

A decorative network graph in the bottom-left corner, consisting of numerous small black dots connected by thin, light gray lines, forming a complex, web-like structure.Four thick, purple, curved lines in the top-right corner, arranged in a semi-circular pattern.

Git e GitHub

Felipe P. Coutinho

A solid blue circle in the bottom-right corner.


Roteiro

1. Motivação
2. O que é versionamento?
3. Git e GitHub
4. Mini-guia: GitHub de forma fácil
5. Usando Git e GitHub em conjunto
6. Referências interessantes

Motivação



Onde hospedar meus projetos?



Felipe Provezano Coutinho
provezano


Seeking to be the unicorn data scientist you've been looking for...

Edit profile

27 followers · 4 following

Carguero
Barueri, SP
provezano@gmail.com
<https://www.linkedin.com/in/provezano/>

Achievements



Overview Repositories 47 Projects Packages Stars 33

provezano / README.md

Hi 🙋, I'm Felipe Coutinho!

I'm a Data Scientist with Masters Degree in Computer Science and Computational Mathematics according to University of São Paulo.

Felipe Provezano Coutinho's GitHub Stats


☆ Total Stars Earned:	56
🕒 Total Commits:	253
🔗 Total PRs:	0
💡 Total Issues:	11
💻 Contributed to:	1

A+

Most Used Languages

Jupyter Notebook 99.00%	Java 0.02%
MATLAB 0.83%	Dockerfile 0.00%
Python 0.15%	Makefile 0.00%


Resume

 LINKEDIN

Portfolio Projects

- House Sales Data Analysis
- Census Income Dataset
- Stroke Prediction
- Churn Prediction
- Car Price Prediction
- Rossmann Store Sales
- Health Insurance Cross Sell Prediction
- UK High Value Customers Identification

Onde divulgar meus projetos?




Felipe Coutinho
Cientista de Dados Sênior |
Mestre em Ciência da
Computação | Consultor
em Ciência de Dados |
Data Science | Machine
Learning | Deep Learning |
Big Data

Followers **2,222**



Felipe's Activity


All activity **Articles** Posts Documents

Felipe Coutinho posted this

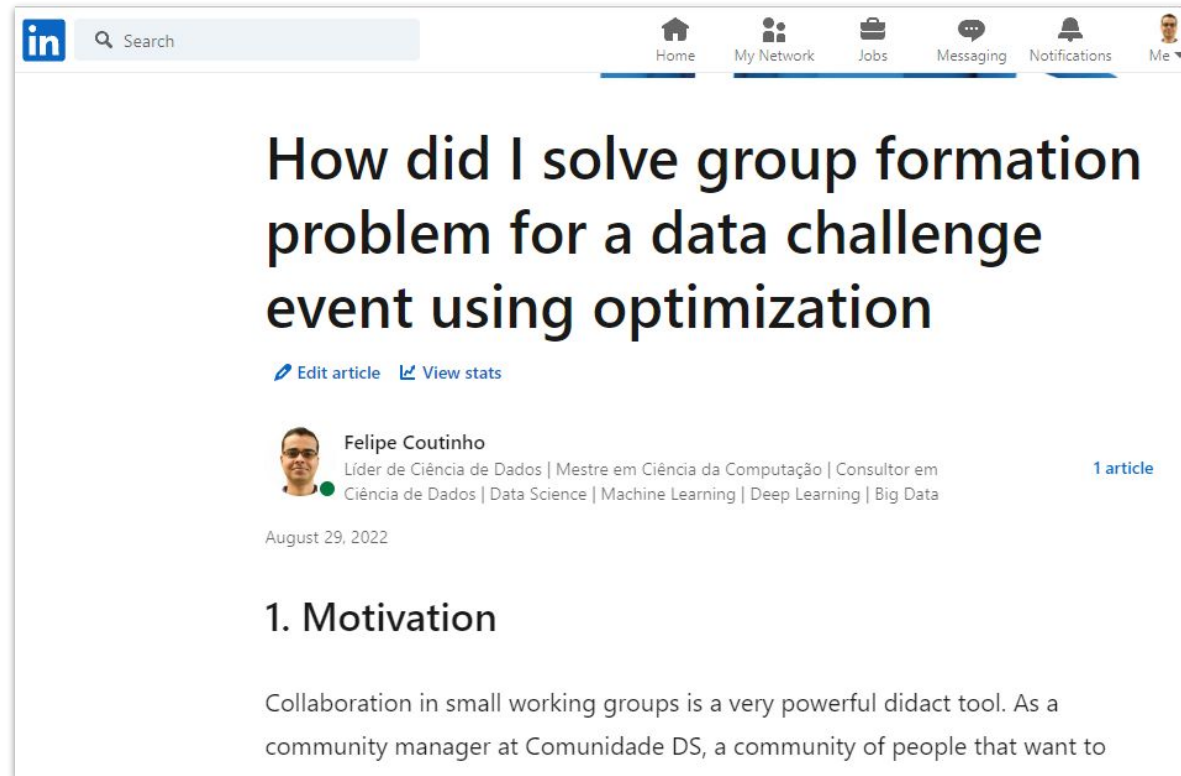


How did I solve group formation problem for a data challenge event using optimization
Felipe Coutinho on LinkedIn
August 29, 2022

  Alfredo Junior Albieri and 68 others

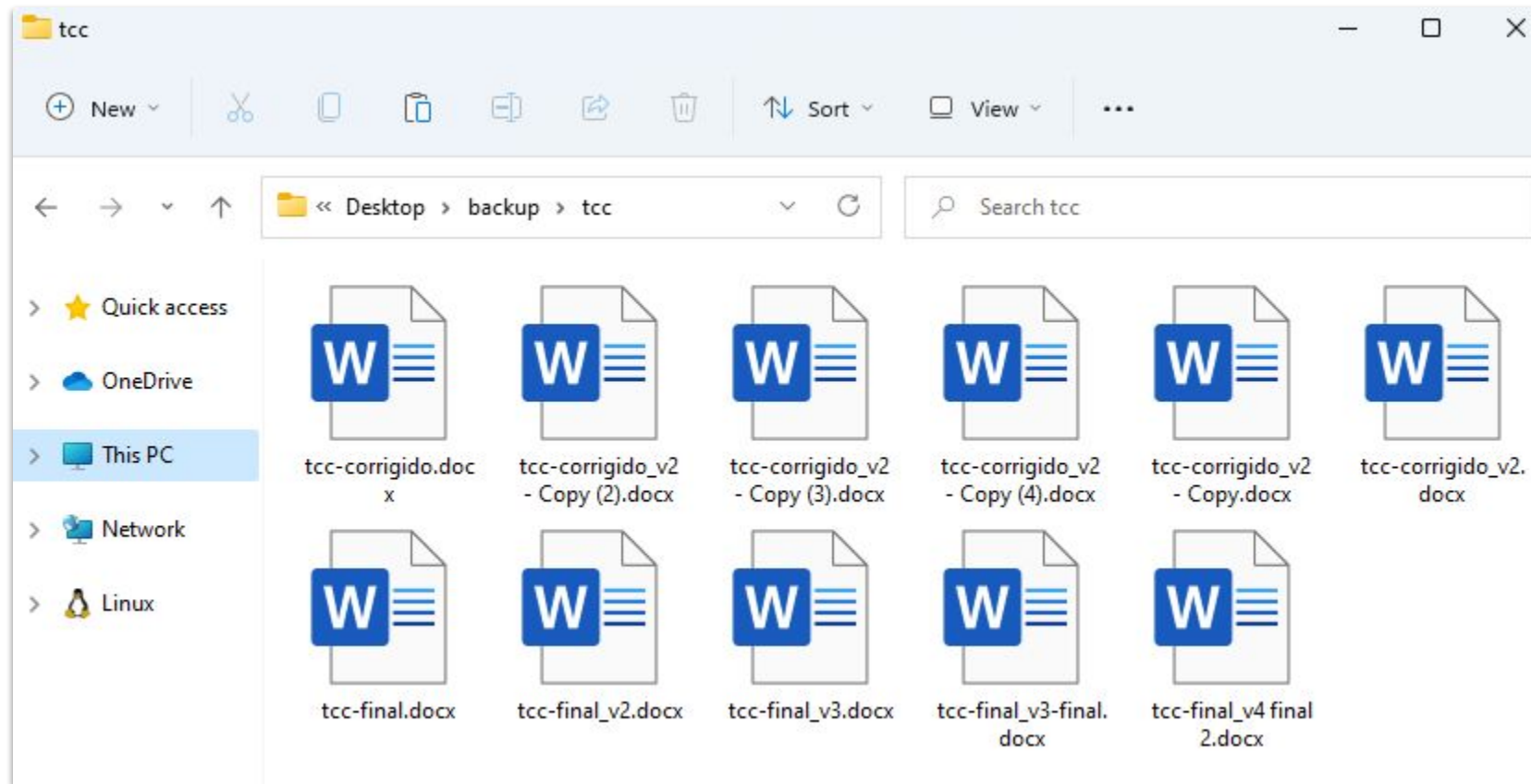
 **2,050 impressions** [View analytics](#)

Exemplo prático



[How did I solve group formation problem for a data challenge event using optimization | LinkedIn](#)

Você já tentou fazer controle de versão de arquivos



Git e GitHub



Ferramenta para **controle de versão**
de arquivos em **repositórios**.



Plataforma de **hospedagem** de
arquivos com *controle de versão*
usando o Git.

A forma mais fácil



Criar conta no
Github

Fazer login

Criar um
repositório com
nome do seu
projeto

Criar um
repositório com
nome do seu
projeto

Enviar arquivos
p/ repositório

Adicionar
README

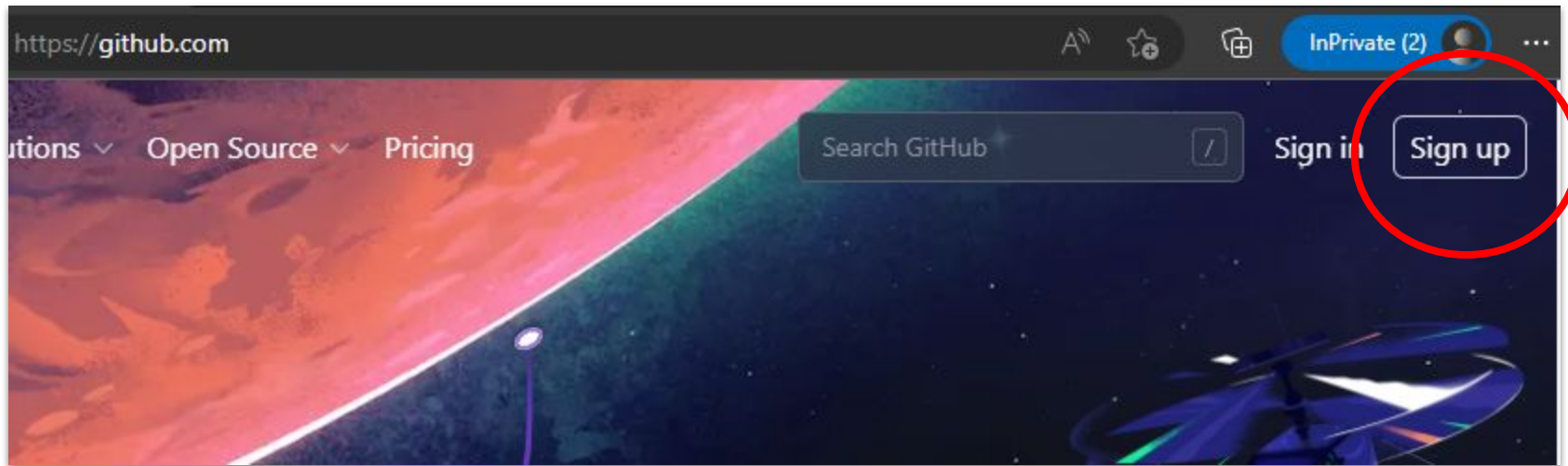


Acessar o
notebook do seu
projeto na
Practicum

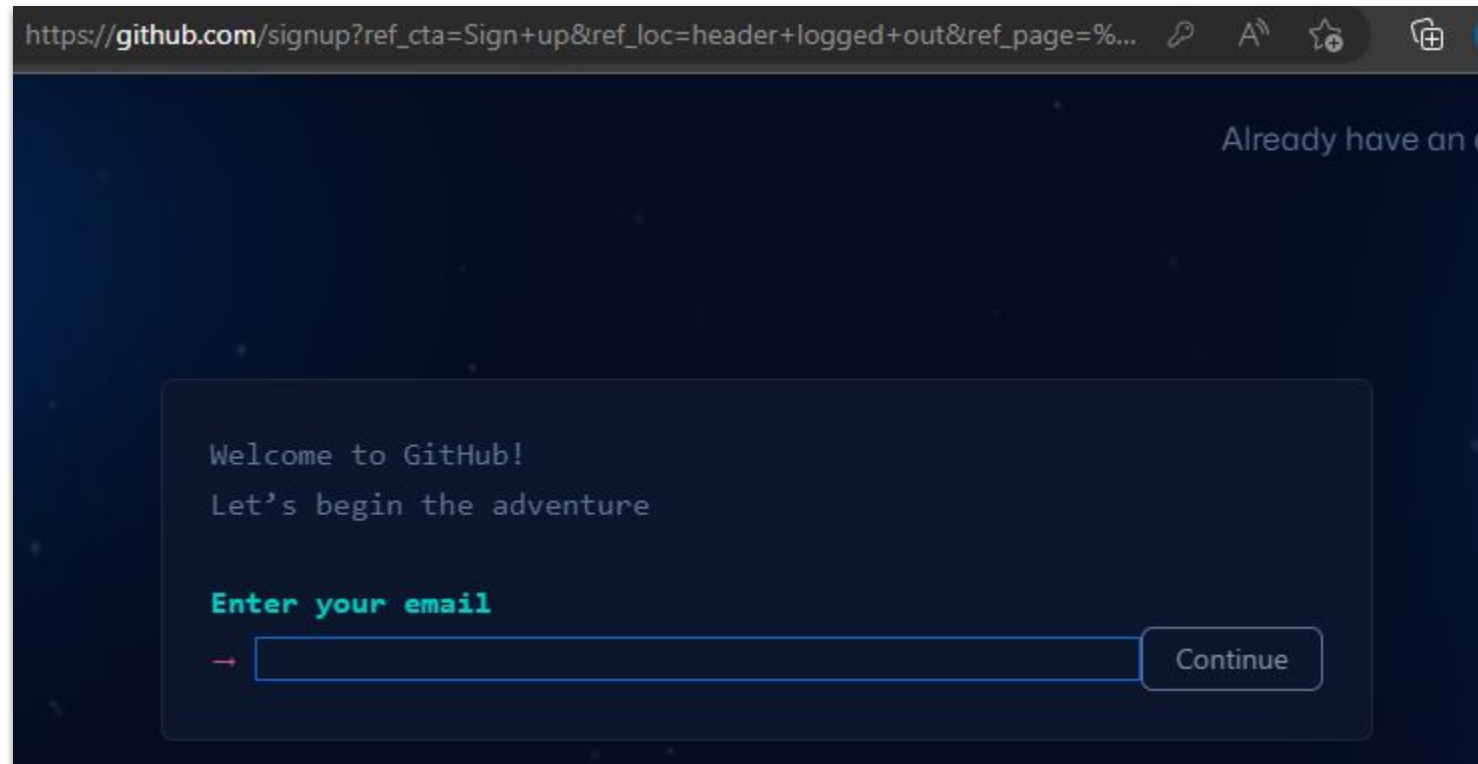
Fazer o download
do notebook
File -> Download
as -> Notebook
(.ipynb)

Armazenar
arquivo em uma
pasta separada
para o seu projeto

1. Criar conta no GitHub (1/2)



1. Criar conta no GitHub (2/2)



The screenshot shows the GitHub sign-up page in a web browser. The address bar displays the URL: `https://github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%...`. The page has a dark blue background with a subtle pattern of stars. In the top right corner, there is a link that says "Already have an account?". The main content area is a dark blue box with the text "Welcome to GitHub!" and "Let's begin the adventure". Below this, there is a section titled "Enter your email" in a light blue font. This section contains a text input field with a red arrow icon on the left and a "Continue" button on the right.

https://github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%... 🔍 A ⭐ + 🔗

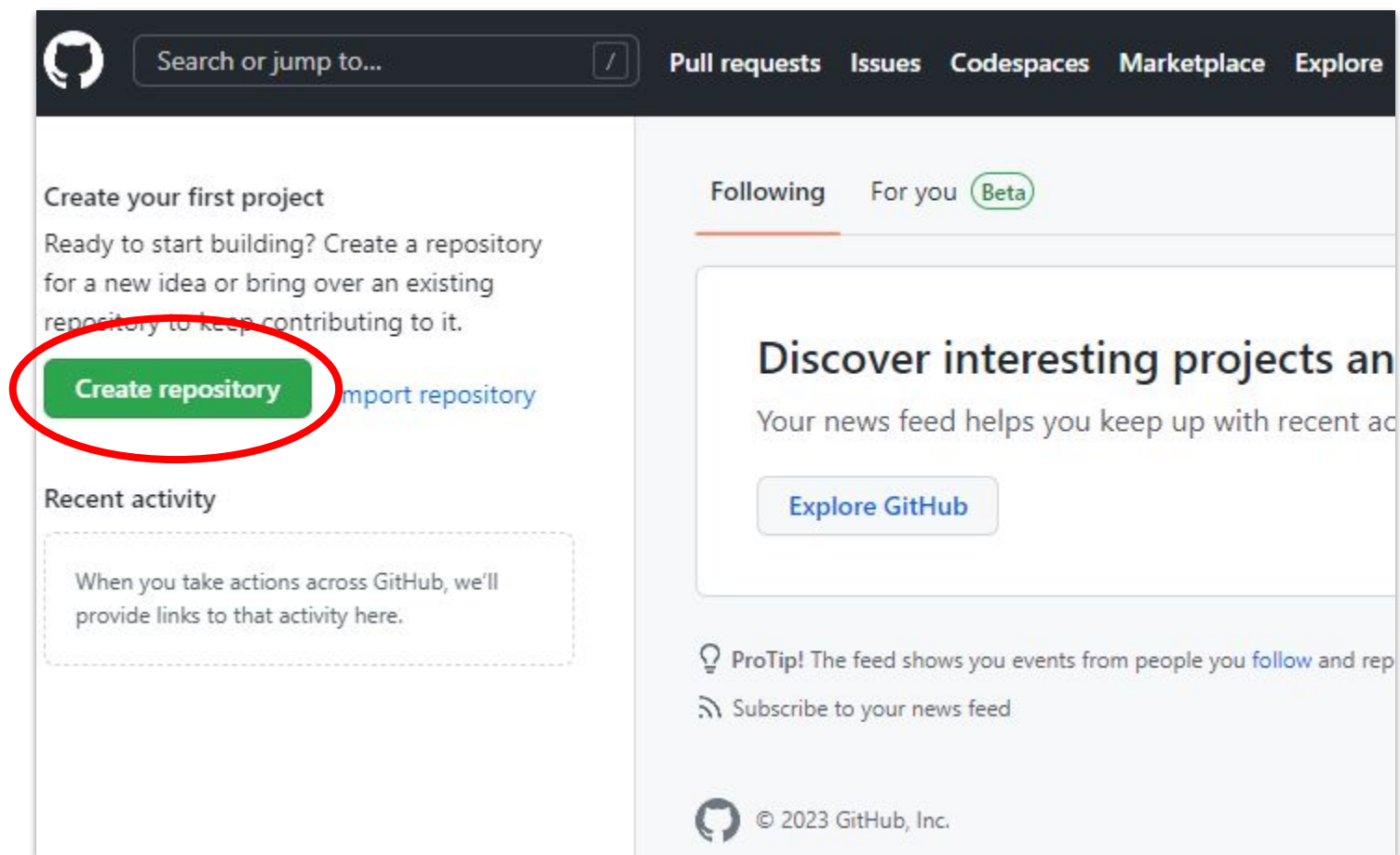
Already have an account?

Welcome to GitHub!
Let's begin the adventure

Enter your email

→ Continue

2. Criar repositório no GitHub (1/4)




2. Criar repositório no GitHub (2/4)

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 *

 dataunicornbr ▾


 /

Great repository names are short and memorable. Need inspiration? How about [curly-spoon?](#)

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.


2. Criar repositório no GitHub (3/4)


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 *


 dataunicornbr ▾


/ ymusic 

Great repository names are short and memorable. Need inspiration? How about **curly-spoon**?

Description (optional)

Análise de preferências musicais dos habitantes de Springfield e Shelbyville.

☒  **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.

2. Criar repositório no GitHub (4/4)

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.](#)

.gitignore template: None ▼

Choose a license

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


License: None ▼

 You are creating a public repository in your personal account.

Create repository

3. Repositório criado

Quick setup — if you've done this kind of thing before


 Set up in Desktop

 or

HTTPS

SSH


<https://github.com/dataunicornbr/ymusic.git>



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).


...or create a new repository on the command line

```
echo "# ymusic" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/dataunicornbr/ymusic.git
git push -u origin main
```



...or push an existing repository from the command line

```
git remote add origin https://github.com/dataunicornbr/ymusic.git
git branch -M main
git push -u origin main
```

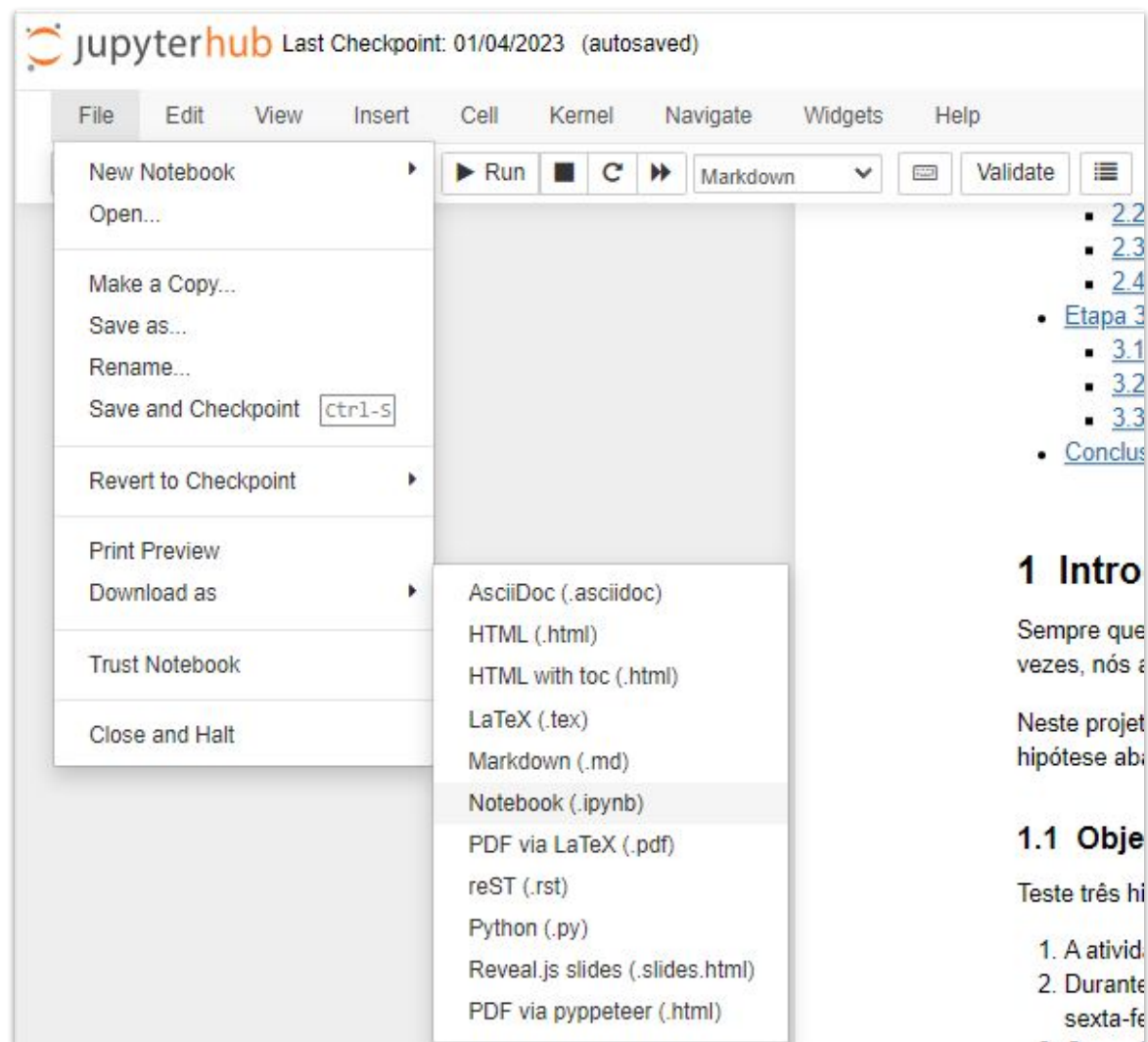


...or import code from another repository

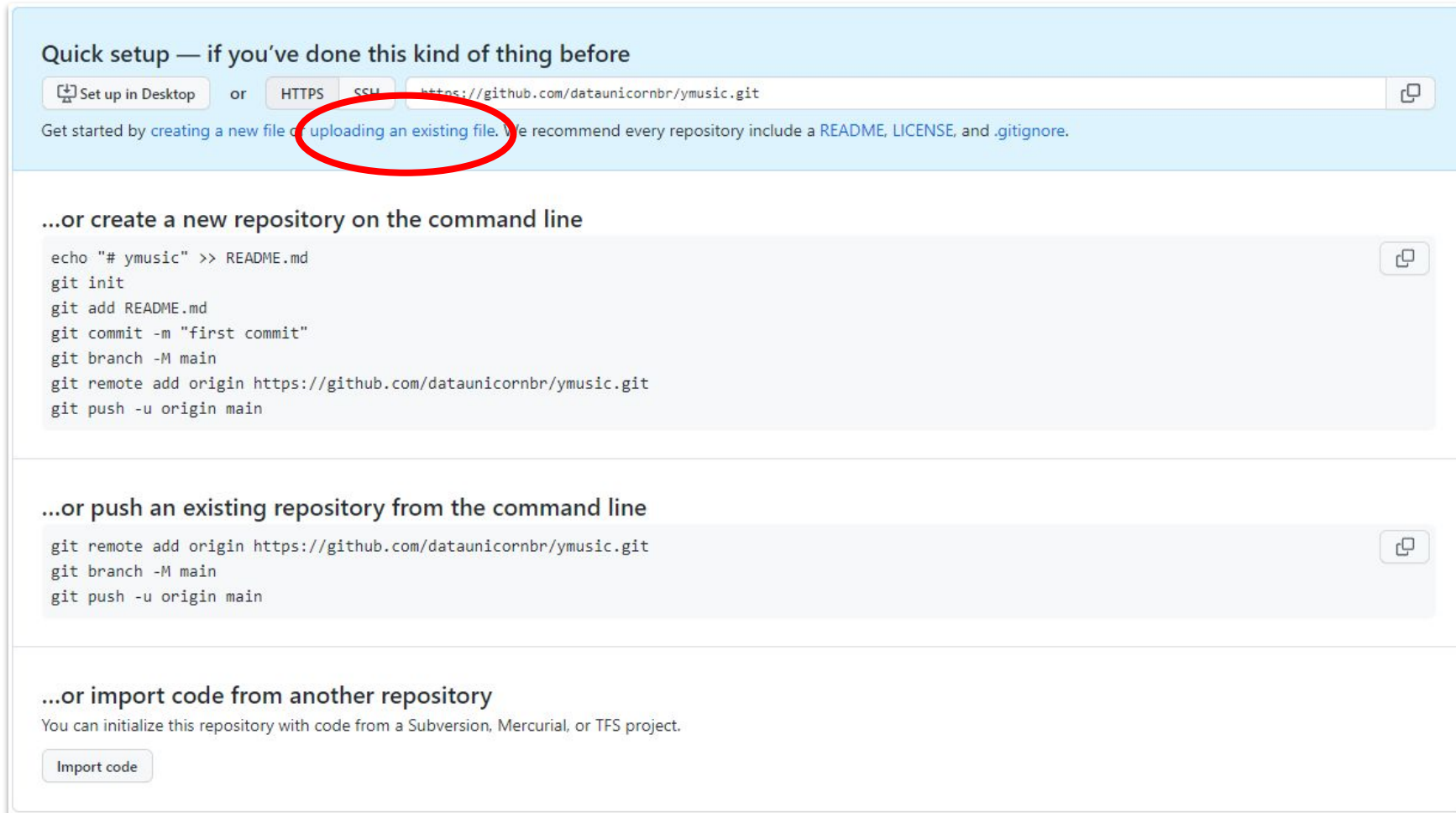
You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code



4. Baixar arquivos do projeto



5. Enviar arquivos para repositório criado (1/2)



Quick setup — if you've done this kind of thing before

 Set up in Desktop or **HTTPS** ~~SSH~~ 

Get started by [creating a new file](#) or **uploading an existing file.** We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# ymusic" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/dataunicornbr/ymusic.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/dataunicornbr/ymusic.git
git branch -M main
git push -u origin main
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

[Import code](#)

5. Enviar arquivos para repositório criado (2/2)

ymusic /



Drag files here to add them to your repository

[Or choose your files](#)



Commit changes

Add files via upload

Add an optional extended description...

☒ Commit directly to the `main` branch.

☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel

6. Adicionar README ao projeto (1/2)

The screenshot shows the GitHub interface for a repository named 'ymusic', which is public. The top navigation bar includes links for Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below this, the repository's main branch is 'main', with 1 branch and 0 tags. Action buttons include 'Go to file', 'Add file', and 'Code'. A recent commit by 'dataunicornbr' is shown, titled 'Delete README.md'. Below the commit, a file 'analyse_ymusic.ipynb' is listed with the option to 'add files via upload'. At the bottom, a light blue banner encourages adding a README, with the 'Add a README' button circled in red.

ymusic Public

Pull requests Actions Projects Wiki Security Insights Settings

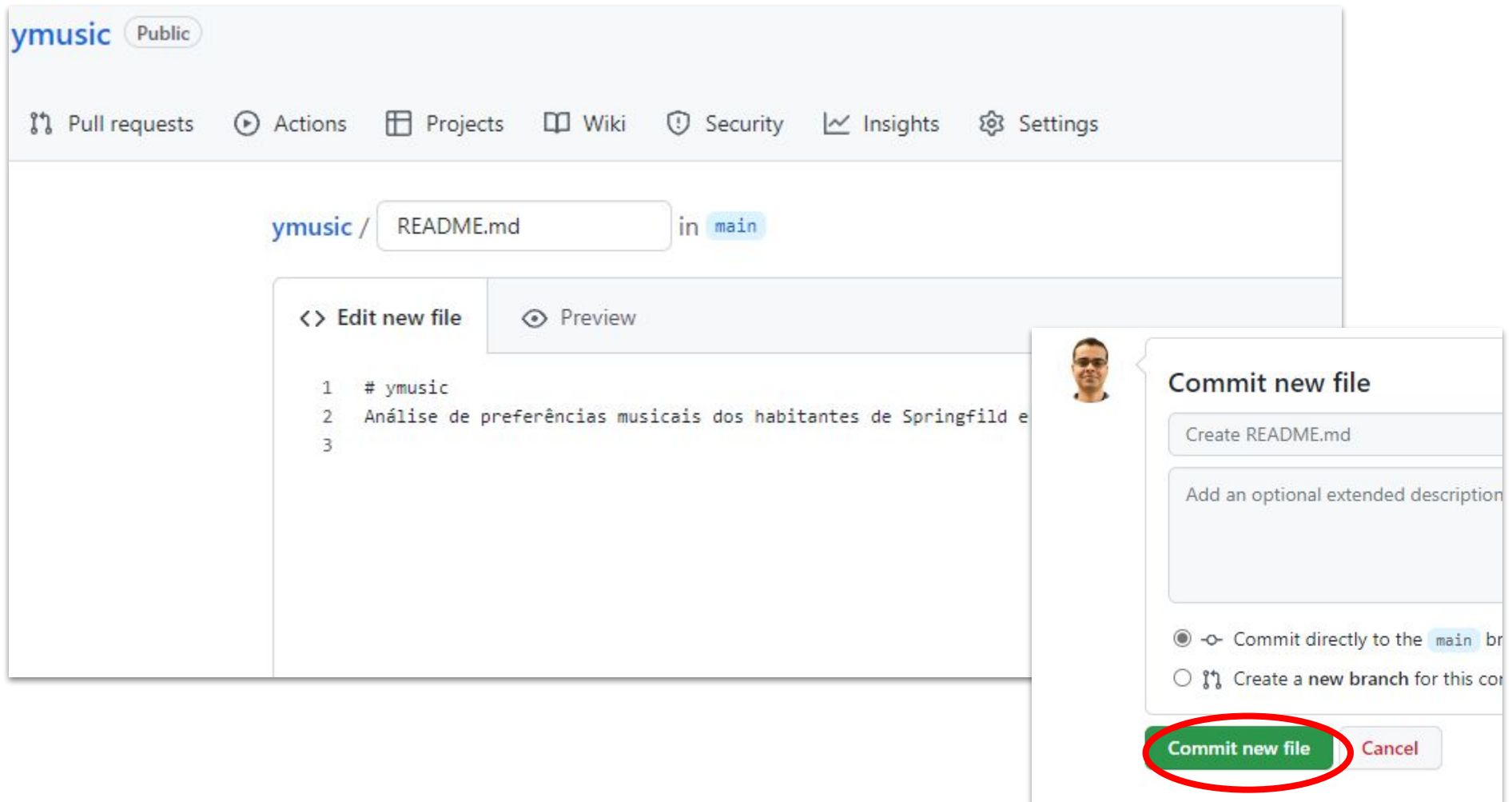
main 1 branch 0 tags Go to file Add file <> Code

dataunicornbr Delete README.md e3f54ca now 3 commits

analyse_ymusic.ipynb add files via upload 4 minutes ago

Help people interested in this repository understand your project by adding a README. Add a README

6. Adicionar README ao projeto (2/2)

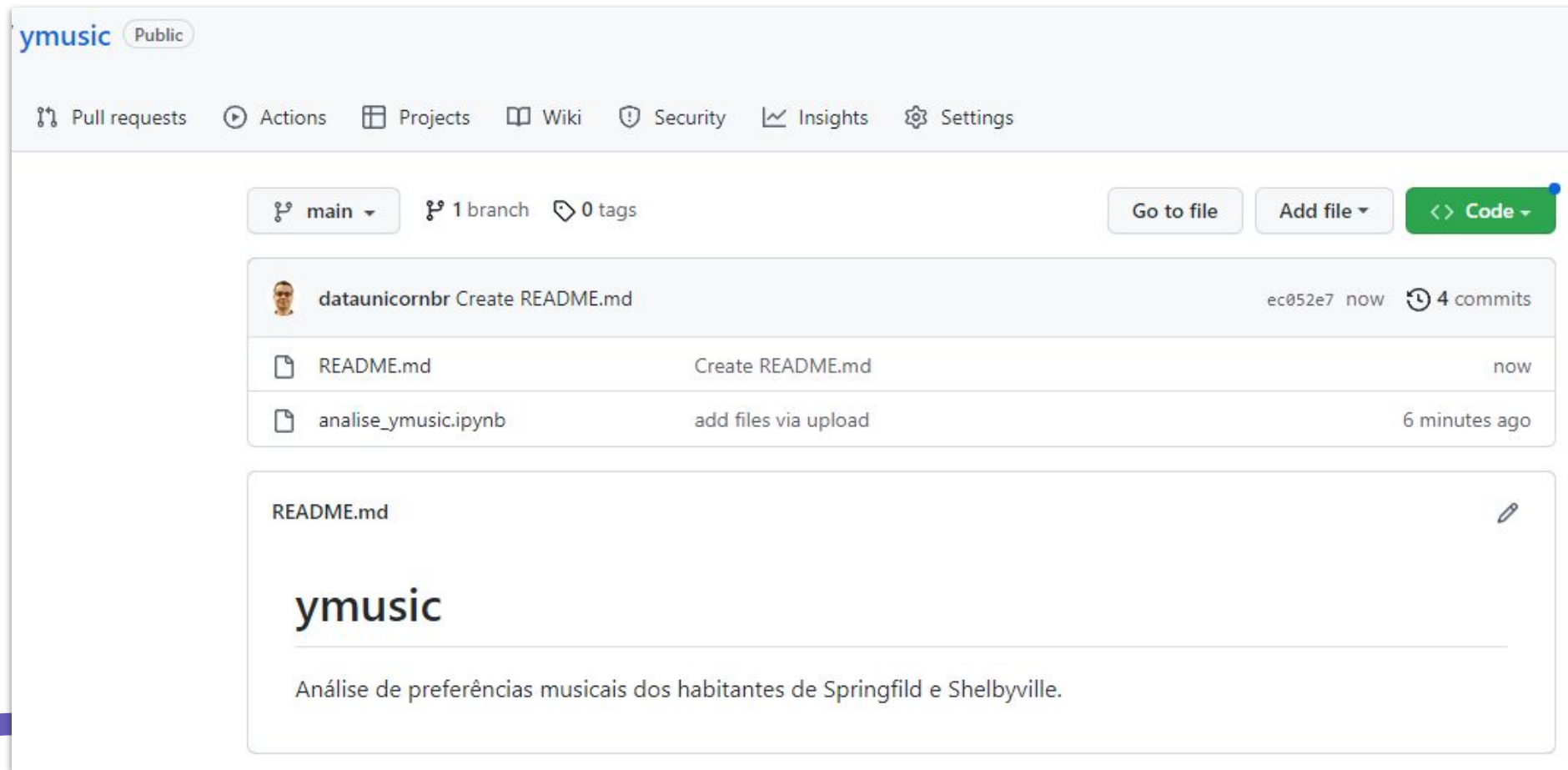


The screenshot displays the GitHub web interface for a repository named 'ymusic', which is marked as 'Public'. The top navigation bar includes links for Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The main content area shows the file 'README.md' being edited in the 'main' branch. The editor is in 'Edit new file' mode, showing a preview of the file content:

```
1 # ymusic
2 Análise de preferências musicais dos habitantes de Springfield e
3
```

Overlaid on the bottom right is the 'Commit new file' dialog box. It features a user profile picture, the title 'Commit new file', and a 'Create README.md' button. Below this is a text area for an optional extended description. Two radio buttons are present: the first is selected and labeled 'Commit directly to the main branch', and the second is labeled 'Create a new branch for this commit'. At the bottom of the dialog, the 'Commit new file' button is highlighted with a red circle, and a 'Cancel' button is also visible.


7. Repositório criado e configurado



[dataunicornbr/ymusic: Análise de preferências musicais dos habitantes de Springfield e Shelbyville. \(github.com\)](https://github.com/dataunicornbr/ymusic)

Outras formas... (requer instalação do Git)


Quick setup — if you've done this kind of thing before

 Set up in Desktop

 or

HTTPS

SSH



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# ymusic" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/dataunicornbr/ymusic.git
git push -u origin main
```



...or push an existing repository from the command line

```
git remote add origin https://github.com/dataunicornbr/ymusic.git
git branch -M main
git push -u origin main
```

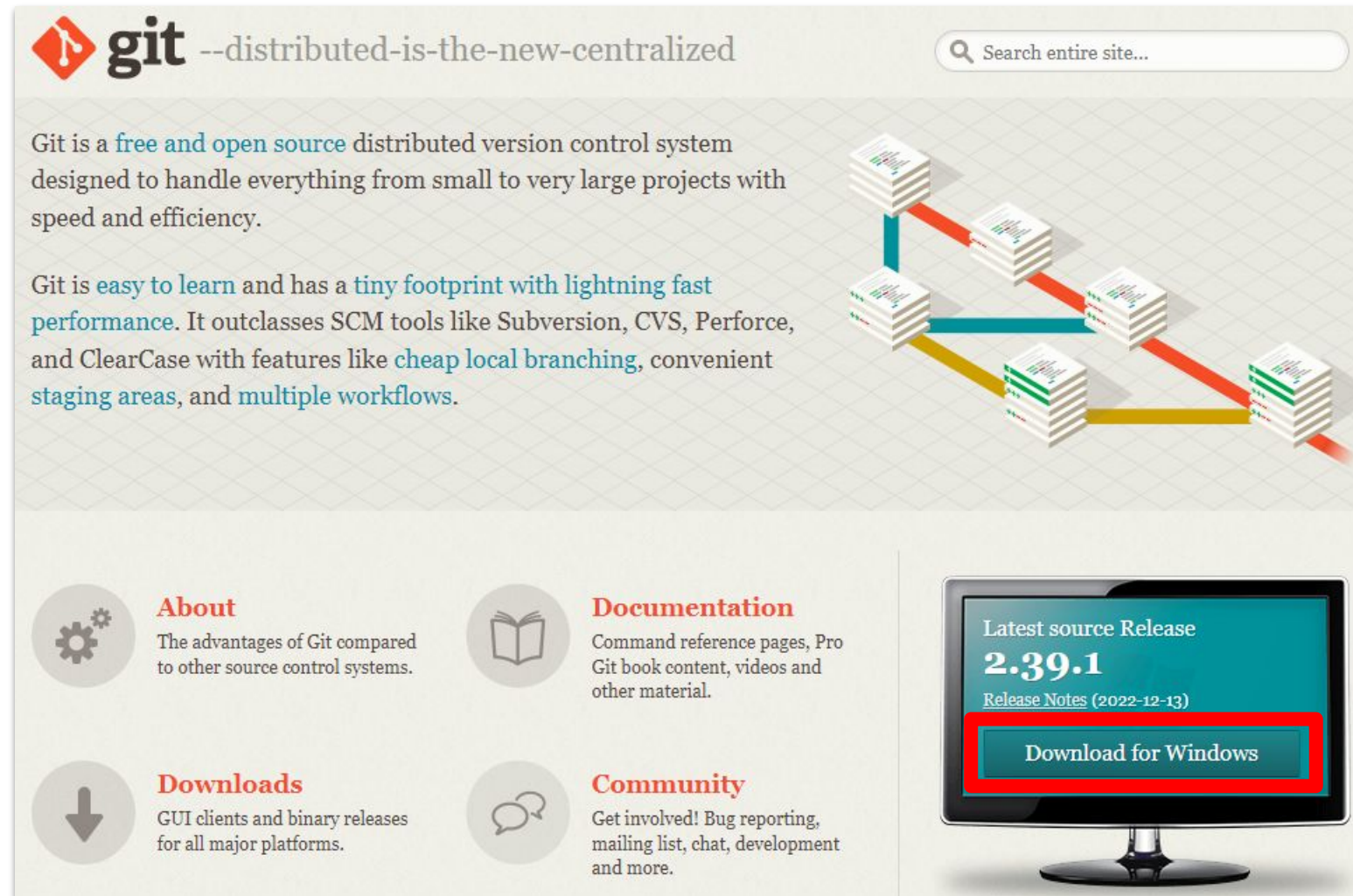


...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

Download do Git



The screenshot shows the Git website homepage. At the top left is the Git logo (a red diamond with a white branching diagram) followed by the text "git --distributed-is-the-new-centralized". To the right is a search bar with the placeholder text "Search entire site...". Below the header, there are two paragraphs of text. The first paragraph describes Git as a free and open source distributed version control system. The second paragraph describes Git as easy to learn and having a tiny footprint with lightning fast performance. To the right of the text is a diagram showing a network of stacks of books connected by colored lines (red, blue, yellow). Below the text and diagram, there are four sections: "About" (with a gear icon), "Documentation" (with an open book icon), "Downloads" (with a downward arrow icon), and "Community" (with a speech bubble icon). To the right of these sections is a monitor displaying the "Latest source Release 2.39.1" and a red button labeled "Download for Windows".

git --distributed-is-the-new-centralized

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.

About
The advantages of Git compared to other source control systems.

Documentation
Command reference pages, Pro Git book content, videos and other material.

Downloads
GUI clients and binary releases for all major platforms.

Community
Get involved! Bug reporting, mailing list, chat, development and more.

Latest source Release
2.39.1
Release Notes (2022-12-13)
Download for Windows

Instalação do Git



The screenshot shows the Git documentation website. The header includes the Git logo, the tagline "--local-branching-on-the-cheap", and a search bar. The left sidebar contains navigation links for "About", "Documentation" (with sub-links for Reference, Book, Videos, and External Links), "Downloads", and "Community". Below the sidebar, it states the book is available in English and lists other languages: Azərbaycan dili, български език, Deutsch, Español, Français, Ελληνικά, and 日本語. The main content area is titled "1.5 Começando - Instalando o Git" and includes a sub-section "Instalando o Git" with introductory text. A "Note" box mentions the documentation was written using Git 2.0.0. Below this, the "Instalando no Linux" section provides instructions and a terminal command: `$ sudo yum install git-all`.

git --local-branching-on-the-cheap

Search entire site...

About

Documentation

- Reference
- Book**
- Videos
- External Links

Downloads

Community

This book is available in [English](#).

Full translation available in

- [azərbaycan dili,](#)
- [български език,](#)
- [Deutsch,](#)
- [Español,](#)
- [Français,](#)
- [Ελληνικά,](#)
- [日本語,](#)

Chapters ▾ 2nd Edition

1.5 Começando - Instalando o Git

Instalando o Git

Antes de começar a usar o Git, você tem que torná-lo disponível em seu computador. Mesmo se ele já tiver sido instalado, é provavelmente uma boa idéia atualizar para a versão mais recente. Você pode instalá-lo como um pacote ou através de outro instalador, ou baixar o código fonte e compilá-lo.

Note

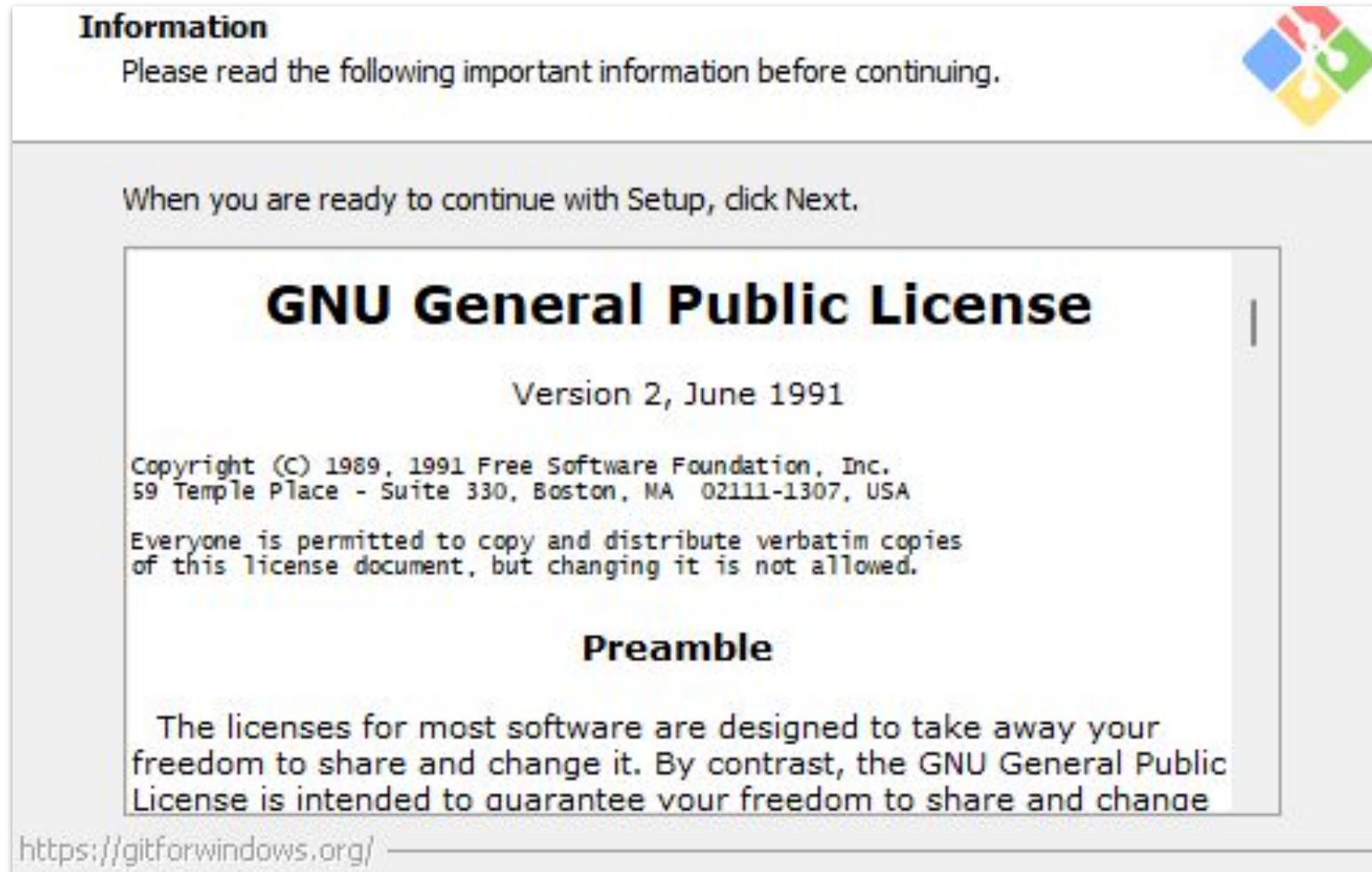
Este livro foi escrito usando a versão 2.0.0 do Git. Embora a maioria dos comandos usados deve funcionar mesmo em versões antigas do Git, alguns deles podem não funcionar, ou podem agir de forma ligeiramente diferente se você estiver usando uma versão mais antiga. Como o Git é excelente para preservar compatibilidade com versões anteriores, qualquer versão após 2.0 deve funcionar muito bem.

Instalando no Linux

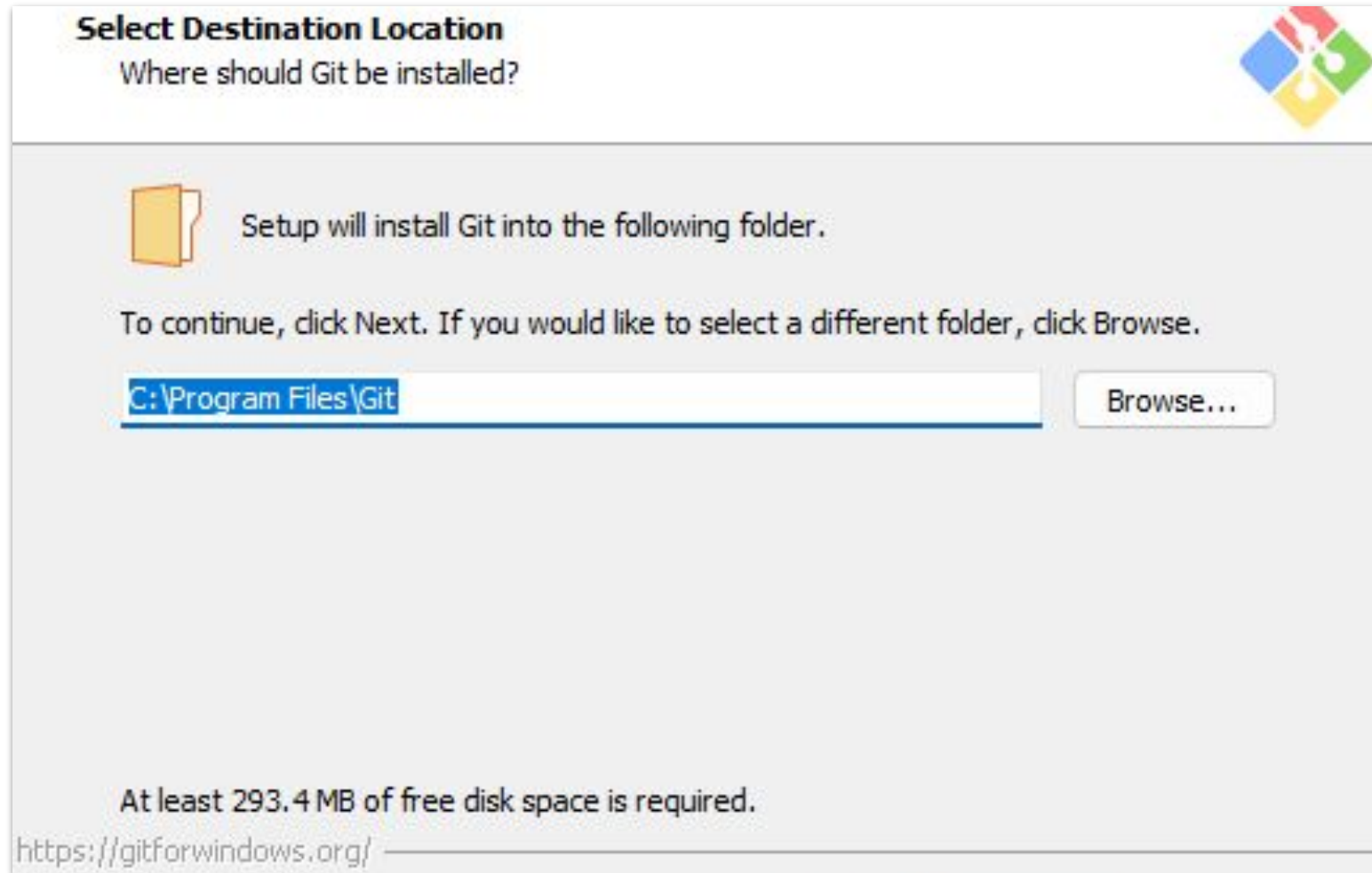
Se você deseja instalar o Git no Linux através de um instalador binário, você pode geralmente fazê-lo através da ferramenta básica de gerenciamento de pacotes que vem com sua distribuição. Se você usar Fedora por exemplo, você pode usar o yum:

```
$ sudo yum install git-all
```

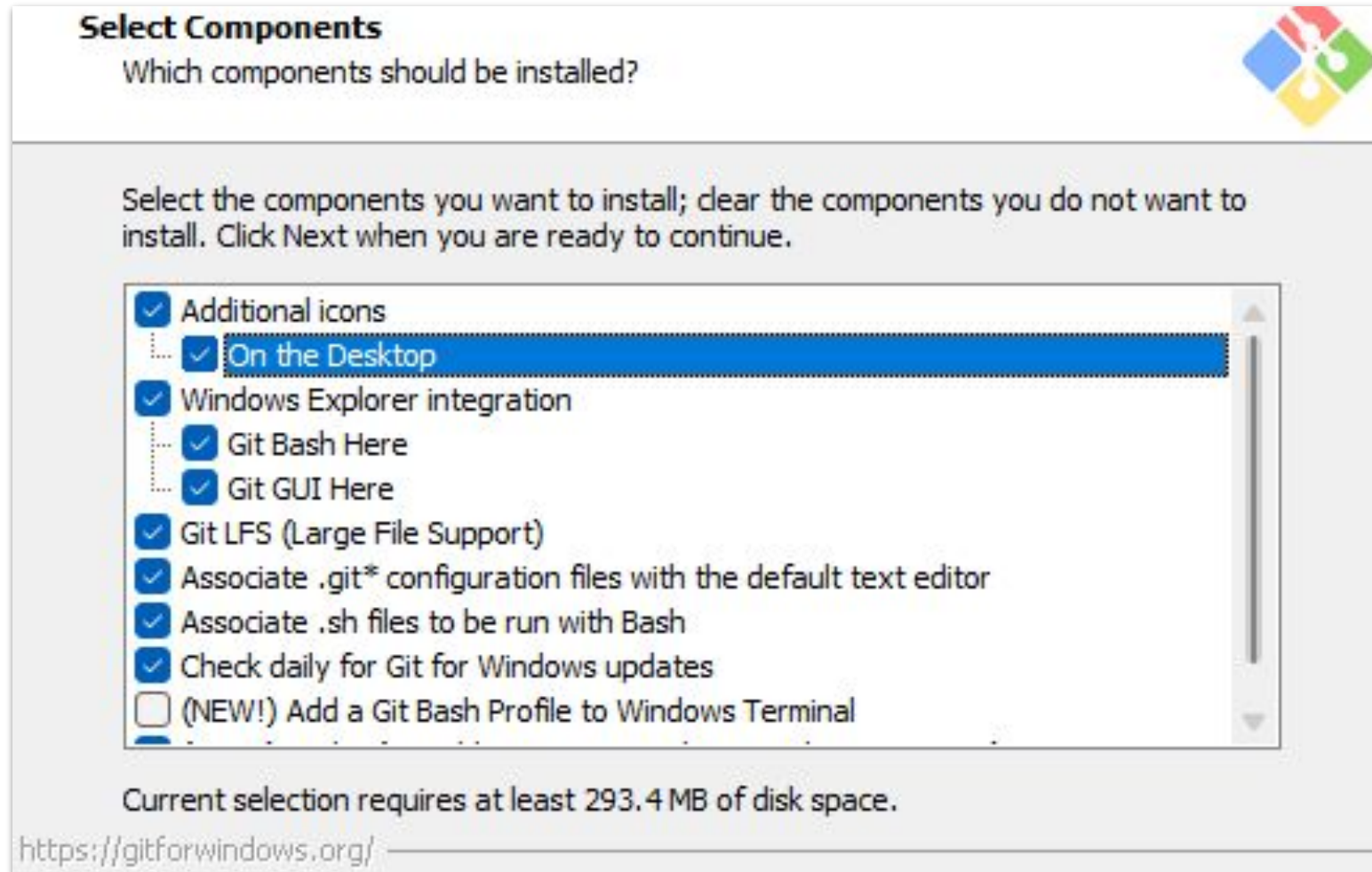
Instalação do Git no Windows



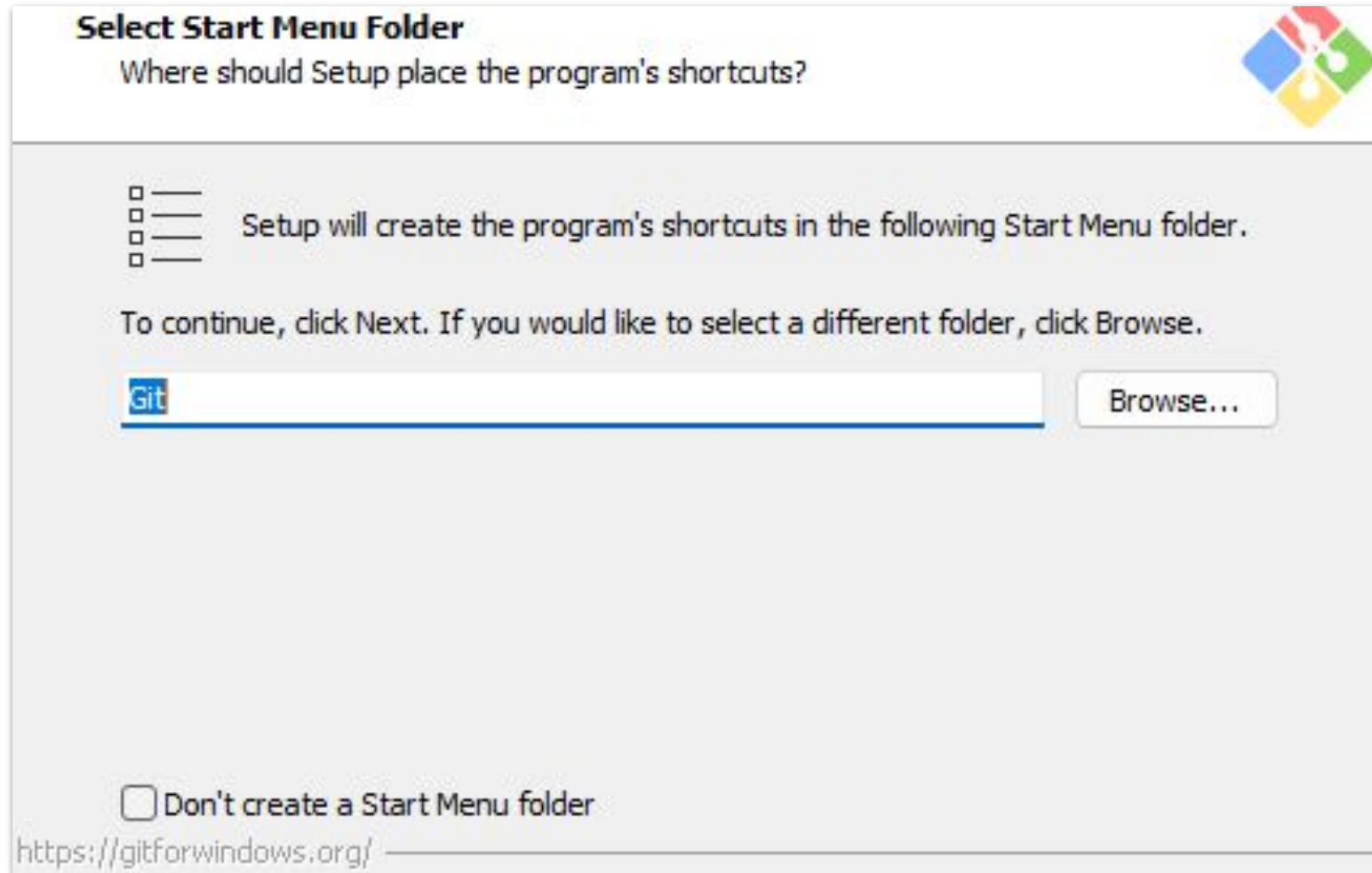
Instalação do Git no Windows



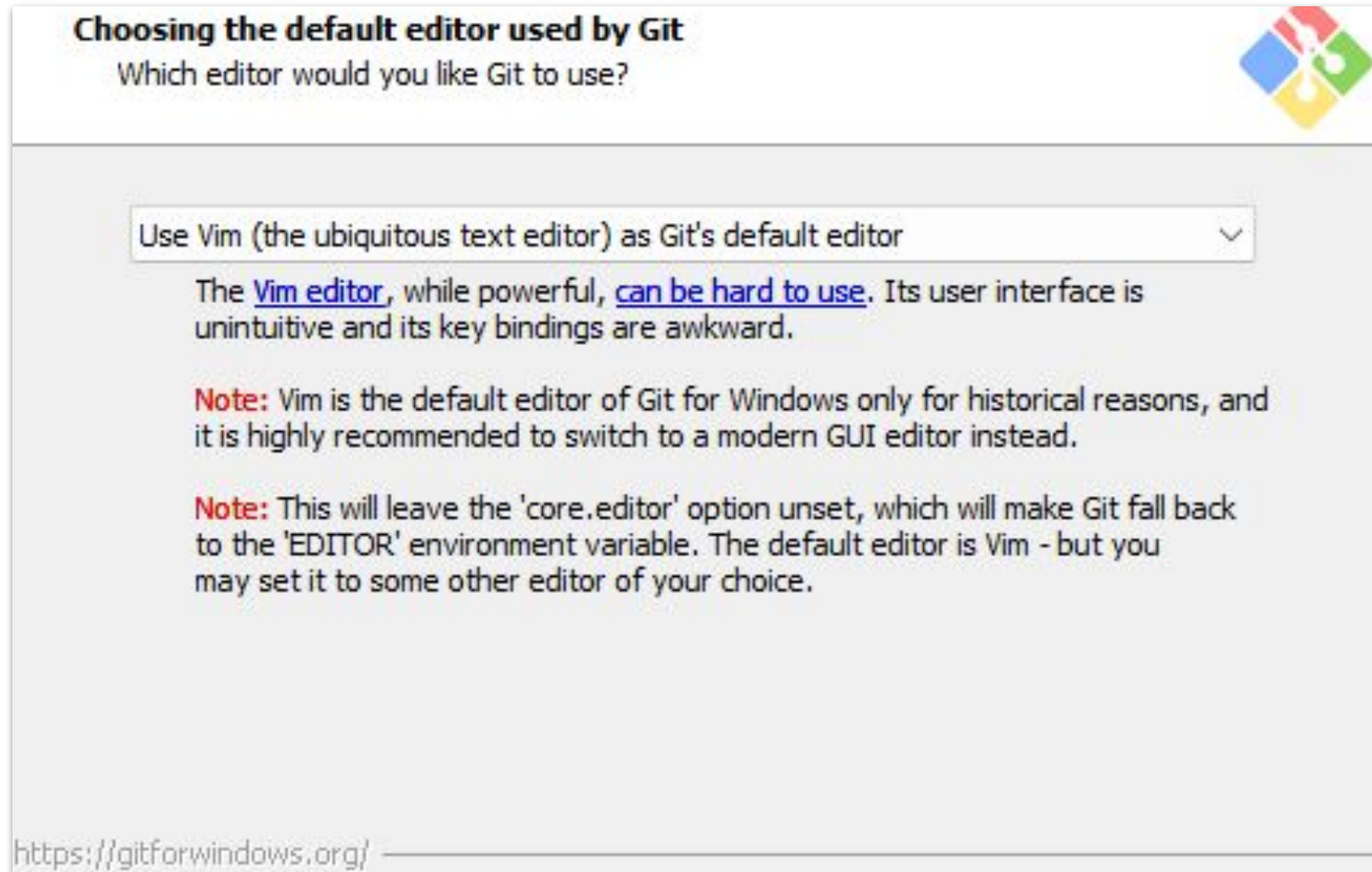
Instalação do Git no Windows



Instalação do Git no Windows




Instalação do Git no Windows



Instalação do Git no Windows

Adjusting the name of the initial branch in new repositories

What would you like Git to name the initial branch after "git init"?



☐ **Let Git decide**

Let Git use its default branch name (currently: "master") for the initial branch in newly created repositories. The Git project [intends](#) to change this default to a more inclusive name in the near future.


☒ **Override the default branch name for new repositories**

NEW! Many teams already renamed their default branches; common choices are "main", "trunk" and "development". Specify the name "git init" should use for the initial branch:

This setting does not affect existing repositories.

<https://gitforwindows.org/>

Instalação do Git no Windows

Adjusting your PATH environment

How would you like to use Git from the command line?

☐ **Use Git from Git Bash only**

This is the most cautious choice as your PATH will not be modified at all. You will only be able to use the Git command line tools from Git Bash.

☒ **Git from the command line and also from 3rd-party software**

(Recommended) This option adds only some minimal Git wrappers to your PATH to avoid cluttering your environment with optional Unix tools. You will be able to use Git from Git Bash, the Command Prompt and the Windows PowerShell as well as any third-party software looking for Git in PATH.

☐ **Use Git and optional Unix tools from the Command Prompt**

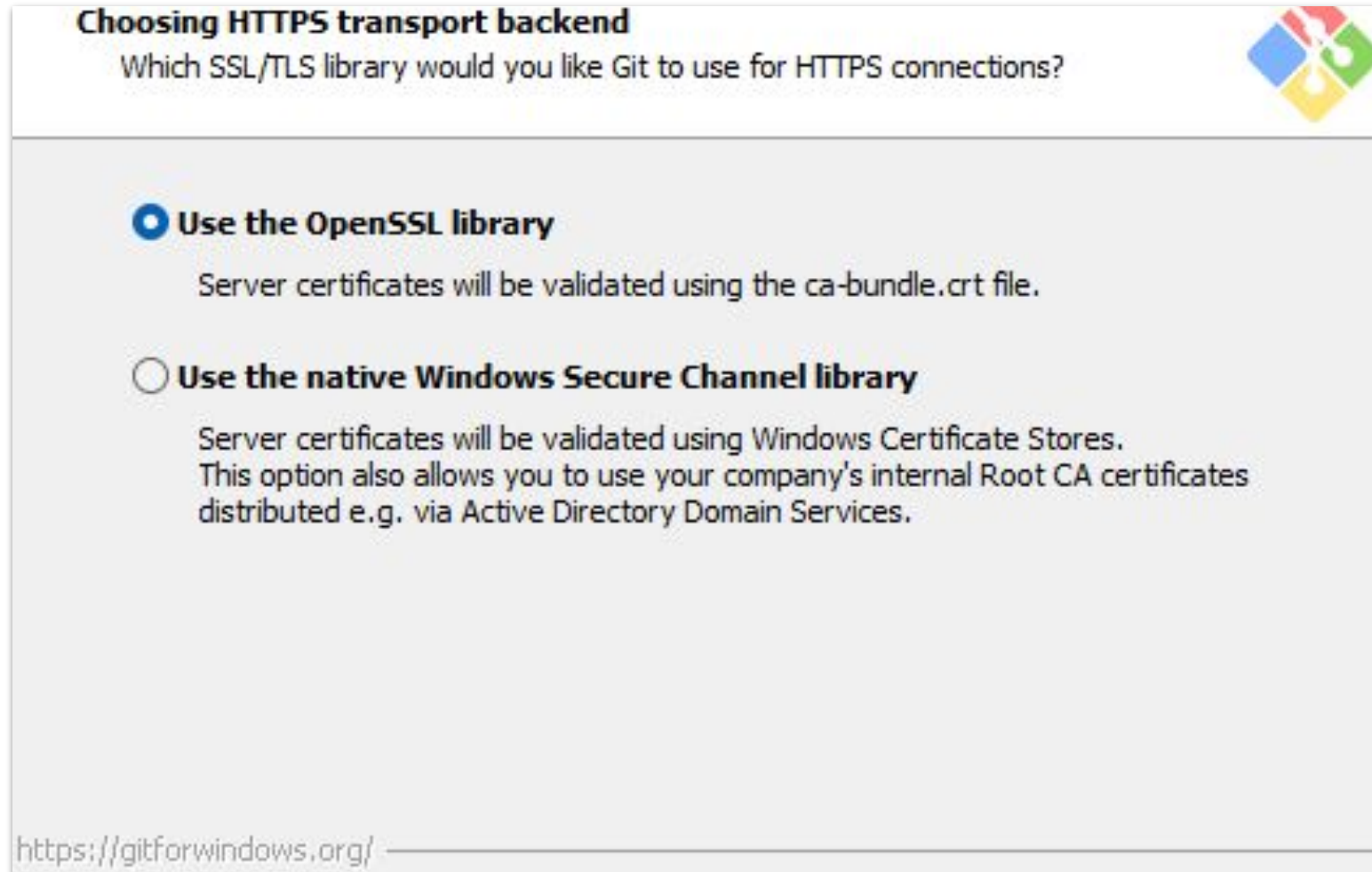
Both Git and the optional Unix tools will be added to your PATH.
Warning: This will override Windows tools like "find" and "sort". Only use this option if you understand the implications.

<https://gitforwindows.org/>

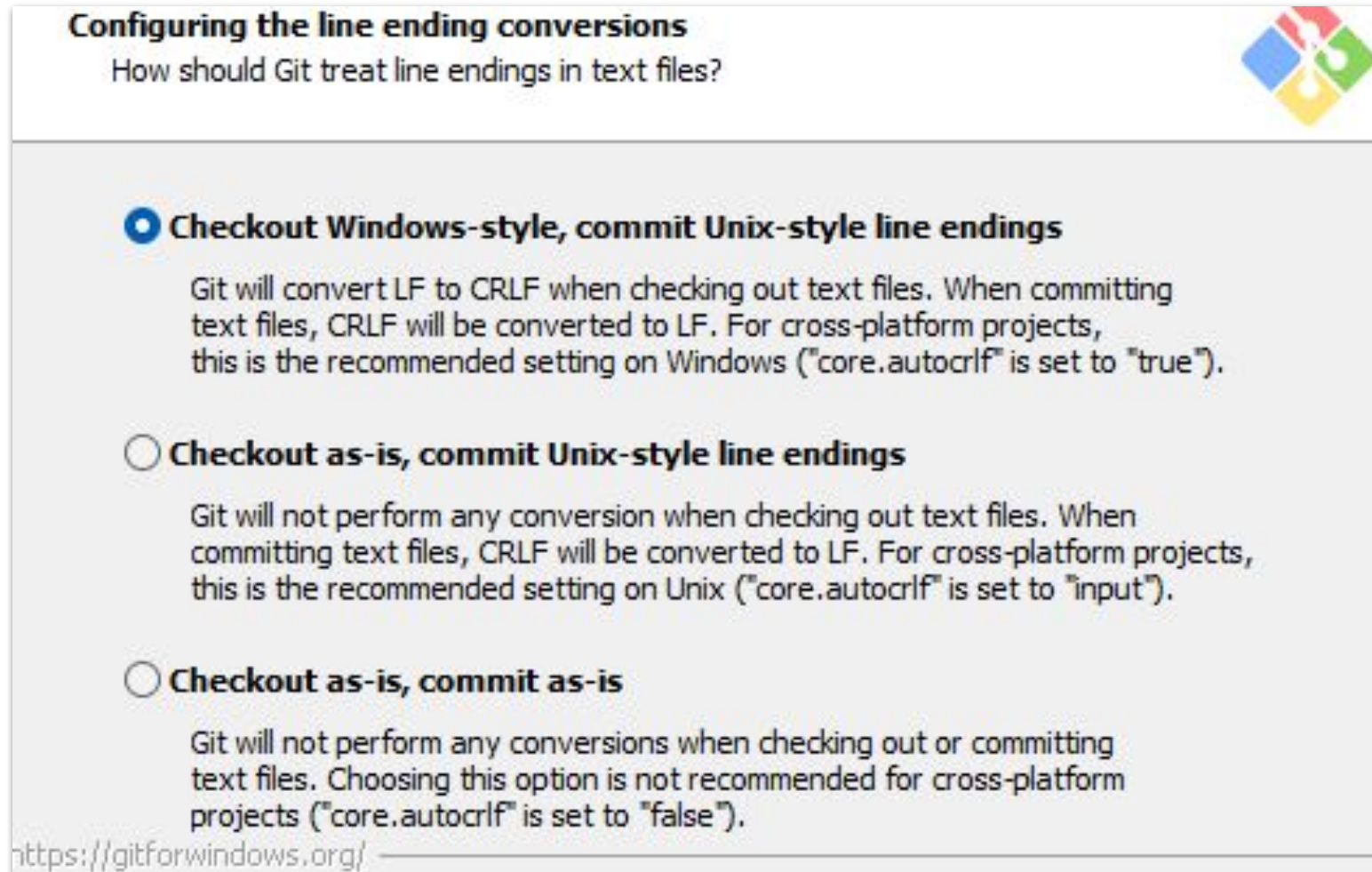
Instalação do Git no Windows



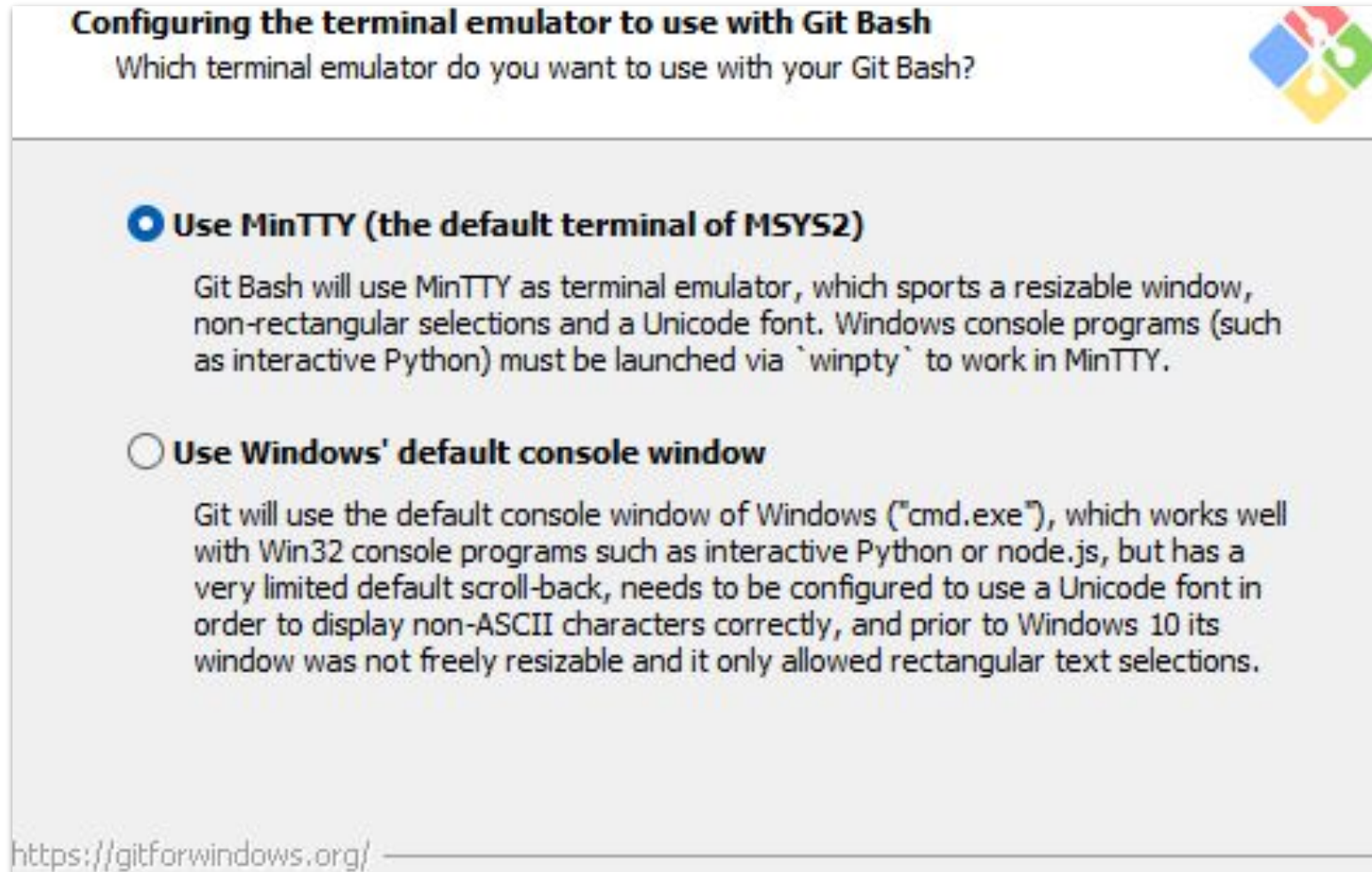
Instalação do Git no Windows



Instalação do Git no Windows




Instalação do Git no Windows



Instalação do Git no Windows

Choose the default behavior of ``git pull``
What should ``git pull`` do by default?



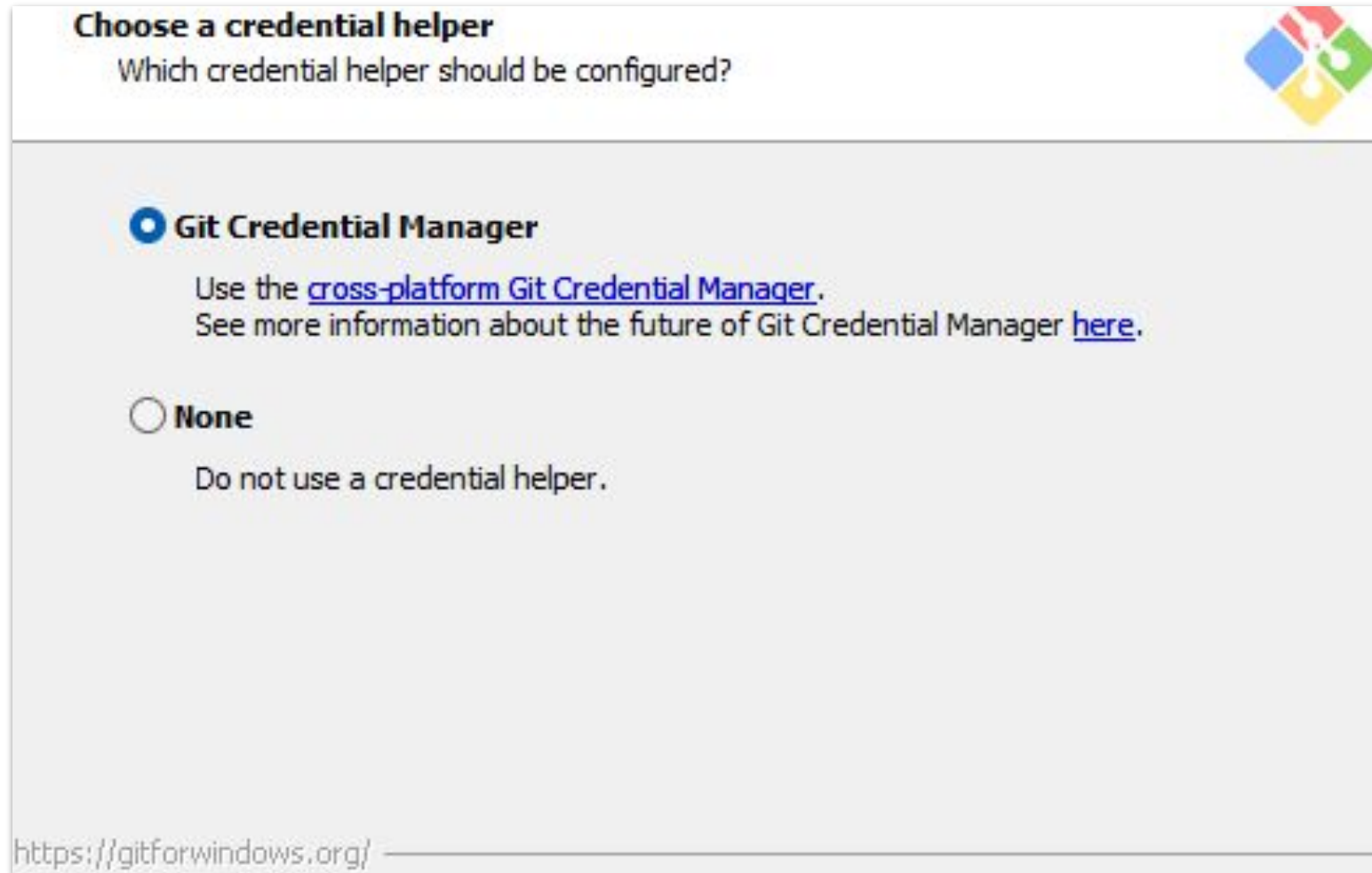
☒ **Default (fast-forward or merge)**
This is the standard behavior of ``git pull``: fast-forward the current branch to the fetched branch when possible, otherwise create a merge commit.

☐ **Rebase**
Rebase the current branch onto the fetched branch. If there are no local commits to rebase, this is equivalent to a fast-forward.

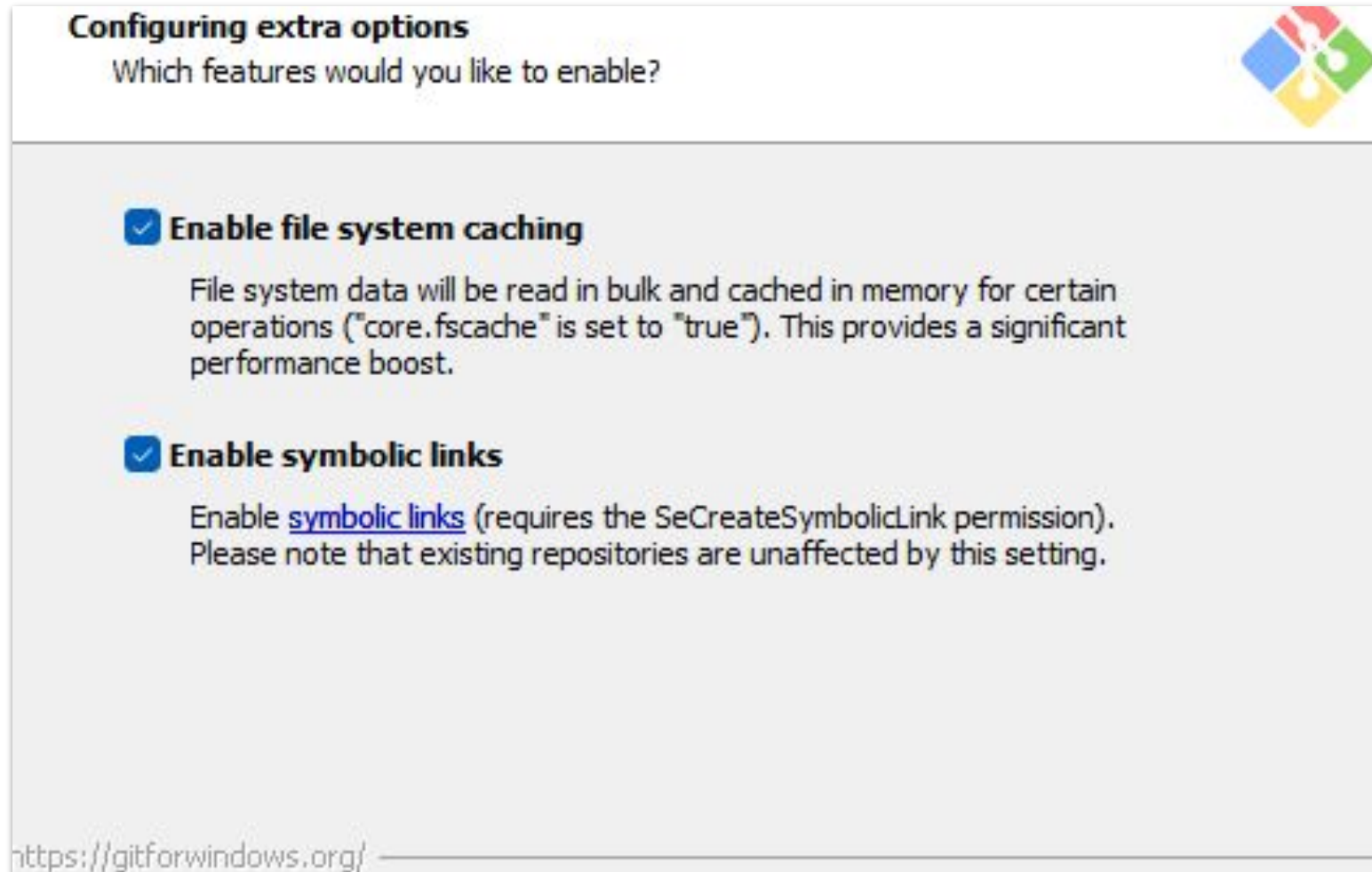
☐ **Only ever fast-forward**
Fast-forward to the fetched branch. Fail if that is not possible.

<https://gitforwindows.org/>

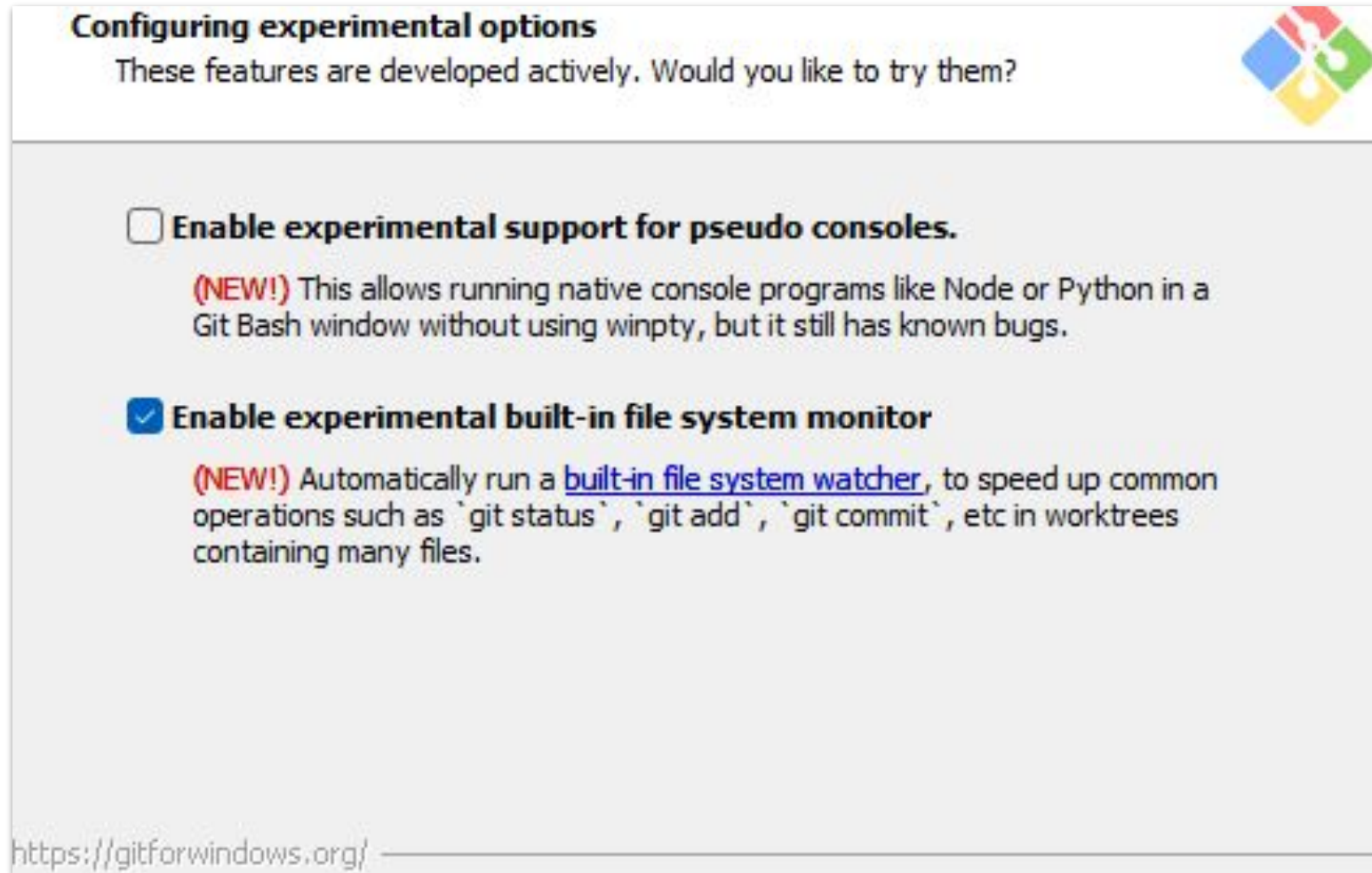
Instalação do Git no Windows



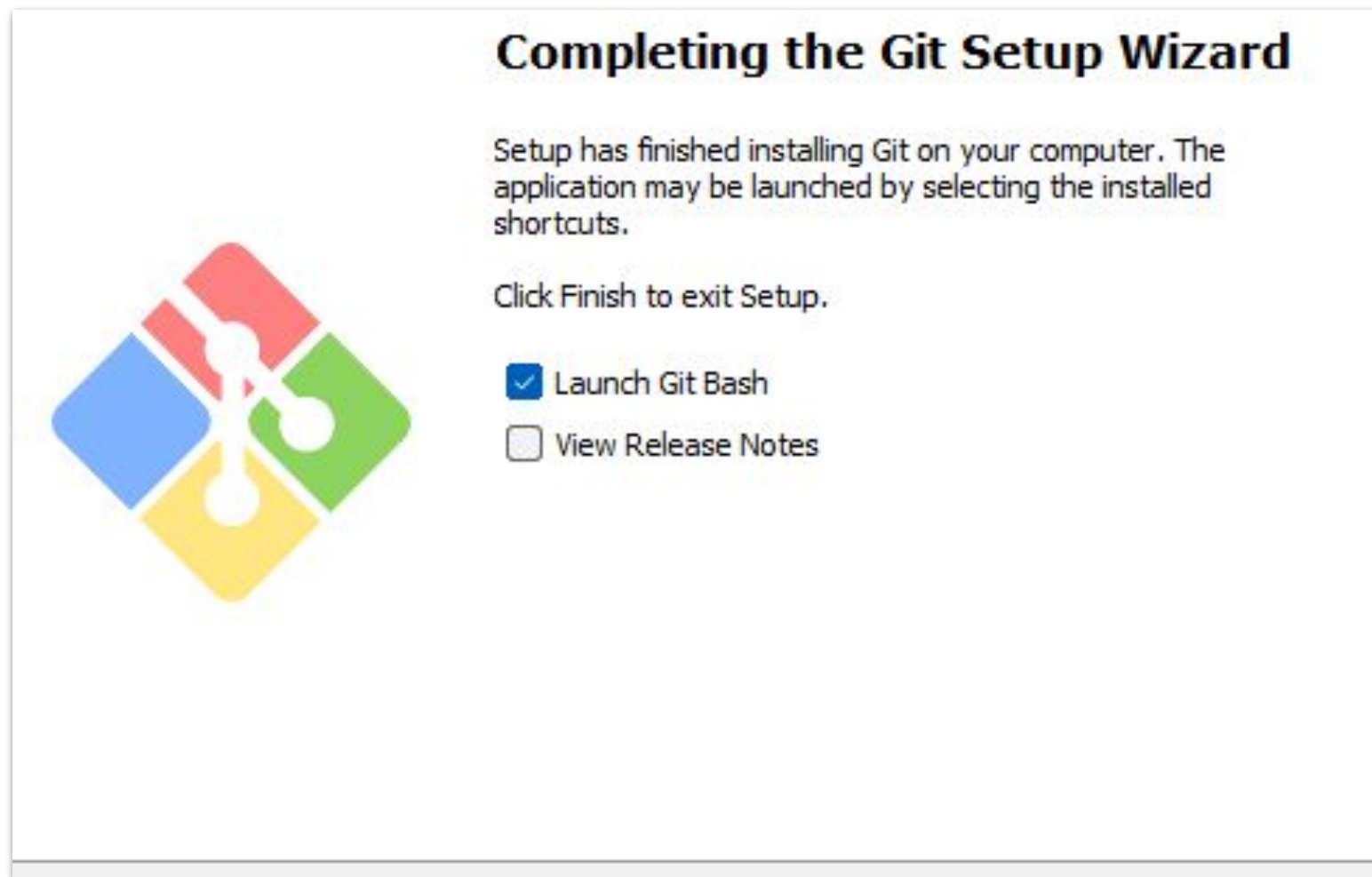
Instalação do Git no Windows



Instalação do Git no Windows



Instalação do Git no Windows



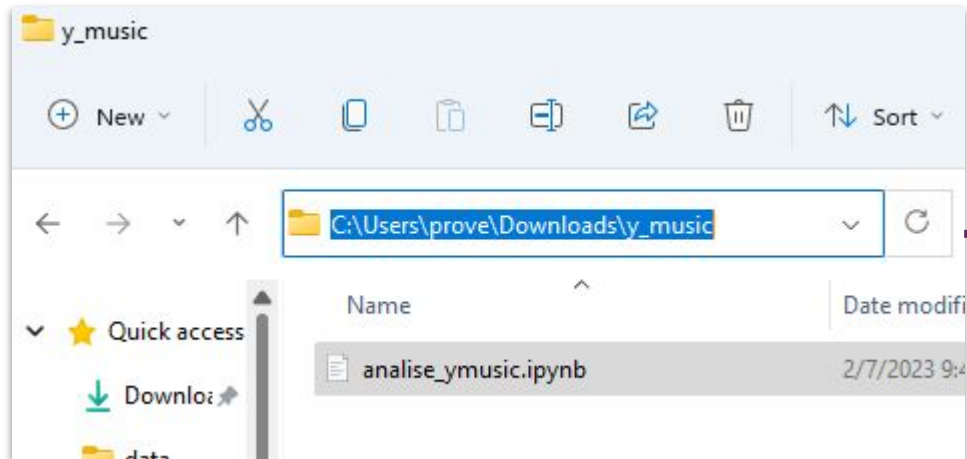
Git Bash

A screenshot of a Git Bash terminal window. The window's title bar shows 'MINGW64:/c/Users/prove'. The terminal has a black background with green text. The prompt 'prove@coutinho' is followed by 'MINGW64' in purple and a tilde '~' in yellow. Below this, a white dollar sign '\$' indicates the command prompt.

```
MINGW64:/c/Users/prove  
prove@coutinho MINGW64 ~  
$
```

Após instalação do Git, vamos preparar o ambiente

1. Criar pasta com nome do projeto e colocar arquivo notebook dentro da pasta



1. Abrir Git Bash
2. Entrar na pasta do projeto com comando "cd"
3. Verificar se arquivos da pasta do projeto aparecem após comando "ls"


```
MINGW64:/c:/Users/prove/Downloads/y_music

prove@coutinho MINGW64 ~
$ cd "C:\Users\prove\Downloads\y_music"

prove@coutinho MINGW64 ~/Downloads/y_music
$ ls
analise_ymusic.ipynb
```

Configurar credenciais do GitHub no Git

git config --global user.email "seu email cadastrado no Github"
git config --global user.name "seu usuário cadastrado no Github"



```
prove@coutinho MINGW64 ~/Downloads/y_music  
$ git config --global user.email "felipeprovezano@gmail.com"  
  
prove@coutinho MINGW64 ~/Downloads/y_music  
$ git config --global user.name "dataunicornbr"
```

E finalmente, executar os comandos (em ordem)

...or create a new repository on the command line

```
echo "# ymusic" >> README.md  
git init  
git add README.md  
git commit -m "first commit"  
git branch -M main  
git remote add origin https://github.com/dataunicornbr/ymusic.git  
git push -u origin main
```

Conectar ao GitHub

Connect to GitHub

GitHub

Sign in

Browser/Device

Token

Sign in with your browser

Sign in with a code

Don't have an account? [Sign Up](#)

Device code authentication

GitHub


Device authentication

Visit the URL below, sign in, and enter the following device code to continue.

31C6-EAA0

<https://github.com/login/device>

Conectar ao GitHub



Device Activation

Enter the code displayed on your device

3

1

C

6

-

E




A

A

0


Continue

GitHub staff will never ask you to enter your code on this page.



Authorize Git Credential Manager

⚠ This authorization was requested from Cotia 189.47.37.121 on February 7th, 2023 at 22:37 (-03)
Make sure you trust this device as it will get access to your account.



Git Credential Manager by [Git Credential Manager](#)
wants to access your [dataunicombr](#) account

Existing access

- ✓ Create gists
- ✓ Full control of private repositories
- ✓ Update github action workflows

Cancel

Authorize
GitCredentialManager

Requested from Cotia 189.47.37.121 on February 7th, 2023 at 22:37 (-03)

Enviando arquivo "README" ao GitHub

```
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 226 bytes | 2
Total 3 (delta 0), reused 0 (delta 0), pac
To https://github.com/dataunicornbr/ymusic
* [new branch]      main -> main
branch 'main' set up to track 'origin/main'
```



Congratulations, you're all set!

Your device is now connected.

dataunicornbr / ymusic Public Pin Unwatch 1

<> Code Issues Pull requests Actions Projects Wiki Security

main 1 branch 0 tags Go to file Add file <> Code

dataunicornbr first commit c876453 8 minutes ago 1 commit

README.md first commit 8 minutes ago

Cadê o notebook (arquivo ipynb)?

...or create a new repository on the command line

```
git add README.md  
git commit -m "first commit"
```

Só adicionamos o README.md.
Precisamos adicionar o notebook.

```
git push -u origin main
```

Devemos mudar o comentário.

Não precisamos de todos os comandos...

Adicionando um novo arquivo

...or create a new repository on the command line

```
git add README.md  
git commit -m "first commit"
```

Só adicionamos o README.md. Precisamos adicionar o notebook.

```
git push -u origin main
```

Devemos mudar o comentário.

Não precisamos de todos os comandos...

1. `git add analyse_ymusic.ipynb`
2. `git commit -m "primeira versão do notebook de análise"`
3. `git push -u origin main`

Sua rotina trabalhando neste projeto

```
prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   analise_ymusic.ipynb

no changes added to commit (use "git add" and/or "git commit")
```

```
prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git add analise_ymusic.ipynb
warning: in the working copy of 'analise_ymusic.ipynb'
there were line endings CRLF. Git will now automatically convert them to LF
by CRLF the next time Git touches it

prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git commit -m "mudei o título do notebook"
[main 8ecddd4] mudei o título do notebook
1 file changed, 1 insertion(+), 1 deletion(-)

prove@coutinho MINGW64 ~/Downloads/y_music (main)
$ git push -u origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 353.00 KiB, 0.00 MiB/s
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 delta
To https://github.com/dataunicornbr/ymusic.git
   fb0a3a5..8ecddd4  main -> main
branch 'main' set up to track 'origin/main'.
```

E se eu quiser me aprofundar em Git e GitHub?

Documentation

Reference



Reference Manual

The official and comprehensive **man pages** that are included in the Git package itself.



Quick reference guides: [GitHub Cheat Sheet](#) | [Visual Git Cheat Sheet](#)

Book



Pro Git

The entire **Pro Git book** written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Videos



[What is Version Control?](#)

Length: 05:59



[What is Git?](#)

Length: 08:15



[Get Going with Git](#)

Length: 04:26



[Quick Wins with Git](#)

Length: 05:06

[See all videos →](#)

A decorative network graph in the bottom-left corner, consisting of numerous small black dots connected by thin, light gray lines, forming a complex, organic web-like structure.Four thick, curved purple lines in the top-right corner, arranged in a semi-circular pattern.

Git e GitHub

Felipe P. Coutinho

A solid blue circle in the bottom-right corner.