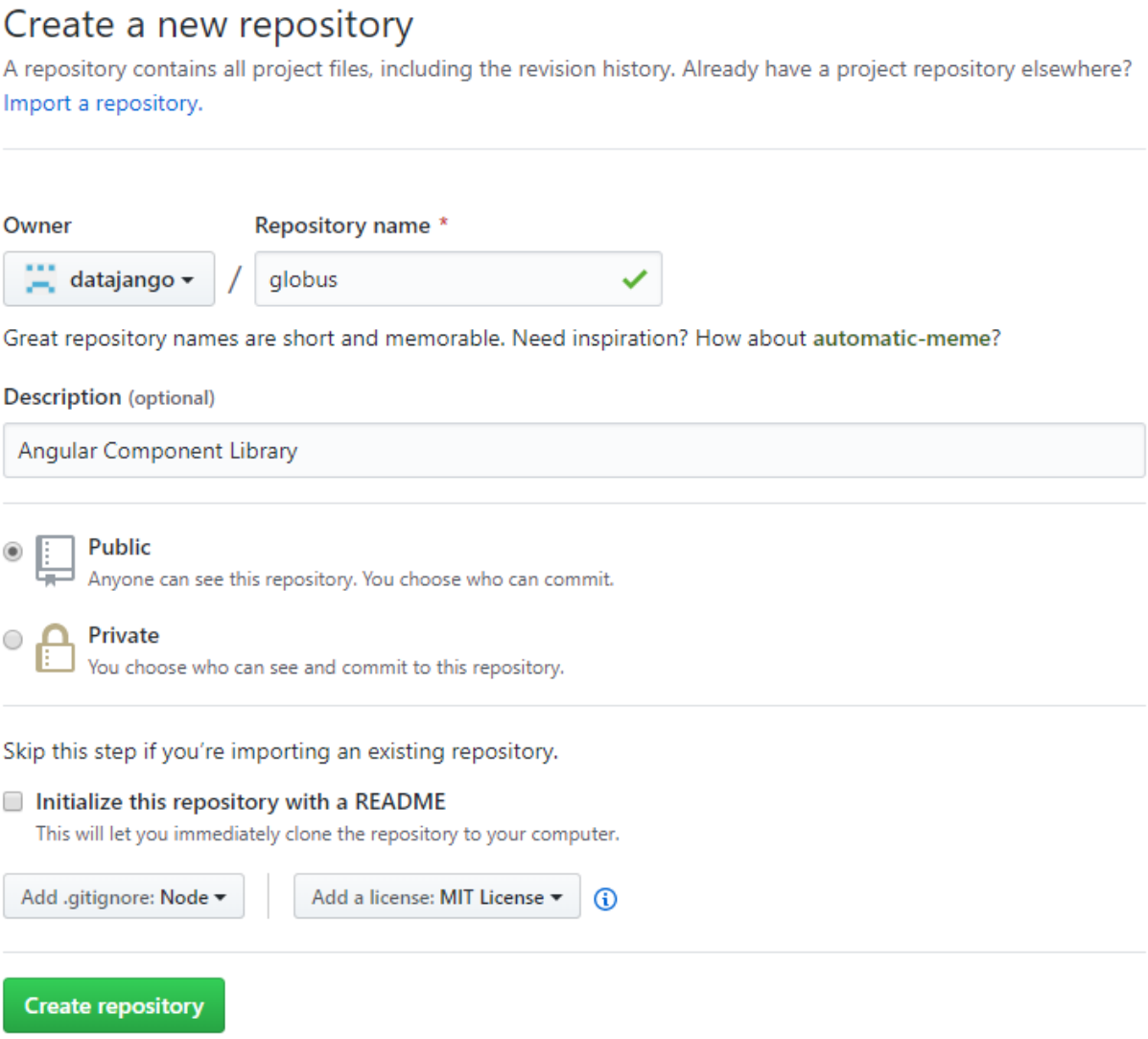
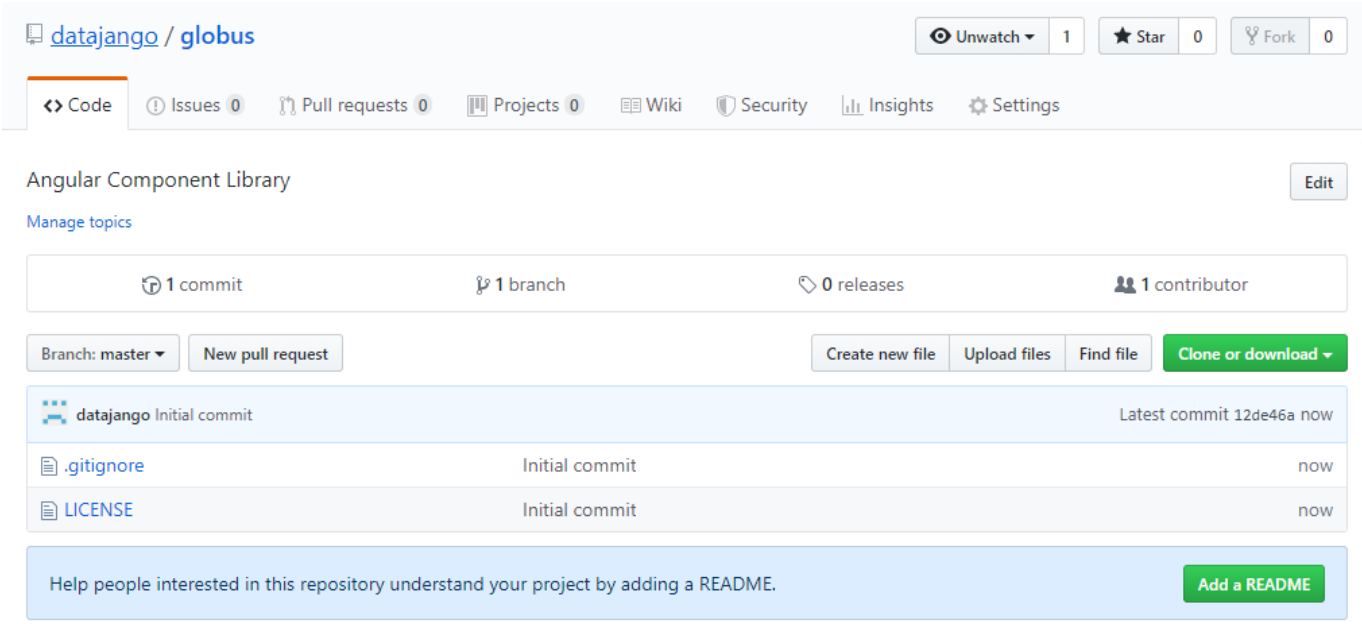
Globus - Angular Component Library

Creation Steps

1. Create new GitHub Repo



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

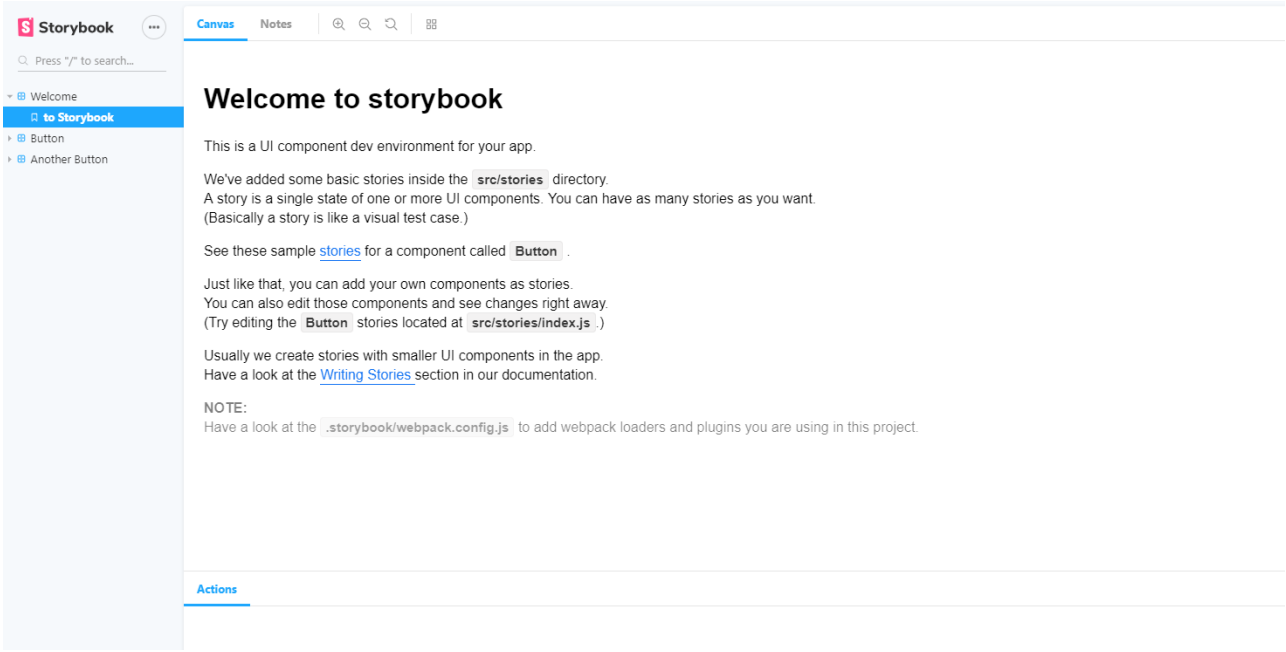
```
npx -p @storybook/cli sb init --type angular
```

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();
```

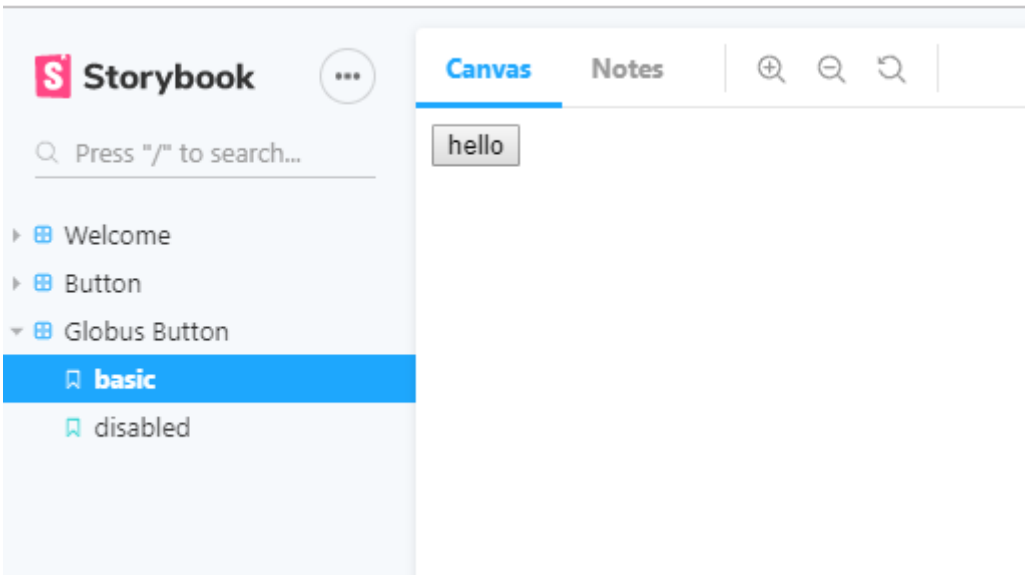
```
    }
}
```

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;
    }
}
```

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
Bundling to FESM2015
Bundling to FESM5
Bundling to UMD
Minifying UMD bundle
Copying declaration files
Writing package metadata
Built globus-library

------------------------------------------------------------------------------
--
Built Angular Package!
- from: C:\dev\globus\globus\projects\globus-library
- to:   C:\dev\globus\globus\dist\globus-library
------------------------------------------------------------------------------
--
```

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
```

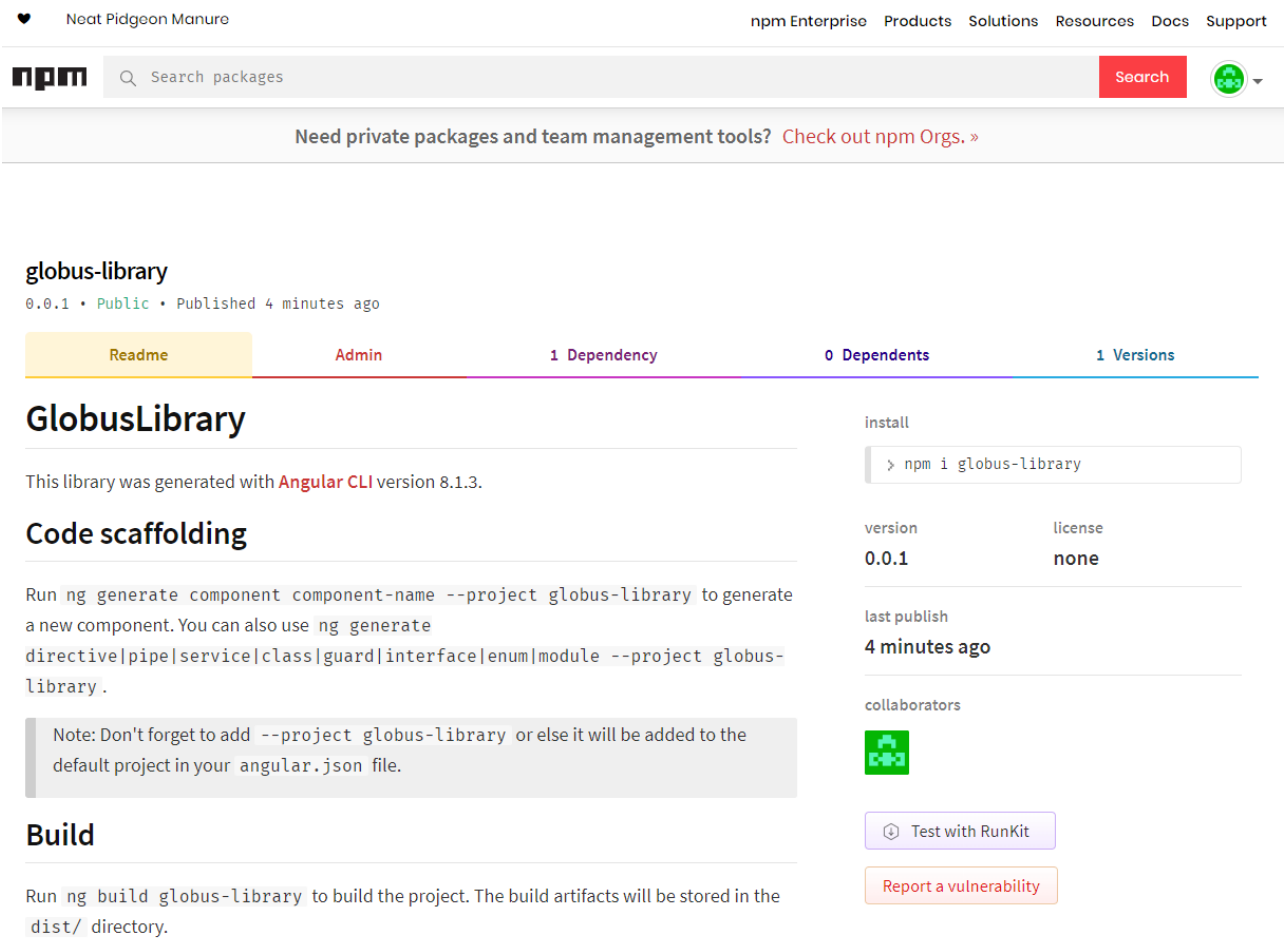
5. Publish the library to npmjs.com

```
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.