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APRIL 19, 2022 / #ANGULAR

How to Host an Angular Application on GitHub Pages with Travis CI

Rodrigo Kamada

In this article, we'll create an application using the latest version of Angular. Then we'll host it on the GitHub Pages static website service using the continuous integration tool Travis CI to deploy the application.

Prerequisites

Before you start, you need to install and configure the tools below to create the Angular application.

- Git: Git is a distributed version control system that we'll use to sync the repository.
- Node.js and npm: Node.js is a JavaScript code runtime software based on Google's V8 engine. npm is a package manager for Node.js (Node Package Manager). We'll use these to build and run the Angular application and install the libraries.

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- An IDE (like Visual Studio Code or WebStorm): an IDE (Integrated Development Environment) is a tool with a graphical interface that helps us develop applications. Here, we'll use one to develop the Angular application.

Getting started

Create and configure your account on GitHub

GitHub is a source code and file storage service with version control using the Git tool. And GitHub Pages is a static file hosting service using a public repository.

First, you'll need to create an account on GitHub if you don't have one already. Visit https://github.com/ and click on the button *Sign up*.

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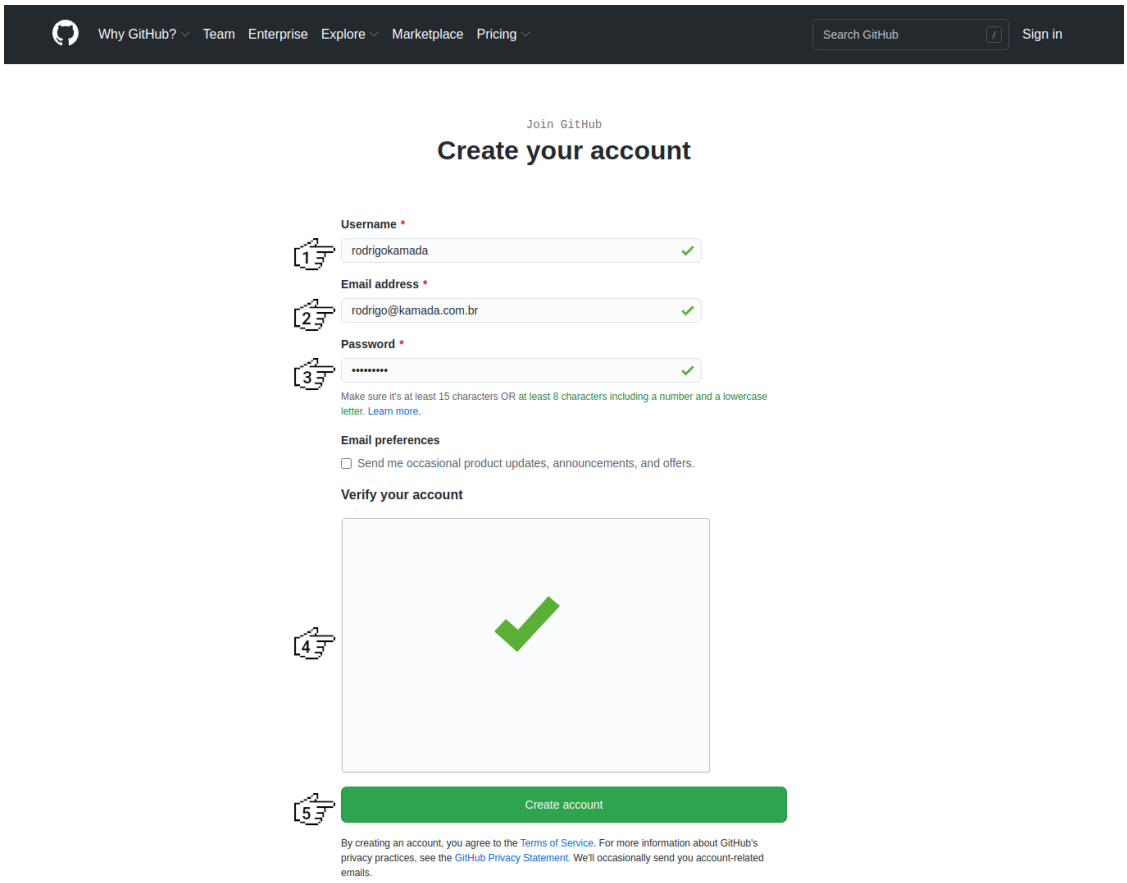
Fill in the fields for Username, Email address, and Password, click on the button Verify to solve the challenge, and then click on the button Create account.



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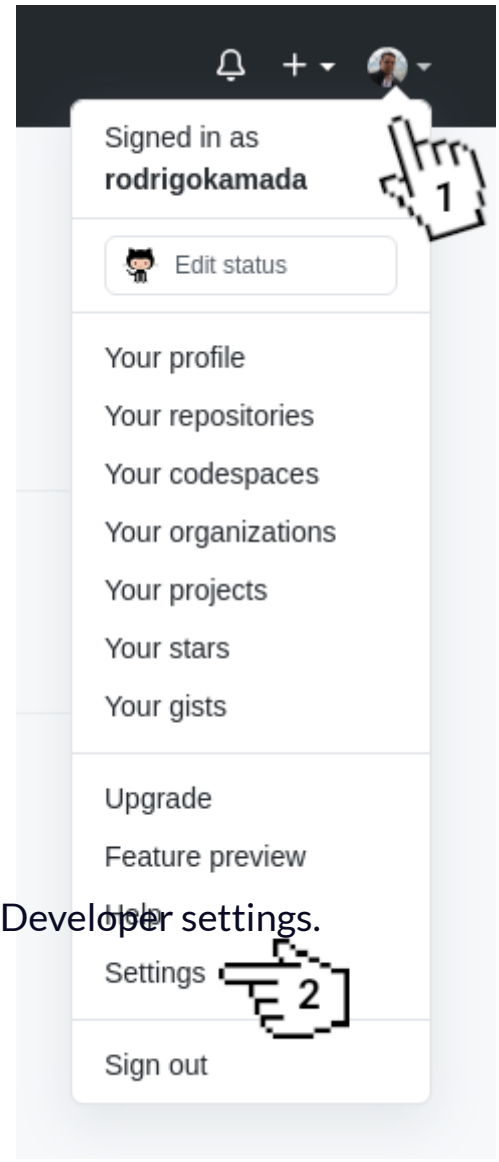
the menu with the avatar and click on the menu Settings.



Click on the menu Developer settings.

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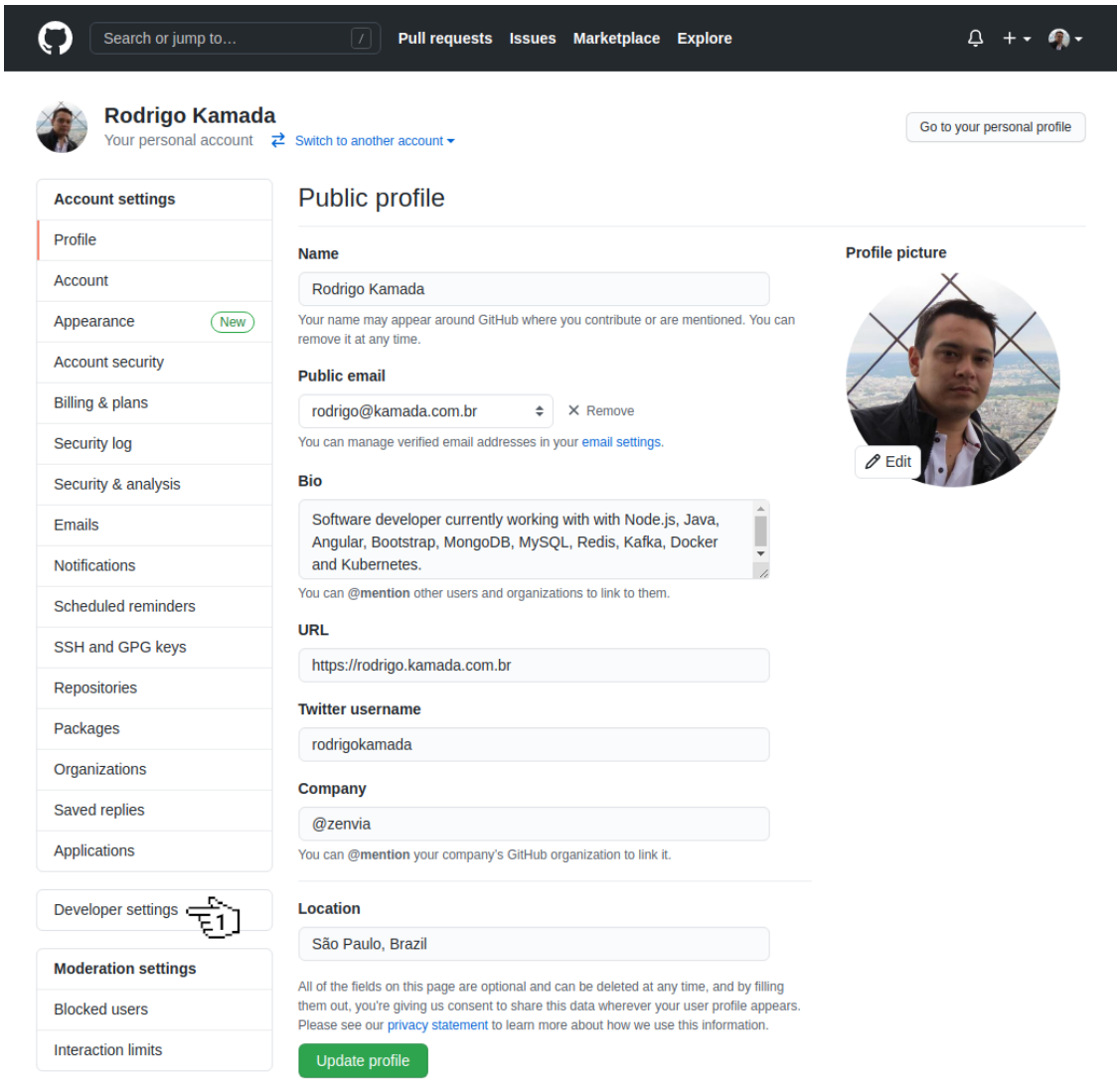

Click on the menu Personal access tokens.

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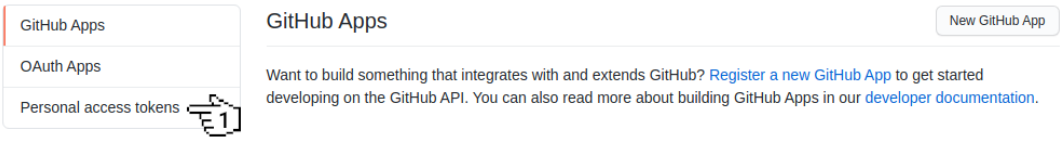
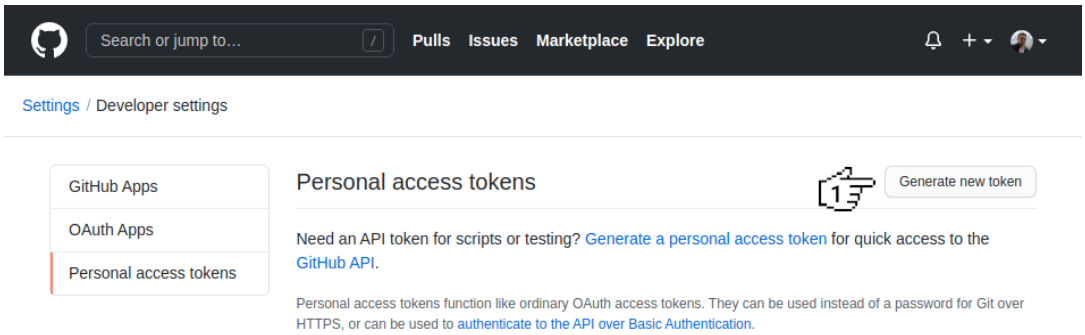
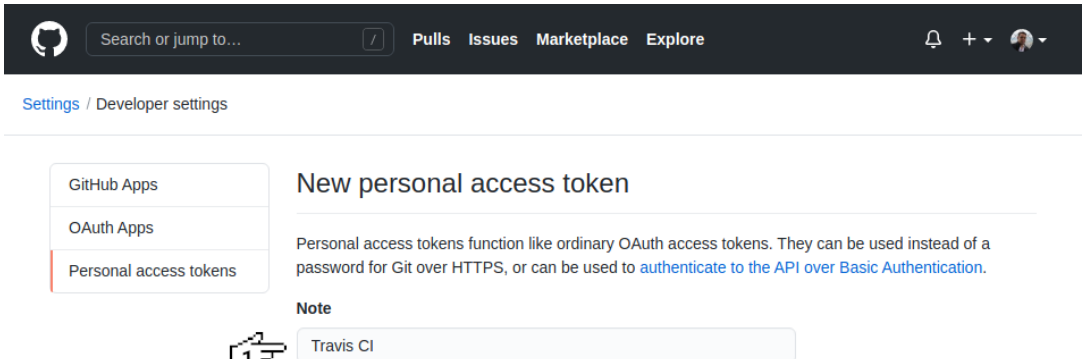


Click on the button Generate new token.



Fill in the field Note, select the option repo and click on the button Create token.



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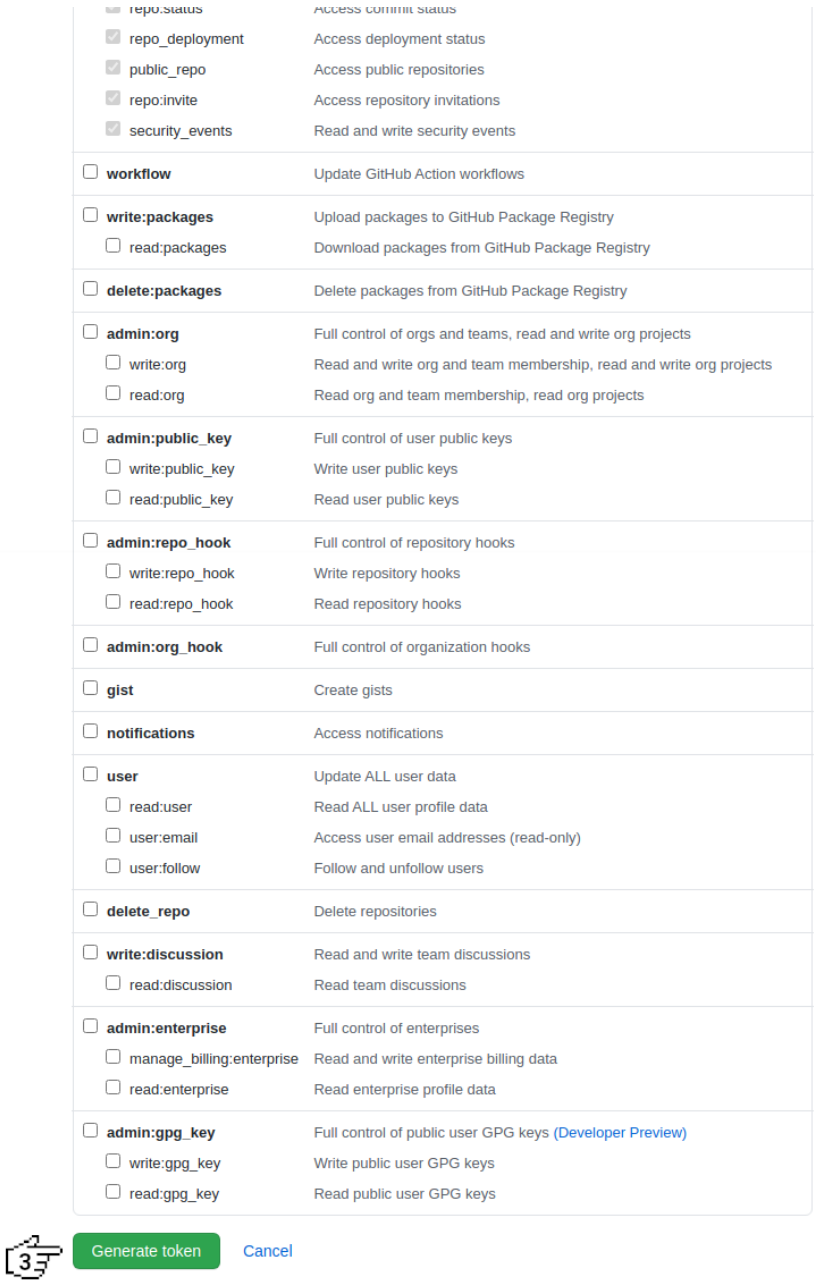
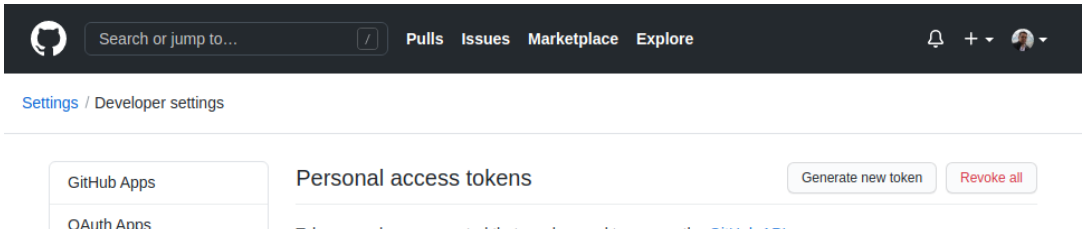


Copy the generated token. In my case, the token `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` was generated because this token will be configured in Travis CI.



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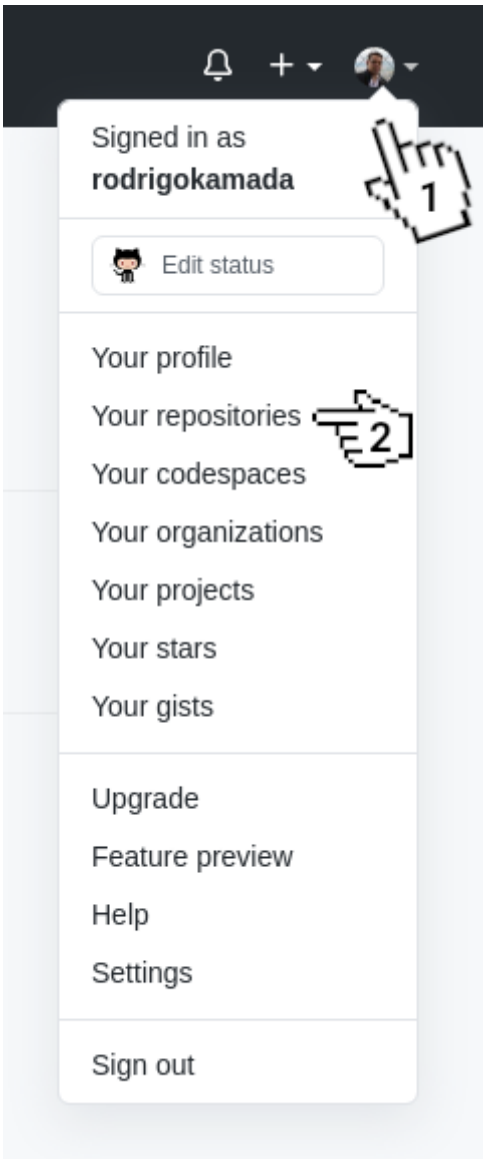
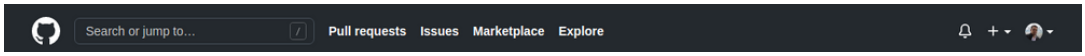
Personal access tokens function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.

Let's create the repository. Click on the menu with the avatar and click on the menu Your repositories.



Click on the button New.



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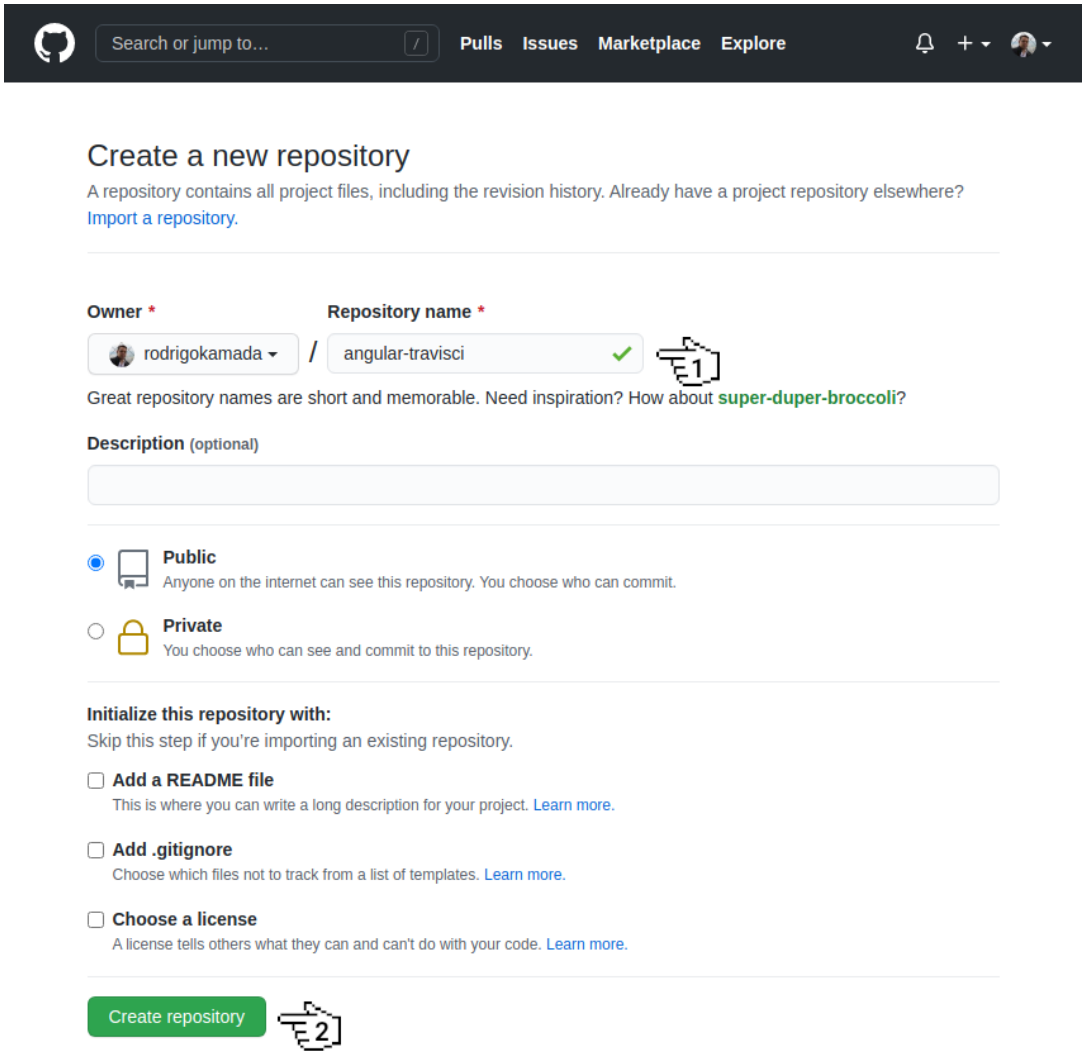
Fill in the field Repository name and click on the button Create repository.



Ready! Account created, token generated, and repository `https://github.com/rodrigokamada/angular-travisci` created.

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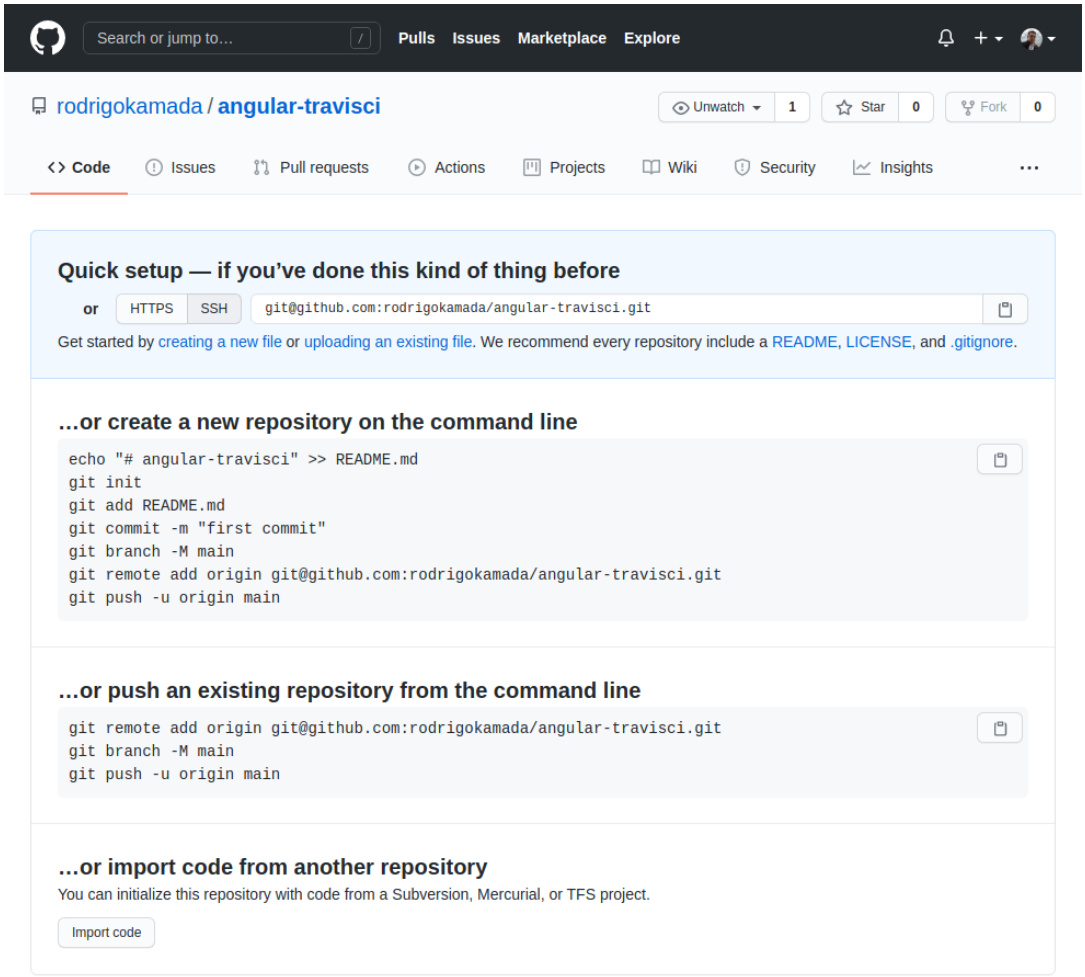

Create and configure your account on Travis CI

Travis CI is a deployment service integrated with GitHub.

First, you'll need to create a Travis CI account if you don't already have one. Visit https://travis-ci.com/ and click on the button Sign up.

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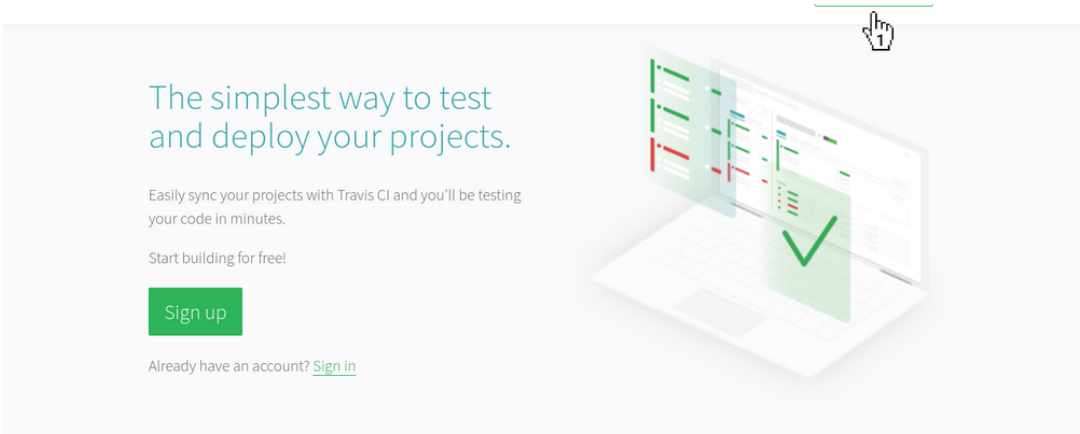
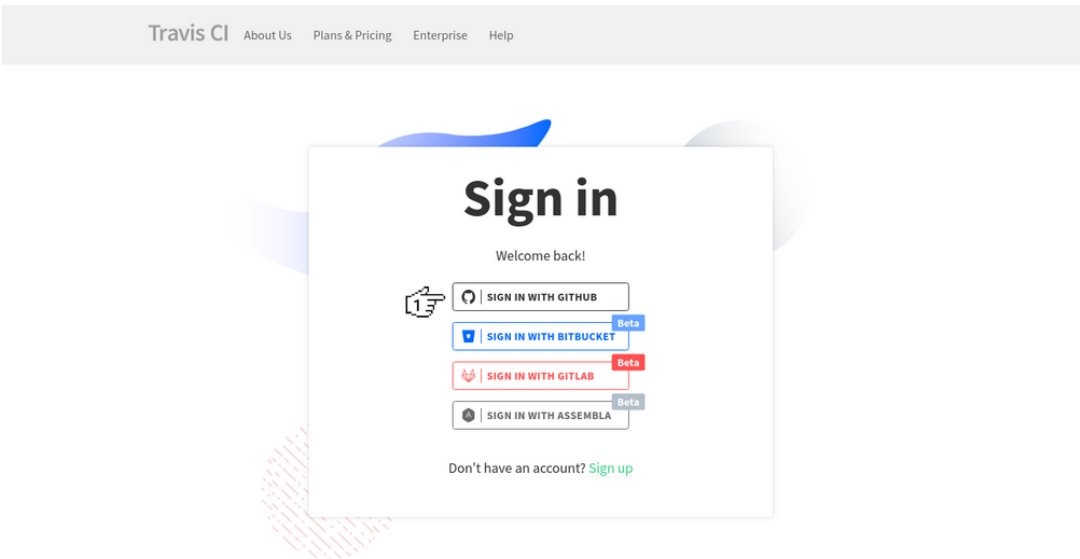


Click on the button SIGN IN WITH GITHUB to sign in with your GitHub account.



If Travis CI requests permission to list the GitHub repositories, accept the request. Click on the repository link angular-travisci.

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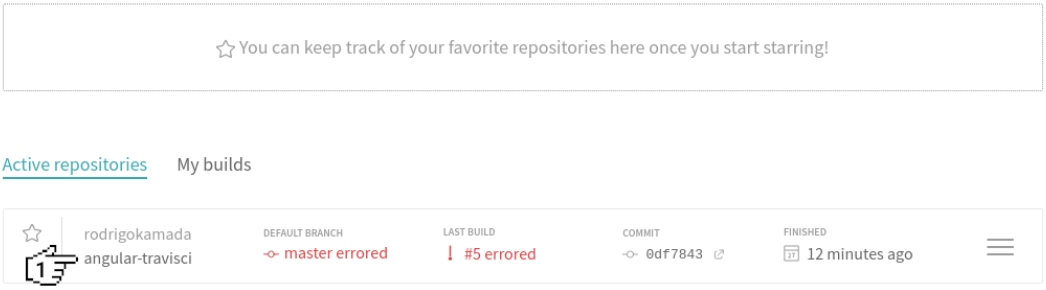
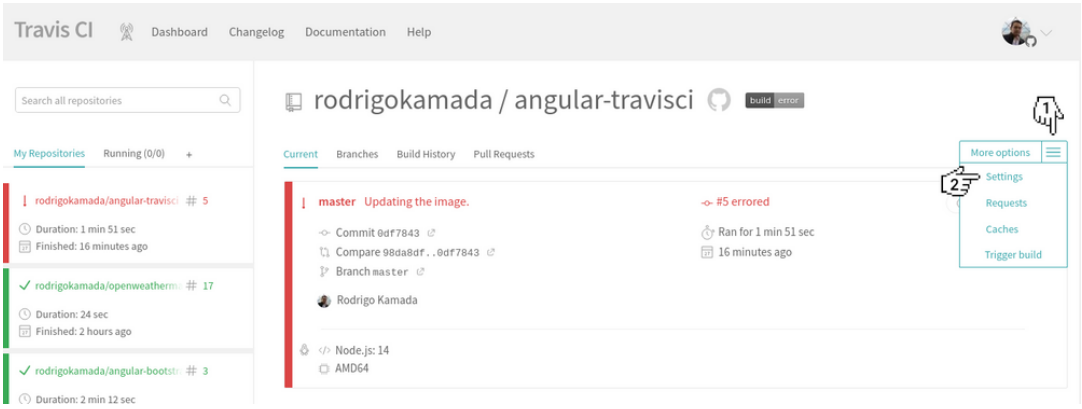
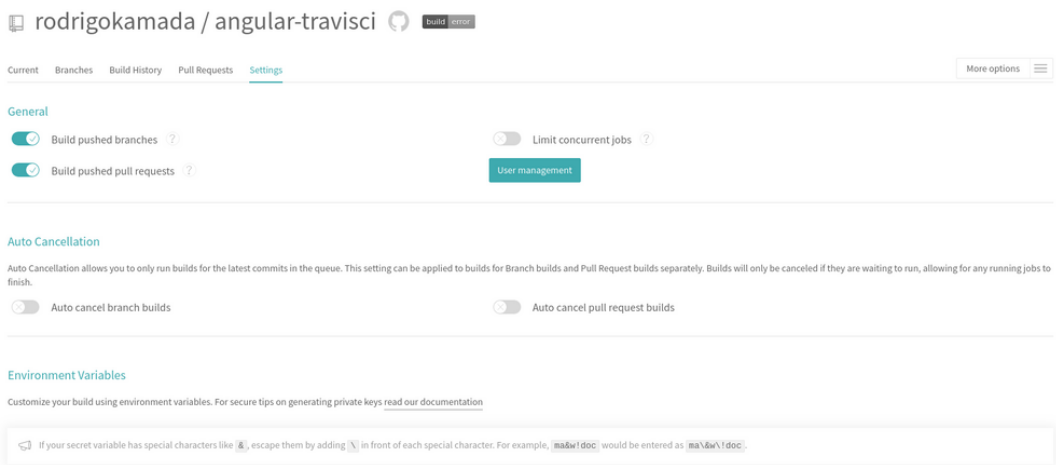


Let's set up the GitHub access token. Click on the menu More options and click on the menu Settings.



Fill in the field NAME with the value GITHUB_TOKEN, VALUE with the value of your token generated on GitHub, and click on the button Add.



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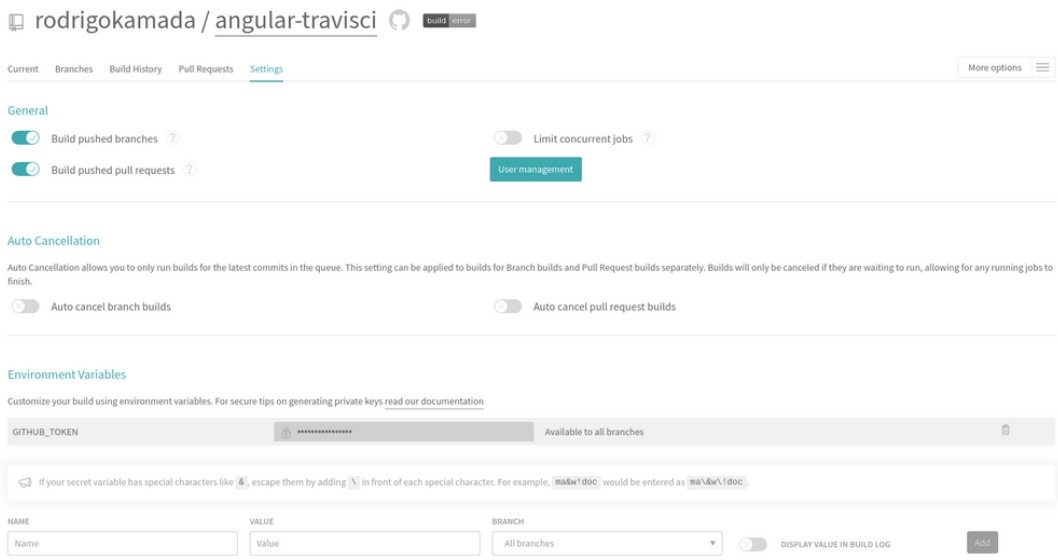
Ready! Account created and repository configured.



Create your Angular application

Angular is a development platform for building Web, mobile, and desktop applications using HTML, CSS and TypeScript (JavaScript).

Currently, Angular is at version 13 and Google is the main maintainer of the project.

Let's create the application with the Angular base structure using the `@angular/cli` with the route file and the SCSS style format.

```
? Would you like to add Angular routing? Yes
? Which stylesheet format would you like to use? SCSS   [ https://sass-lang.c
CREATE angular-travisci/README.md (1061 bytes)
CREATE angular-travisci/.editorconfig (274 bytes)
CREATE angular-travisci/.gitignore (604 bytes)
CREATE angular-travisci/angular.json (3267 bytes)
CREATE angular-travisci/package.json (1078 bytes)
CREATE angular-travisci/tsconfig.json (783 bytes)
CREATE angular-travisci/.browserslistrc (703 bytes)
```

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```
CREATE angular-travisci/src/index.html (301 bytes)
CREATE angular-travisci/src/main.ts (372 bytes)
CREATE angular-travisci/src/polyfills.ts (2820 bytes)
CREATE angular-travisci/src/styles.scss (80 bytes)
CREATE angular-travisci/src/test.ts (743 bytes)
CREATE angular-travisci/src/assets/.gitkeep (0 bytes)
CREATE angular-travisci/src/environments/environment.prod.ts (51 bytes)
CREATE angular-travisci/src/environments/environment.ts (658 bytes)
CREATE angular-travisci/src/app/app-routing.module.ts (245 bytes)
CREATE angular-travisci/src/app/app.module.ts (393 bytes)
CREATE angular-travisci/src/app/app.component.scss (0 bytes)
CREATE angular-travisci/src/app/app.component.html (23809 bytes)
CREATE angular-travisci/src/app/app.component.spec.ts (1087 bytes)
CREATE angular-travisci/src/app/app.component.ts (221 bytes)
✔ Packages installed successfully.
    Successfully initialized git.
```

Create the `.travis.yml` file.

```
touch .travis.yml
```

Configure the `.travis.yml` file with the content below:

```
notifications:
  email:
    recipients:
      - rodrigo@kamada.com.br

language: node_js

node_js:
  - 16

before_script:
  - npm install
```

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```
before_deploy:
  - npm run build:prod

deploy:
  provider: pages
  skip_cleanup: true
  github_token: $GITHUB_TOKEN
  local_dir: dist/angular-travisci
  on:
    branch: main
```

Change the `package.json` file and add the scripts below. Replace the `rodrigokamada` value with your GitHub username.

```
"build:prod": "ng build --prod --base-href https://rodrigokamada.github.io/
"test:headless": "ng test --watch=false --browsers=ChromeHeadless"
```

Change the `src/app/app.component.spec.ts` file and remove the tests `should have as title 'angular-travisci'` and `should rend er title`.

Run the test with the command below:

```
npm run test:headless

> angular-travisci@1.0.0 test:headless
> ng test --watch=false --browsers=ChromeHeadless

⠋ Generating browser application bundles (phase: setup)...Compiling @angular/
Compiling @angular/compiler/testing : es2015 as esm2015
Compiling @angular/platform-browser/testing : es2015 as esm2015
Compiling @angular/common/testing : es2015 as esm2015
Compiling @angular/platform-browser-dynamic/testing : es2015 as esm2015
Compiling @angular/router/testing : es2015 as esm2015
```

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```
05 09 2021 19:40:09.704:INFO [Chrome Headless 92.0.4515.159 (Linux x86_64)]:
Chrome Headless 92.0.4515.159 (Linux x86_64): Executed 1 of 1 SUCCESS (0.068
TOTAL: 1 SUCCESS
```

Run the application with the command below. Access the URL `http://localhost:4200/` and check if the application is working.

```
npm start

> angular-travisci@1.0.0 start
> ng serve

✔ Browser application bundle generation complete.

Initial Chunk Files | Names         |      Size
vendor.js           | vendor        |   2.39 MB
polyfills.js        | polyfills     | 128.51 kB
main.js             | main          |   8.89 kB
runtime.js          | runtime       |   6.63 kB
styles.css          | styles        |   1.18 kB

                    | Initial Total |   2.53 MB

Build at: 2021-09-05T22:35:38.010Z - Hash: a4cfc9149589386eca5b - Time: 39997

** Angular Live Development Server is listening on localhost:4200, open your

✔ Compiled successfully.
```

Build the application with the command below:

```
npm run build:prod
```

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```
✔ Copying assets complete.
✔ Index html generation complete.

Initial Chunk Files           | Names         |      Size
main.c678fa8750e7c769.js      | main          | 177.63 kB
polyfills.6d7801353e02e327.js | polyfills     |  36.21 kB
runtime.b136bda8a38c4f2e.js   | runtime       |   1.06 kB
styles.ef46db3751d8e999.css   | styles        |   0 bytes

                              | Initial Total | 214.90 kB

Build at: 2021-09-05T22:42:19.525Z - Hash: 83bfffc079b083727ca4 - Time: 26030
```

Syncronize the application on the GitHub repository that you created.

Ready! After synchronizing the application on the GitHub repository, Travis CI builds the application and synchronizes on the branch `gh-pages`.

Access the URL `https://rodrigokamada.github.io/angular-travisci/` and check if the application is working. Replace the `rodrigokamada` value with your GitHub username.

And that's it! The application repository is available at https://github.com/rodrigokamada/angular-travisci.

Conclusion

Summarizing what was covered in this article:

- We created an account on GitHub.
- We created an access token on GitHub.

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- We configured the GitHub access token on Travis CI.
- We create an Angular application.

You can use this article to create your personal website and have an online portfolio.

Thank you for reading and I hope you enjoyed the article!

To stay updated whenever I post new articles, follow me on Twitter.

This tutorial was posted on my blog in Portuguese.

Rodrigo Kamada

👨‍💻 Software Developer | ✍️ Technical Content Creator | 🤝 Open Source Contributor | 🙌 Ambassador

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