

# How to integrate Bootstrap4 and FontAwesome in Angular 8

by *Shuichi Ohtsu*



Full source code

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

Video commentary (Japanese)

<https://youtu.be/ZwjoilngFIM>

Video commentary (English)



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## About creating a project

Here, I will introduce how to integrate Bootstrap4 and FontAwesome 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/gFxsI4IZjM>, which I have already published.

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

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

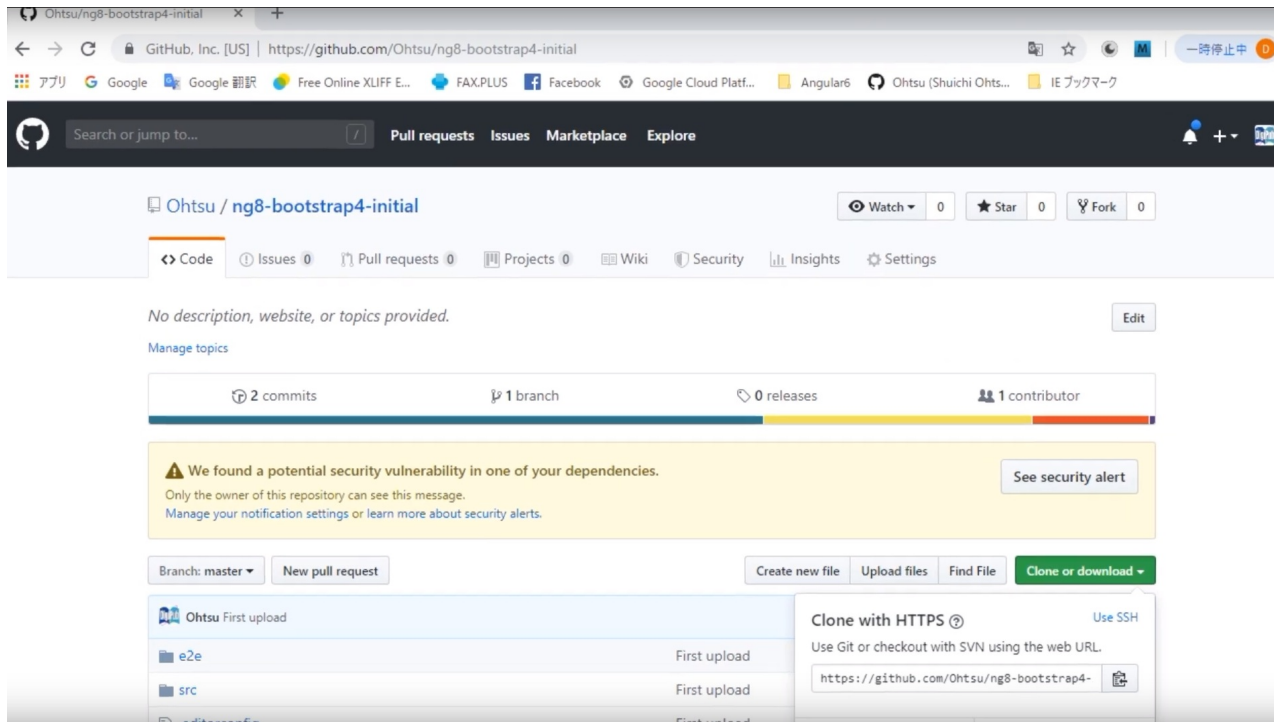
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# Download Project Source with Bootstrap 4 from GitHub

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

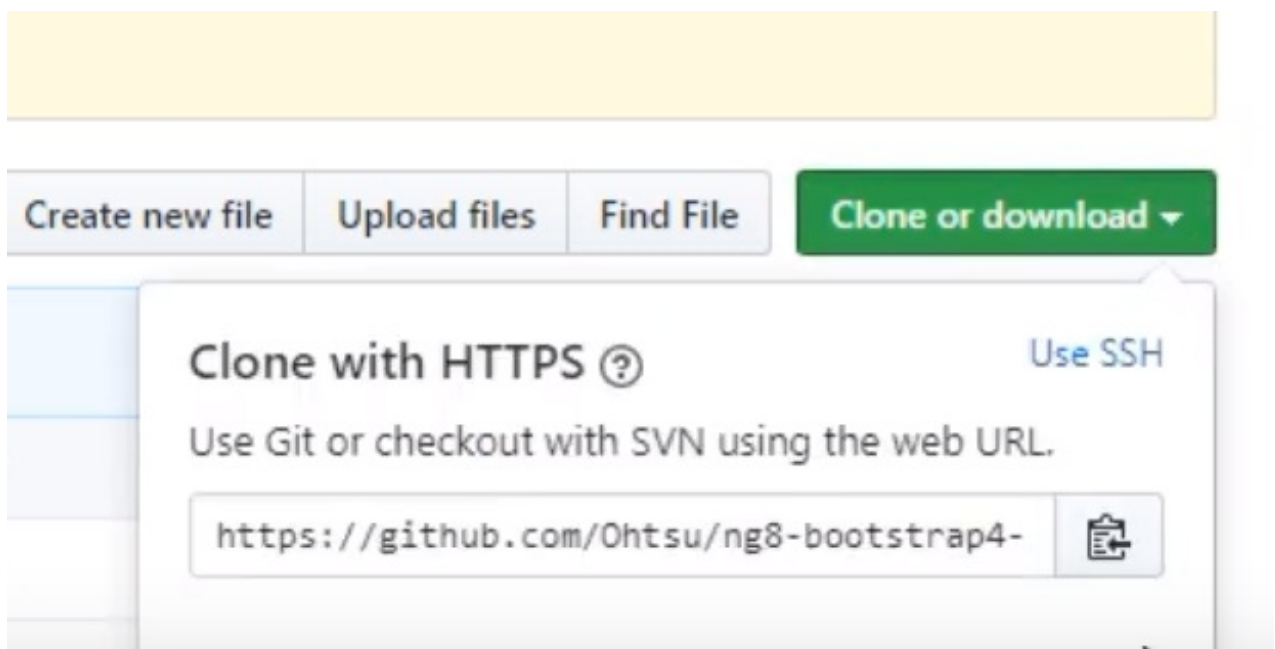
The URL is

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



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.



## 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.

A terminal window with a dark background. The prompt is `l/ht/ng8-bootstrap4-initial$` and the command `git clone https://github.com/Ohtsu/ng8-bootstrap4-initial.git` is being typed. A mouse cursor is positioned at the end of the command.

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

## Launch Visual Studio Code

Next, enter the directory of the generated project,

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

Start Visual Studio Code. Type

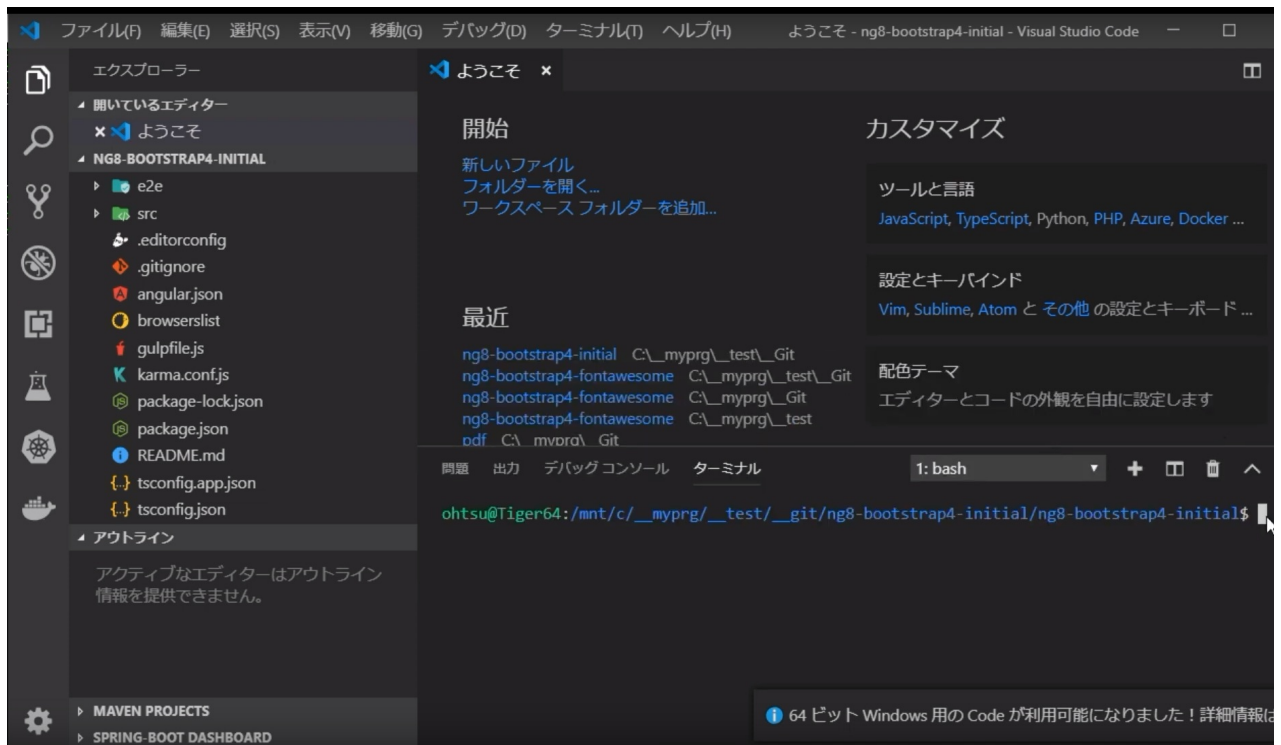
```
code .
```

A terminal window with a dark background. The first line shows the prompt `l$` followed by the command `cd ng8-bootstrap4-initial`. The second line shows the prompt `l/ng8-bootstrap4-initial$` followed by the command `code .`.

```
l$ cd ng8-bootstrap4-initial
l/ng8-bootstrap4-initial$ code .
```

Once VSCode starts up,

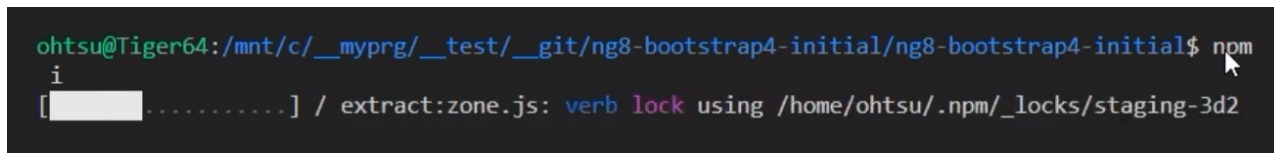
Press `ctrl + `` to open a terminal window.



And type

```
npm i
```

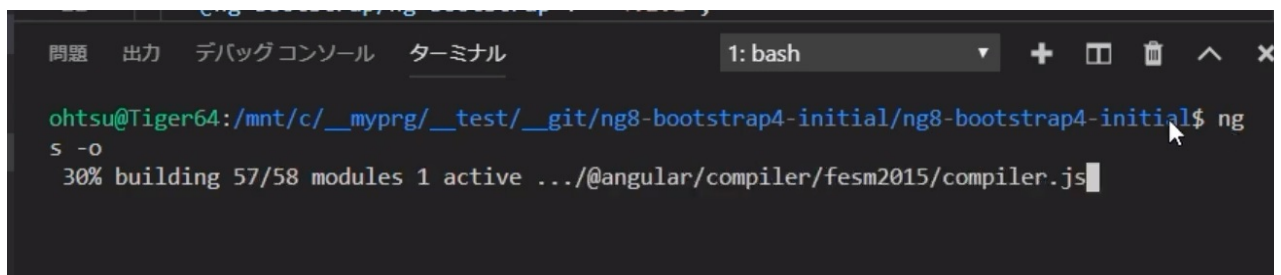
to install the required libraries for the project.



## Confirming Project Launch

Next, check if the project can be launched. Type

```
ng s -o.
```



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

# Welcome to ng8-bootstrap4-initial!

Action - 1

Another Action

Something else is here

Toggle dropdown ▼

Toggle dropup ▲

OK.

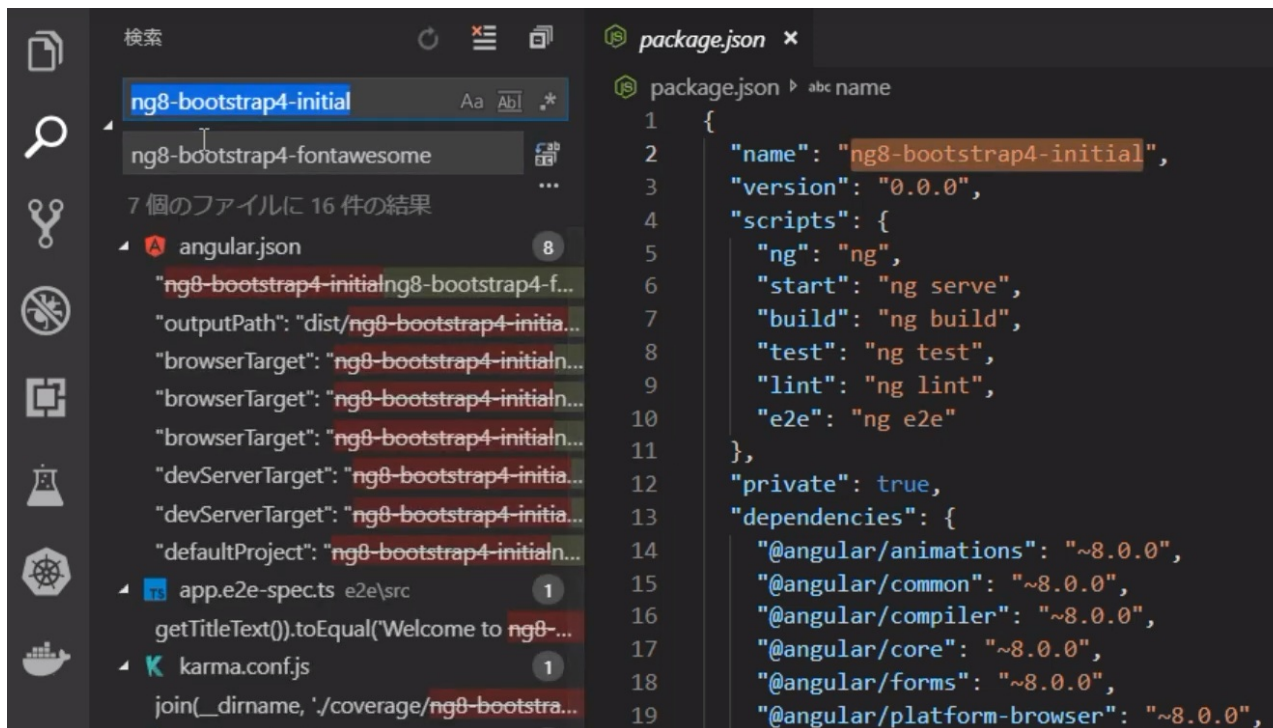
## Change project name

Next, we are going to change the contents of the project.

First, change the project name.

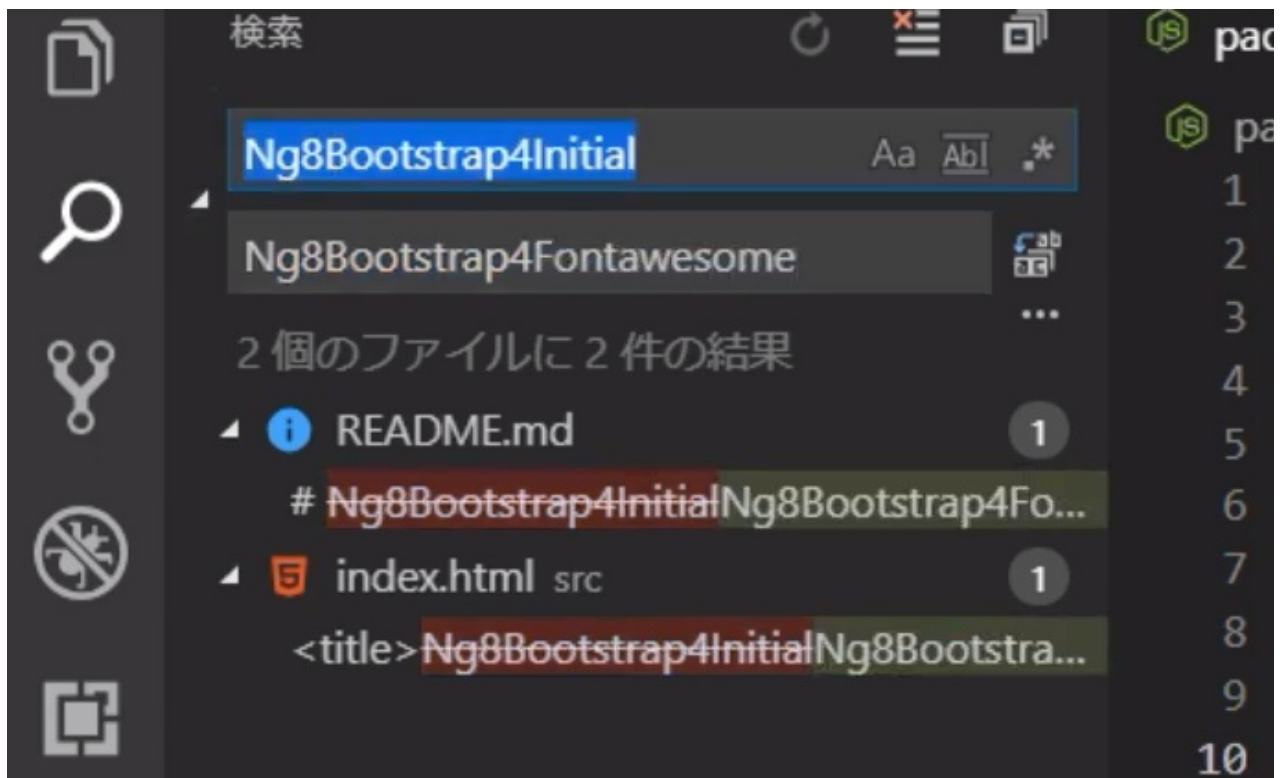
If you open the *package.json* file, you can see that the project name is `ng8-bootstrap4-initial`. Change this to `ng8-bootstrap4-fontawesome`.

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



Next, there are Pascal cases, that is, they are separated by capital letters instead of -, so change `Ng8Bootstrap4Initial` to `Ng8Bootstrap4Fontawesome`.

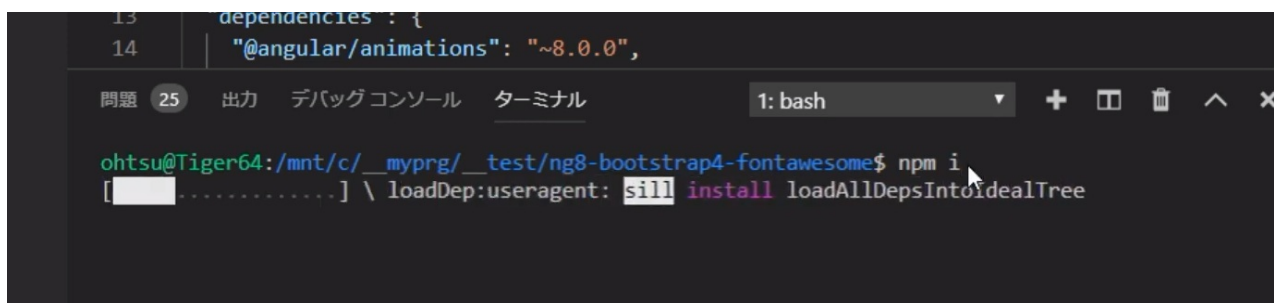




Next type

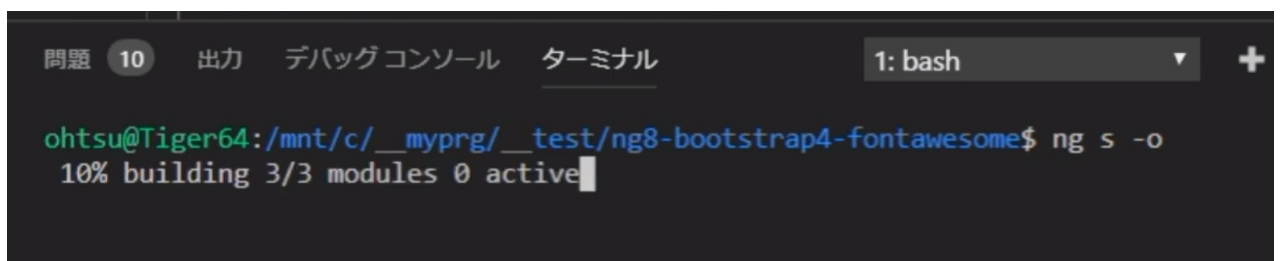
```
npm i
```

to install the library again.

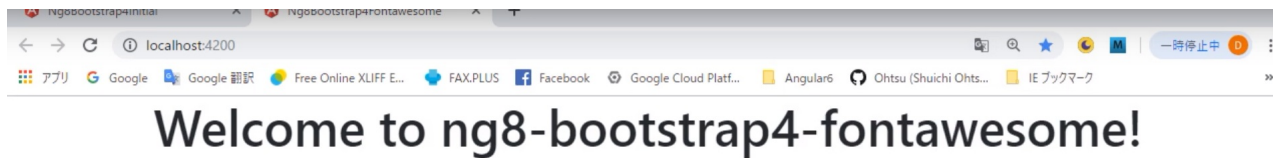


Also check if the project can be launched. Type

```
ng s -o.
```



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

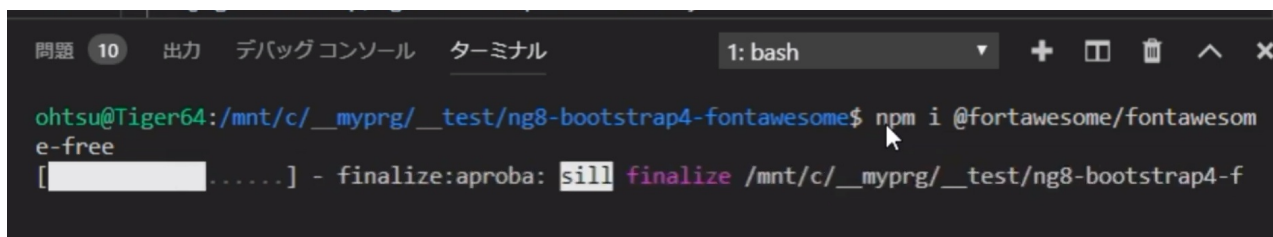


OK.

## Install FontAwesome

Next, stop the local server with `ctrl + c` and install FontAwesome.

In the terminal window, type `npm i @fortawesome/fontawesome-free`.



Note that the string following `@` is `fortawesome`, not `fontawesome`.

Then open the `package.json` file and make sure it is installed. Also copy the string `@fortawesome/fontawesome-free`.

Next, open the `angular.json` file and add the FontAwesome that you installed in the `project-architect-build-styles` section.

In particular, add a line of

```
./node_modules/@fortawesome/fontawesome-free/css/all.min.css.
```

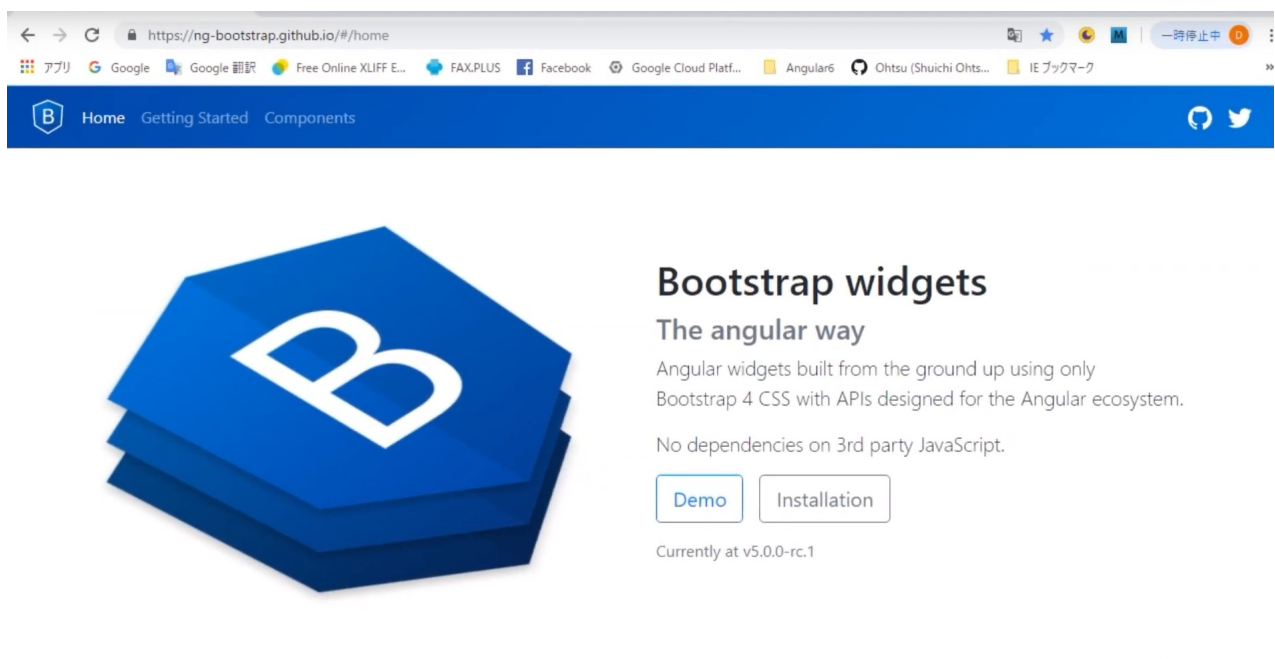
```
package.json  angular.json
angular.json > {} projects > {} ng8-bootstrap4-fontawesome > {} architect > {} build > {} options > [ ] styles
14   "sourceRoot": "src",
15   "prefix": "app",
16   "architect": {
17     "build": {
18       "builder": "@angular-devkit/build-angular:browser",
19       "options": {
20         "outputPath": "dist/ng8-bootstrap4-fontawesome",
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           "./node_modules/bootstrap/dist/css/bootstrap.min.css",
31           "./node_modules/@fortawesome/fontawesome-free/css/all.min.css",
32           "src/styles.scss"
33         ],
34         "scripts": []
35       },
36       "configurations": {
```

## Add Bootstrap4 button

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

The URL is

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





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

The screenshot shows the Angular Material documentation page for Buttons. The left sidebar contains a menu with 'Getting Started' and 'Components'. Under 'Components', 'Buttons' is selected. The main content area has a 'Buttons' header with 'Examples' and 'Api' tabs. The 'Examples' tab is active, showing 'Checkbox buttons'. There are 'Code' and 'StackBlitz' buttons. A sample of three checkbox buttons is displayed: 'Left (pre-checked)', 'Middle', and 'Right'. Below the buttons, a JSON object is shown: 

```
{  "left": true,  "middle": false,  "right": false}
```

Since the sample of the check box button is displayed, we are going to import this button into the Angular 8 project and display the FontAwesome icon in that button.

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

First, copy the HTML sentence.

# Checkbox buttons

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

buttons-checkbox.html buttons-checkbox.ts

```
<div class="btn-group btn-group-toggle">
  <label class="btn-primary" ngbButtonLabel>
    <input type="checkbox" ngbButton [(ngModel)]="model.left"> Left (pre-checked)
  </label>
  <label class="btn-primary" ngbButtonLabel>
    <input type="checkbox" ngbButton [(ngModel)]="model.middle"> Middle
  </label>
  <label class="btn-primary" ngbButtonLabel>
    <input type="checkbox" ngbButton [(ngModel)]="model.right"> Right
  </label>
</div>
<hr>
<pre>{{model | json}}</pre>
```

Left (pre-checked) Middle Right

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

Comment out pull-down and pull-up related parts.

Paste the copied HTML here.

```
34
35 <div class="btn-group btn-group-toggle">
36   <label class="btn-primary" ngbButtonLabel>
37     <input type="checkbox" ngbButton [(ngModel)]="model.left"> Left (pre-checked)
38   </label>
39   <label class="btn-primary" ngbButtonLabel>
40     <input type="checkbox" ngbButton [(ngModel)]="model.middle"> Middle
41   </label>
42   <label class="btn-primary" ngbButtonLabel>
43     <input type="checkbox" ngbButton [(ngModel)]="model.right"> Right
44   </label>
45 </div>
46 <hr>
47 <pre>{{model | json}}</pre>
48 <router-outlet></router-outlet>
```

Return to the browser and open the TypeScript file.

All you need to add is the model part, so copy it.

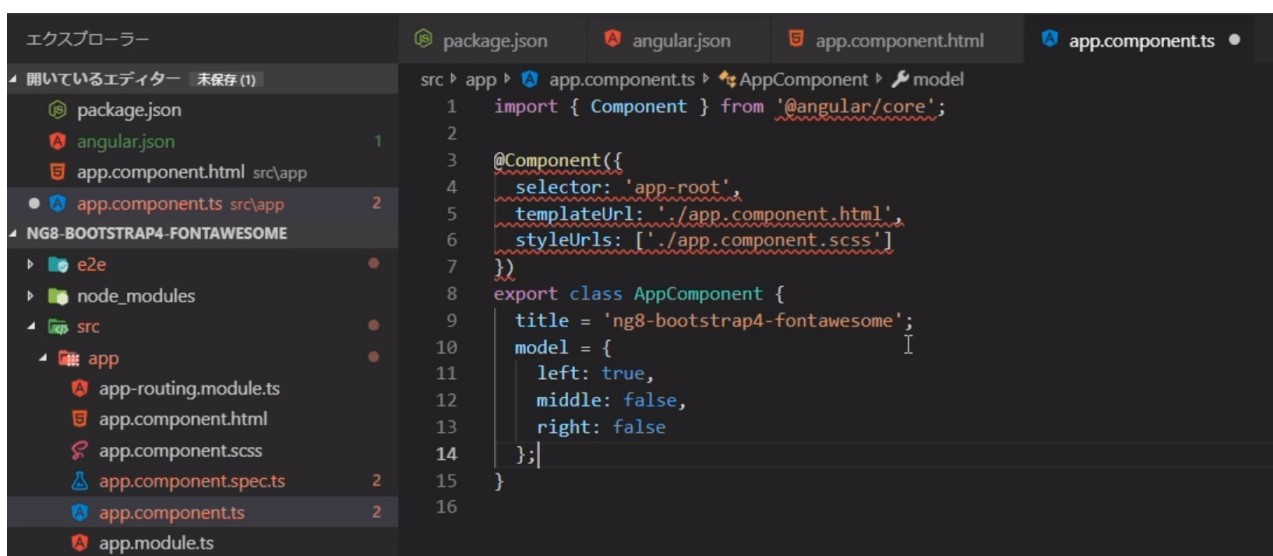
```
buttons-checkbox.html  buttons-checkbox.ts

import {Component} from '@angular/core';

@Component({
  selector: 'ngbd-buttons-checkbox',
  templateUrl: './buttons-checkbox.html'
})
export class NgbdButtonsCheckbox {
  model = {
    left: true,
    middle: false,
    right: false
  };
}
```

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

Paste the copied model part here.



```
package.json  angular.json  app.component.html  app.component.ts

src > app > app.component.ts > AppComponent > model
1  import { Component } from '@angular/core';
2
3  @Component({
4    selector: 'app-root',
5    templateUrl: './app.component.html',
6    styleUrls: ['./app.component.scss']
7  })
8  export class AppComponent {
9    title = 'ng8-bootstrap4-fontawesome';
10   model = {
11     left: true,
12     middle: false,
13     right: false
14   };
15 }
16
```

Next, open the *app.module.ts* file and import *FormsModule*.

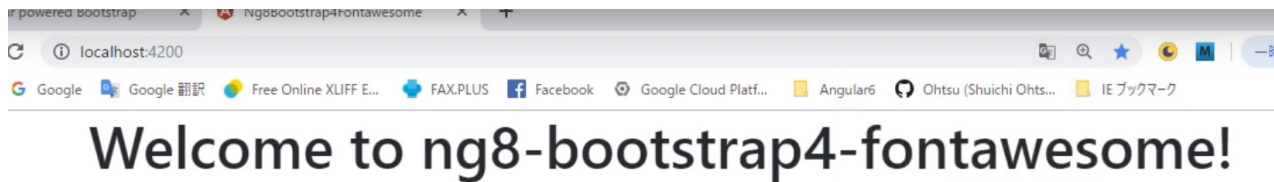
```
src > app > app.module.ts > AppModule
1  import { BrowserModule } from '@angular/platform-browser';
2  import { NgModule } from '@angular/core';
3  import { FormsModule } from '@angular/forms';
4
5  import { AppRoutingModule } from './app-routing.module';
6
7  import { NgbModule } from '@ng-bootstrap/ng-bootstrap';
8
9  import { AppComponent } from './app.component';
10
11  @NgModule({
12    declarations: [
13      AppComponent
14    ],
15    imports: [
16      BrowserModule,
17      NgbModule,
18      FormsModule,
19      AppRoutingModule
20    ],
21    providers: [],
22    bootstrap: [AppComponent]
23  })
```

## Display check box button

Now, start the local server again and check if the checkbox button is displayed. Type

`ng s -o`.

```
問題 13 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-fontawesome$ ng s -o
30% building 41/42 modules 1 active ...p/ng-bootstrap/fesm2015/ng-bootstrap.js
```



OK.

## Add FontAwesome Icon

Next, put the FontAwesome icon in each button.

Return to VSCode and open the *app.component.html* file.

We are going to delete the pull-down and pull-up related parts.

First, let's put a Google icon on the left button.

The way is easy.

Just insert `<i class = "fab fa-google"> </i>` in the text part of the button.

```
11   group-toggle">
12   y" NgbButtonLabel>
13   NgbButton [(ngModel)]="model.left"><i class="fab fa-google"></i> Google </i>
14   y" NgbButtonLabel>
```

Check in browser.



```
{  
  "left": true,  
  "middle": false,  
  "right": false  
}
```

OK.

Go back to VSCode and then insert the Twitter and Facebook icons.

```
gbButtonLabel>  
Button [(ngModel)]="model.left"><i class="fab fa-google"></i> Google </label  
gbButtonLabel>  
Button [(ngModel)]="model.middle"><i class="fab fa-twitter"></i> Twitter  
gbButtonLabel>  
Button [(ngModel)]="model.right"><i class="fab fa-facebook-f"></i> Facebook <
```

Check in browser.





```
{  
  "left": false,  
  "middle": false,  
  "right": false  
}
```

OK.

Next, the strings such as left and middle are strange, so change to Google etc.

Go back to VSCode, open the *app.component.ts* file and change the definition of model.

```
8   export class AppComponent {  
9     title = 'ng8-bootstrap4-fontawesome';  
10    model = {  
11      google: true,  
12      twitter: false,  
13      facebook: false  
14    };  
15  }
```

Also, open the *app.component.html* file and change the relevant part.

```
son  angular.json  app.component.html  app.component.ts  app.module.ts
src > app > app.component.html > div > div.btn-group.btn-group-toggle > label.btn-primary > i
10
11  lass="btn-group btn-group-toggle">
12  el class="btn-primary" ngbButtonLabel>
13  nput type="checkbox" ngbButton [(ngModel)]="model.google"><i class="fab fa-go
14  el class="btn-primary" ngbButtonLabel>
15  nput type="checkbox" ngbButton [(ngModel)]="model.twitter"><i class="fab fa-t
16  bel>
17  el class="btn-primary" ngbButtonLabel>
18  nput type="checkbox" ngbButton [(ngModel)]="model.facebook"><i class="fab fa-
19
```

Check in browser.



```
{
  "google": false,
  "twitter": false,
  "facebook": false
}
```

OK.

Finally, change the color of the button.

Go back to VSCode, open the *app.component.html* file, change the button class name, and change the color.

```
el class="btn-danger" ngbButtonLabel>  
input type="checkbox" ngbButton [(ngModel)]=  
el class="btn-success" ngbButtonLabel>  
input type="checkbox" ngbButton [(ngModel)]=
```

Check in browser.



```
{  
  "google": false,  
  "twitter": false,  
  "facebook": true  
}
```

OK.

## Reference

- "Angular8におけるBootstrap4環境の設定方法(Youtube)",  
<https://youtu.be/gFxuSi4IZjM>
- "How to set up Bootstrap 4 environment in Angular 8",  
<https://youtu.be/NoSkIVvf5o8>
- "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-l/>