);
21   }
22
23 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

4 unchanged chunks

Build at: 2021-06-30T13:31:35.406Z - Hash: e737f49ef08335b24eff - Time: 225ms

Compiled successfully.

Ln 22, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2

node power...

File Edit Selection View Go Run Terminal Help

funcionario.service.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.components.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
 - assets
 - environments
 - favicon.ico
 - index.html

OUTLINE

TIMELINE

modo.ts M funcionario.service.ts U funcionario.model.ts U funcionario.module.ts U

projetoAngularCrud > src > app > **funcionario.service.ts** > FuncionarioService > buscarPorId

```
13      return FUNCIONARIOS ? JSON.parse(FUNCIONARIOS) : [];
14 }
15
16 cadastrar(funcionario: Funcionario):void{
17     const funcionarios = this.listarTodos();
18     funcionario.id = new Date().getTime();
19     funcionarios.push(funcionario);
20     localStorage['funcionarios'] = JSON.stringify(funcionarios);
21 }
22
23 buscarPorId(id:number): Funcionario{
24     const funcionarios: Funcionario[] = this.listarTodos();
25     return funcionarios.find(funcionario => funcionario.id === id);
26 }
27
28 }
29
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

4 unchanged chunks

Build at: 2021-06-30T13:31:35.406Z - Hash: e737f49ef08335b24eff - Time: 225ms

Compiled successfully.

Ln 26, Col 4 Spaces: 2 UTF-8 LF TypeScript 4.3.2

+ ^ x node power...

File Edit Selection View Go Run Terminal Help funcionario.service.ts - projetoCRUD - Visual Studio Code

EXPLORER ... module.ts M TS funcionario.service.ts U X TS funcionario.model.ts U TS funcionario.module.ts U D ⌂ ⌂ ⌂ ⌂ ⌂

PROJETO CRUD projetoAngularCrud > src > app > TS funcionario.service.ts > FuncionarioService > atualizar

20 localStorage['funcionarios'] = JSON.stringify(funcionarios);
21 }
22
23 buscarPorId(id:number): Funcionario{
24 const funcionarios: Funcionario[] = this.listarTodos();
25 return funcionarios.find(funcionario => funcionario.id === id);
26 }
27
28 atualizar(funcionario: Funcionario):void{
29 const funcionarios: Funcionario[] = this.listarTodos();
30 funcionarios.forEach((func, pos, funcs) =>{
31 if(funcionario.id === func.id){
32 funcs[pos] = funcionario;
33 }
34 });
35 localStorage['funcionarios'] = JSON.stringify(funcionarios);
36 }
37

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE + ^ x

4 unchanged chunks

Build at: 2021-06-30T13:43:47.908Z - Hash: 48c542311a74380aad8 - Time: 211ms

Compiled successfully.

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node power...

File Edit Selection View Go Run Terminal Help

funcionario.service.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - TS app.routes.ts
 - TS funcionario.service.spec.ts
 - TS funcionario.service.ts
 - assets
 - environments
 - favicon.ico
 - index.html

OUTLINE

TIMELINE

funcionario.service.ts M

funcionario.model.ts U

funcionario.module.ts U

projetoAngularCrud > src > app > TS funcionario.service.ts > FuncionarioService > atualizar

```
atualizar(funcionario: Funcionario):void{
    const funcionarios: Funcionario[] = this.listarTodos();
    funcionarios.forEach((func, pos, funcs) =>{
        if(funcionario.id === func.id){
            funcs[pos] = funcionario;
        }
    });
    localStorage['funcionarios'] = JSON.stringify(funcionarios);
}

remover(id:number): void{
    let funcionarios: Funcionario[] = this.listarTodos();
    funcionarios = funcionarios.filter(funcionario => funcionario.id !== id);
    localStorage['funcionarios'] = JSON.stringify(funcionarios);
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

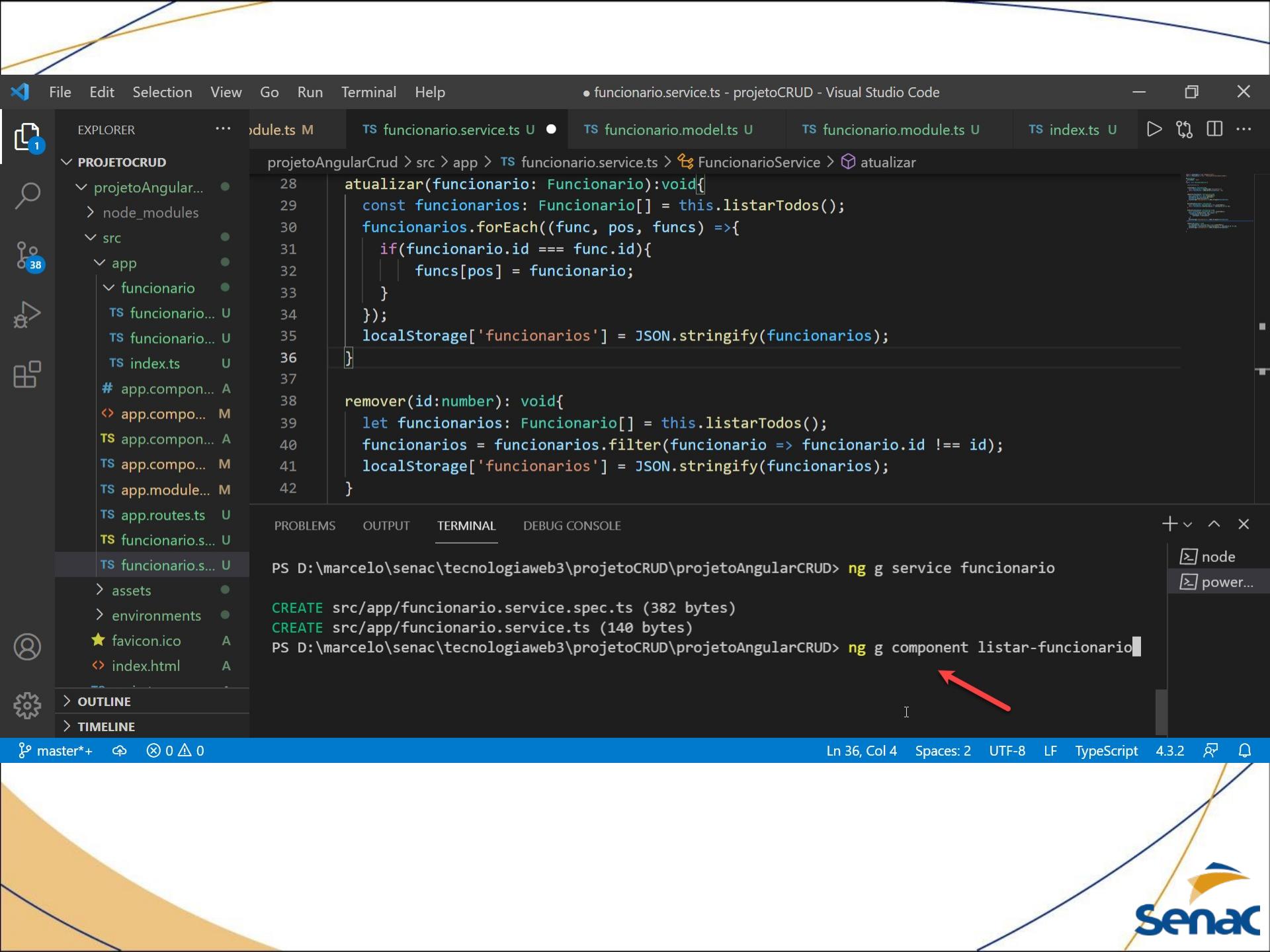
4 unchanged chunks

Build at: 2021-06-30T13:43:47.908Z - Hash: 48c542311a74380aadb8 - Time: 211ms

Compiled successfully.

Ln 36, Col 4 Spaces: 2 UTF-8 LF TypeScript 4.3.2

node power...



File Edit Selection View Go Run Terminal Help app.routes.ts - projetoCRUD - Visual Studio Code

EXPLORER ... PROJETOCRUD src app funcionario app.routes.ts U app.module.ts M funcionario.service.ts U funcionario U 1 import { Routes } from "@angular/router"; 2 import { ListarFuncionarioComponent } from "./listar-funcionario/listar-funcionario.component"; 3 4 export const ROUTERS: Routes = [5 { 6 path: 'funcionarios/listar', 7 component: ListarFuncionarioComponent 8 } 9] 10] 11 12

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

+ ^ x node power...

es) CREATE src/app/listar-funcionario/listar-funcionario.component.spec.ts (704 bytes) CREATE src/app/listar-funcionario/listar-funcionario.component.ts (324 bytes) CREATE src/app/listar-funcionario/listar-funcionario.component.css (0 bytes) UPDATE src/app/app.module.ts (637 bytes) PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 11, Col 1 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2

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File Edit Selection View Go Run Terminal Help app.routes.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETOCRUD

- src
 - app
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
 - assets
 - environments

OUTLINE TIMELINE

File Explorer: 1 file(s) modified, 42 file(s) unstaged, 0 file(s) deleted, 0 file(s) renamed.

TS app.routes.ts U X TS app.module.ts M TS funcionario.service.ts U ● TS funcionarar D ⓘ ⓘ ⋮

projetoAngularCrud > src > app > TS app.routes.ts > [?] ROUTERS

```
1 import { Routes } from '@angular/router';
2 import { ListarFuncionarioComponent } from './listar-funcionario/listar-funcionario.component';
3 
4 
5 export const ROUTERS: Routes = [
6   {
7     path: 'funcionarios/listar',
8     component: ListarFuncionarioComponent
9   },
10  [
11    {
12      path: 'funcionarios',
13      redirectTo: 'funcionarios/listar'
14    }
15 ]
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

CREATE src/app/listar-funcionario/listar-funcionario.component.spec.ts (704 bytes)
CREATE src/app/listar-funcionario/listar-funcionario.component.ts (324 bytes)
CREATE src/app/listar-funcionario/listar-funcionario.component.css (0 bytes)
UPDATE src/app/app.module.ts (637 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> []

Ln 13, Col 4 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2 ⓘ ⓘ ⋮

File Edit Selection View Go Run Terminal Help

• app.routes.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
- TS funcionario.service.spec.ts
- TS funcionario.service.ts
- > assets
- > environments

... TS app.routes.ts U ● TS app.module.ts M TS funcionario.service.ts U ● TS funcionario D ⌂ ⌂ ...

projetoAngularCrud > src > app > TS app.routes.ts > ...

```
3
4
5 export const ROUTERS: Routes = [
6   {
7     path: 'funcionarios/listar',
8     component: ListarFuncionarioComponent
9   },
10  {
11    path: 'funcionarios',
12    redirectTo: 'funcionarios/listar'
13  },
14  {
15    path: '',
16    redirectTo: 'funcionarios/listar',
17    pathMatch: 'full'
18  }
19 ]
20
21
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
s)
CREATE src/app/listar-funcionario/listar-funcionario.component.css (0 bytes)
)
UPDATE src/app/app.module.ts (637 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>
```

Ln 21, Col 1 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2 ⌂ ⌂

node

power...

master*+ 0 △ 0

Senac



CRUD Funcionário

listar-funcionario works!

File Edit Selection View Go Run Terminal Help listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
- # app.component.css
- app.component.html
- app.component.spec.ts
- app.component.ts
- app.module.ts
- app.routes.ts
- funcionario.service.spec.ts
- funcionario.service.ts
- > assets
- > environments

... TS app.routes.ts U < listar-funcionario.component.html U X TS app.module.ts M TS funci D ⌂ ⌂ ...

app > listar-funcionario > listar-funcionario.component.html > table.table.table-striped.table-bordered.table-hover > tr

```
1   <h1>Funcionários</h1>
2
3   <table class="table table-striped table-bordered table-hover">
4     <tr>
5       <th>Funcionário</th>
6       <th class="text-center">
7         <a
8           class="btn btn-xs btn-success">
9             <span class="glyphicon glyphicon-plus"
10               aria-hidden="true"></span> Novo
11         </a>
12       </th>
13     </tr>
14     <tr>
15       <td>
16       </td>
17       <td class="text-center" style="width: 200px">
18         <a
19           title="Editar" alt="Editar"
20             class="btn btn-xs btn-info">
21               <span class="glyphicon glyphicon-pencil"
22                 aria-hidden="true"></span> Editar
23         </a>
24         <a href="#" title="Remover" alt="Remover">
```

Ln 16, Col 7 Spaces: 4 UTF-8 LF HTML ⌂ ⌂

File Edit Selection View Go Run Terminal Help listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments

listar-funcionario.component.html

```
app > listar-funcionario > listar-funcionario.component.html > table.table.table-striped.table-bordered.table-hover > tr > td > th > /td > /tr > tr > td > /td > td class="text-center" style="width: 200px" > a title="Editar" alt="Editar" class="btn btn-xs btn-info" > span class="glyphicon glyphicon-pencil" aria-hidden="true" > /span > Editar </a> <a href="#" title="Remover" alt="Remover" class="btn btn-xs btn-danger" > span class="glyphicon glyphicon-remove" aria-hidden="true" > /span > Remover </a> </td> </tr> </table>
```

Nenhum Funcionário cadastrado.

master*+ 0 △ 0 Ln 16, Col 7 Spaces: 4 UTF-8 LF HTML

EXPLORER	
▽ PROJETO CRUD	...
▽ src	●
▽ app	●
▽ funcionario	●
TS funcionario.model.ts	U
TS funcionario.module.ts	U
TS index.ts	U
> listar-funcionario	●
# app.component.css	A
△ app.component.html	M
TS app.component.spec.ts	A
TS app.component.ts	M
TS app.module.ts	M
TS app.routes.ts	U
TS funcionario.service.sp...	U
TS funcionario.service.ts	U
> assets	●
> environments	●
★ favicon.ico	A
△ index.html	A
TS main.ts	A
TS polyfills.ts	A
> OUTLINE	
> TIMELINE	

```
projetoAngularCrud > src > app > funcionario > funcionario.module.ts > FuncionarioModule

1 import { NgModule } from '@angular/core';
2 import { CommonModule } from '@angular/common';
3 import { RouterModule } from '@angular/router'; ←
4 import { FormsModule } from '@angular/forms'; ←
5 import { FuncionarioService } from '../funcionario.service';
6 import { ListarFuncionarioComponent } from '../listar-funcionario/listar-funcionario.compo
7
8 @NgModule({
9   declarations: [
10     ListarFuncionarioComponent ←
11   ],
12   imports: [
13     CommonModule,
14     RouterModule, ←
15     FormsModule| ←
16   ],
17   providers:[
18     FuncionarioService
19   ]
20 })
21 export class FuncionarioModule { }
22
```

File Edit Selection View Go Run Terminal Help listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETOCRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments

listar-funcionario.component.ts U

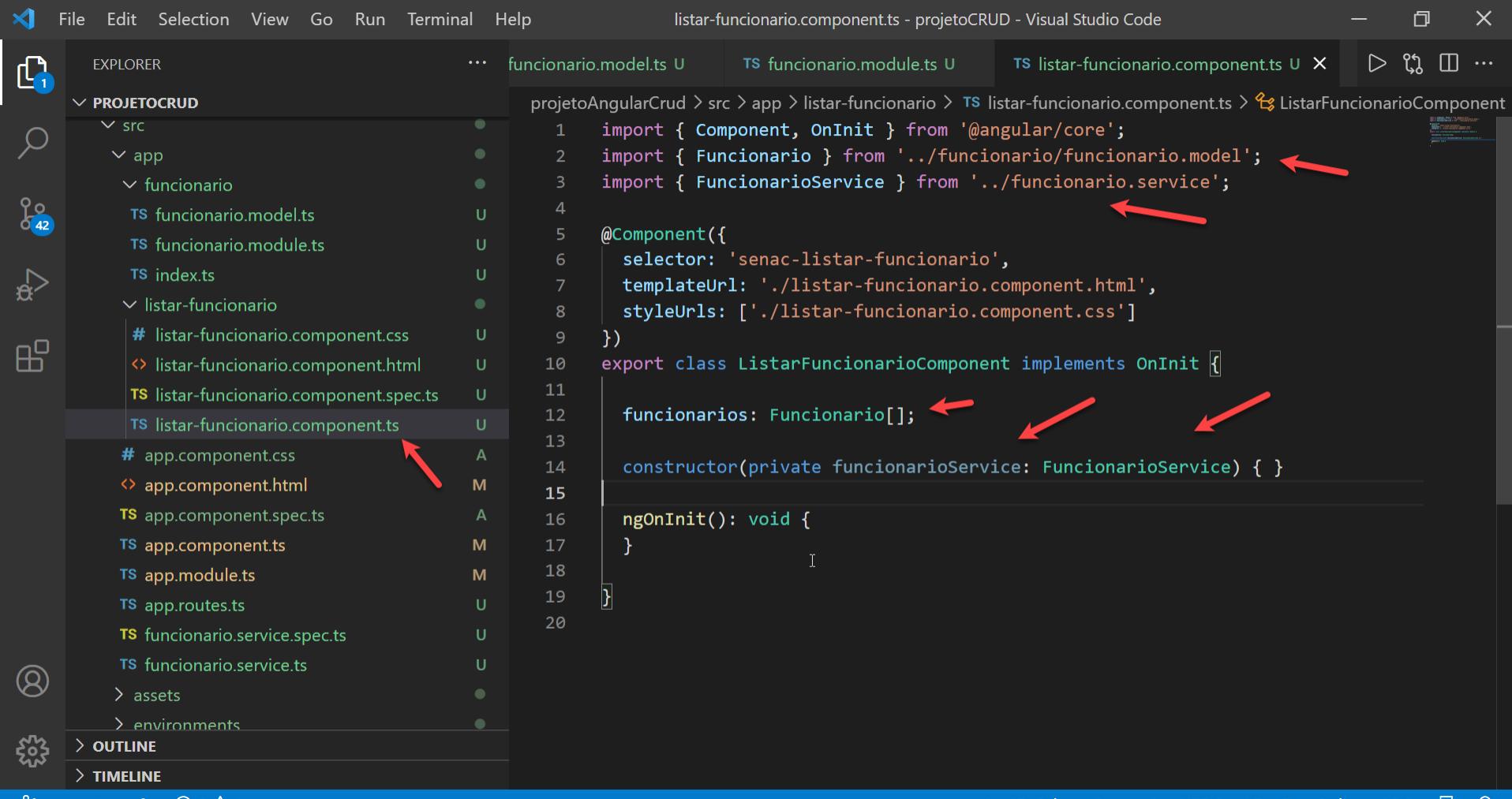
funcionario.model.ts U

funcionario.module.ts U

listar-funcionario.component.ts U

```
projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent
1 import { Component, OnInit } from '@angular/core';
2 import { Funcionario } from '../funcionario/funcionario.model';
3 import { FuncionarioService } from '../funcionario.service';
4
5 @Component({
6   selector: 'senac-listar-funcionario',
7   templateUrl: './listar-funcionario.component.html',
8   styleUrls: ['./listar-funcionario.component.css']
9 })
10 export class ListarFuncionarioComponent implements OnInit {
11   funcionarios: Funcionario[];
12
13   constructor(private funcionarioService: FuncionarioService) { }
14
15   ngOnInit(): void {
16   }
17
18 }
19
20
```

Ln 15, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2



File Edit Selection View Go Run Terminal Help

listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments

... funcionario.model.ts U funcionario.module.ts U listar-funcionario.component.ts U ...

projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent

```
1 import { Component, OnInit } from '@angular/core';
2 import { Funcionario } from '../funcionario/funcionario.model';
3 import { FuncionarioService } from '../funcionario.service';
4
5 @Component({
6   selector: 'senac-listar-funcionario',
7   templateUrl: './listar-funcionario.component.html',
8   styleUrls: ['./listar-funcionario.component.css']
9 })
10 export class ListarFuncionarioComponent implements OnInit {
11
12   funcionarios: Funcionario[];
13
14   constructor(private funcionarioService: FuncionarioService) { }
15
16   ngOnInit(): void {
17   }
18
19   listarTodos(): Funcionario[] {
20     return this.funcionarioService.listarTodos();
21   }
22
23 }
```

Ln 23, Col 2 Spaces: 2 UTF-8 LF TypeScript 4.3.2



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Senac



EXPLORER

...

funcionario.model.ts U

TS funcionario.module.ts U

TS listar-funcionario.component.ts U X

▷ ⌂ ⌂ ...



PROJETOCRUD

src

app

funcionario

TS funcionario.model.ts

TS funcionario.module.ts

TS index.ts

listar-funcionario

listar-funcionario.component.css

↳ listar-funcionario.component.html

TS listar-funcionario.component.spec.ts

TS listar-funcionario.component.ts

app.component.css

↳ app.component.html

TS app.component.spec.ts

TS app.component.ts

TS app.module.ts

TS app.routes.ts

TS funcionario.service.spec.ts

TS funcionario.service.ts

> assets

> environments

> OUTLINE

> TIMELINE

```
projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent
  1   import { Component, OnInit } from '@angular/core';
  2   import { Funcionario } from '../funcionario/funcionario.model';
  3   import { FuncionarioService } from '../funcionario.service';
  4
  5   @Component({
  6     selector: 'senac-listar-funcionario',
  7     templateUrl: './listar-funcionario.component.html',
  8     styleUrls: ['./listar-funcionario.component.css']
  9   })
10  export class ListarFuncionarioComponent implements OnInit {
11
12    funcionarios: Funcionario[];
13
14    constructor(private funcionarioService: FuncionarioService) { }
15
16    ngOnInit(): void {
17      this.funcionarios = this.listarTodos(); ←
18    }
19
20    listarTodos(): Funcionario[] {
21      return this.funcionarioService.listarTodos();
22    }
23
24  }
25
```

File Edit Selection View Go Run Terminal Help

listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments

listar-funcionario > listar-funcionario.component.html > table.table.table-striped.table-bordered.table-hover > tr > th

```
<tr>
  <th>Funcionário</th>
  <th class="text-center">
    <a
      class="btn btn-xs btn-success">
      <span class="glyphicon glyphicon-plus"
            aria-hidden="true"></span> Novo
    </a>
  </th>
</tr>
<tr *ngFor="let funcionario of funcionarios">
  <td>
    {{funcionario.nome}}
  </td>
  <td class="text-center" style="width: 200px">
    <a
      title="Editar" alt="Editar"
      class="btn btn-xs btn-info">
      <span class="glyphicon glyphicon-pencil"
            aria-hidden="true"></span> Editar
    </a>
    <a href="#" title="Remover" alt="Remover"
        class="btn btn-xs btn-danger">
      <span class="glyphicon glyphicon-remove"
            aria-hidden="true"></span> Remover
    </a>
  </td>
</tr>
```

Ln 11, Col 11 Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help

listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments

listar-funcionario.component.html

```
14 <tr *ngFor="let funcionario of funcionarios">
15   <td>
16     {{funcionario.nome}}
17   </td>
18   <td class="text-center" style="width: 200px">
19     <a
20       title="Editar" alt="Editar"
21       class="btn btn-xs btn-info">
22       <span class="glyphicon glyphicon-pencil"
23         | aria-hidden="true"></span> Editar
24     </a>
25     <a href="#" title="Remover" alt="Remover"
26
27       class="btn btn-xs btn-danger">
28       <span class="glyphicon glyphicon-remove"
29         | aria-hidden="true"></span> Remover
30     </a>
31   </td>
32 </tr>
33 </table>
34
35 <p *ngIf="funcionario.length==0">Nenhum Funcionário cadastrado.</p>
```

Ln 35, Col 68 Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
- listar-funcionario
 - listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
- # app.component.css
- app.component.html
- TS app.component.spec.ts
- TS app.component.ts
- TS app.module.ts
- TS app.routes.ts
- TS funcionario.service.spec.ts
- TS funcionario.service.ts
- > assets
- > environments

listar-funcionario.component.html

```
25 <a href="#" title="Remover" alt="Remover"
26
27 class="btn btn-xs btn-danger">
28 <span class="glyphicon glyphicon-remove"
29 | aria-hidden="true"></span> Remover
30 </a>
31 </td>
32 </tr>
33 </table>
34
35 <p *ngIf="funcionarios.length==0">Nenhum Funcionário cadastrado.</p>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Initial Chunk Files	Names	Size
main.js	main	21.22 kB

4 unchanged chunks

Build at: 2021-06-30T18:52:57.265Z - Hash: ee89359b409ee88f8a97 - Time: 248ms

✓ Compiled successfully.

Ln 33, Col 9 Spaces: 4 UTF-8 LF HTML

master*+ 0 △ 0



File Edit Selection View Go Run Terminal Help listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

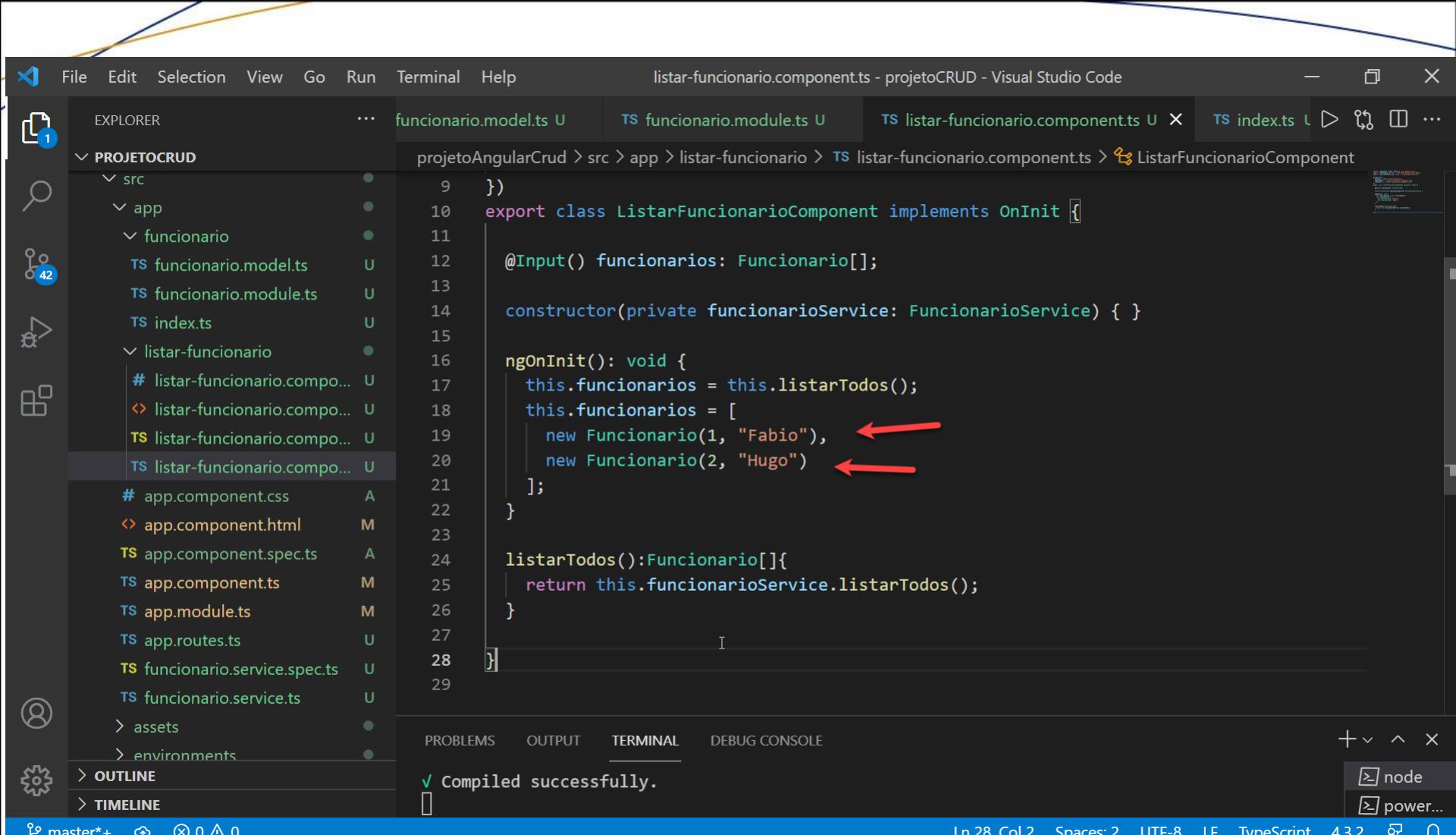
EXPLORER 1
PROJETO CRUD
src
app
funcionario
funcionario.model.ts
funcionario.module.ts
index.ts
listar-funcionario
listar-funcionario.component.css
listar-funcionario.component.html
listar-funcionario.component.spec.ts
listar-funcionario.component.ts
app.component.css
app.component.html
app.component.spec.ts
app.component.ts
app.module.ts
app.routes.ts
funcionario.service.spec.ts
funcionario.service.ts
assets
environments

```
projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent
  6   selector: 'senac-listar-funcionario',
  7   templateUrl: './listar-funcionario.component.html',
  8   styleUrls: ['./listar-funcionario.component.css']
  9 }
10 export class ListarFuncionarioComponent implements OnInit {
11   funcionarios: Funcionario[];
12
13
14   constructor(private funcionarioService: FuncionarioService) { }
15
16   ngOnInit(): void {
17     this.funcionarios = this.listarTodos();
18   }
19
20   listarTodos(): Funcionario[] {
21     return this.funcionarioService.listarTodos();
22   }
23
24 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Compiled successfully.

Ln 23, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2 🔍 🔍



CRUD Funcionário

Funcionários

Funcionário

Fabio

Hugo

	Editar
	Editar



File Edit Selection View Go Run Terminal Help listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER ... funcionario.model.ts U TS funcionario.module.ts U TS listar-funcionario.component.ts U X TS index.ts U {} and > ⌂ ⌂ ...

PROJETO CRUD projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent

src 9 })
 10 export class ListarFuncionarioComponent implements OnInit {
 11 @Input() funcionarios: Funcionario[];
 12
 13 constructor(private funcionarioService: FuncionarioService) { }
 14
 15 ngOnInit(): void {
 16 this.funcionarios = this.listarTodos();
 17 this.funcionarios = [
 18 new Funcionario(1, "Fabio"),
 19 new Funcionario(2, "Hugo")
 20];
 21 }
 22 }
 23

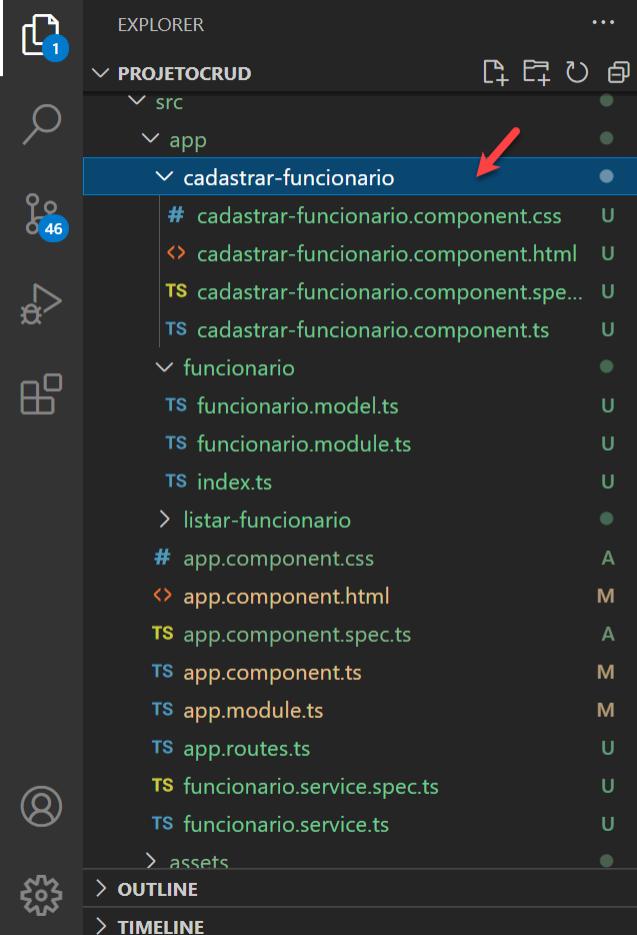
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (637 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> ng g c cadastrar-funcionario

+ ^ x node
power...
power...

master+ 0 0 △ 0

Ln 28, Col 2 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ⌂ ⌂



```
listar-funcionario.component.ts - projetoCRUD - Visual Studio Code
funcionario.model.ts U    TS funcionario.module.ts U    TS listar-funcionario.component.ts U X
projetoAngularCrud > src > app > listar-funcionario > TS listar-funcionario.component.ts > ListarFuncionarioComponent

  9  })
10 export class ListarFuncionarioComponent implements OnInit {
11
12   @Input() funcionarios: Funcionario[];;
13
14   constructor(private funcionarioService: FuncionarioService) { }
15
16   ngOnInit(): void {
17     this.funcionarios = this.listarTodos();
18     this.funcionarios = [
19       new Funcionario(1, "Fabio"),
20       new Funcionario(2, "Hugo")
21     ];
22   }
23 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
s)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.spec.ts (725 bytes)
s)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.ts (336 bytes)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.css (0 bytes)
UPDATE src/app/app.module.ts (650 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>
```

powershell + ^ x



```
projetoAngularCrud > src > app > TS app.module.ts > ...
3
4 import { AppComponent } from './app.component';
5 import {ROUTERS} from './app.routes';
6 import {RouterModule} from '@angular/router';
7 import {FuncionarioModule } from './funcionario';
8 import { CadastrarFuncionarioComponent } from './cadastrar-funcionario/cadastrar-fun
```

```
10
11  @NgModule({
12    declarations: [
13      AppComponent,
14      CadastrarFuncionarioComponent
15    ],
16    imports: [
17      BrowserModule,
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

s)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.spec.ts (725 bytes)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.ts (336 bytes)
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.css (0 bytes)
UPDATE src/app/app.module.ts (650 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD> []



EXPLORER

PROJETOCRUD

- src
 - app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.ts U
 - ↳ cadastrar-funcionario.component.ts U
 - TS cadastrar-funcionario.component.ts U
 - TS cadastrar-funcionario.component.spec.ts U
 - funcionario
 - TS funcionario.model.ts U
 - TS funcionario.module.ts U
 - TS index.ts U
 - listar-funcionario
 - # app.component.css A
 - ↳ app.component.html M
 - TS app.component.spec.ts A
 - TS app.component.ts M

> OUTLINE

> TIMELINE

TS app.module.ts M

TS funcionario.service.ts U

TS funcionario.model.ts U

TS funcionario.modi

projetoAngularCrud > src > app > TS app.module.ts > AppModule

```
1 import { NgModule } from '@angular/core';
2 import { BrowserModule } from '@angular/platform-browser';
3
4 import { AppComponent } from './app.component';
5 import {ROUTERS} from './app.routes';
6 import { RouterModule } from '@angular/router';
7 import { FuncionarioModule } from './funcionario';
8
9
10 @NgModule({
11   declarations: [
12     AppComponent
13   ],
14   imports: [
15     BrowserModule,
16     RouterModule.forRoot(ROUTERS),
17     FuncionarioModule
18   ],
19 })
```

PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

powershell + ^ x

s)

CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.spec.ts (725 bytes)

CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.ts (336 bytes)

CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.css (0 bytes)

UPDATE src/app/app.module.ts (650 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 12, Col 17 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ↻



EXPLORER

...

●

TS funcionario.service.ts U

●

TS funcionario.model.ts U

●

TS funcionario.module.ts U

●



PROJETO CRUD



src



app



cadastrar-funcionario



cadastrar-funcionario.component.css



<> cadastrar-funcionario.component.html



TS cadastrar-funcionario.component.spec.ts



TS cadastrar-funcionario.component.ts



funcionario



TS funcionario.model.ts



TS funcionario.module.ts



TS index.ts



> listar-funcionario



app.component.css



<> app.component.html



TS app.component.spec.ts



TS app.component.ts



TS app.module.ts



TS app.routes.ts



TS funcionario.service.spec.ts



TS funcionario.service.ts



> assets

projetoAngularCrud > src > app > funcionario > TS funcionario.module.ts > FuncionarioModule

```
1 import { NgModule } from '@angular/core';
2 import { CommonModule } from '@angular/common';
3 import { RouterModule } from '@angular/router';
4 import { FormsModule } from '@angular/forms';
5 import { FuncionarioService } from '../funcionario.service';
6 import { ListarFuncionarioComponent } from '../listar-funcionario/listar-funcionario.module';
7 import { CadastrarFuncionarioComponent } from '../cadastrar-funcionario/cadastrar-funcionario.module';
8
9 @NgModule({
10   declarations: [
11     ListarFuncionarioComponent,
12     CadastrarFuncionarioComponent
13   ],
14   imports: [
15     CommonModule,
16     RouterModule,
17     FormsModule
18   ],
19 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

```
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.spec.ts (725 bytes)
```

```
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.ts (336 bytes)
```

```
CREATE src/app/cadastrar-funcionario/cadastrar-funcionario.component.css (0 bytes)
```

```
UPDATE src/app/app.module.ts (650 bytes)
```

```
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>
```

Ln 12, Col 34 Spaces: 2 UTF-8 LF TypeScript 4.3.2





EXPLORER

projetoAngularCrud > src > app > **TS app.routes.ts** > ...

```
  9  component: ListarFuncionarioComponent
 10 },
 11 {
 12   path: 'funcionarios',
 13   redirectTo: 'funcionarios/listar'
 14 },
 15 {
 16   path: '',
 17   redirectTo: 'funcionarios/listar',
 18   pathMatch: 'full'
 19 }
 20 ,
 21 {
 22   path: 'funcionarios/cadastrar',
 23   component: CadastrarFuncionarioComponent
 24 }
 25 ]
 26 ]
 27 ]
 28 ]
```



PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

UPDATE src/app/app.module.ts (650 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

master*+ ↻ 0 △ 0

Ln 27, Col 1 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2



EXPLORER

...

TS

app.routes.ts U ●

< listar-funcionario.component.html U

TS

app.module.ts M ●

TS

funcionario.se D

...

PROJETOCRUD

- src
- app
- cadastrar-funcionario
 - # cadastrar-funcionario.com...
 - < cadastrar-funcionario.com...
 - TS cadastrar-funcionario.com...
 - TS cadastrar-funcionario.com...
- funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - > listar-funcionario
 - # app.component.css
 - < app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - TS app.routes.ts U
 - TS funcionario.service.spec.ts
 - TS funcionario.service.ts

projetoAngularCrud > src > app > TS app.routes.ts > ...

```
1 import { Routes } from '@angular/router';
2 import { CadastrarFuncionarioComponent } from './cadastrar-funcionario/cadastrar-func...
3 import { ListarFuncionarioComponent } from './listar-funcionario/listar-funcionario.co...
4
5
6 export const ROUTERS: Routes = [
7   {
8     path: 'funcionarios/listar',
9     component: ListarFuncionarioComponent
10    },
11    {
12      path: 'funcionarios',
13      redirectTo: 'funcionarios/listar'
14    },
15    {
16      path: '',
17      redirectTo: 'funcionarios/listar',
18      pathMatch: 'full'
19    }
20  ,
21  {
22    path: 'funcionarios/cadastrar',
```



PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

powershell + ^ x

UPDATE src/app/app.module.ts (650 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCRUD>

Ln 27, Col 1 Spaces: 4 UTF-8 CRLF TypeScript 4.3.2

master*+ ↻ 0 △ 0

File Edit Selection View Go Run Terminal Help listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER ... ncionario.component.ts U listar-funcionario.component.html U TS app.module.ts M TS funci D 46

PROJETO CRUD

- TS cadastrar-funcionario.component.ts U
- TS cadastrar-funcionario.component.html U
- funcionario
 - TS funcionario.model.ts U
 - TS funcionario.module.ts U
 - TS index.ts U
 - listar-funcionario
 - # listar-funcionario.component.css U
 - listar-funcionario.component.html U
 - TS listar-funcionario.component.sp... U
 - TS listar-funcionario.component.ts U
 - # app.component.css A
 - app.component.html M
 - TS app.component.spec.ts A
 - TS app.component.ts M
 - TS app.module.ts M
 - TS app.routes.ts U
 - TS funcionario.service.spec.ts U
 - TS funcionario.service.ts U
- > assets ●

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + ^ x

main.js | main | 24.20 kB

4 unchanged chunks

Build at: 2021-06-30T19:14:31.055Z - Hash: dfcdacc6de9a89cefa11 - Time: 2675ms

Ln 12, Col 8 Spaces: 4 UTF-8 LF HTML



```
1 <h1>Funcionários</h1>
2
3 <table class="table table-striped table-bordered table-hover">
4   <tr>
5     <th>Funcionário</th>
6     <th class="text-center">
7       <a [routerLink]="/funcionarios/cadastrar" class="btn btn-xs btn-success">
8         <span class="glyphicon glyphicon-plus" aria-hidden="true"></span> Novo
9       </a>
10      </th>
11    </tr>
12    <tr *ngFor="let funcionario of funcionarios">
13      <td>
14        {{funcionario.nome}}
15      </td>
16      <td class="text-center" style="width: 200px">
17        <a
```

A ProjetoAngularCrud x +

localhost:4200/funcionarios/listar

Apps Ingles Capes bradesco senac aplicacao SIGS - Produção: Fa... WebSphere Integra... SCAM LOCAL WebSphere Integra... doutorado SCAM- desenvolvimen... Bradesco Saude

CRUD Funcionário

Funcionários

Funcionário	
Fabio	Editar
Hugo	Editar

[Novo](#)

localhost:4200/funcionarios/cadastrar

Fucionários

Funcionário

Fabio

Hugo

Novo

Editar

Editar

CRUD Funcionário

cadastrar-funcionario works!



File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - <angler> cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - <angler> listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - <angler> app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

46

1 <h1>Cadastrar Funcionário</h1>
2
3 <div class="well">
4 <form>
5 <div class="form-group">
6 <label for="nome">Funcionário:</label>
7 <input
8 type="text"
9 class="form-control"
10 id="nome"
11 name="nome"
12 minlength="5"
13 required>
14 <div class="alert alert-danger">
15 <div>
16 | Dígite o Funcionário.
17 </div>
18 <div>
19 | O Funcionário deve conter ao menos 5 caracteres.
20 </div>
21 </div>
22 </div>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 19, Col 47 (1 selected) Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - <angler> cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - <angler> listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - <angler> app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

17 </div>
18 <div>
19 | O Funcionário deve conter ao menos 5 caracteres.
20 </div>
21 </div>
22 </div>
23 <div class="form-group text-center">
24 <input
25 type="submit"
26 class="btn btn-success"
27 value="Cadastrar">
28 <a
29 class="btn btn-default">
30 <span class="glyphicon glyphicon-chevron-left"
31 | aria-hidden="true"> Voltar
32
33 </div>
34 </form>
35 </div>
36

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 19, Col 47 (1 selected) Spaces: 4 UTF-8 LF HTML

CRUD Funcionário

Cadastrar Funcionário

Funcionário:

Digite o Funcionário.

O Funcionário deve conter ao menos 5 caracteres.

[Cadastrar](#) [Voltar](#)



File Edit Selection View Go Run Terminal Help

• cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

projetoAngularCrud > src > app > cadastrar-funcionario > TS cadastrar-funcionario.component.ts > ...

```
1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms'; ←
3 import { Funcionario } from '../funcionario/funcionario.model';
4
5 @Component({
6   selector: 'senac-cadastrar-funcionario',
7   templateUrl: './cadastrar-funcionario.component.html',
8   styleUrls: ['./cadastrar-funcionario.component.css']
9 })
10 export class CadastrarFuncionarioComponent implements OnInit {
11   @ViewChild('formFuncionario') formFuncionario: NgForm ←
12   funcionario: Funcionario;
13
14   constructor() { }
15
16   ngOnInit(): void {
17   }
18 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 21, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2 ↻

master*+ ↹ ⊞ ⊖ 0 △ 0

File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

projetoAngularCrud > src > app > cadastrar-funcionario > cadastrar-funcionario.component.ts > CadastrarFuncionarioComponent > ngOnInit

```
1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms';
3 import { Router } from '@angular/router';
4 import { FuncionarioService } from '../funcionario.service'; ←
5 import { Funcionario } from '../funcionario/funcionario.model';
6
7 @Component({
8   selector: 'senac-cadastrar-funcionario',
9   templateUrl: './cadastrar-funcionario.component.html',
10  styleUrls: ['./cadastrar-funcionario.component.css']
11})
12 export class CadastrarFuncionarioComponent implements OnInit {
13
14   @ViewChild('formFuncionario') formFuncionario: NgForm;
15   funcionario: Funcionario;
16
17   constructor(private funcionarioService: FuncionarioService, private router: Router) { ←
18
19   ngOnInit(): void { ←
20     }
21
22 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

master*+ 0 0 △ 0 Ln 20, Col 4 Spaces: 2 UTF-8 LF TypeScript 4.3.2

File Edit Selection View Go Run Terminal Help • cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD 1

projetoAngularCrud > src > app > cadastrar-funcionario > cadastrar-funcionario.component.ts > CadastrarFuncionarioComponent > ngOnInit

src
app
cadastrar-funcionario
cadastrar-funcionario.html
cadastrar-funcionario.html
TS cadastrar-funcionario.component.ts
TS cadastrar-funcionario.component.ts
funcionario
TS funcionario.html
TS funcionario.html
TS index.ts
listar-funcionario
listar-funcionario.html
listar-funcionario.html
TS listar-funcionario.html
TS listar-funcionario.html
app.compon... A
app.compon... M
TS app.compon... A
TS app.compon... M
TS app.module.m... M

```
6
7 @Component({
8   selector: 'senac-cadastrar-funcionario',
9   templateUrl: './cadastrar-funcionario.component.html',
10  styleUrls: ['./cadastrar-funcionario.component.css']
11 })
12 export class CadastrarFuncionarioComponent implements OnInit {
13
14   @ViewChild('formFuncionario') formFuncionario: NgForm
15   funcionario: Funcionario;
16
17   constructor(private funcionarioService: FuncionarioService, private router: Router) { }
18
19   ngOnInit(): void { ←
20     this.funcionario = new Funcionario();
21   }
22
23 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + ^ ✘

✓ Browser application bundle generation complete.

Ln 21, Col 4 Spaces: 2 UTF-8 LF TypeScript 4.3.2

File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

projetoAngularCrud > src > app > cadastrar-funcionario > TS cadastrar-funcionario.component.ts > CadastrarFuncionarioComponent

```
10 |   styleUrls: ['./cadastrar-funcionario.component.css']
11 | }
12 | < export class CadastrarFuncionarioComponent implements OnInit {
13 |
14 |   @ViewChild('formFuncionario') formFuncionario: NgForm
15 |   funcionario: Funcionario;
16 |
17 | constructor(private funcionarioService: FuncionarioService, private router: Router) { }
18 |
19 |   ngOnInit(): void {
20 |     this.funcionario = new Funcionario();
21 |   }
22 |
23 |   cadastrar(): void{
24 |     if(this.formFuncionario.form.valid){
25 |       this.funcionarioService.cadastrar(this.funcionario);
26 |       this.router.navigate(["/funcionarios"]);
27 |     }
28 |   }
29 |
30 |
31 | }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 22, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2

File Edit Selection View Go Run Terminal Help

• cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
- cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - <▷ cadastrar-funcionario.component.html U
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
- funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - <▷ listar-funcionario.component.html U
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
- # app.component.css
- <▷ app.component.html M
- TS app.component.spec.ts A
- TS app.component.ts M
- TS app.module.ts M

1 <h1>Cadastrar Funcionário</h1>
2
3 <div class="well"> 
4 <form #formFuncionario="ngForm">
5 <div class="form-group">
6 <label for="nome">Funcionário:</label>
7 <input
8 type="text"
9 class="form-control"
10 id="nome"
11 name="nome"
12 [(ngModel)]="funcionario.nome"
13 #nome="ngModel" 
14 minlength="5"
15 required>
16 <div class="alert alert-danger">
17 <div>
18 | Dигите o Funcionário.
19 </div>
20 <div>
21 | O Funcionário deve conter ao menos 5 caracteres.
22 </div>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

master* 0 0 △ 0

Ln 16, Col 39 Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help

cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD 1

src
app
 cadastrar-funcionario
 # cadastrar-funcionario.component.css
 cadastrar-funcionario.component.html
 TS cadastrar-funcionario.component.spec.ts
 TS cadastrar-funcionario.component.ts
 funcionario
 TS funcionario.model.ts
 TS funcionario.module.ts
 TS index.ts
 listar-funcionario
 # listar-funcionario.component.css
 listar-funcionario.component.html
 TS listar-funcionario.component.spec.ts
 TS listar-funcionario.component.ts
 # app.component.css
 app.component.html
 TS app.component.spec.ts
 TS app.component.ts
 TS app.module.ts

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

```
class="form-control"
id="nome"
name="nome"
[(ngModel)]="funcionario.nome"
#nome="ngModel"
minlength="5"
required>
<div *ngIf="nome.errors && (nome.touched || nome.dirty)" class="alert alert-danger">
<div [hidden]="!nome.errors.required">
| Digite o Funcionário.
</div>
<div [hidden]!="!nome.errors.minlength">
| O Funcionário deve conter ao menos 5 caracteres.
</div>
</div>
<div class="form-group text-center">
<input
type="submit"
class="btn btn-success"
(click)="cadastrar()"
value="Cadastrar">
```

Ln 23, Col 13 Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help • cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETO CRUD

- src
- app
- cadastrar-funcionario
- # cadastrar-funcionario U
- ↳ cadastrar-funcionario U
- TS cadastrar-funcionario U
- TS cadastrar-funcionario U
- funcionario
- TS funcionario.mode... U
- TS funcionario.modu... U
- TS index.ts U
- listar-funcionario
- # listar-funcionario.... U
- ↳ listar-funcionario.... U
- TS listar-funcionario.... U
- TS listar-funcionario.... U
- # app.component.css A
- ↳ app.component.ht... M
- TS app.component.sp... A
- TS app.component.ts M
- TS ann module.ts M

17 <div [hidden]="!nome.errors.required">
18 | Digite o Funcionário.
19 |</div>
20 <div [hidden]="!nome.errors.minLength">
21 | O Funcionário deve conter ao menos 5 caracteres.
22 |</div>
23 |</div>
24 <div class="form-group text-center">
25 |<input
26 | type="submit"
27 | class="btn btn-success"
28 | (click)="cadastrar()"
29 | value="Cadastrar"
30 |<[disabled]="!formFuncionario.form.valid">
31 |<a
32 | class="btn btn-default">
33 | <span class="glyphicon glyphicon-chevron-left"
34 | | aria-hidden="true"> Voltar
35 |
36 |</div>
37 |</div>
38 |</form>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 31, Col 50 Spaces: 4 UTF-8 LF HTML



master*+ ↻ ⊞ ⊗ 0 △ 0

File Edit Selection View Go Run Terminal Help • cadastrar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD 1

src app cadastrar-funcionario # cadastrar-funcionario U # cadastrar-funcionario U # cadastrar-funcionario U TS cadastrar-funcionario U TS cadastrar-funcionario U TS cadastrar-funcionario U TS funcionario TS funcionario.mode... U TS funcionario.modu... U TS index.ts TS listar-funcionario # listar-funcionario.... U # listar-funcionario.... U # listar-funcionario.... U TS listar-funcionario.... U TS listar-funcionario.... U TS listar-funcionario.... U # app.component.css A # app.component.ht... M TS app.component.sp... A TS app.component.ts M TS app.module.ts M

17 <div [hidden]="!nome.errors.required">
18 | Digite o Funcionário.
19 |</div>
20 |<div [hidden]="!nome.errors.minLength">
21 | | O Funcionário deve conter ao menos 5 caracteres.
22 | |</div>
23 |</div>
24 |</div>
25 <div class="form-group text-center">
26 |<input
27 | | type="submit"
28 | | class="btn btn-success"
29 | | (click)="cadastrar()"
30 | | value="Cadastrar"
31 | | [disabled]="!formFuncionario.form.valid"↗
32 |<a [routerLink]="/funcionarios'" ←
33 | | class="btn btn-default"
34 | |<span class="glyphicon glyphicon-chevron-left"
35 | | | aria-hidden="true"> Voltar
36 | |
37 |</div>
38 |</form>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 37, Col 11 Spaces: 4 UTF-8 LF HTML

File Edit Selection View Go Run Terminal Help

listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- app
- cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - cadastro-funcionario.component.html
 - cadastrar-funcionario.component.spec.ts
 - cadastrar-funcionario.component.ts
- editar-funcionario
 - # editar-funcionario.component.css
 - editar-funcionario.component.html
 - editar-funcionario.component.spec.ts
 - editar-funcionario.component.ts
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
- app.component.css
- app.component.html
- app.component.spec.ts
- app.component.ts
- app.module.ts
- app.routes.ts

funcionario.service.ts U funcionario.model.ts U funcionario.module.ts U listar-funcionario.component.ts U

```
projetoAngularCrud > src > app > listar-funcionario > listar-funcionario.component.ts > ListarFuncionarioComponent
1 import { Component, Input, OnInit } from '@angular/core';
2 import { Funcionario } from '../funcionario/funcionario.model';
3 import { FuncionarioService } from '../funcionario.service';
4 import { NgForm } from '@angular/forms';
5
6 @Component({
7   selector: 'senac-listar-funcionario',
8   templateUrl: './listar-funcionario.component.html',
9   styleUrls: ['./listar-funcionario.component.css']
10})
11 export class ListarFuncionarioComponent implements OnInit {
12
13   @Input() funcionarios: Funcionario[];
14
15   constructor(private funcionarioService: FuncionarioService) { }
16
17   ngOnInit(): void {
18     this.funcionarios = this.listarTodos();
19     this.funcionarios.push([
20       new Funcionario(1, "Fabricio"),
21       new Funcionario(2, "Ricardo")
22     ]);
23   }
24
25   listarTodos(): Funcionario[] {

```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

Build at: 2021-07-12T19:49:42.896Z - Hash: 35c1b411dbae2d73e27 - Time: 686ms

✓ Compiled successfully.

master*+ 0 △ 0 Ln 16, Col 1 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

CRUD Funcionário

Cadastrar Funcionário

Funcionário:

Digite o Funcionário.

[Cadastrar](#) [Voltar](#)

Cadastrar Funcionário

Funcionário:

Richard

Cadastrar**Voltar**

The screenshot shows the Chrome DevTools Application tab open. The left sidebar lists storage types: Application, Storage, Cache, Background Services, and Frames. Under Storage, Local Storage is expanded, showing a key-value pair for 'funcionarios'. The value is an array containing one object: {id: 1626119772485, nome: "Richard"}. Red arrows point from the 'Cadastrar' button and the 'Nome' input field on the left towards this entry in the DevTools.

Key	Value
funcionarios	[{"id":1626119772485, "nome": "Richard"}]

[[{"id": 1626119772485, "nome": "Richard"}]]
0: {"id": 1626119772485, "nome": "Richard"}

File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD projetoAngularCrud src app cadastrar-funcionario.cadastrar-funcionario.component.html TS cadastrar-funcionario.component.ts X listar-funcionario.compon...

projetoAngularCrud > src > app > cadastrar-funcionario > TS cadastrar-funcionario.component.ts > CadastrarFuncionarioComponent

```
1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms';
3 import { Router } from '@angular/router';
4 import { FuncionarioService } from '../funcionario.service';
5 import { Funcionario } from '../funcionario/funcionario.model';
6
7 @Component({
8   selector: 'senac-cadastrar-funcionario',
9   templateUrl: './cadastrar-funcionario.component.html',
10  styleUrls: ['./cadastrar-funcionario.component.css']
11})
12 export class CadastrarFuncionarioComponent implements OnInit {
13
14   @ViewChild('formFuncionario') formFuncionario: NgForm
15   funcionario: Funcionario;
16 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE powershell + ^ ×

Windows PowerShell
Copyright (C) Microsoft Corporation. Todos os direitos reservados.

Experimente a nova plataforma cruzada PowerShell <https://aka.ms/powershell>

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> cd projetoAngularCrud
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud> ng g c editar-funcionario

master*+ 0 0 △ 0 Ln 22, Col 1 Spaces: 2 UTF-8 LF TypeScript ⚡ Go Live 4.3.2 🔍

Senac

File Edit Selection View Go Run Terminal Help cadastrar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER ... cadastrar-funcionario.component.html TS cadastrar-funcionario.component.ts X listar-funcionario.component.ts ...

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
- app
 - cadastrar-funcionario
 - editar-funcionario
 - funcionario
 - TS funcionario.component.html
 - TS funcionario.component.spec.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario
 - TS listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS app.component.ts
 - TS app.compon...
 - TS app.compon...
 - TS app.compon...
 - TS app.module.ts

50

1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms';
3 import { Router } from '@angular/router';
4 import { FuncionarioService } from '../funcionario.service';
5 import { Funcionario } from '../funcionario/funcionario.model';
6
7 @Component({
8 selector: 'senac-cadastrar-funcionario',
9 templateUrl: './cadastrar-funcionario.component.html',
10 styleUrls: ['./cadastrar-funcionario.component.css']
11 })
12 export class CadastrarFuncionarioComponent implements OnInit {
13 @ViewChild('formFuncionario') formFuncionario: NgForm
14 }

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

Experimente a nova plataforma cruzada PowerShell <https://aka.ms/pscore6>

```
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD> cd projetoAngularCrud
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud> ng g c editar-funcionario
CREATE src/app/editar-funcionario/editar-funcionario.component.html (33 bytes)
CREATE src/app/editar-funcionario/editar-funcionario.component.spec.ts (704 bytes)
CREATE src/app/editar-funcionario/editar-funcionario.component.ts (324 bytes)
CREATE src/app/editar-funcionario/editar-funcionario.component.css (0 bytes)
UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>
```

Ln 13, Col 1 Spaces: 2 UTF-8 LF TypeScript ⚡ Go Live 4.3.2 🔍

File Edit Selection View Go Run Terminal Help

funcionario.module.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- projetoAngularCrud
- node_modules
- src
 - app
 - cadastrar-funcionario
 - editar-funcionario
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
- assets
- environments
- favicon.ico

OUTLINE

TIMELINE

funcionario.module.ts M funcionario.service.ts U funcionario.model.ts U funcionario.module.ts U listar-funcionario.component.ts

projetoAngularCrud > src > app > funcionario > FuncionarioModule

```
1 import { NgModule } from '@angular/core';
2 import { CommonModule } from '@angular/common';
3 import { RouterModule } from '@angular/router';
4 import { FormsModule } from '@angular/forms';
5 import { FuncionarioService } from '../funcionario.service';
6 import { ListarFuncionarioComponent } from '../listar-funcionario/listar-funcionario.component';
7 import { CadastrarFuncionarioComponent } from '../cadastrar-funcionario/cadastrar-funcionario.component';
8 import { EditarFuncionarioComponent } from '../editar-funcionario/editar-funcionario.component';

9
10 @NgModule({
11   declarations: [
12     ListarFuncionarioComponent,
13     CadastrarFuncionarioComponent,
14     EditarFuncionarioComponent
15   ],
16   imports: [
17     CommonModule,
18     RouterModule,
19     FormsModule
20   ],
21   providers: [
22     FuncionarioService
23   ]
24 })
25 export class FuncionarioModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powerShell + ^ x

```
CREATE src/app/editar-funcionario/editar-funcionario.component.ts (324 bytes)
CREATE src/app/editar-funcionario/editar-funcionario.component.css (0 bytes)
UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>
```

Ln 14, Col 31 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

File Edit Selection View Go Run Terminal Help

app.routes.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - editar-funcionario
- funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
- # app.component.css
- app.component.html
- app.component.spec.ts
- app.component.ts
- app.module.ts
- app.routes.ts
- funcionario.service.spec.ts
- funcionario.service.ts
- assets
- environments
- favicon.ico
- index.html
- main.ts

ts app.routes.ts u X TS cadastrar-funcionario.component.html u TS cadastrar-funcionario.component.ts u TS listar-funcionario.component.html u TS listar-funcionario.component.ts u

```
projetoAngularCrud > src > app > TS app.routes.ts > [ROUTERS]
```

```
3 import { ListarFuncionarioComponent } from "./listar-funcionario/listar-funcionario.component";
4 import { EditarFuncionarioComponent } from "./editar-funcionario/editar-funcionario.component";
5 export const ROUTERS: Routes = [
6   {
7     path: 'funcionarios/listar',
8     component: ListarFuncionarioComponent
9   },
10  [
11    {
12      path: 'funcionarios',
13      redirectTo: 'funcionarios/listar'
14    },
15    {
16      path: '',
17      redirectTo: 'funcionarios/listar',
18      pathMatch: 'full'
19    },
20    {
21      path: 'funcionarios/cadastrar',
22      component: CadastrarFuncionarioComponent
23    },
24    [
25      {
26        path: 'funcionarios/editar/:id',
27        component: EditarFuncionarioComponent
28      }
29    ]
30 ]
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

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File Edit Selection View Go Run Terminal Help

listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - editar-funcionario
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
- # app.component.css
- app.component.html
- TS app.component.spec.ts
- TS app.component.ts
- TS app.module.ts
- TS app.routes.ts
- TS funcionario.service.spec.ts
- TS funcionario.service.ts
- assets
- environments
- favicon.ico
- index.html
- TS main.ts

listar-funcionario > listar-funcionario.component.html > table.table.table-striped.table-bordered.table-hover > tr > td.text-center > a.btn.btn-xs.btn-info

```
12   </th>
13 </tr>
14 <tr *ngFor="let funcionario of funcionarios">
15   <td>
16     {{funcionario.nome}}
17   </td>
18   <td class="text-center" style="width: 200px">
19     <a [routerLink]=['/funcionarios/editar', funcionario.id]>
20       title="Editar" alt="Editar"
21       class="btn btn-xs btn-info">
22         <span class="glyphicon glyphicon-pencil"
23           aria-hidden="true"></span> Editar
24     </a>
25     <a href="#" title="Remover" alt="Remover"
26       class="btn btn-xs btn-danger">
27       <span class="glyphicon glyphicon-remove"
28           aria-hidden="true"></span> Remover
29     </a>
30   </td>
31 </tr>
32 </table>
33
34 <p *ngIf="funcionarios.length==0">Nenhum Funcionário cadastrado.</p>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

Ln 19, Col 64 Spaces: 2 UTF-8 LF HTML ⚡ Go Live 🔍

File Edit Selection View Go Run Terminal Help

editar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
 - app
 - cadastrar-funcionario
 - editar-funcionario
 - # editar-funcionario.component.css
 - editar-funcionario.component.html
 - TS editar-funcionario.component.spec.ts
 - TS editar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts
 - TS app.routes.ts
 - TS funcionario.service.spec.ts
 - TS funcionario.service.ts
- assets

50

1 <p>editar-funcionario works!</p>

2

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

master*+ 0 △ 0 Ln 2, Col 1 Spaces: 4 UTF-8 LF HTML Go Live

UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud> []



File Edit Selection View Go Run Terminal Help

editar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
 - app
 - cadastrar-funcionario
 - editar-funcionario
 - # editar-funcionario.component.css
 - editar-funcionario.component.html
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
 - assets

... strar-funcionario.component.ts U ... listar-funcionario.component.html U ... editar-funcionario.component.html U ...

```
1 <h1>Editar Funcionário</h1>
2 <div class="well">
3   <form>
4     <div class="form-group">
5       <label for="nome">Funcionário:</label>
6       <input type="text" class="form-control" id="nome" name="nome" minlength="5" required>
7       <div class="alert alert-danger">
8         <div>
9           | Digite o nome do Funcionário.
10        </div>
11        <div>
12          | O Funcionário deve conter ao menos 5 caracteres.
13        </div>
14      </div>
15      <div class="form-group text-center">
16        <input type="submit" class="btn btn-success" value="Atualizar">
17        <a
18          class="btn btn-default">
19            <span class="glyphicon glyphicon-chevron-left"
20              aria-hidden="true"></span> Voltar
21        </a>
22      </div>
23    </form>
24  </div>
25</div>
```

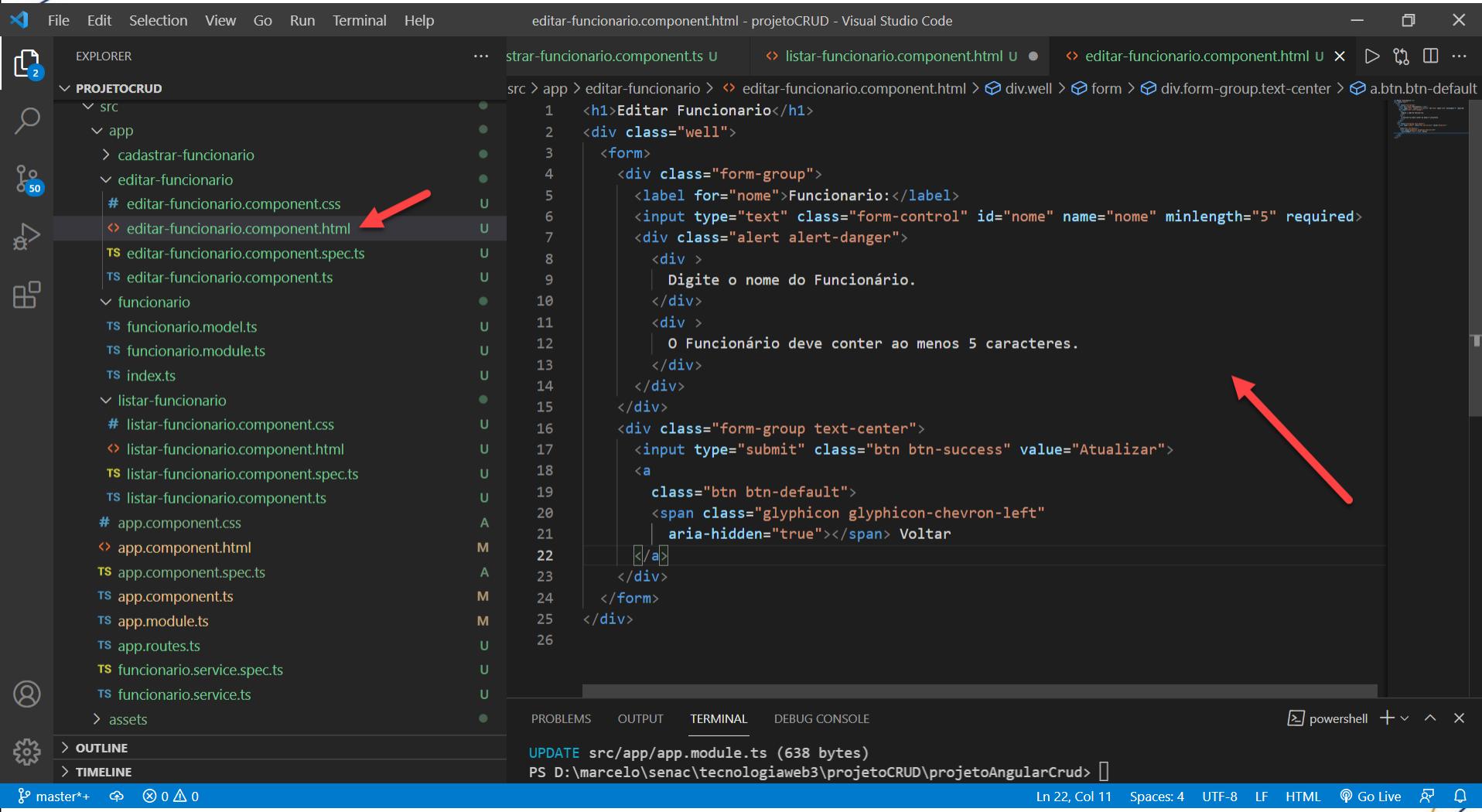
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

master*+ 0 △ 0

Ln 22, Col 11 Spaces: 4 UTF-8 LF HTML Go Live



File Edit Selection View Go Run Terminal Help

editar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - editar-funcionario
 - # editar-funcionario.component.css
 - editar-funcionario.component.html
 - editar-funcionario.component.ts**
 - editar-funcionario.component.spec.ts
 - funcionario
 - funcionario.model.ts
 - funcionario.module.ts
 - index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - listar-funcionario.component.spec.ts
 - listar-funcionario.component.ts
 - # app.component.css
 - app.component.html
 - app.component.spec.ts
 - app.component.ts
 - app.module.ts
 - app.routes.ts
 - funcionario.service.spec.ts
 - funcionario.service.ts
 - assets

... editar-funcionario.component.html U | editar-funcionario.component.html U | editar-funcionario.component.ts U | ...

projetoAngularCrud > src > app > editar-funcionario > **editar-funcionario.component.ts** > **EditarFuncionarioComponent**

```
1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms';
3 import { Funcionario } from '../funcionario/funcionario.model';
4
5 @Component({
6   selector: 'senac-editar-funcionario',
7   templateUrl: './editar-funcionario.component.html',
8   styleUrls: ['./editar-funcionario.component.css']
9 })
10 export class EditarFuncionarioComponent implements OnInit {
11
12   constructor() { }
13   @ViewChild('formFuncionario', { static: true }) formFuncionario: NgForm;
14   funcionario: Funcionario;
15
16   ngOnInit(): void {
17   }
18
19
20
21 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaWeb3\projetoCRUD\projetoAngularCrud>

Ln 15, Col 1 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

File Edit Selection View Go Run Terminal Help • editar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

projetoAngularCrud > src > app > editar-funcionario > editar-funcionario.component.ts

```
1 import { Component, OnInit, ViewChild } from '@angular/core';
2 import { NgForm } from '@angular/forms';
3 import { ActivatedRoute, Router } from '@angular/router';
4 import { FuncionarioService } from '../funcionario.service'; ←
5 import { Funcionario } from '../funcionario/funcionario.model';
6
7 @Component({
8   selector: 'senac-editar-funcionario',
9   templateUrl: './editar-funcionario.component.html',
10  styleUrls: ['./editar-funcionario.component.css']
11})
12 export class EditarFuncionarioComponent implements OnInit {
13
14   constructor(private funcionarioService : FuncionarioService,
15             private router:Router,
16             private route: ActivatedRoute) {} ←
17
18
19   @ViewChild('formFuncionario', { static: true }) formFuncionario: NgForm;
20   funcionario: Funcionario;
21
22
23   ngOnInit(): void {
24   }
25
26 }
27
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

master*+ 0 △ 0 Ln 16, Col 6 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

File Edit Selection View Go Run Terminal Help

editar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

src app editar-funcionario.component.html U editar-funcionario.component.html U editar-funcionario.component.ts TS EditarFuncionarioComponent > ngOnInit

projetoAngularCrud > src > app > editar-funcionario > editar-funcionario.component.ts > EditarFuncionarioComponent > ngOnInit

```
 9 |     templateUrl: './editar-funcionario.component.html',
 10|     styleUrls: ['./editar-funcionario.component.css']
 11| })
 12| export class EditarFuncionarioComponent implements OnInit {
 13|
 14|     constructor(private funcionarioService : FuncionarioService,
 15|                 private router:Router,
 16|                 private route: ActivatedRoute) { }
 17|
 18|
 19|     @ViewChild('formFuncionario', { static: true }) formFuncionario: NgForm
 20|     funcionario: Funcionario;
 21|
 22|
 23|     ngOnInit(): void {
 24|         const id = +this.route.snapshot.params['id'];
 25|     }
 26|
 27|
 28| }
```

os sinal de + serve para converter o que esta vindo no parametro para tipo numerico

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powerShell

UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

Ln 25, Col 1 Spaces: 2 UTF-8 LF TypeScript 4.3.2 Go Live

File Edit Selection View Go Run Terminal Help

• editar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

projetoAngularCrud > src > app > editar-funcionario > editar-funcionario.component.ts > EditarFuncionarioComponent > ngOnInit

```
templateUrl: './editar-funcionario.component.html',
styleUrls: ['./editar-funcionario.component.css']
})
export class EditarFuncionarioComponent implements OnInit {
constructor(private funcionarioService : FuncionarioService,
private router:Router,
private route: ActivatedRoute) { }

@ViewChild('formFuncionario', { static: true }) formFuncionario: NgForm
funcionario: Funcionario;

ngOnInit(): void {
const id = +this.route.snapshot.params['id'];
this.funcionario = this.funcionarioService.buscarPorId(id);
}
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

Ln 26, Col 1 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

File Edit Selection View Go Run Terminal Help

• editar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - ↳ cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - editar-funcionario
 - # editar-funcionario.component.css
 - ↳ editar-funcionario.component.html
 - TS editar-funcionario.component.spec.ts
 - TS editar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - ↳ listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - app.component.css
 - ↳ app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

U TS cadastrar-funcionario.component.ts U

toAngularCrud > src > app > editar-funcionario > editar-funcionario.component.html > div.well > form > div.form-group.text-center > a.btn.btn-default

```
1  <h1>Editar Funcionário</h1>
2  <div class="well">
3    <form #formFuncionario="ngForm"> ←
4      <div class="form-group">
5        <label for="nome">Funcionário:</label>
6        <input type="text" class="form-control" id="nome" name="nome"
7          [(ngModel)]="funcionario.nome" ←
8          #nome="ngModel" minlength="5" required>
9        <div class="alert alert-danger"> ←
10       <div>
11         | Digite o nome do Funcionário.
12       </div>
13       <div>
14         | O Funcionário deve conter ao menos 5 caracteres.
15       </div>
16     </div>
17   </div>
18   <div class="form-group text-center">
19     <input type="submit" class="btn btn-success" value="Atualizar">
20     <a href="#" class="btn btn-default">
21       <span class="glyphicon glyphicon-chevron-left"
22         | aria-hidden="true"></span> Voltar
23     </a>
24   </div>
25 </form>
26 </div>
27 </div>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

Ln 20, Col 10 Spaces: 4 UTF-8 LF HTML ⚡ Go Live 🔍

```
<label for="nome">Funcionário:</label>
<input
  type="text"
  class="form-control"
  id="nome"
  name="nome"
  [(ngModel)]="funcionario.nome"
  #nome="ngModel"
  minlength="5"
  required>
<div *ngIf="nome.errors && (nome.touched || nome.dirty)" class="alert alert-danger">
  <div [hidden]="!nome.errors.required">
    | Dígite o Funcionário.
  </div>
  <div [hidden]="!nome.errors.minlength">
    | O Funcionário deve conter ao menos 5 caracteres.
  </div>
</div>
</div>
```

Utilizado para
verificar se um
campo foi
alterado





File Edit Selection View Go Run Terminal Help

• editar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- src
- app
- cadastrar-funcionario
 - # cadastrar-funcionario.component.c...
 - ↳ cadastrar-funcionario.component....
 - TS cadastrar-funcionario.components...
 - TS cadastrar-funcionario.components.ts
- editar-funcionario
 - # editar-funcionario.component.css
 - ↳ editar-funcionario.component.html
 - TS editar-funcionario.component.spec...
 - TS editar-funcionario.component.ts
- funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - ↳ listar-funcionario.component.html
 - TS listar-funcionario.component.specs.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - ↳ app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

AngularCrud > src > app > editar-funcionario > editar-funcionario.component.html

```
1 <h1>Editar Funcionário</h1>
2 <div class="well">
3   <form>
4     <div class="form-group">
5       <label for="nome">Funcionário:</label>
6       <input type="text" class="form-control" id="nome" name="nome"
7         [(ngModel)]="funcionario.nome"
8         #nome="ngModel" minlength="5" required>
9       <div *ngIf="nome.errors || nome.touched" class="alert alert-danger">
10         <div [hidden]="!nome.errors.required">
11           | Digite o nome do Funcionário.
12         </div>
13         <div [hidden]="!nome.errors.minlength">
14           | O Funcionário deve conter ao menos 5 caracteres.
15         </div>
16       </div>
17     <div class="form-group text-center">
18       <input type="submit" class="btn btn-success" value="Atualizar">
19     </div>
20   </form>
21   <a
22     class="btn btn-default">
23     <span class="glyphicon glyphicon-chevron-left"
24       aria-hidden="true"></span> Voltar
25   </a>
26 </div>
27 </div>
28
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)

PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

Ln 19, Col 64 Spaces: 4 UTF-8 LF HTML ⚡ Go Live ⌂

File Edit Selection View Go Run Terminal Help editar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css U
 - cadastrar-funcionario.component.html U
 - TS cadastrar-funcionario.component.spec.ts U
 - TS cadastrar-funcionario.component.ts U
 - editar-funcionario
 - # editar-funcionario.component.css U
 - editar-funcionario.component.html U
 - TS editar-funcionario.component.spec.ts U
 - TS editar-funcionario.component.ts U
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css U
 - listar-funcionario.component.html U
 - TS listar-funcionario.component.spec.ts U
 - TS listar-funcionario.component.ts U
 - app.component.css A
 - app.component.html M
 - TS app.component.spec.ts A
 - TS app.component.ts M
 - TS app.module.ts M

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

```
1 <h1>Editar Funcionário</h1>
2 <div class="well">
3   <form>
4     <div class="form-group">
5       <label for="nome">Funcionário:</label>
6       <input type="text" class="form-control" id="nome" name="nome"
7         [(ngModel)]="funcionario.nome"
8         #nome="ngModel" minlength="5" required>
9       <div *ngIf="nome.errors || nome.touched" class="alert alert-danger">
10         <div [hidden]="!nome.errors.required" >
11           | Digite o nome do Funcionário.
12         </div>
13         <div [hidden]="!nome.errors.minlength">
14           | O Funcionário deve conter ao menos 5 caracteres.
15         </div>
16     </div>
17     <div class="form-group text-center">
18       <input type="submit" (click)="atualizar()" class="btn btn-success" value="Atualizar"
19         [disabled]="!formFuncionario.form.valid">
20       <a [routerLink]="/funcionarios" class="btn btn-default" >
21         <span class="glyphicon glyphicon-chevron-left" aria-hidden="true"></span> Voltar
22       </a>
23     </div>
24   </form>
```

Ln 22, Col 42 Spaces: 4 UTF-8 LF HTML ⚡ Go Live 🔍

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EXPLORER

PROJETO CRUD

- src
- app
 - cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - editar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
 - editar-funcionario
 - # editar-funcionario.component.css
 - editar-funcionario.component.html
 - TS editar-funcionario.component.spec.ts
 - TS editar-funcionario.component.ts
 - funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
 - listar-funcionario
 - # listar-funcionario.component.css
 - listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
 - # app.component.css
 - app.component.html
 - TS app.component.spec.ts
 - TS app.component.ts
 - TS app.module.ts

... • editar-funcionario.component.ts - projetoCRUD - Visual Studio Code

projetoAngularCrud > src > app > editar-funcionario > TS editar-funcionario.component.ts > EditarFuncionarioComponent

```
12 export class EditarFuncionarioComponent implements OnInit {  
13  
14     constructor(private funcionarioService : FuncionarioService,  
15                  private router:Router,  
16                  private route: ActivatedRoute) {}  
17  
18  
19     @ViewChild('formFuncionario', { static: true }) formFuncionario: NgForm;  
20     funcionario: Funcionario;  
21  
22  
23     ngOnInit(): void {  
24         const id = +this.route.snapshot.params['id'];  
25         this.funcionario = this.funcionarioService.buscarPorId(id);  
26     }  
27  
28     atualizar():void{  
29         if(this.formFuncionario.form.valid){  
30             this.funcionarioService.atualizar(this.funcionario);  
31             this.router.navigate(['/funcionarios']);  
32         }  
33     }  
34 }  
35  
36 }  
37
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

powershell + ^ x

UPDATE src/app/app.module.ts (638 bytes)
PS D:\marcelo\senac\tecnologiaweb3\projetoCRUD\projetoAngularCrud>

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File Edit Selection View Go Run Terminal Help listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER ...

PROJETO CRUD

- TS cadastrar-funcionario.component.ts U
- editar-funcionario ●
- # editar-funcionario.component.css U
- editar-funcionario.component.html U
- TS editar-funcionario.components.ts U
- TS editar-funcionario.component.ts U
- funcionario ●
- TS funcionario.model.ts U
- TS funcionario.module.ts U
- TS index.ts U
- listar-funcionario ●
- # listar-funcionario.component.css U
- editar-funcionario.component.html U
- TS listar-funcionario.components.ts U

```
9   |     <span class="glyphicon glyphicon-plus"
10  |     aria-hidden="true"></span> Novo
11  |   </a>
12  | </th>
13  | </tr>
14  | <tr *ngFor="let funcionario of funcionarios">
15  |   <td>
16  |     {{funcionario.nome}}
17  |   </td>
18  |   <td class="text-center" style="width: 200px">
19  |     <a [routerLink]="/funcionarios/editar", funcionario.id]>
20  |       title="Editar" alt="Editar"
21  |       class="btn btn-xs btn-info">
22  |         <span class="glyphicon glyphicon-pencil"
23  |         aria-hidden="true"></span> Editar
24  |     </a>
```



Senac

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listar-funcionario.component.ts - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- Cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - ↳ cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.component.ts
- editar-funcionario
 - # editar-funcionario.component.css
 - ↳ editar-funcionario.component.html
 - TS editar-funcionario.component.spec.ts
 - TS editar-funcionario.component.ts
- funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - ↳ listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
- # app.component.css
- ↳ app.component.html
- TS app.component.spec.ts
- TS app.component.ts
- TS app.module.ts
- TS app.routes.ts
- TS funcionario.service.spec.ts

14 constructor(private funcionarioService: FuncionarioService) { }

15

16 ngOnInit(): void {

17 this.funcionarios = this.listarTodos();

18 this.funcionarios = [

19 new Funcionario(1, "Fabio"),

20 new Funcionario(2, "Hugo")

21];

22 }

23

24 listarTodos():Funcionario[] {

25 return this.funcionarioService.listarTodos();

26 }

27

28 remover(\$event:any, funcionario: Funcionario): void {

29 \$event.preventDefault();

30 if(confirm("Deseja remover o funcionario " + funcionario.nome + " ?"))

31 this.funcionarioService.remover(funcionario.id)

32 this.funcionarios = this.funcionarioService.listarTodos();

33 }

34

35 }

36 |

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

Ln 36, Col 1 Spaces: 2 UTF-8 LF TypeScript Go Live 4.3.2

File Edit Selection View Go Run Terminal Help

listar-funcionario.component.html - projetoCRUD - Visual Studio Code

EXPLORER

PROJETO CRUD

- Cadastrar-funcionario
 - # cadastrar-funcionario.component.css
 - ↳ cadastrar-funcionario.component.html
 - TS cadastrar-funcionario.component.spec.ts
 - TS cadastrar-funcionario.components.ts
- editar-funcionario
 - # editar-funcionario.component.css
 - ↳ editar-funcionario.component.html
 - TS editar-funcionario.component.spec.ts
 - TS editar-funcionario.component.ts
- funcionario
 - TS funcionario.model.ts
 - TS funcionario.module.ts
 - TS index.ts
- listar-funcionario
 - # listar-funcionario.component.css
 - ↳ listar-funcionario.component.html
 - TS listar-funcionario.component.spec.ts
 - TS listar-funcionario.component.ts
- # app.component.css
- ↳ app.component.html
- TS app.component.spec.ts
- TS app.component.ts
- TS app.module.ts
- TS app.routes.ts
- TS funcionario.service.spec.ts

listar-funcionario > listar-funcionario.component.html > table.table.table-striped.table-bordered.table-hover > tr > td.text-center > a.btn.btn-xs.btn-danger

```
<tr>
  <th>Funcionário</th>
  <th class="text-center">
    <a [routerLink]="/funcionarios/cadastrar">
      class="btn btn-xs btn-success">
        <span class="glyphicon glyphicon-plus">
          | aria-hidden="true"></span> Novo
    </a>
  </th>
</tr>
<tr *ngFor="let funcionario of funcionarios">
  <td>
    {{funcionario.nome}}
  </td>
  <td class="text-center" style="width: 200px">
    <a [routerLink]=[ '/funcionarios/editar', funcionario.id ]>
      title="Editar" alt="Editar"
      class="btn btn-xs btn-info">
        <span class="glyphicon glyphicon-pencil">
          | aria-hidden="true"></span> Editar
    </a>
    <a href="#" title="Remover" alt="Remover"
       (click)="remover($event,funcionario)">
      class="btn btn-xs btn-danger">
        <span class="glyphicon glyphicon-remove">
          | aria-hidden="true"></span> Remover
    </a>
  </td>
</tr>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

✓ Browser application bundle generation complete.

master*+ 0 △ 0

Ln 27, Col 39 Spaces: 2 UTF-8 LF HTML Go Live

Obrigado.