# Globus - Angular Component Library

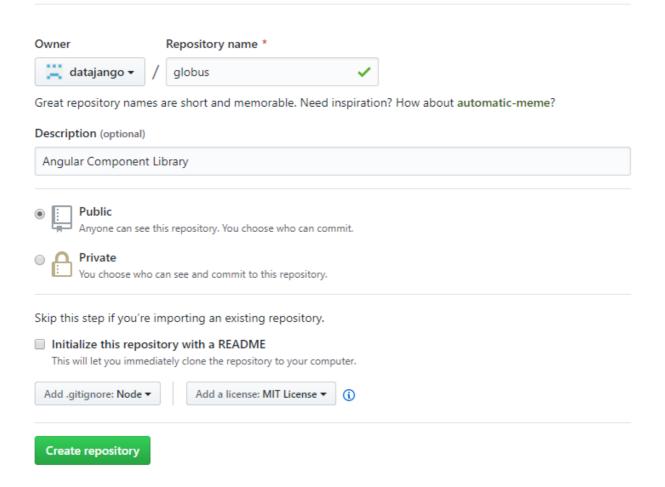


## **Creation Steps**

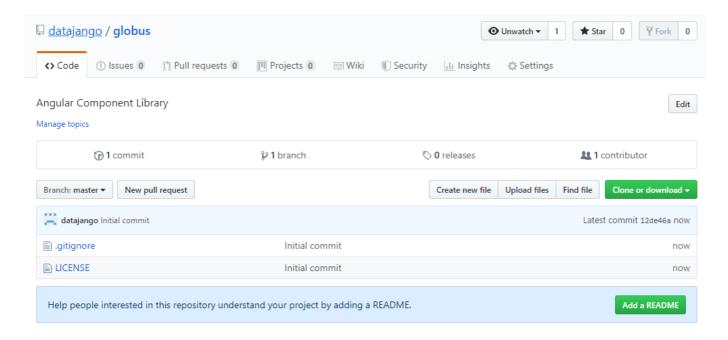
1. Create new GitHub Repo

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.



2. Default GitHub Repo



3. Clone the repo locally.

```
git clone git@github.com:datajango/globus.git
Cloning into 'globus'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.
```

- 4. Open the cloned folder in a text editor, I will be using Micrsoft Visual Studio Code
- 5. create a new Angular project using the CLI
  - 1. You can test the commend by adding the --dryRun=true option

```
ng new globus --create-application=false --style=scss --routing=false --dryRun=true
```

2. When you ready, execute the below

```
ng new globus --create-application=false --style=scss --routing=false
```

3. Cd into the new folder

```
cd globus
```

#### 4. Next create a Library

```
ng generate library globus-library --dryRun=true
ng generate library globus-library
```

#### a prefix could have been applied

```
ng generate library globus-library --prefix=glb
```

## **Install Story Book**

1. Install Story Book using the NPX command

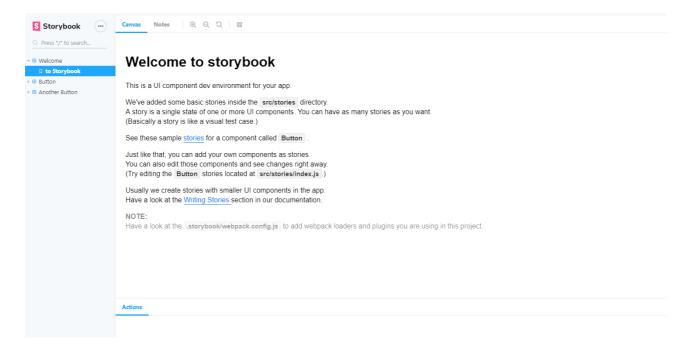
```
npx -p @storybook/cli sb init --type angular
```

## Startup Story Book

1. Start storybook

```
npm run storybook
```

2. A local webpack server will be started on port 6006. local



Starting type checking service...
Using 1 worker with 2048MB memory limit

```
webpack built c4364c5d4b9d2f4b6656 in 28656ms

Storybook 5.2.6 started
35 s for manager and 37 s for preview

Local: http://localhost:6006/
On your network: http://10.7.51.249:6006/
```

## Creating the first Component

1. Create a new button

```
ng generate component button --project globus-library --dryRun=true
ng generate component button --project globus-library
```

2. Edit .\globus\projects\globus-library\src\lib\button\button.component.html

```
<button (click)="onclick()">
{{text}}
</button>
```

3. Edit .\globus\projects\globus-library\src\lib\button\button.component.ts

```
import { Component, OnInit, Input, Output, EventEmitter } from
'@angular/core';

@Component({
    selector: 'glb-button',
    templateUrl: './button.component.html',
    styleUrls: ['./button.component.css']
})
    export class ButtonComponent implements OnInit {

        @Input() text: string;
        @Output() click: EventEmitter<void> = new EventEmitter();

        constructor() { }

        ngOnInit() {
        }

        onclick(){
            this.click.emit();
        }
}
```

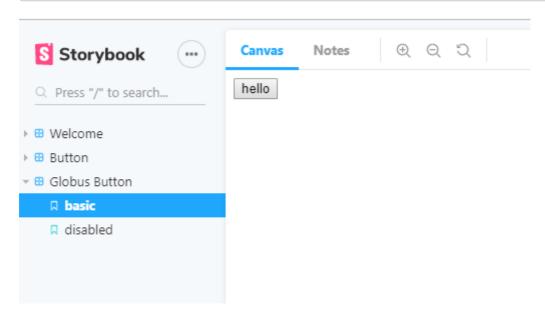
```
}
```

#### 4. Add a storybbook story for the Button component

Storybook is all about writing stories. A story usually contains a single state of one component, almost like a visual test case.

```
import { storiesOf } from '@storybook/angular';
import { ButtonComponent } from 'lib-button';

storiesOf('button', module)
.add('basic', () => ({
    component: ButtonComponent,
    props: {
    text: 'hello'
    }
}))
.add('disabled', () => ({
    component: ButtonComponent,
    props: {
    text: 'disabled',
    disabled: true
    }
}));
```



#### 5. Change to SCSS

1. Install node-sass

```
npm install -dev node-sass
```

2. Install some more Storybook packages

```
npm install @storybook/addon-storysource --save-dev
npm install to-string-loader --save-dev
npm install css-loader --save-dev
```

3. Change .\globus\projects\globus-library\src\lib\button\button.component.ts

```
import { Component, OnInit, Input, Output, EventEmitter } from
'@angular/core';
@Component({
selector: 'glb-button',
templateUrl: './button.component.html',
styleUrls: ['./button.component.scss']
export class ButtonComponent implements OnInit {
    @Input() text: string;
    @Input() disabled: boolean = False;
    @Output() click: EventEmitter<void> = new EventEmitter();
    constructor() { }
    ngOnInit() {
    }
    onclick(){
        this.click.emit();
    }
}
```

4. Add some fancy CSS styling

```
$color-foreground: white;
$color-background: #4CAF50;
$color-border: darkgreen;

.button {
    background-color: $color-background;
    border: 1px solid $color-border;
    color: $color-foreground;
    padding: 8px 16px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 16px;
    border-radius: 16px;
```

```
-webkit-transition-duration: 0.4s; /* Safari */
transition-duration: 0.4s;

&:not(.disabled):hover {
    background-color: $color-foreground;
    color: $color-background;
}

&.disabled {
    opacity: 0.6;
    cursor: not-allowed;
}
```

5. Add the new component to the exports section of .\globus\projects\globus-library\src\lib\globus-library.module.ts

```
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';
import { GlobusLibraryComponent } from './globus-library.component';
import { ButtonComponent } from './button/button.component';

@NgModule({
  declarations: [GlobusLibraryComponent, ButtonComponent],
  imports: [
    BrowserModule
],
  exports: [GlobusLibraryComponent, ButtonComponent]
})
  export class GlobusLibraryModule { }
```

### Creating a NPM package

1. Build the Globus library

```
cd .\globus\globus
ng build globus-library

Building Angular Package

---
Building entry point 'globus-library'
---
Compiling TypeScript sources through ngc
```

#### 2. Pack the library into a tarball

#### 1. Add to package.json

```
"scripts": {
    ...
    "pack": "cd dist/globus-library && npm pack && npm link",
    "link": "cd dist/globus-library && npm link",
    "publish": "cd dist/globus-library && npm publish"
    ...
}
```

#### 2. Run the pack command

```
npm run pack
```

#### Output:

```
> globus@0.0.0 pack C:\dev\globus\globus
> cd dist/globus-library && npm pack

npm notice
npm notice package: globus-library@0.0.1
npm notice === Tarball Contents ===
npm notice 3.0kB esm2015/lib/button/button.component.js
npm notice 3.3kB esm5/lib/button/button.component.js
npm notice 1.6kB esm2015/lib/globus-library.component.js
npm notice 1.9kB esm5/lib/globus-library.component.js
npm notice 956B esm2015/globus-library.js
npm notice 956B esm5/globus-library.js
npm notice 3.8kB fesm2015/globus-library.js
```

```
npm notice 4.6kB fesm5/globus-library.js
npm notice 2.0kB esm2015/lib/globus-library.module.js
npm notice 2.3kB esm5/lib/globus-library.module.js
npm notice 1.4kB esm2015/lib/globus-library.service.js
npm notice 1.6kB esm5/lib/globus-library.service.js
npm notice 5.3kB bundles/globus-library.umd.js
npm notice 2.0kB bundles/globus-library.umd.min.js
npm notice 1.0kB esm2015/public-api.js
npm notice 1.0kB esm5/public-api.js
npm notice 2.9kB globus-library.metadata.json
npm notice 582B package.json
npm notice 2.4kB fesm2015/globus-library.js.map
npm notice 2.4kB fesm5/globus-library.js.map
npm notice 2.5kB bundles/globus-library.umd.js.map
npm notice 2.5kB bundles/globus-library.umd.min.js.map
npm notice 1.1kB README.md
npm notice 256B lib/button/button.component.d.ts
npm notice 152B lib/globus-library.component.d.ts
npm notice 155B globus-library.d.ts
npm notice 47B lib/globus-library.module.d.ts
npm notice 68B lib/globus-library.service.d.ts
npm notice 142B public-api.d.ts
npm notice === Tarball Details ===
npm notice name:
                         globus-library
npm notice version:
                        0.0.1
npm notice filename: globus-library-0.0.1.tgz
npm notice package size: 9.7 kB
npm notice unpacked size: 51.9 kB
npm notice shasum: 50e28ed92163e9ef027f8248c7ac517ce5f44b1f
npm notice integrity: sha512-eR3oiQlcJgRvr[...]/4nIGhio3vIPg==
npm notice total files: 29
npm notice
globus-library-0.0.1.tgz
```

#### 3. Run the link command

```
npm run link
```

#### output:

```
> globus@0.0.0 link C:\dev\globus\globus
> cd dist/globus-library && npm link

npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN globus-library@0.0.1 requires a peer of @angular/common@^8.1.3 but none is installed. You must install peer dependencies yourself.
npm WARN globus-library@0.0.1 requires a peer of @angular/core@^8.1.3 but none is installed. You must install peer dependencies yourself.
```

```
npm WARN globus-library@0.0.1 No repository field.
npm WARN globus-library@0.0.1 No license field.
added 1 package from 1 contributor and audited 1 package in 6.87s
found 0 vulnerabilities
```

3. Create an NPM account at command line or goto npmjs

```
npm adduser
```

4. Login to npm on the command line

```
npm login
```

5. Publish the library to npmjs.com

```
npm run publish
```

#### Output:

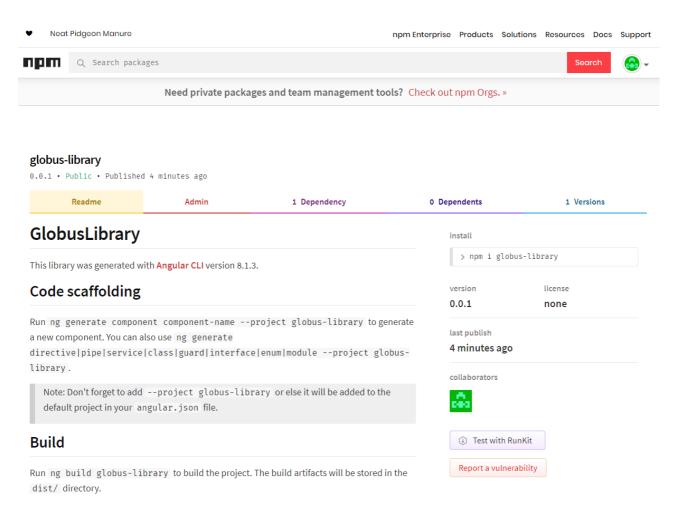
```
> globus@0.0.0 publish C:\dev\globus\globus
> cd dist/globus-library && npm publish
npm notice
npm notice package: globus-library@0.0.1
npm notice === Tarball Contents ===
npm notice 3.0kB esm2015/lib/button/button.component.js
npm notice 3.3kB esm5/lib/button/button.component.js
npm notice 1.6kB esm2015/lib/globus-library.component.js
npm notice 1.9kB esm5/lib/globus-library.component.js
npm notice 956B esm2015/globus-library.js
npm notice 956B esm5/globus-library.js
npm notice 3.8kB fesm2015/globus-library.js
npm notice 4.6kB fesm5/globus-library.js
npm notice 2.0kB esm2015/lib/globus-library.module.js
npm notice 2.3kB esm5/lib/globus-library.module.js
npm notice 1.4kB esm2015/lib/globus-library.service.js
npm notice 1.6kB esm5/lib/globus-library.service.js
npm notice 5.3kB bundles/globus-library.umd.js
npm notice 2.0kB bundles/globus-library.umd.min.js
npm notice 1.0kB esm2015/public-api.js
npm notice 1.0kB esm5/public-api.js
npm notice 2.9kB globus-library.metadata.json
npm notice 582B
                 package.json
npm notice 2.4kB fesm2015/globus-library.js.map
```

```
npm notice 2.4kB fesm5/globus-library.js.map
npm notice 2.5kB bundles/globus-library.umd.js.map
npm notice 2.5kB bundles/globus-library.umd.min.js.map
npm notice 1.1kB README.md
npm notice 20.5kB globus-library-0.0.1.tgz
npm notice 256B lib/button/button.component.d.ts
npm notice 152B lib/globus-library.component.d.ts
npm notice 155B globus-library.d.ts
npm notice 47B lib/globus-library.module.d.ts
npm notice 68B
                lib/globus-library.service.d.ts
npm notice 142B    public-api.d.ts
npm notice === Tarball Details ===
npm notice name:
                         globus-library
npm notice version:
                         0.0.1
npm notice package size: 31.4 kB
npm notice unpacked size: 72.4 kB
npm notice shasum:
                   57552f476c527bcad75d623fc05eef6de83a6ba9
npm notice integrity:
                       sha512-+NmdMVdbptIxc[...]0y4mTcoEooQpA==
npm notice total files: 30
npm notice
+ globus-library@0.0.1
```

6. Verify that that the package was published to nmpjs.ocom by searching for it.



7. NPMJS should display a very basic package information details page.



### **Publishing a New Version Instructions**

```
1. Bump the version

cd dist
  npm version 0.0.2

or

1. Edit .\globus\package.json

  "json
  {
      "name": "globus",
      "version": "0.0.2",
      "scripts": {
            "ng": "ng",
      ...

1. Cd to the project folder
      cd .\globus\globus
```

```
1. Build the library, --prod is not required anymore ad the AOT version is built
by default.
    ng build globus-library
1. npm pack
    ...
    npm run pack
1. npm link
    . . .
    npm run link
1. npm publish (make sure yoru logged in) first
    . . .
    npm run publish
1. In an applicationn that uses the Globus Library do a npm update
    1. First find outdated packages
        npm outdated
    1. Do a npm install @latest to make sure you get teh latest version of the
Globus Package
        npm install globus-library@latest --save
```

## Using the Globus NPM package in a new Angular Project

1. create a new Angular project

```
ng new globus-demo
```

2. cd into the newly create folder

```
cd globus-demo
```

3. add the globus-library in .\src\app\app.module.ts

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';
import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { GlobusLibraryModule } from 'globus-library';
@NgModule({
declarations: [
    AppComponent,
],
imports: [
    BrowserModule,
    AppRoutingModule,
   GlobusLibraryModule
providers: [],
bootstrap: [AppComponent]
export class AppModule { }
```

4. It Works!

# The Globus Library has been successfully consumed

![Globus Library COnsumed](globus-library-consumed.png)