

How to use Bootstrap4 Tabset in Angular8

2019.7.16

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フルソースコード

<https://github.com/Ohtsu/ng8-bootstrap4-tabset>

ビデオ解説(日本語)

https://youtu.be/IcL_4Xo2lz0

ビデオ解説(英語)

<https://youtu.be/2HvEWjMbS34>

About creating a project

Here, I will introduce how to use Bootstrap4 Tabset in Angular 8.

As for how to set Bootstrap4 from the project creation stage, please see the *How to set Bootstrap4 environment in Angular8* <https://youtu.be/NoSkIVvf5o8>, which I have already published.

This time, we are going to download such a pre-set project from GitHub, and then proceed with incorporating Tabset into it.

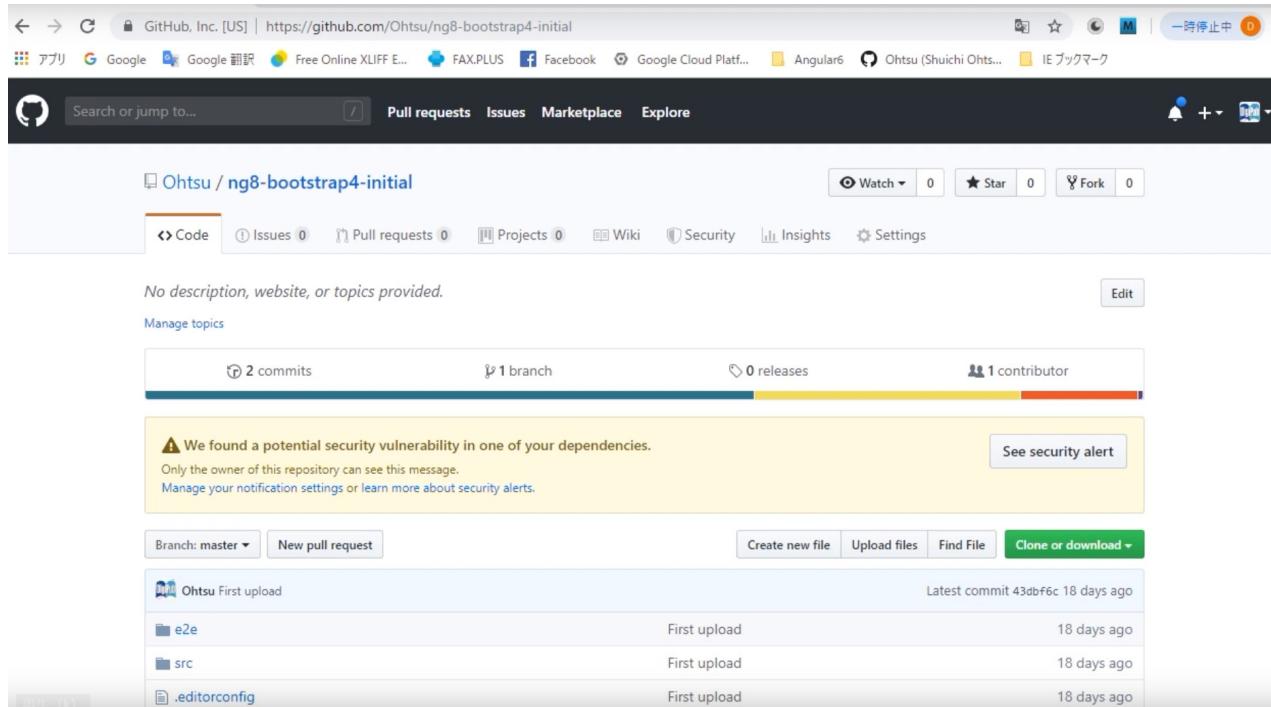
For the contents of the project, please see the full source code.

Download Project Source with Bootstrap 4 from GitHub

First, download the full source code of the project incorporating Bootstrap4 from GitHub.

The URL is

<https://github.com/Ohtsu/ng8-bootstrap4-initial>.



No description, website, or topics provided.

Manage topics

2 commits 1 branch 0 releases 1 contributor

We found a potential security vulnerability in one of your dependencies.

Only the owner of this repository can see this message.

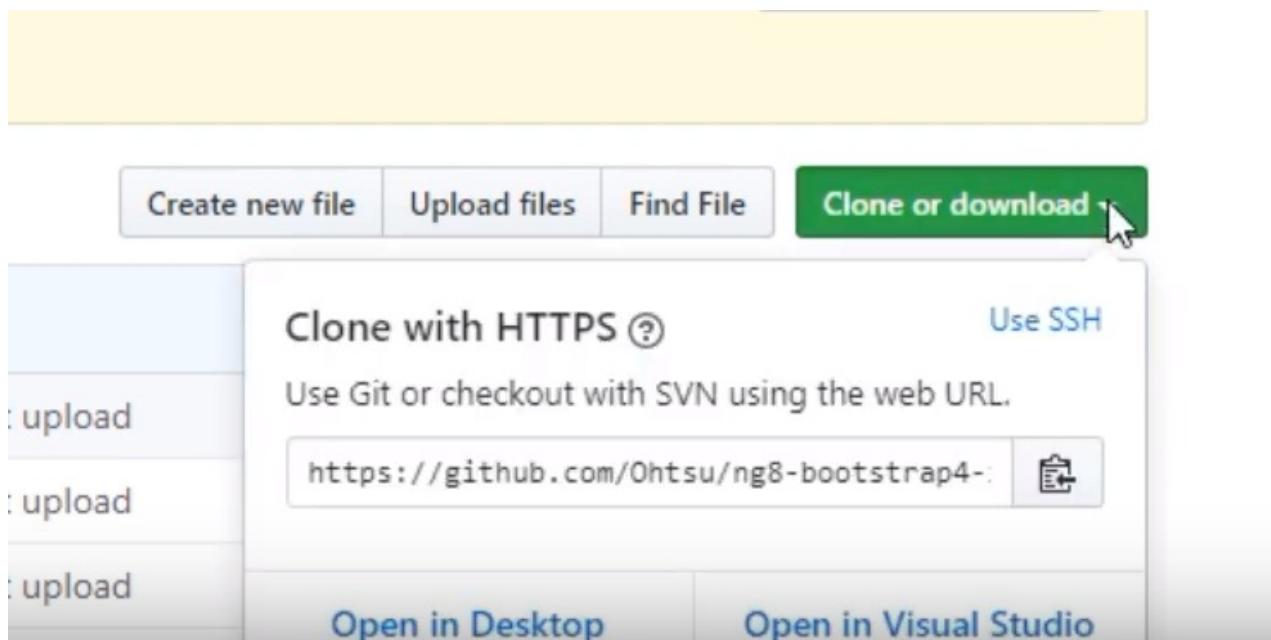
Manage your notification settings or learn more about security alerts.

Branch: master New pull request Create new file Upload files Find File Clone or download

File	Last upload	Latest commit
Ohtsu First upload		43dbf6c 18 days ago
e2e	First upload	18 days ago
src	First upload	18 days ago
.editorconfig	First upload	18 days ago

When the page is displayed, click the green *Clone or download* button on the right.

Then the download address will be displayed, so click the copy icon on the right and copy the address.



Clone with HTTPS ⓘ

Use SSH

Use Git or checkout with SVN using the web URL.

<https://github.com/Ohtsu/ng8-bootstrap4-> 

Open in Desktop Open in Visual Studio

Generate a project

Open a command prompt, move to a suitable directory, and paste the copied address in that directory, following `git clone`. Type

```
git clone https://github.com/Ohtsu/ng8-bootstrap4-initial.git.
```

Then the download will start.

```
ohtsu@Tiger64:~$ git clone https://github.com/Ohtsu/ng8-bootstrap4-initial.git
Cloning into 'ng8-bootstrap4-initial'...
```

Launch Visual Studio Code

Next, enter the directory of the generated project,

```
cd ng8-bootstrap4-initial
```

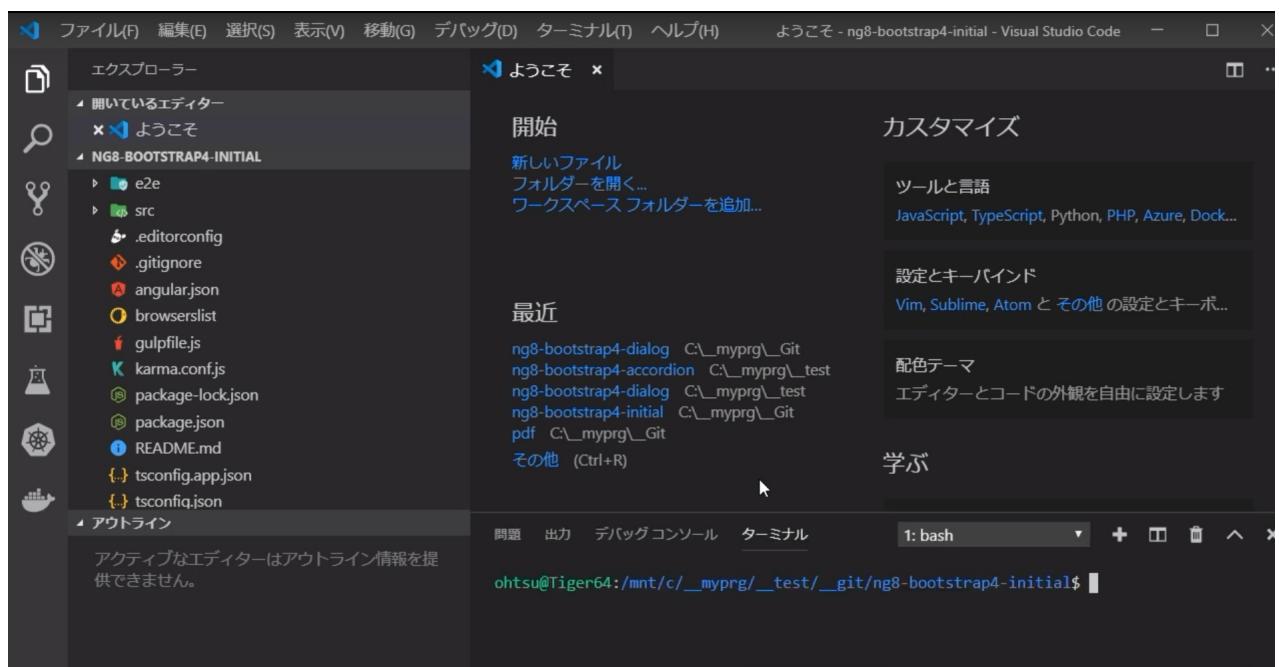
Start Visual Studio Code. Type

```
code .
```



Once VSCode starts up,

Press `ctrl + `` to open a terminal window.

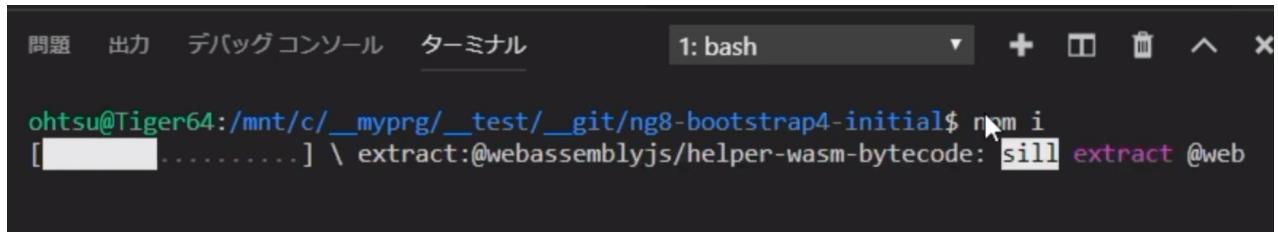


And type

```
npm i
```

to install the required libraries for the project.

This process takes some time.

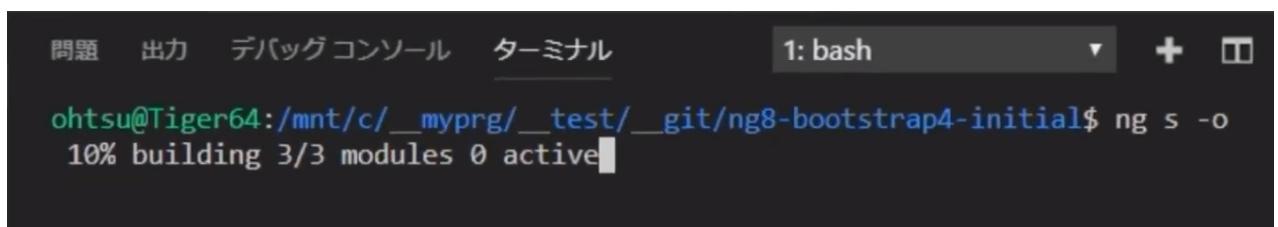


A screenshot of a terminal window titled "1: bash". The command "npm i" is being typed. The terminal shows the progress of the installation process, with a progress bar and the text "[.....] \ extract:@webassemblyjs/helper-wasm-bytecode: sill extract @web".

Confirming Project Launch

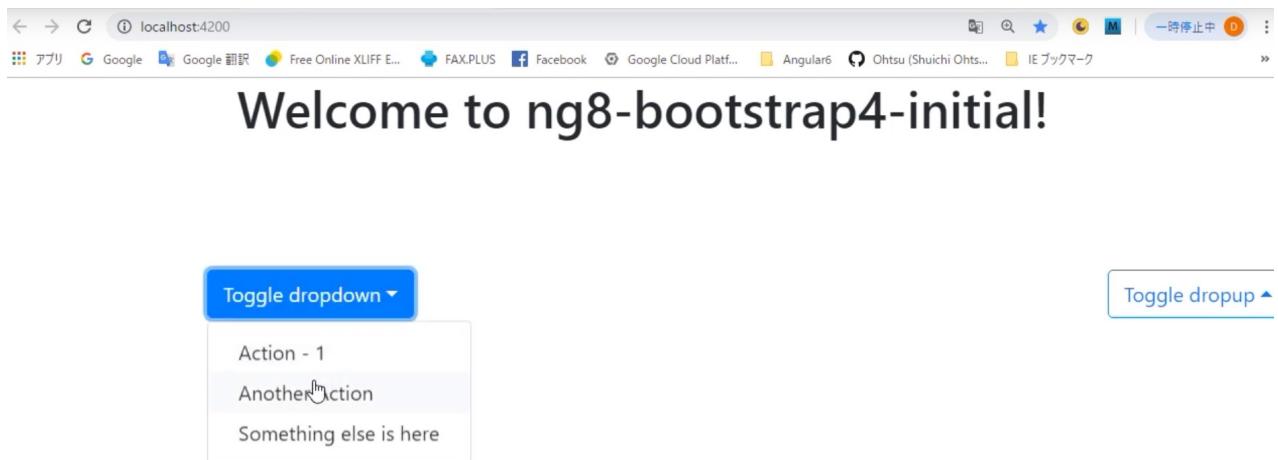
Next, check if the project can be launched. Type

```
ng s -o.
```



A screenshot of a terminal window titled "1: bash". The command "ng s -o" is being typed. The terminal shows the progress of the build process, with the text "10% building 3/3 modules 0 active".

The browser will open automatically, with drop-downs and drop-ups.



OK.

Create backup with Gulp

At this stage, make a backup of the source before change. However, since it is not necessary to back up related libraries, we are going to exclude files under `node_modules`.

Since I have already included `gulpfile.js` for such backup, we are going to execute it. Type

gulp -m Intial.

The `-m` option is the string to be added to the created project name.

```
問題 出力 デバッグコンソール ターミナル 1: bash ▾ + × ■ □ へ  
ohtsu@Tiger64:/mnt/c/_myprg/_test/_git/ng8-bootstrap4-initial$ gulp -m Initial  
[19:39:23] Using gulpfile /mnt/c/_myprg/_test/_git/ng8-bootstrap4-initial/gulpfile.js  
[19:39:23] Starting 'default'...  
current_dir ----- ng8-bootstrap4-initial  
time_version ----- 201907071939  
target_path ----- ../ng8-bootstrap4-initial_201907071939_Initial  
message ----- Initial  
[19:39:23] Finished 'default' after 282 ms
```

Next, create a project for Tabset testing. Type

```
gulp -m ForTabset.
```

```
ohtsu@Tiger64:/mnt/c/_myprg/_git/ng8-bootstrap4-initial$ gulp -m ForTabset
[13:17:39] Using gulpfile /mnt/c/_myprg/_git/ng8-bootstrap4-initial/gulpfile.js
[13:17:39] Starting 'default'...
current_dir ----- ng8-bootstrap4-initial
time_version ----- 201907151317
target_path ----- ../ng8-bootstrap4-initial_201907151317_ForTabset
message ----- ForTabset
[13:17:39] Finished 'default' after 113 ms
```

Next, open the file explorer, copy the created tabset test project together with the directory, and paste it into the appropriate directory.

■	ng8-bootstrap4-fontawesome	2019/07/04 9:40 ファイル フォルダー
■	ng8-bootstrap4-fontawesome_201907040937_BeforeAddF...	2019/07/04 9:37 ファイル フォルダー
■	ng8-bootstrap4-timepicker	2019/07/12 18:06 ファイル フォルダー
■	ng8-bootstrap4-initial_201907151317_ForTabset	2019/07/15 13:17 ファイル フォルダー

ta)

And change the directory name to nq8-bootstrap4-tabset.

ng8-bootstrap4-fontawesome	2019/07/04 9:40	ファイル フォルダー
ng8-bootstrap4-fontawesome_201907040937_BeforeAddF...	2019/07/04 9:37	ファイル フォルダー
ng8-bootstrap4-timepicker	2019/07/12 18:06	ファイル フォルダー
ng8-bootstrap4-tabset	2019/07/15 13:17	ファイル フォルダー

Then open a command prompt and change to this directory.

And type

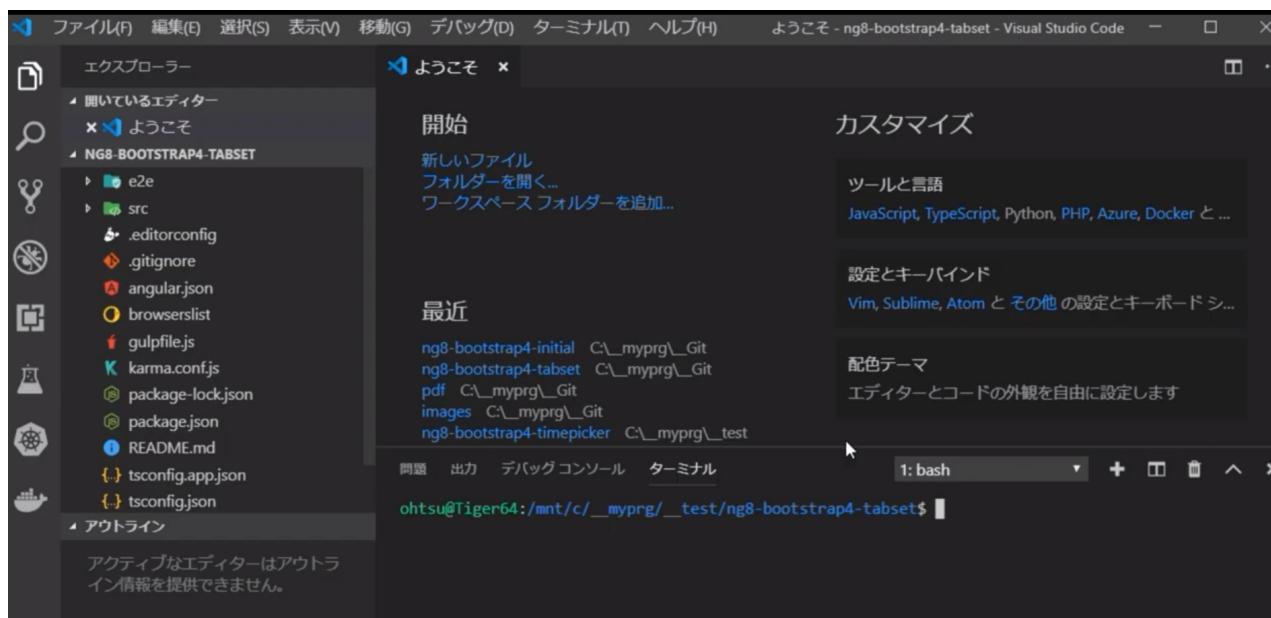
code .

to open VSCode.

```
$ cd ng8-bootstrap4-tabset
/vng8-bootstrap4-tabset$ ls
e.js      package-lock.json  src          tsconfig.json    tslint.json
conf.js   package.json       tsconfig.app.json  tsconfig.spec.json
/vng8-bootstrap4-tabset$ code .
```

Once VSCode starts up,

Press `ctrl + `` key to open a terminal window.



Change project name

Next, we will change the contents of the project.

First, change the project name.

If you open the `package.json` file, you can see that the project name is `ng8-bootstrap4-initial`. Change this to `ng8-bootstrap4-tabset`.

Click the search icon on the left to replace the source of the entire project.

The screenshot shows a code editor interface with a search sidebar on the left and a main editor area on the right. The search bar at the top of the sidebar contains the text "ng8-bootstrap4-initial". Below it, a list of search results is displayed, including "angular.json" and "app.e2e-spec.ts". The main editor area shows the contents of a "package.json" file:

```
1 {  
2   "name": "ng8-bootstrap4-initial",  
3   "version": "0.0.0",  
4   "scripts": {  
5     "ng": "ng",  
6     "start": "ng serve",  
7     "build": "ng build",  
8     "test": "ng test",  
9     "lint": "ng lint",  
10    "e2e": "ng e2e"  
11  },  
12  "private": true,  
13  "dependencies": {  
14    "@angular/animations": "~8.0.0",  
15    "@angular/common": "~8.0.0",  
16    "@angular/compiler": "~8.0.0",
```

Next, there are Pascal cases, that is, those separated by capital letters instead of -, so change Ng8Bootstrap4Initial to Ng8Bootstrap4Tabset.

The screenshot shows a code editor interface with a search sidebar on the left and a main editor area on the right. The search bar at the top of the sidebar contains the text "Ng8Bootstrap4Initial". Below it, a list of search results is displayed, including "README.md" and "index.html". The main editor area shows the contents of a "package.json" file:

```
1 {  
2   "name": "ng8-bootstrap4-tabset",  
3   "version": "0.0.0",  
4   "scripts": {  
5     "ng": "ng",  
6     "start": "ng serve",  
7     "build": "ng build",  
8     "test": "ng test",  
9     "lint": "ng lint",  
10    "e2e": "ng e2e"  
11  },
```

Next type

```
npm i
```

and install the library again.

問題 26 出力 デバッグコンソール ターミナル 1: bash + □ 🗑

```
ohtsu@Tiger64:/mnt/c/_myprg/_test/ng8-bootstrap4-tabset$ npm i  
[██████████] \ loadDep:to-regex-range: sill install loadAllDepsIntoIdealTree
```

This process takes some time.

Running npm audit fix

A warning about the vulnerability of the package is displayed here, and we are going to fix the package.

```
問題 18 出力 デバッグコンソール ターミナル 1: bash ▾ + ■ × ▷

invalid argument, scandir '/mnt/c/_myprg/_test/ng8-bootstrap4-tabset/node_modules/fsevents/no
de_modules'
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.9 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.9: wanted {
  "os": "darwin", "arch": "any" } (current: {"os": "linux", "arch": "x64"})
added 1145 packages from 1092 contributors and audited 25405 packages in 361.108s
found 291 high severity vulnerabilities
  run `npm audit fix` to fix them, or `npm audit` for details
ohtsu@Tiger64:/mnt/c/_myprg/_test/ng8-bootstrap4-tabset$
```

Type

npm audit fix.

A screenshot of a terminal window titled "1: bash". The title bar also includes tabs for "問題 18", "出力", "デバッグコンソール", and "ターミナル". The main area shows the command "npm audit fix" being run in a directory under "/mnt/c/_myprg/_test/ng8-bootstrap4-tabset\$". The output shows a progress bar followed by the message "loadDep:yargs-parser: sill install loadAllDepsIntoIdealTree".

Next again, type

npm i

to install the library again.

問題 18 出力 デバッグコンソール ターミナル 1: bash ▾ +

The warning about package vulnerability has disappeared.

```
問題 18 出力 デバッグコンソール ターミナル 1: bash + - ×
npm WARN bootstrap@4.3.1 requires a peer of popper.js@^1.14.7 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.9 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.9: wanted {"os": "darwin", "arch": "any"} (current: {"os": "linux", "arch": "x64"})

audited 25696 packages in 8.794s
found 0 vulnerabilities

ohtsu@Tiger64:/mnt/c/_myprg/_test/ng8-bootstrap4-tabset$
```

OK.

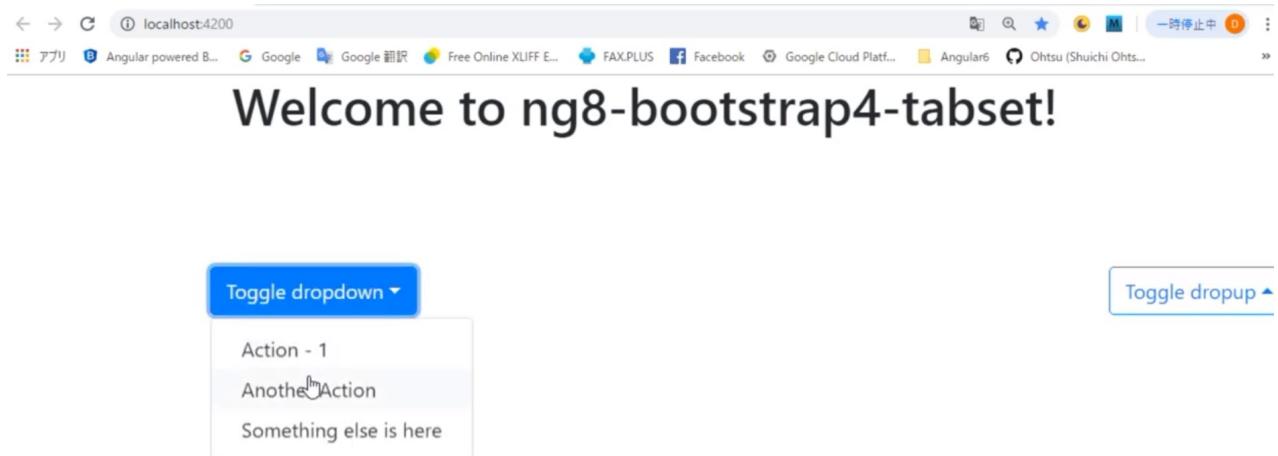
Project start check

Also check if the project can be launched. Type

```
ng s -o.
```

```
問題 18 出力 デバッグコンソール ターミナル 1: bash + ×
ohtsu@Tiger64:/mnt/c/_myprg/_test/ng8-bootstrap4-tabset$ ng s -o
10% building 3/3 modules 0 active
```

The browser will open automatically, with drop-downs and drop-ups.



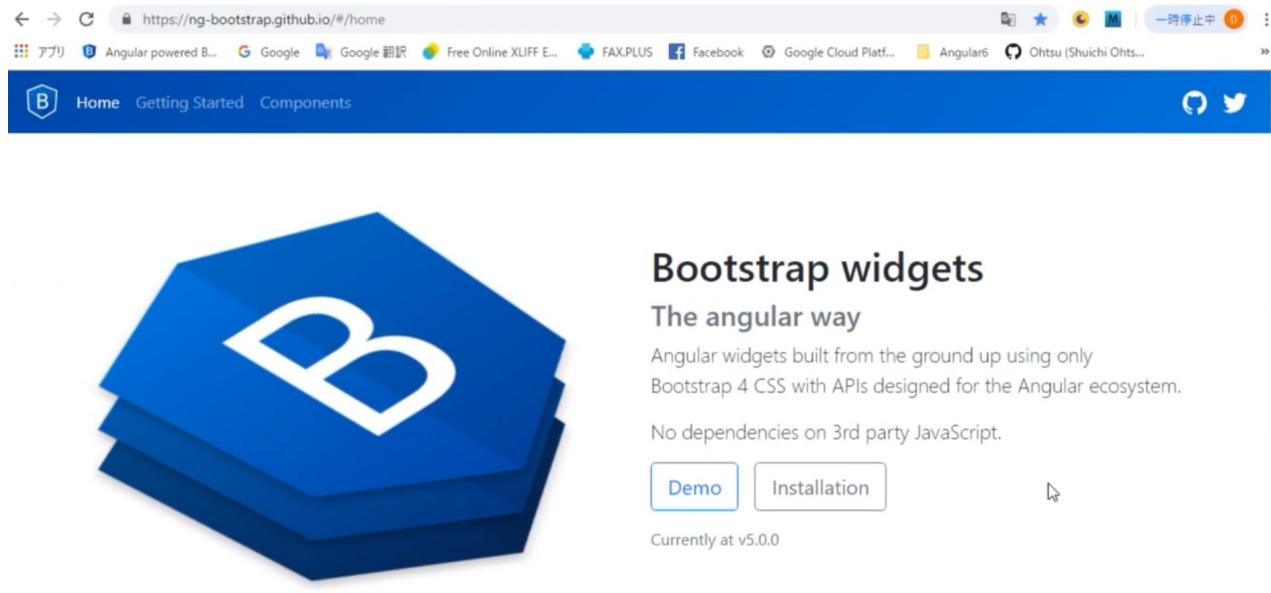
OK.

Add Tabset

Next, open the *ng-bootstrap* site and browse to the Tabset sample program.

The URL is

<https://ng-bootstrap.github.io/#/home>.

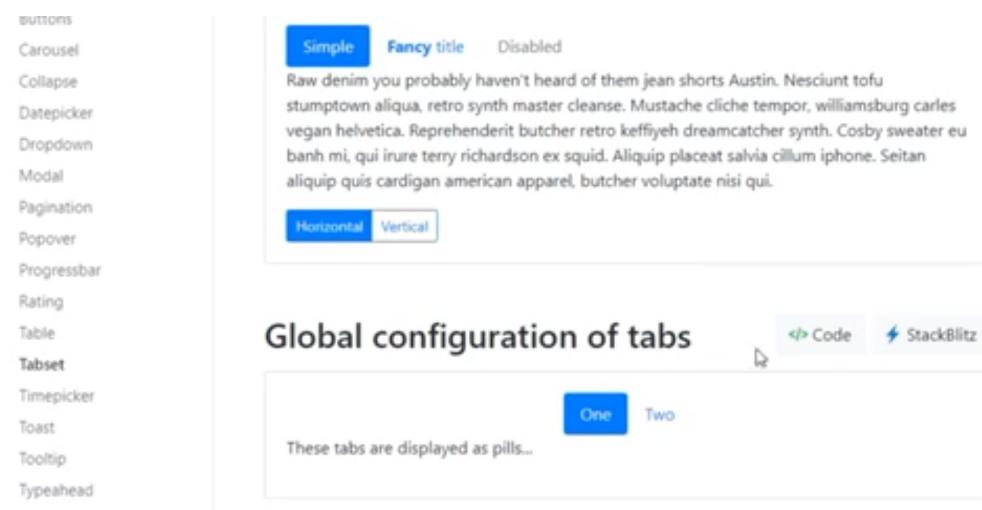


The screenshot shows the official ng-bootstrap GitHub page. At the top, there's a navigation bar with links like 'Home', 'Getting Started', and 'Components'. Below the navigation, there's a large blue hexagonal logo with a white stylized letter 'B' inside. To the right of the logo, the text 'Bootstrap widgets' is displayed in bold, followed by 'The angular way'. Below this, it says 'Angular widgets built from the ground up using only Bootstrap 4 CSS with APIs designed for the Angular ecosystem.' and 'No dependencies on 3rd party JavaScript.' There are two buttons: 'Demo' and 'Installation'. A small note at the bottom right says 'Currently at v5.0.0'.

Now click on the `Demo` button and click on `Tabset` from the menu on the left.

And *Global configuration of tabs* is displayed.

We are going to import this setting.



This screenshot shows the 'Global configuration of tabs' demo page. On the left, there's a sidebar with a list of components: buttons, Carousel, Collapse, Datepicker, Dropdown, Modal, Pagination, Popover, Progressbar, Rating, Table, Tabset, Timepicker, Toast, Tooltip, and Typeahead. The 'Tabset' item is highlighted. The main content area has tabs for 'Simple', 'Fancy title', and 'Disabled'. The 'Simple' tab is selected, showing a paragraph of placeholder text: 'Raw denim you probably haven't heard of them jean shorts Austin. Nesciunt tofu stumptown aliqua, retro synth master cleanse. Mustache cliche tempor, williamsburg carles vegan helvetica. Reprehenderit butcher retro keffiyeh dreamcatcher synth. Cosby sweater eu banh mi, qui irure terry richardson ex squid. Aliquip placeat salvia cillum iphone. Seitan aliquip quis cardigan american apparel, butcher voluptate nisi qui.' Below this, there are buttons for 'Horizontal' and 'Vertical'. On the right, there's another sidebar with 'Tabset' options: Pills, Select an active tab by id, Prevent tab change, Nav justification, Nav orientation, and Global configuration of tabs. At the bottom, there's a 'Global configuration of tabs' heading, a 'Code' button, a 'StackBlitz' button, and a preview area showing two tabs labeled 'One' and 'Two' with the text 'These tabs are displayed as pills...'.

First, click on the `Code` button on the top right to display its source.

First, copy the HTML sentence.

Global configuration of tabs

[Code](#)

StackBlitz

tabset-config.html

```
<ngb-tabset>
  <ngb-tab title="One">
    <ng-template ngbTabContent>
      <p>These tabs are displayed as pills...</p>
    </ng-template>
  </ngb-tab>
  <ngb-tab title="Two">
    <ng-template ngbTabContent>
      <p>Because default values have been customized.</p>
    </ng-template>
  </ngb-tab>
</ngb-tabset>
```

tabset-config.ts

```
...
```

One Two

These tabs are displayed as pills...

Go back to VSCode and open the `app.component.html` file in `src / app`.

Paste the copied HTML here.

```
34
35  <ngb-tabset>
36    <ngb-tab title="One">
37      <ng-template ngbTabContent>
38        |   <p>These tabs are displayed as pills...</p>
39        |   </ng-template>
40    </ngb-tab>
41    <ngb-tab title="Two">
42      <ng-template ngbTabContent> I
43        |   <p>Because default values have been customized.</p>
44        |   </ng-template>
45    </ngb-tab>
46  </ngb-tabset>
47  <router-outlet></router-outlet>
```

Also, comment out pull-down and pull-up related parts.

The screenshot shows the VSCode interface with the file `app.component.html` open. The code is annotated with blue boxes highlighting specific parts of the template. Line 23 highlights the `<div class="col text-right">` block. Line 24 highlights the `<div ngbDropdown placement="top-right" class="d-inline-block">` block. Line 25 highlights the `<button class="btn btn-outline-primary" id="dropdownBasic2" ngbDropdownTrigger>` button. Line 27 highlights the first item in the dropdown menu. Line 29 highlights the second item. Line 30 highlights the third item. Line 35 highlights the opening tag of the `<ngb-tabset>` component. Line 36 highlights the `<ngb-tab title="One">` tab.

Return to the browser and open the file of TypeScript.

First of all, it is necessary to add an import part.

Global configuration of tabs

[Code](#)[StackBlitz](#)

The screenshot shows the StackBlitz editor with the file `tabset-config.ts` open. The code is annotated with blue boxes highlighting imports and class definitions. Line 5 highlights the `import {Component} from '@angular/core';` statement. Line 6 highlights the `import {NgbTabsetConfig} from '@ng-bootstrap/ng-bootstrap';` statement. Line 10 highlights the `@Component({` start of the component definition. Line 11 highlights the `selector: 'ngbd-tabset-config',` selector. Line 12 highlights the `templateUrl: './tabset-config.html',` template URL. Line 13 highlights the `providers: [NgbTabsetConfig] // add NgbTabsetConfig to the component providers` providers. Line 14 highlights the closing brace of the component definition. Line 15 highlights the `export class NgbdTabsetConfig {` start of the class definition. Line 16 highlights the `constructor(config: NgbTabsetConfig) {` constructor. Line 17 highlights the `// customize default values of tabssets used by this component tree` comment. Line 18 highlights the `config.justify = 'center';` justify setting. Line 19 highlights the `config.type = 'pills';` type setting. Line 20 highlights the closing brace of the constructor. Line 21 highlights the closing brace of the class definition.

Go back to VSCode and open the `app.component.ts` file in `src/app`.

Paste the copied import part here.

The screenshot shows the VSCode interface with the file tree on the left and the code editor on the right. The file tree shows a project structure with files like package.json, app.component.html, app.component.ts, app-routing.module.ts, app.component.spec.ts, and app.module.ts. The code editor displays the content of app.component.ts:

```
src > app > app.component.ts > ...
1 import { Component } from '@angular/core';
2 import { NgbTabsetConfig } from '@ng-bootstrap/ng-bootstrap';
3 |
4 @Component({
5   selector: 'app-root',
6   templateUrl: './app.component.html',
7   styleUrls: ['./app.component.scss']
8 })
9 export class AppComponent {
10   title = 'ng8-bootstrap4-tabset';
11 }
```

Go back to your browser and copy the providers part.

Global configuration of tabs

[Code](#)[StackBlitz](#)

The screenshot shows the StackBlitz code editor with the tabset-config.ts file open. The code defines a component that includes providers for NgbTabsetConfig:

```
tabset-config.ts
import { Component } from '@angular/core';
import { NgbTabsetConfig } from '@ng-bootstrap/ng-bootstrap';

@Component({
  selector: 'ngbd-tabset-config',
  templateUrl: './tabset-config.html',
  providers: [NgbTabsetConfig] // add NgbTabsetConfig to the component provider
})
```

Return to VSCode, open the *app.component.ts* file and paste the providers part here.

The screenshot shows the VSCode code editor with the providers part of the code highlighted in red, indicating it was copied from another source:

```
4 @Component({
5   selector: 'app-root',
6   templateUrl: './app.component.html',
7   styleUrls: ['./app.component.scss'],
8   providers: [NgbTabsetConfig]
9 })
10 export class AppComponent {
11   title = 'ng8-bootstrap4-tabset';
12 }
```

Return to the browser and copy the main part in the class.

```
@Component({
  selector: 'ngbd-tabset-config',
  templateUrl: './tabset-config.html',
  providers: [NgbTabsetConfig] // add NgbTabsetConfig to the component provider
})
export class NgbdTabsetConfig {
  constructor(config: NgbTabsetConfig) {
    // customize default values of tabs used by this component tree.
    config.justify = 'center';
    config.type = 'pills';
  }
}
```

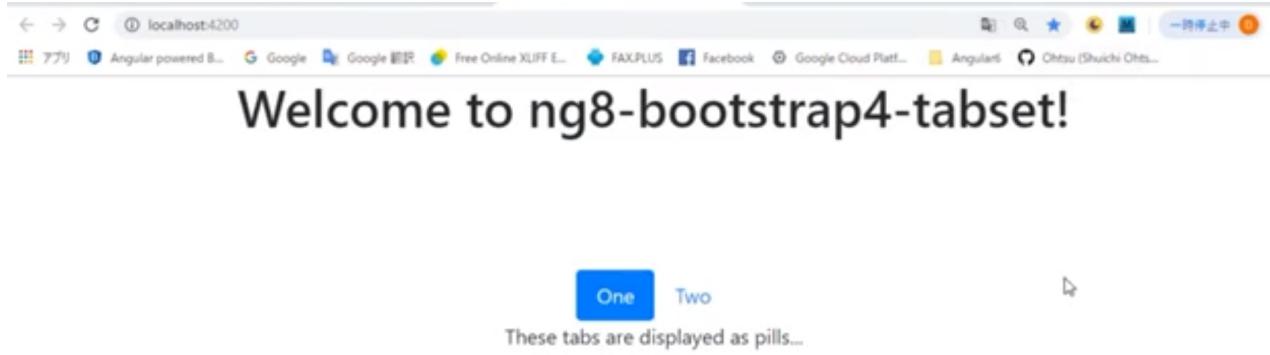
Return to VSCode, open the `app.component.ts` file and paste it here.

```
4  @Component({
5    selector: 'app-root',
6    templateUrl: './app.component.html',
7    styleUrls: ['./app.component.scss'],
8    providers: [NgbTabsetConfig]
9  })
10 export class AppComponent {
11   title = 'ng8-bootstrap4-tabset';
12   constructor(config: NgbTabsetConfig) {
13     // customize default values of tabs used by this component tree
14     config.justify = 'center';
15     config.type = 'pills';
16   }
17 }
18 ]
```

Display Tabset

Now go back to your browser and open <http://localhost:4200>.

Tabset is displayed.



OK.

Change the style of Tab

In this view, the tabs are displayed like normal buttons, so we are going to change to the standard tab style.

Return to VSCode, open the *app.component.ts* file, and change

```
config.type = 'tabs'.
```

```
10  export class AppComponent {
11    title = 'ng8-bootstrap4-tabset';
12    constructor(config: NgbTabsetConfig) {
13      // customize default values of tabsets used
14      config.justify = 'center';
15      config.type = 'tabs';           I
16    }
17 }
```

Go back to the browser and checked the display, it became the standard tab style.

Welcome to ng8-bootstrap4-tabset!



OK.

Left-justified

Next, since the tab is displayed in the center, we are going make it left-justified.

Return to VSCode, open the *app.component.ts* file, change to

```
config.justify = 'start'.
```

```
10  export class AppComponent {
11    title = 'ng8-bootstrap4-tabset';
12    constructor(config: NgbTabsetConfig) {
13      // customize default values of tabsets used
14      config.justify = 'start';
15      config.type = 'tabs';
16    }
17 }
```

Go back to the browser and check the display, the tabs are now left-justified.

Welcome to ng8-bootstrap4-tabset!



OK.

Vertical display of tabs

Until now, the tabs are displayed horizontally, but we are going to change this vertically.

Return to VSCode, open the *app.component.ts* file, and add

`config.orientation = 'vertical'.

```
10  export class AppComponent {
11    title = 'ng8-bootstrap4-tabset';
12    constructor(config: NgbTabsetConfig) {
13      // customize default values of tabsets
14      config.orientation = 'vertical';
15      config.justify = 'start';
16      config.type = 'tabs';
17    }
18  }
```

Return to the browser and check the display, the titles are now aligned vertically.

Welcome to ng8-bootstrap4-tabset!

On 

Two

Because default values have been customized.

Ok.

Change to button

However, since it is a little bit difficult to understand the title, so change it to the button format.

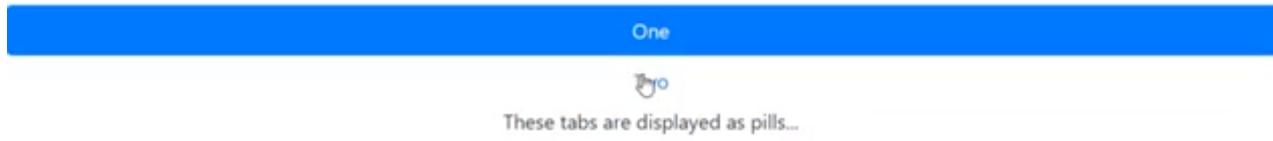
Return to VSCode, open the *app.component.ts* file, change to

```
config.type = 'pills'.
```

```
10  export class AppComponent {
11    title = 'ng8-bootstrap4-tabset';
12    constructor(config: NgbTabsetConfig) {
13      // customize default values of tabs:
14      config.orientation = 'vertical';
15      config.justify = 'start';
16      config.type = 'pills'];
17    }
18  }
```

Return to the browser and confirm the display.

Welcome to ng8-bootstrap4-tabset!



OK.

Reference

- "Angular8におけるBootstrap4環境の設定方法(Youtube)",
<https://youtu.be/gF xuSi4IZjM>
- "How to set up Bootstrap 4 environment in Angular 8",
<https://youtu.be/NoSkIVv5o8>
- "Angular8におけるBootstrap4環境の設定方法(Qiita)",
<https://qiita.com/SOhtsu/items/62253bb2309c9a4809fd>
- "Angular 7 Bootstrap 4 UIs: ng-bootstrap and ngx-bootstrap [Part 1]",
<https://www.techiediaries.com/angular-bootstrap-ui/>
- "Angular5, Angular6, Angular7 Custom Library: Step-by-step guide",
<https://www.udemy.com/angular5-custom-library-the-definitive-step-by-step-guide/>
- "Angular5, Angular6, Angular7用 カスタムライブラリの作成: 完全ステップ・バイ・ステップ・ガイド",
<https://www.udemy.com/angular5-1/>