

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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Angular application

- 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.



Join GitHub

### Create your account

1 Username \*  
rodrigokamada ✓

2 Email address \*  
rodrigo@kamada.com.br ✓

3 Password \*  
\*\*\*\*\* ✓  
Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

Email preferences  
☐ Send me occasional product updates, announcements, and offers.

Verify your account

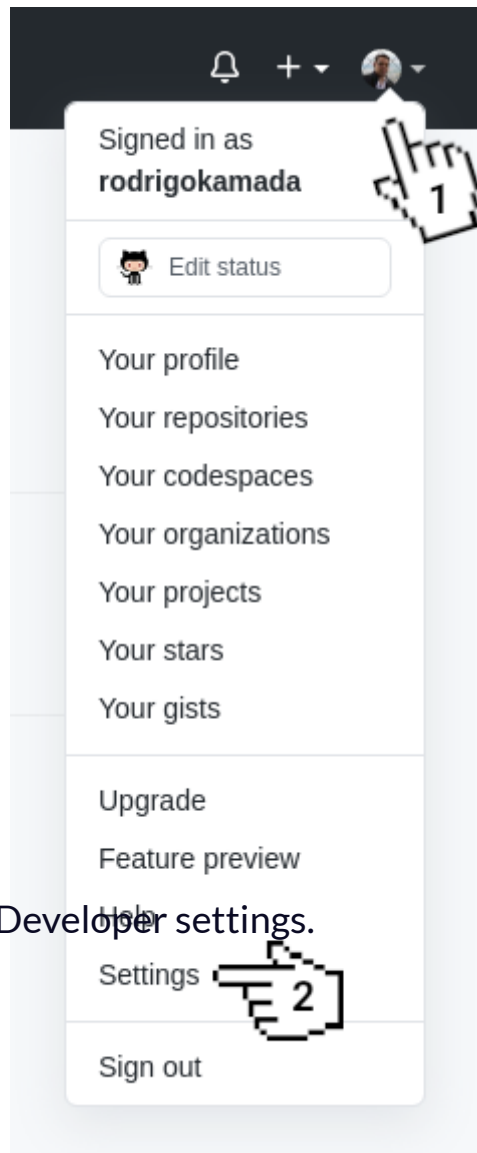
4 [Image showing a green checkmark] ✓

5 Create account

By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#). We'll occasionally send you account-related emails.

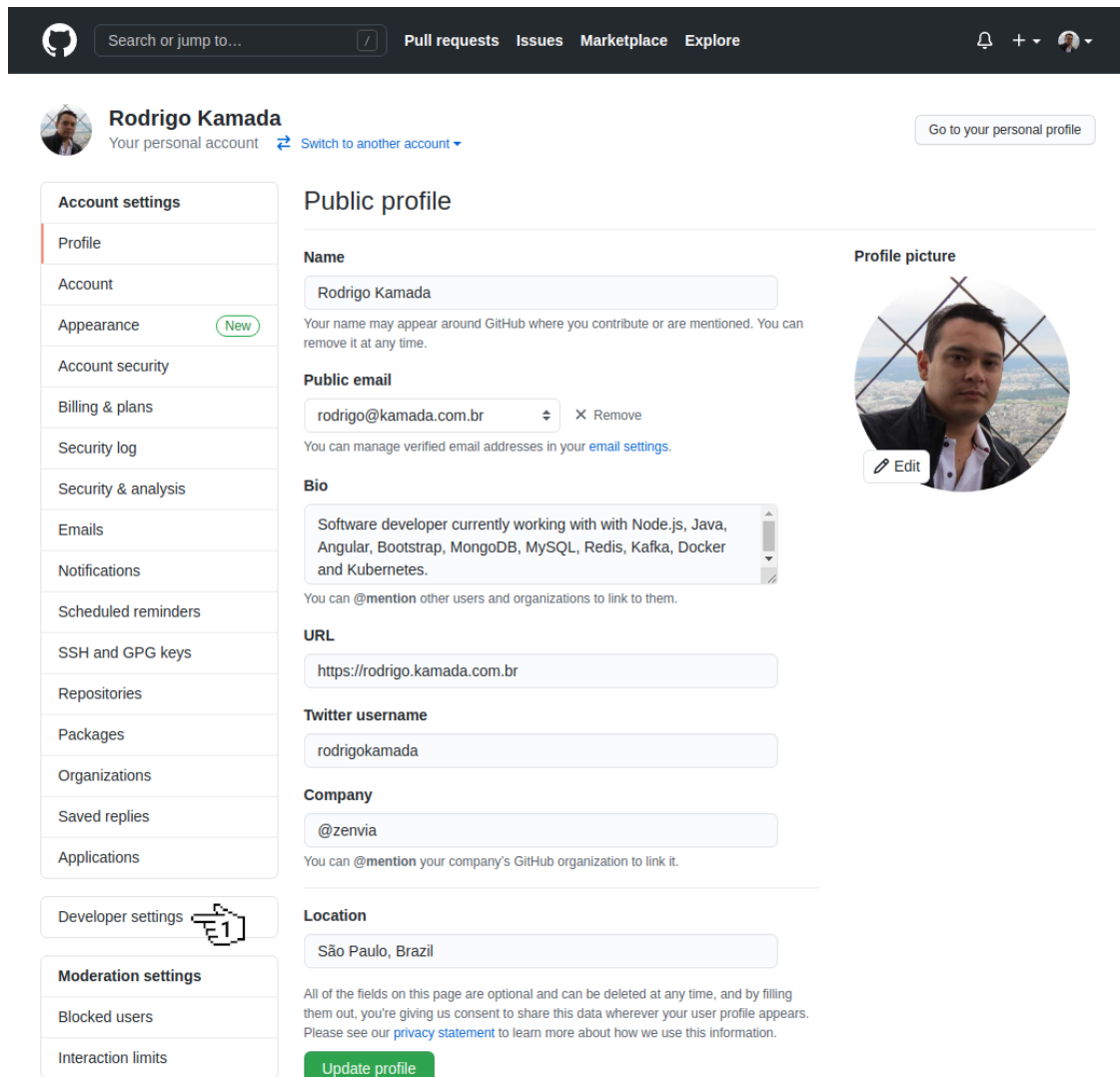
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the menu with the avatar and click on the menu Settings.



Click on the menu Developer settings.

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The screenshot shows the GitHub profile page for Rodrigo Kamada. The top navigation bar includes a search bar, links for Pull requests, Issues, Marketplace, and Explore, along with notification and user icons. The profile header shows the user's name, a bio, and a link to their personal profile. A left sidebar contains a list of settings: Account settings (Profile, Account, Appearance, Account security, Billing & plans, Security log, Security & analysis, Emails, Notifications, Scheduled reminders, SSH and GPG keys, Repositories, Packages, Organizations, Saved replies, Applications), Developer settings (highlighted with a hand icon and a '1'), and Moderation settings (Blocked users, Interaction limits). The main content area is titled 'Public profile' and includes fields for Name, Public email, Bio, URL, Twitter username, Company, and Location. Each field has a text input and a 'Remove' or 'Update' button. The Bio field has a character count. The Location field is currently empty. At the bottom of the profile section is an 'Update profile' button.

**Account settings**

- Profile
- Account
- Appearance New
- Account security
- Billing & plans
- Security log
- Security & analysis
- Emails
- Notifications
- Scheduled reminders
- SSH and GPG keys
- Repositories
- Packages
- Organizations
- Saved replies
- Applications

**Developer settings** 1

**Moderation settings**

- Blocked users
- Interaction limits

**Public profile**

**Name**

Rodrigo Kamada

Your name may appear around GitHub where you contribute or are mentioned. You can remove it at any time.

**Public email**

rodrigo@kamada.com.br Remove

You can manage verified email addresses in your [email settings](#).

**Bio**

Software developer currently working with with Node.js, Java, Angular, Bootstrap, MongoDB, MySQL, Redis, Kafka, Docker and Kubernetes.

You can [@mention](#) other users and organizations to link to them.

**URL**

<https://rodrigo.kamada.com.br>

**Twitter username**

rodrigokamada

**Company**

@zenvia

You can [@mention](#) your company's GitHub organization to link it.

**Location**

São Paulo, Brazil

All of the fields on this page are optional and can be deleted at any time, and by filling them out, you're giving us consent to share this data wherever your user profile appears. Please see our [privacy statement](#) to learn more about how we use this information.


[Update profile](#)

Click on the menu Personal access tokens.

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GitHub Apps

OAuth Apps





Personal access tokens 

### GitHub Apps

New GitHub App

Want to build something that integrates with and extends GitHub? [Register a new GitHub App](#) to get started developing on the GitHub API. You can also read more about building GitHub Apps in our [developer documentation](#).


Click on the button Generate new token.

 Search or jump to... / [Pulls](#) [Issues](#) [Marketplace](#) [Explore](#)   

[Settings](#) / Developer settings

GitHub Apps

OAuth Apps

Personal access tokens 





### Personal access tokens

Generate new token

Need an API token for scripts or testing? [Generate a personal access token](#) for quick access to the [GitHub API](#).

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](#).

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

 Search or jump to... / [Pulls](#) [Issues](#) [Marketplace](#) [Explore](#)   

[Settings](#) / Developer settings

GitHub Apps


OAuth Apps

Personal access tokens

### New personal access token

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](#).

**Note**

 Travis CI

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<input checked="" type="checkbox"/> repo:status	Access commit status
<input checked="" type="checkbox"/> repo:deployment	Access deployment status
<input checked="" type="checkbox"/> public_repo	Access public repositories
<input checked="" type="checkbox"/> repo:invite	Access repository invitations
<input checked="" type="checkbox"/> security_events	Read and write security events
<input type="checkbox"/> workflow	Update GitHub Action workflows
<input type="checkbox"/> write:packages	Upload packages to GitHub Package Registry
<input type="checkbox"/> read:packages	Download packages from GitHub Package Registry
<input type="checkbox"/> delete:packages	Delete packages from GitHub Package Registry
<input type="checkbox"/> admin:org	Full control of orgs and teams, read and write org projects
<input type="checkbox"/> write:org	Read and write org and team membership, read and write org projects
<input type="checkbox"/> read:org	Read org and team membership, read org projects
<input type="checkbox"/> admin:public_key	Full control of user public keys
<input type="checkbox"/> write:public_key	Write user public keys
<input type="checkbox"/> read:public_key	Read user public keys
<input type="checkbox"/> admin:repo_hook	Full control of repository hooks
<input type="checkbox"/> write:repo_hook	Write repository hooks
<input type="checkbox"/> read:repo_hook	Read repository hooks
<input type="checkbox"/> admin:org_hook	Full control of organization hooks
<input type="checkbox"/> gist	Create gists
<input type="checkbox"/> notifications	Access notifications
<input type="checkbox"/> user	Update ALL user data
<input type="checkbox"/> read:user	Read ALL user profile data
<input type="checkbox"/> user:email	Access user email addresses (read-only)
<input type="checkbox"/> user:follow	Follow and unfollow users
<input type="checkbox"/> delete_repo	Delete repositories
<input type="checkbox"/> write:discussion	Read and write team discussions
<input type="checkbox"/> read:discussion	Read team discussions
<input type="checkbox"/> admin:enterprise	Full control of enterprises
<input type="checkbox"/> manage_billing:enterprise	Read and write enterprise billing data
<input type="checkbox"/> read:enterprise	Read enterprise profile data
<input type="checkbox"/> admin:gpg_key	Full control of public user GPG keys ( <a href="#">Developer Preview</a> )
<input type="checkbox"/> write:gpg_key	Write public user GPG keys
<input type="checkbox"/> read:gpg_key	Read public user GPG keys



Generate token

Cancel

Copy the generated token. In my case, the token `ghp_XD0DcVzbYmxKL YpXaj5GQWUp8Yi0YS3vkwkM` was generated because this token will be configured in Travis CI.

Pulls Issues Marketplace Explore

[Settings](#) / Developer settings

GitHub Apps

OAuth Apps

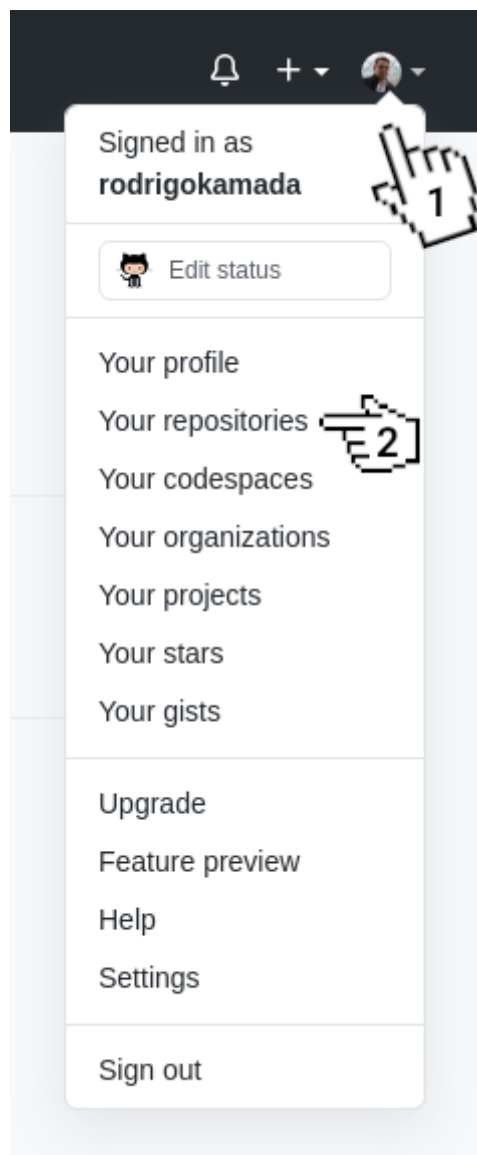
Personal access tokens

Generate new token Revoke all

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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.

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?  
[Import a repository.](#)

Owner \* / Repository name \*

rodrigokamada / angular-travisci ✓

Great repository names are short and memorable. Need inspiration? How about [super-duper-broccoli?](#)

Description (optional)

☒ **Public**  
Anyone on the internet can see this repository. You choose who can commit.

☐ **Private**  
You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ **Add a README file**  
This is where you can write a long description for your project. [Learn more.](#)

☐ **Add .gitignore**  
Choose which files not to track from a list of templates. [Learn more.](#)

☐ **Choose a license**  
A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository

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

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The screenshot shows the GitHub repository page for 'angular-travisci' by user 'rodrigokamada'. The repository has 1 pull, 0 stars, and 0 forks. The 'Code' tab is selected, showing a 'Quick setup' section with three options: cloning via HTTPS or SSH, creating a new repository on the command line, and pushing an existing repository from the command line. The command line instructions for creating a new repository are as follows:

```
echo "# angular-travisci" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin git@github.com:rodrigokamada/angular-travisci.git
git push -u origin main
```

The instructions for pushing an existing repository are:

```
git remote add origin git@github.com:rodrigokamada/angular-travisci.git
git branch -M main
git push -u origin main
```

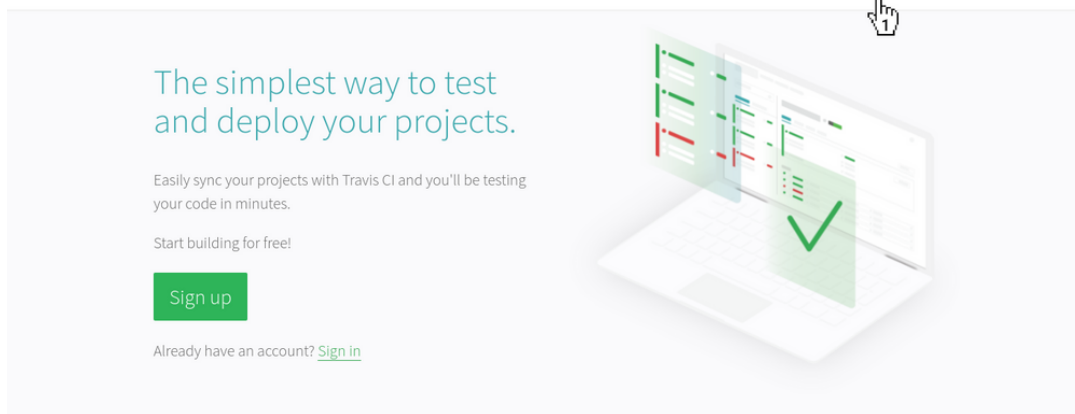
There is also an option to 'Import code' from another repository.

## Create and configure your account on Travis CI

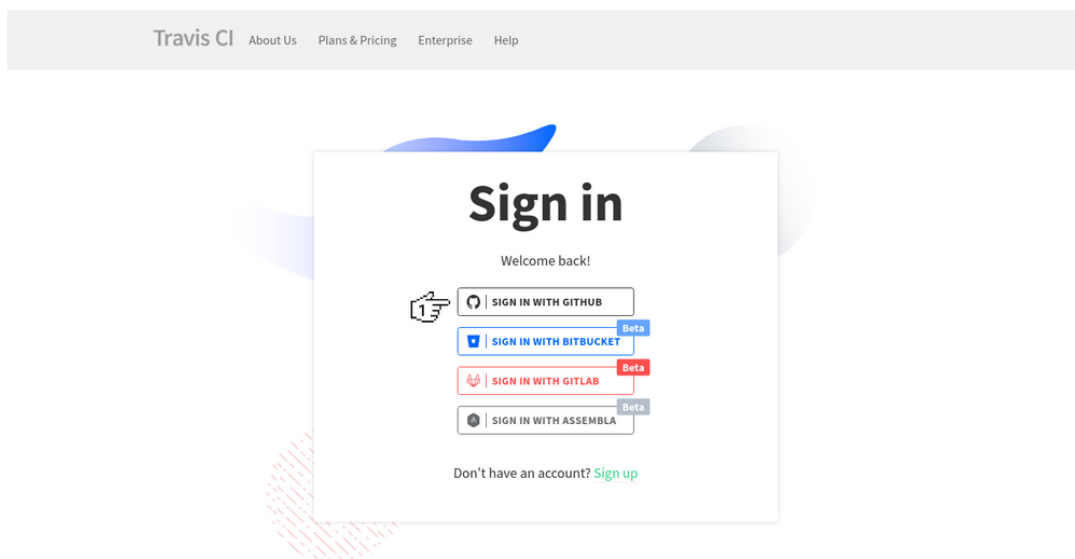
Travis CI is a deployment service integrated with GitHub.

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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☆ You can keep track of your favorite repositories here once you start starring!

[Active repositories](#)
[My builds](#)

☆	rodrigokamada	DEFAULT BRANCH	LAST BUILD	COMMIT	FINISHED	
1	angular-travisci	-> master errored	! #5 errored	-> 0df7843	12 minutes ago	

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

The screenshot shows the Travis CI dashboard for the repository 'rodrigokamada / angular-travisci'. The build status is 'errored' with a message '#5 errored'. A hand icon points to the 'More options' menu, which is open, showing 'Settings' as the selected option. The dashboard also shows a list of repositories on the left and a detailed build log on the right.

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.

The screenshot shows the 'Settings' page for the repository 'rodrigokamada / angular-travisci'. The 'General' section is visible, showing options for 'Build pushed branches', 'Build pushed pull requests', and 'Limit concurrent jobs'. The 'Auto Cancellation' section is also visible, with options for 'Auto cancel branch builds' and 'Auto cancel pull request builds'. The 'Environment Variables' section is at the bottom, with a note about escaping special characters.

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Ready! Account created and repository configured.

The screenshot shows the Travis CI settings page for the repository 'rodrigokamada / angular-travisci'. The 'Settings' tab is selected, showing options for 'General', 'Auto Cancellation', and 'Environment Variables'. Under 'General', 'Build pushed branches' and 'Build pushed pull requests' are enabled. Under 'Auto Cancellation', 'Auto cancel branch builds' and 'Auto cancel pull request builds' are disabled. Under 'Environment Variables', a variable 'GITHUB\_TOKEN' is defined with a masked value and is available to all branches. A table at the bottom allows adding more environment variables with columns for Name, Value, and Branch.

## 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 render 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: 83bfff0c079b083727ca4 - Time: 26030



Synchronize 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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