

# PROGRAMAÇÃO WEBII

# 1

## Adicionando framework CSS

Bootstrap

# Bootstrap



# Adicionando bootstrap ao projeto

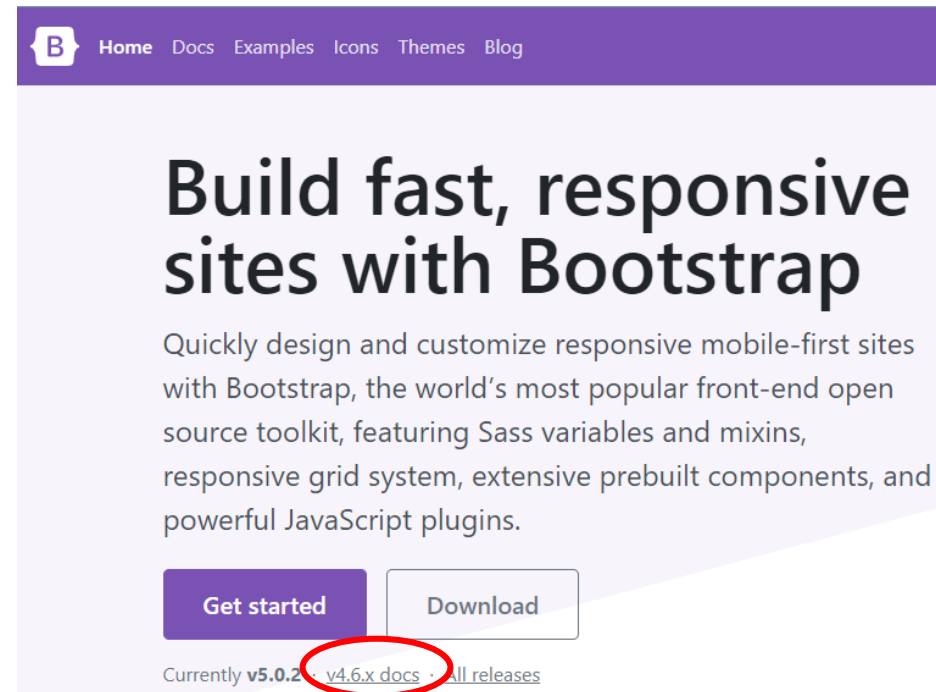
- Vamos acessar a pasta do nosso projeto
- Acessar o prompt de comando
- Ir para a pasta
  - ▷ `cd \angular\cursoPWEBII\frontend <ENTER>`
- Vamos abrir o visual code
  - ▷ `code . <ENTER>`

# Instalando o bootstrap

Vamos acessar o site do bootstrap

▶ <https://getbootstrap.com/>

Vamos acessar a documentação da versão 4.6



# Instalando o bootstrap

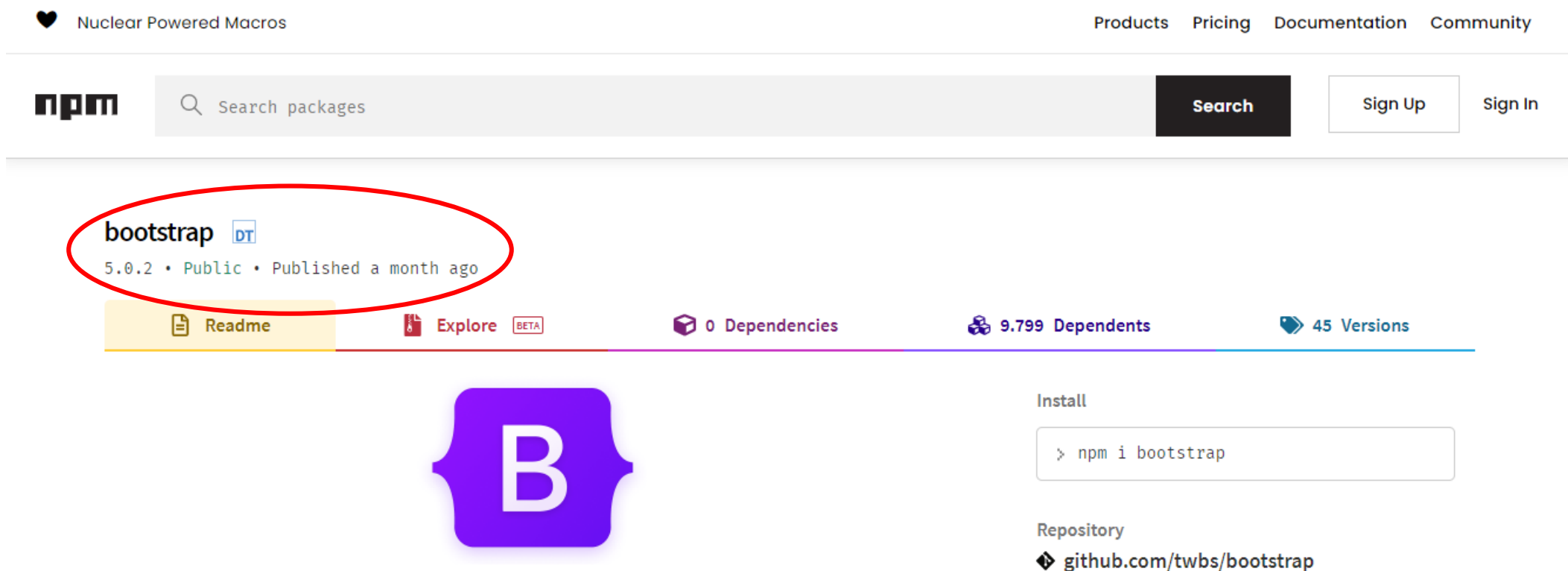
- Como estamos utilizando o node, na página clique em download
- Procure por npm (irá exibir como iremos instalar através do npm). Clique no link para acessar a página.

The screenshot shows the Bootstrap documentation website. On the left sidebar, under 'Getting started', the 'Download' link is circled in red. The main content area shows the 'npm' section, where the text 'Install Bootstrap in your Node.js powered apps with [the npm package](#):' is also circled in red. Below this, a code block shows the command `$ npm install bootstrap`. Further down, it explains that `require('bootstrap')` will load all of Bootstrap's jQuery plugins onto the jQuery object. The `bootstrap` module itself does not export anything. You can manually load Bootstrap's jQuery plugins individually by loading the `/js/*.js` files under the package's top-level directory. Finally, it states that Bootstrap's `package.json` contains some additional metadata under the following keys:

- `sass` - path to Bootstrap's main [Sass](#) source file
- `style` - path to Bootstrap's non-minified CSS that's been precompiled using the default

# Instalando o bootstrap

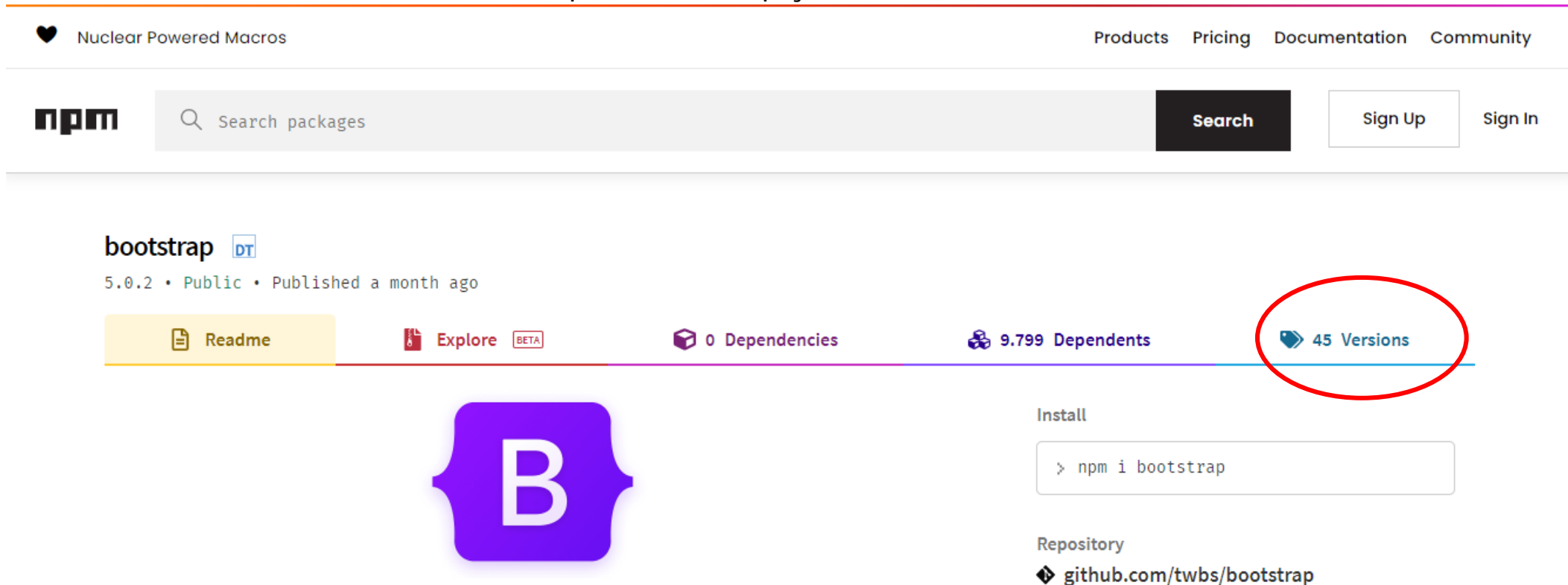
Ao entrar na página, será exibida várias informações sobre o bootstrap e ele exibe, no início, a versão que será instalada:



The screenshot shows the npm website interface for the Bootstrap package. At the top, there's a navigation bar with links for Products, Pricing, Documentation, and Community. Below this is a search bar with the npm logo, a search input field containing "Search packages", a "Search" button, and "Sign Up" and "Sign In" links. The main content area displays the "bootstrap" package, which is marked as "DT" (Deprecated). The version "5.0.2" is highlighted with a red circle, along with the status "Public" and "Published a month ago". Below the package name, there are links for "Readme", "Explore" (with a "BETA" tag), "0 Dependencies", "9.799 Dependents", and "45 Versions". The Bootstrap logo is prominently displayed in the center. On the right side, under the "Install" section, there is a code block showing the command `> npm i bootstrap`. Below that, the "Repository" section lists the GitHub link `github.com/twbs/bootstrap`.

# Instalando o bootstrap

Caso tenha dúvida, você pode selecionar as versões anteriores, clicando na quantidade de versões existentes. Clique nessa opção:



The screenshot shows the NPM website interface for the 'bootstrap' package. At the top, there's a navigation bar with links for 'Products', 'Pricing', 'Documentation', and 'Community'. Below this is the NPM search bar with the text 'Search packages' and a 'Search' button. To the right of the search bar are 'Sign Up' and 'Sign In' buttons. The main content area displays the 'bootstrap' package details, including its version '5.0.2', status 'Public', and publication time 'Published a month ago'. Below this is a horizontal bar with links for 'Readme', 'Explore', 'Dependencies', 'Dependents', and '45 Versions'. The '45 Versions' link is circled in red. Below the horizontal bar is the Bootstrap logo, a large purple 'B' inside a shield shape. To the right of the logo, there's an 'Install' section with a code block containing the command 'npm i bootstrap'. Below the 'Install' section is the 'Repository' section, which links to 'github.com/twbs/bootstrap'.

Nuclear Powered Macros

Products Pricing Documentation Community

npm Search packages Search Sign Up Sign In

bootstrap DT

5.0.2 • Public • Published a month ago

Readme Explore BETA 0 Dependencies 9.799 Dependents 45 Versions

Install

```
> npm i bootstrap
```

Repository

github.com/twbs/bootstrap



# Instalando o bootstrap

Se digitarmos:

- ▶ `npm i bootstrap` -> irá instalar a versão 5.0.2
- ▶ `npm i bootstrap @previous` -> irá instalar a versão 3.4.1
- ▶ `npm i bootstrap @next` -> irá instalar a versão 5.0.0-beta3

## Current Tags

Version	Downloads (Last 7 Days)	Tag
5.0.2	234.165	latest
3.4.1	345.170	previous
5.0.0-beta3	11.815	next

```
> npm i bootstrap
```

## Repository

[github.com/twbs/bootstrap](https://github.com/twbs/bootstrap)

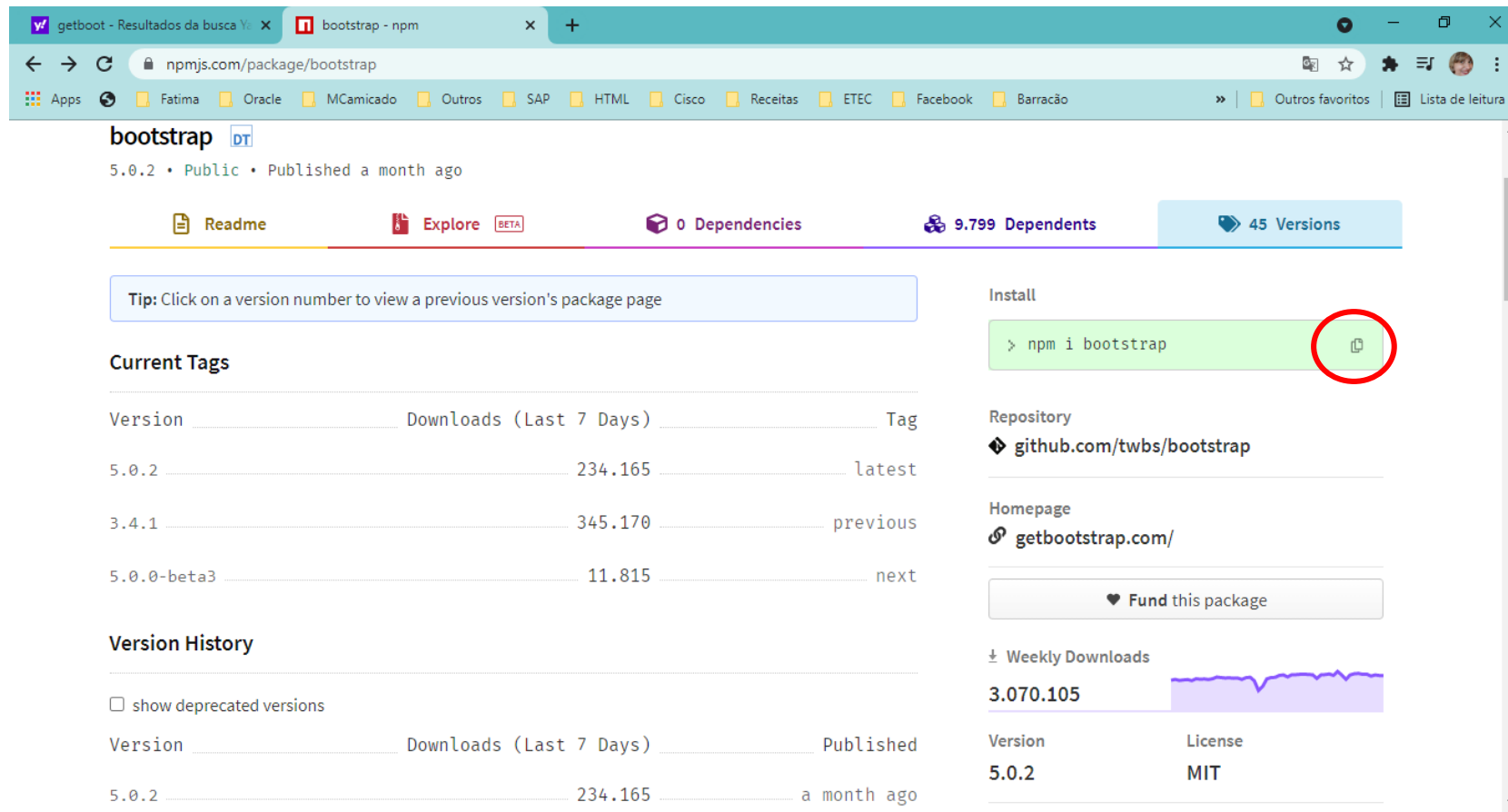
## Homepage

[getbootstrap.com/](https://getbootstrap.com/)

♥ Fund this package

# Instalando o bootstrap

Se utilizarmos a versão 5.0.2, deveríamos selecionar e clicar no botão para copiar o comando.



The screenshot shows the npmjs.com package page for bootstrap. The page includes a header with the package name, version (5.0.2), and a list of tags. The 'Install' section is highlighted with a red circle around the copy icon.

**bootstrap** DT  
5.0.2 • Public • Published a month ago

[Readme](#) [Explore](#) [0 Dependencies](#) [9.799 Dependents](#) [45 Versions](#)

**Tip:** Click on a version number to view a previous version's package page

**Current Tags**

Version	Downloads (Last 7 Days)	Tag
5.0.2	234.165	latest
3.4.1	345.170	previous
5.0.0-beta3	11.815	next

**Version History**

☐ show deprecated versions

Version	Downloads (Last 7 Days)	Published
5.0.2	234.165	a month ago

**Install**

```
> npm i bootstrap
```

**Repository**  
github.com/twbs/bootstrap

**Homepage**  
getbootstrap.com/

[Fund this package](#)

**Weekly Downloads**  
3.070.105

**Version**  
5.0.2

**License**  
MIT

# Instalando o bootstrap

Como no curso iremos utilizar a versão 4.6.0, procure na documentação e será exibido o comando que deveremos copiar.

## Version History

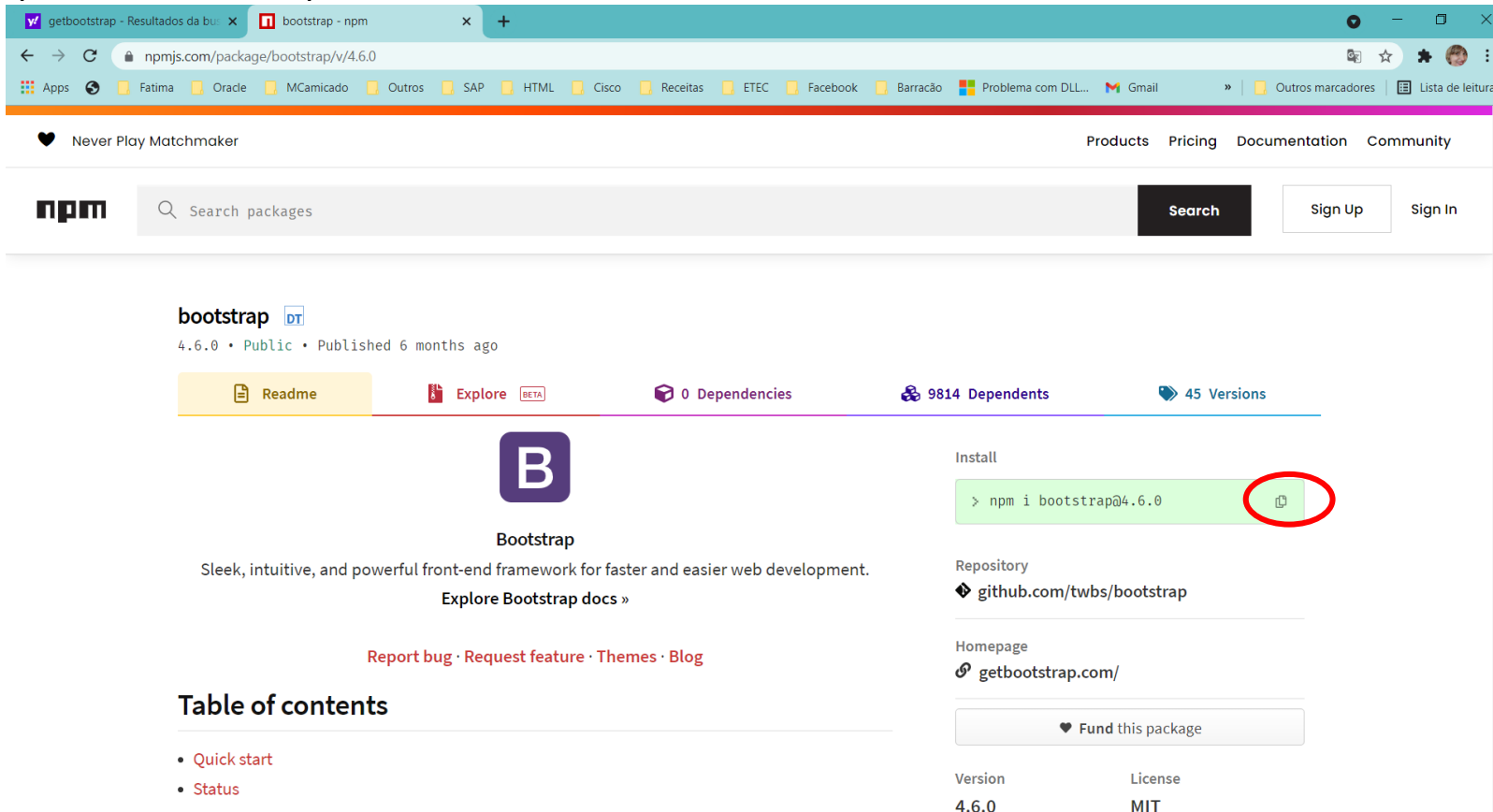
☐ show deprecated versions

Version	Downloads (Last 7 Days)	Published
5.0.2	239 364	a month ago
5.0.1	47 388	3 months ago
5.0.0	8652	3 months ago
5.0.0-beta3	11 770	4 months ago
5.0.0-beta2	7120	6 months ago
4.6.0	1 120 440	6 months ago

# Instalando o bootstrap

Clique no botão copiar e <CTRL><V> no prompt do comando ou digite o comando no prompt de comando.

```
npm i bootstrap@4.6.0
```



The screenshot shows the npm package page for bootstrap 4.6.0. The page includes a search bar, navigation links (Products, Pricing, Documentation, Community), and a search button. The package details section shows the version 4.6.0, published 6 months ago, with 0 dependencies, 9814 dependents, and 45 versions. The 'Install' section displays the command `> npm i bootstrap@4.6.0` with a copy icon circled in red. The 'Repository' section shows the GitHub link `github.com/twbs/bootstrap`. The 'Homepage' section shows the link `getbootstrap.com/`. The 'Table of contents' section lists 'Quick start' and 'Status'.

bootstrap 4.6.0 • Public • Published 6 months ago

Readme Explore 0 Dependencies 9814 Dependents 45 Versions

**B**

**Bootstrap**

Sleek, intuitive, and powerful front-end framework for faster and easier web development.

[Explore Bootstrap docs »](#)

[Report bug](#) · [Request feature](#) · [Themes](#) · [Blog](#)

**Table of contents**

- [Quick start](#)
- [Status](#)

**Install**

```
> npm i bootstrap@4.6.0
```

**Repository**

[github.com/twbs/bootstrap](#)

**Homepage**

[getbootstrap.com/](#)

[Fund this package](#)

**Version**

4.6.0

**License**

MIT

# Instalando o bootstrap

Ir para o prompt de comando e digitar ou colar o link da página anterior, estando na pasta frontend

```
C:\angular\cursopwebII\frontend>npm i bootstrap
```

▶ npm i bootstrap@4.6.0 <ENTER>

Após a instalação:

```
C:\angular\cursoCPS\frontend>npm i bootstrap
npm WARN bootstrap@4.6.0 requires a peer of jquery@1.9.1 - 3 but none is installed. You must install peer dependencies yourself.
npm WARN bootstrap@4.6.0 requires a peer of popper.js@1.16.1 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.3.2 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-chokidar2\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-dev-server\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ bootstrap@4.6.0
added 1 package from 2 contributors, removed 1 package and audited 1616 packages in 11.569s

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

found 0 vulnerabilities
```

# Instalando o jquery

Para o bootstrap funcionar, precisamos do jquery. Vamos abrir o site do jquery:

- ▶ <https://jquery.com/>
- ▶ Clicar no download:



Your donations help fund the continued development and growth of jQuery.

**SUPPORT THE PROJECT**

**Download**

**API Documentation**

**Blog**

**Plugins**

**Browser Support**

Search



# Instalando o jquery

A última versão que temos é a 3.6 e iremos utilizar essa.

▶ Copiar o comando

## jQuery

For help when upgrading jQuery, please see the [upgrade guide](#) most relevant to your version. We also recommend using the [jQuery Migrate plugin](#).

[Download the compressed, production jQuery 3.6.0](#)

[Download the uncompressed, development jQuery 3.6.0](#)

[Download the map file for jQuery 3.6.0](#)

You can also use the slim build, which excludes the [ajax](#) and [effects](#) modules:

[Download the compressed, production jQuery 3.6.0 slim build](#)

[Download the uncompressed, development jQuery 3.6.0 slim build](#)

[Download the map file for the jQuery 3.6.0 slim build](#)

[jQuery 3.6.0 blog post with release notes](#)

## Downloading jQuery using npm or Yarn

jQuery is registered as [a package](#) on [npm](#). You can install the latest version of jQuery with the npm CLI command:

```
1 npm install jquery
```

# Instalando o jquery

- ▶ Colar no prompt de comando:
  - ▶ `npm install jquery <ENTER>`

Após a instalação:

```
C:\angular\cursoCPS\frontend>npm install jquery
npm WARN bootstrap@4.6.0 requires a peer of popper.js@^1.16.1 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-chokidar2\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.3.2 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-dev-server\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ jquery@3.6.0
added 1 package from 1 contributor and audited 1617 packages in 11.838s

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

found 0 vulnerabilities
```



# Configurando angular.json

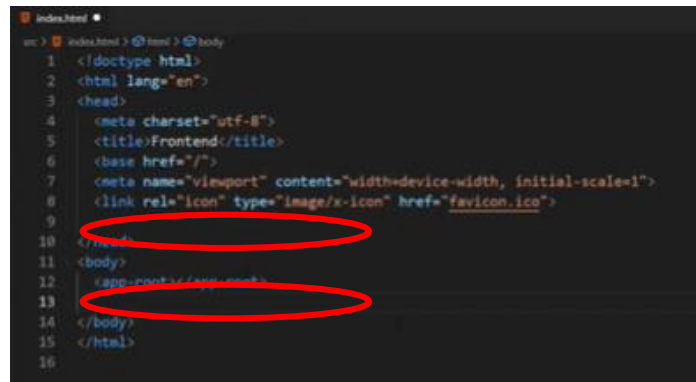
Como iremos fazer atualização nos arquivos de configuração do Angular, não vamos rodar o servidor ainda senão não irá aplicar as atualizações que iremos fazer agora.

Acessar o VsCode

▶ code . <ENTER>

▶ Expandir a pasta src

Inicialmente quando trabalhamos com projetos bootstrap, estamos acostumar em ir no arquivo index.html e colocar o css do bootstrap no nosso head e depois no final do body colocar as importações do jquery e dos pacotes javascript do bootstrap.



```
1 <!doctype html>
2 <html lang="en">
3 <head>
4   <meta charset="utf-8">
5   <title>Frontend</title>
6   <base href="/">
7   <meta name="viewport" content="width=device-width, initial-scale=1">
8   <link rel="icon" type="image/x-icon" href="favicon.ico">
9
10 </head>
11 <body>
12   <app-root></app-root>
13
14 </body>
15 </html>
16
```

Porém, não iremos fazer dessa maneira porque vamos deixar que o angular faça essa configuração para nós.

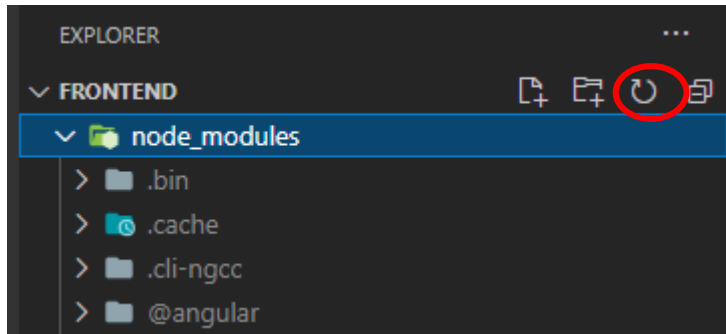
# Configurando angular.json

- Vamos selecionar o arquivo angular.json
- Procurar por: "prefix:"= "app",
- Ele colocar que o arquivo index está dentro de src\index.
  - Iremos inserir o bootstrap em styles
- Para isso, precisaremos saber qual o caminho do bootstrap.
- Vamos ver como encontrar o caminho do bootstrap.

```
{  
  "root": "",  
  "sourceRoot": "src",  
  "prefix": "app",  
  "architect": {  
    "build": {  
      "builder": "@angular-devkit/build-angular:browser",  
      "options": {  
        "outputPath": "dist/frontend",  
        "index": "src/index.html",  
        "main": "src/main.ts",  
        "polyfills": "src/polyfills.ts",  
        "tsConfig": "tsconfig.app.json",  
        "assets": [  
          "src/favicon.ico",  
          "src/assets"  
        ],  
        "styles": [  
          "src/styles.css"  
        ],  
        "scripts": []  
      },  
      "configurations": {  
        "production": {  
          "optimization": true,  
          "outputPath": "dist/production",  
          "sourceMap": false,  
          "namedChunks": false,  
          "extractLicenses": true,  
          "vendorChunk": true,  
          "buildOptimizer": true  
        }  
      }  
    }  
  }  
}
```

# Configurando angular.json

- Clicar na pasta node\_modules
- Atualizar para ter certeza que foi atualizado. Tendo todos os pacotes atualizados depois que fizemos a atualização do bootstrap.



# Configurando angular.json

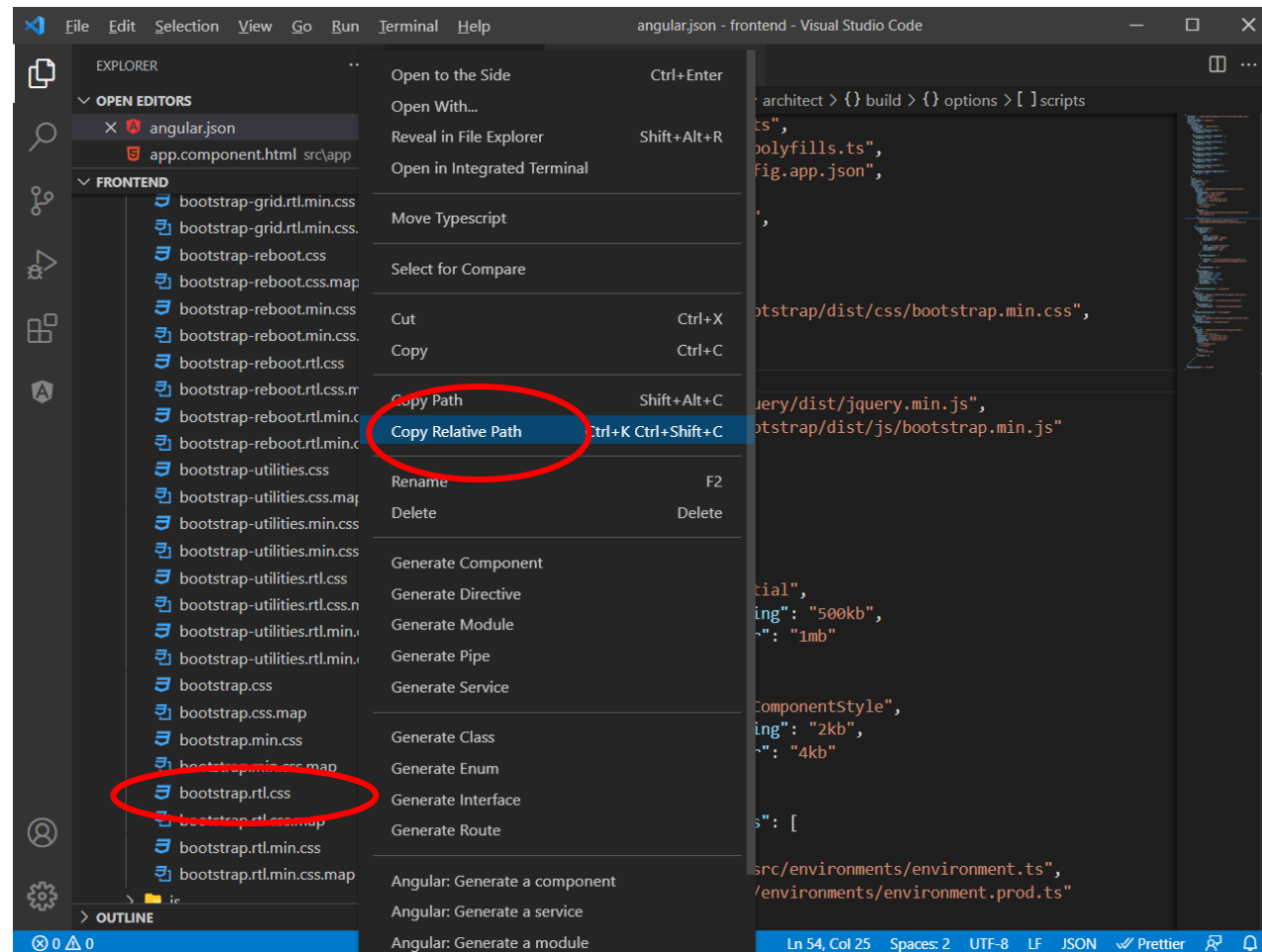
Procurar na letra b onde está o bootstrap

Expandir:

▶ Bootstrap / dist / css

Clicar com o botão direito no arquivo bootstrap.min.css

Selecionar Copy relative path



# Configurando angular.json

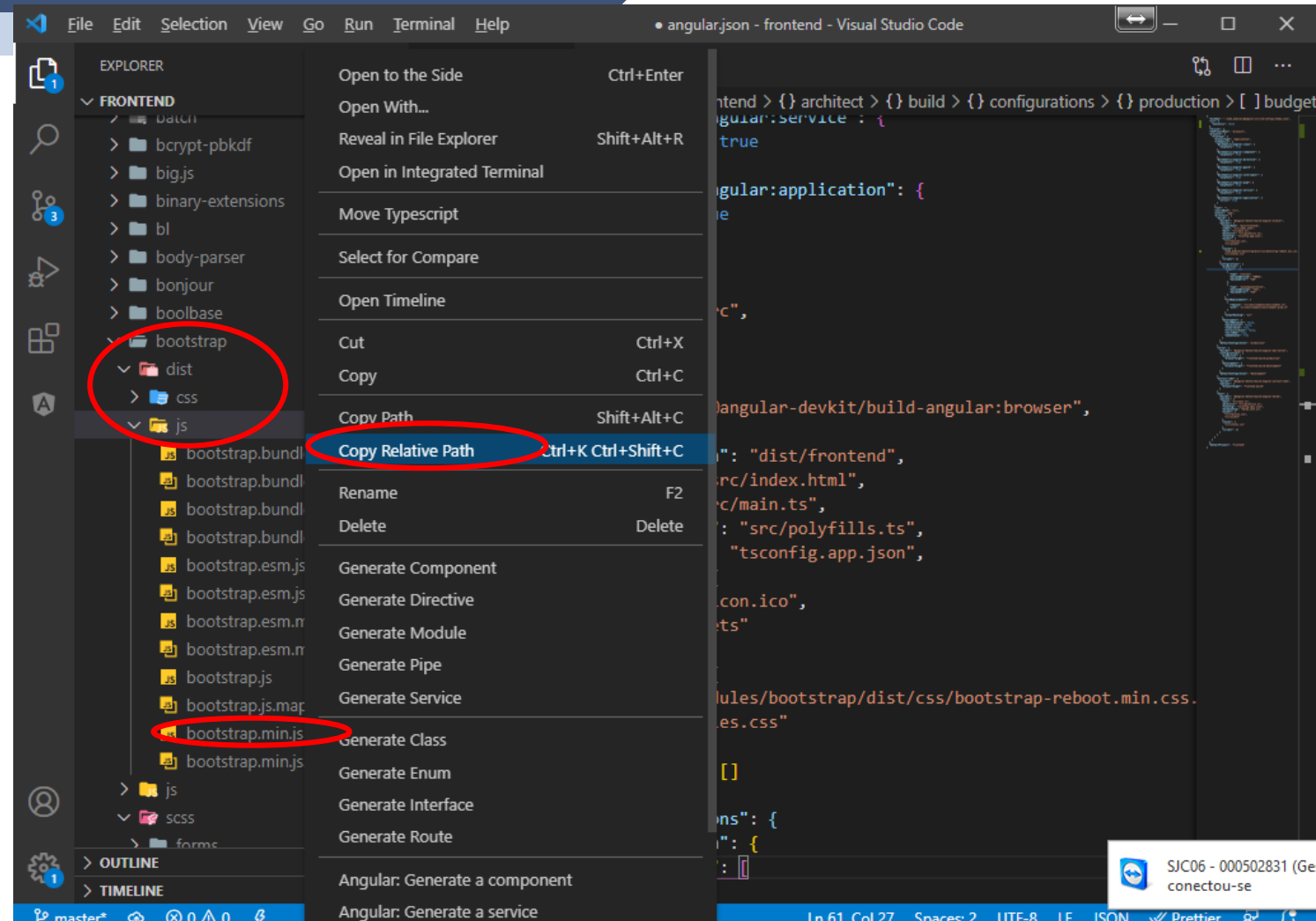
- Voltamos no arquivo angular.json e logo após o styles, digite aspas “
- Cole o caminho que acabamos de copiar <CTRL><V>  
node\_modules\bootstrap\dist\css\bootstrap.min.css
- Substitua as barras
- Ao final, insira uma vírgula

```
"styles": [  
  "node_modules/bootstrap/dist/css/bootstrap.min.css",  
  "src/styles.css"  
],
```

- Já estamos com o css do bootstrap importado no nosso projeto.

# Configurando angular.json

- Agora precisaremos importar os scripts
- Acesse a pasta node-modules
- Procurar na letra b onde está o bootstrap
- Expandir:
  - ▶ Bootstrap / dist / js
- Clicar com o botão direito no arquivo bootstrap.min.js
- Selecionar Copy relative path



# Configurando angular.json

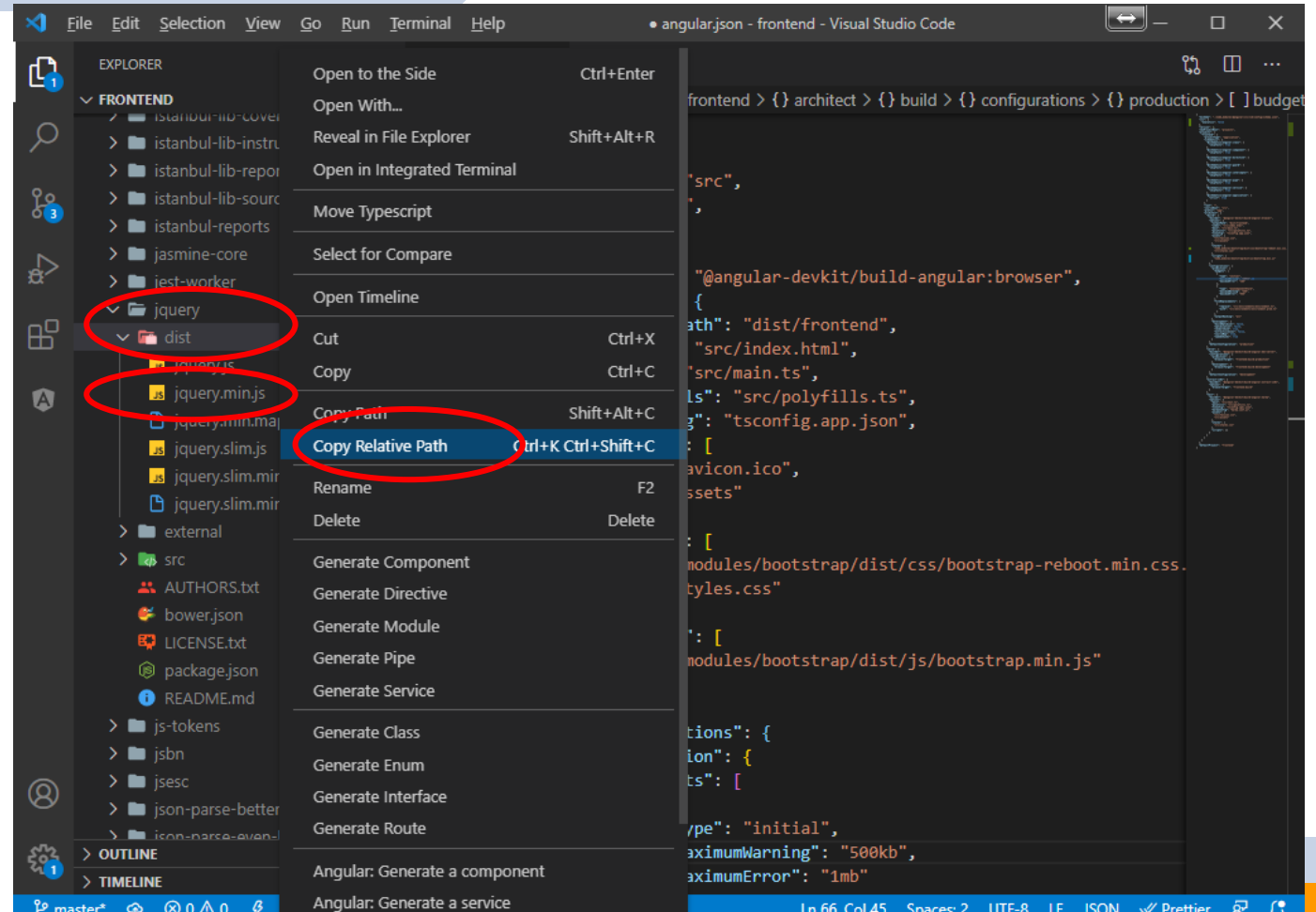
- Voltamos no arquivo angular.json e logo após o scripts, digite aspas “
- Cole o caminho que acabamos de copiar <CTRL><V>  
node\_modules\bootstrap\dist\css\bootstrap-reboot.min.css.map
- Substitua as barras para /

```
"scripts": [  
  "node_modules/bootstrap/dist/js/bootstrap.min.js"  
]
```

- Já estamos com o arquivo javascript do bootstrap.

# Configurando angular.json

- Agora vamos procurar o jquery na pasta node\_modules
- Expandir:
  - ▶ Jquery / dist
- Clicar com o botão direito no arquivo jquery.min.js
- Selecionar Copy relative path





# Configurando angular.json

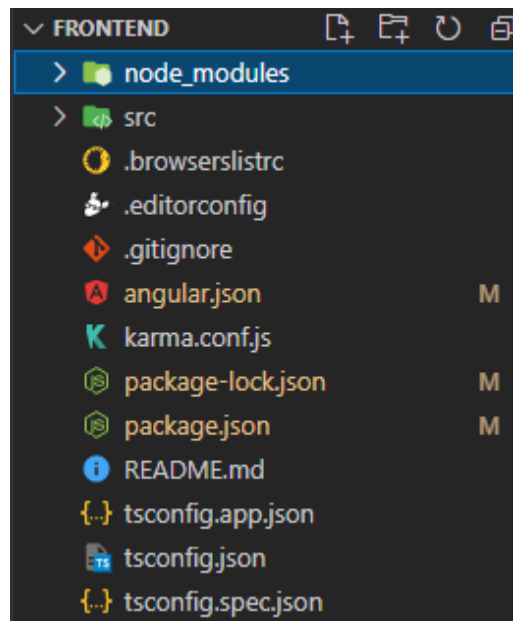
- Voltamos no arquivo angular.json
- ATENÇÃO: O JQuery tem que vir antes do bootstrap
- Após o styles, digite aspas “
- .Cole o caminho que acabamos de copiar <CTRL><V>  
node\_modules\jquery\dist\jquery.min.js
- Substitua as barras para /
- Ao final, insira uma vírgula

```
    "scripts": [  
      "node_modules/jquery/dist/jquery.min.js",  
      "node_modules/bootstrap/dist/js/bootstrap.min.js"  
    ]
```

- Já estamos com o arquivo jquery configurado.

# Configurando angular.json

Vamos recolher as pastas do node\_modules porque é muito grande e fica atrapalhando aqui.



# Configurando angular.json

- Agora vamos no arquivo app.component.html (src/app). Selecciona o arquivo
- <CTRL><A> para seleccionar todos os comandos desse arquivo
- A última linha é o comando router-outlet (essa linha deverá permanecer)
- Segure a tecla <SHIFT> antes dessa linha, seta para cima e a linha não será selecionada
- Tecla <DEL> para apagar tudo

```
src > app > app.component.html > ...
482 <!--<svg class="material-icons" xmlns="http://www.w3.org/2000/svg"
483 </a>
484 </footer>
485
486 <svg id="clouds" xmlns="http://www.w3.org/2000/svg" width="2611.084"
487 <!--<title>Gray Clouds Background</title>
488 <!--<path id="Path_39" data-name="Path_39" d="M2379.709,863.793c10-93-7
489 </svg>
490
491 </div>
492
493 <!-- *****
494 <!-- ***** The content above *****
495 <!-- ***** is only a placeholder *****
496 <!-- ***** and can be replaced *****
497 <!-- *****
498 <!-- ***** End of Placeholder *****
499 <!-- *****
500
501 <router-outlet></router-outlet>
502
```

# Configurando angular.json

- Isso fazia parte do projeto padrão do Angular, mas não iremos utilizar.
- Vamos só inserir a tag `<h1>`, conforme abaixo:
- Salve o arquivo
- Ir para o prompt de comando
- Rode o servidor para testarmos
  - ▷ `ng serve -o` <ENTER>

```
src > app > app.component.html > ...  
1 | <h1>Teste Bootstrap</h1>  
2 | <router-outlet></router-outlet>  
3 |
```

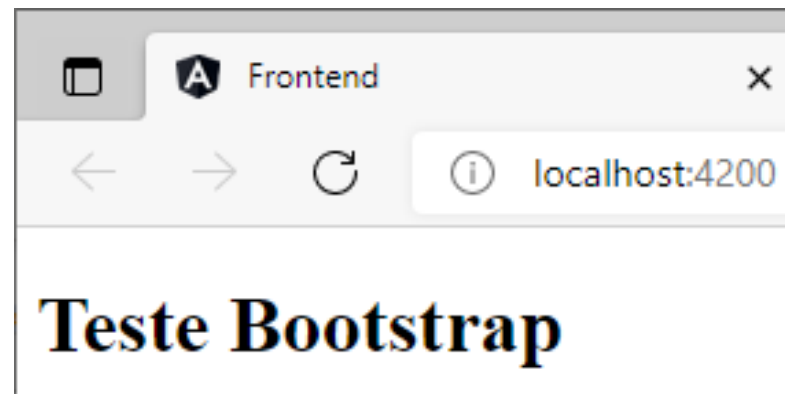
```
C:\angular\cursopwebII\frontend>ng serve -o
```

# Configurando angular.json

- Isso fazia parte do projeto padrão do Angular, mas não iremos utilizar.
- Vamos só inserir a tag `<h1>`, conforme abaixo:
- Salve o arquivo
- Ir para o prompt de comando
- Rode o servidor para testarmos
  - `ng serve -o <ENTER>`

```
src > app > app.component.html > ...  
1 | <h1>Teste Bootstrap</h1>  
2 | <router-outlet></router-outlet>  
3 |
```

```
C:\angular\cursopwebII\frontend>ng serve -o
```



# Configurando angular.json

- Vamos ver se já podemos utilizar as funcionalidades do bootstrap
- Ir no site do bootstrap
- Ir até a opção componentes

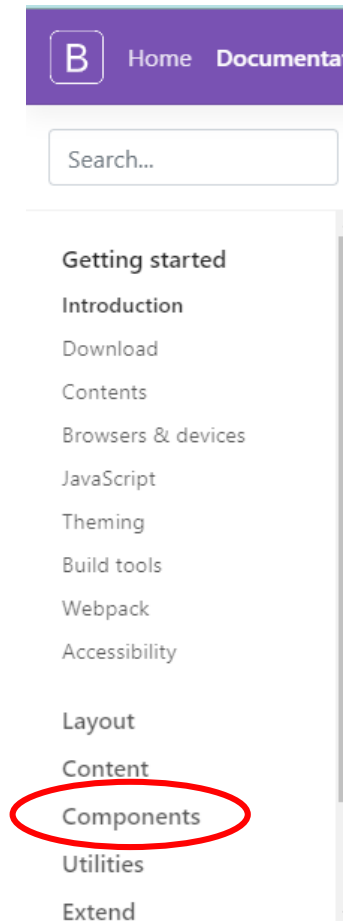
## Build fast, responsive sites with Bootstrap

Quickly design and customize responsive mobile-first sites with Bootstrap, the world's most popular front-end open source toolkit, featuring Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful JavaScript plugins.

Get started

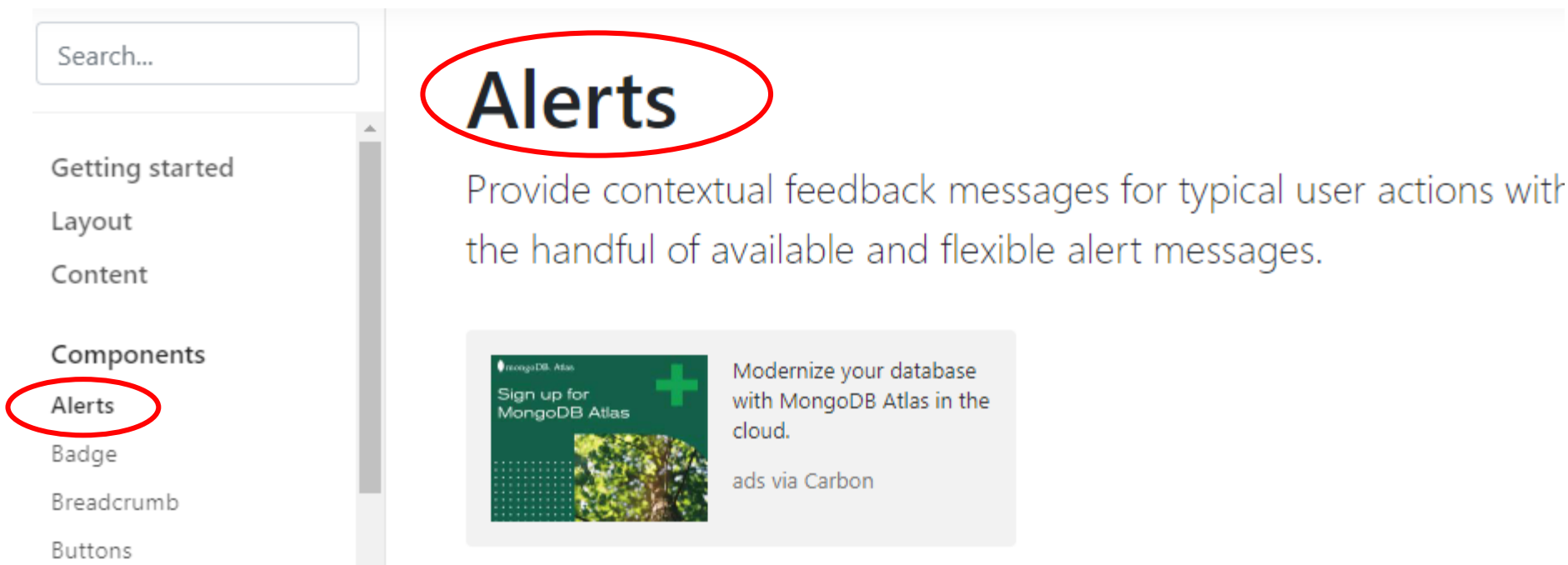
Download

Currently **v5.0.2** · [v4.6.x docs](#) · [All releases](#)



# Configurando angular.json

O primeiro componente que ele traz é o alerts, vamos testar ele mesmo



# Configurando angular.json

Vamos copiar a div do alert primary

```
<div class="alert alert-primary" role="alert"> A simple primary alert—check it out! </div>
```

Vamos inserir na página

```
src > app > app.component.html > ...  
1 | <h1>Teste Bootstrap</h1>  
2 | <div class="alert alert-primary" role="alert">  
3 | | A simple primary alert—check it out!  
4 | </div>  
5 | <router-outlet></router-outlet>
```

Salve e verifique a página como ficou



# Resultado Final

---

## Teste BootStrap

A simple primary alert—check it out!

