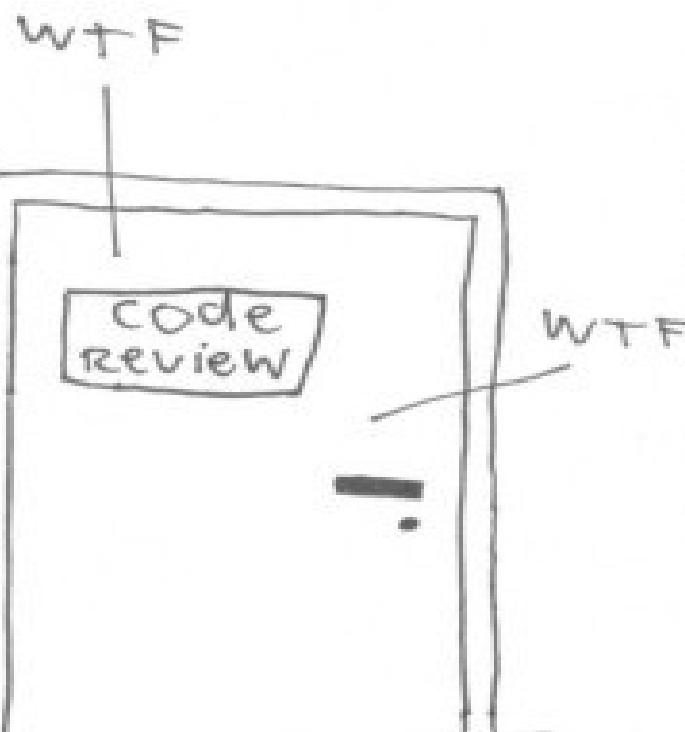


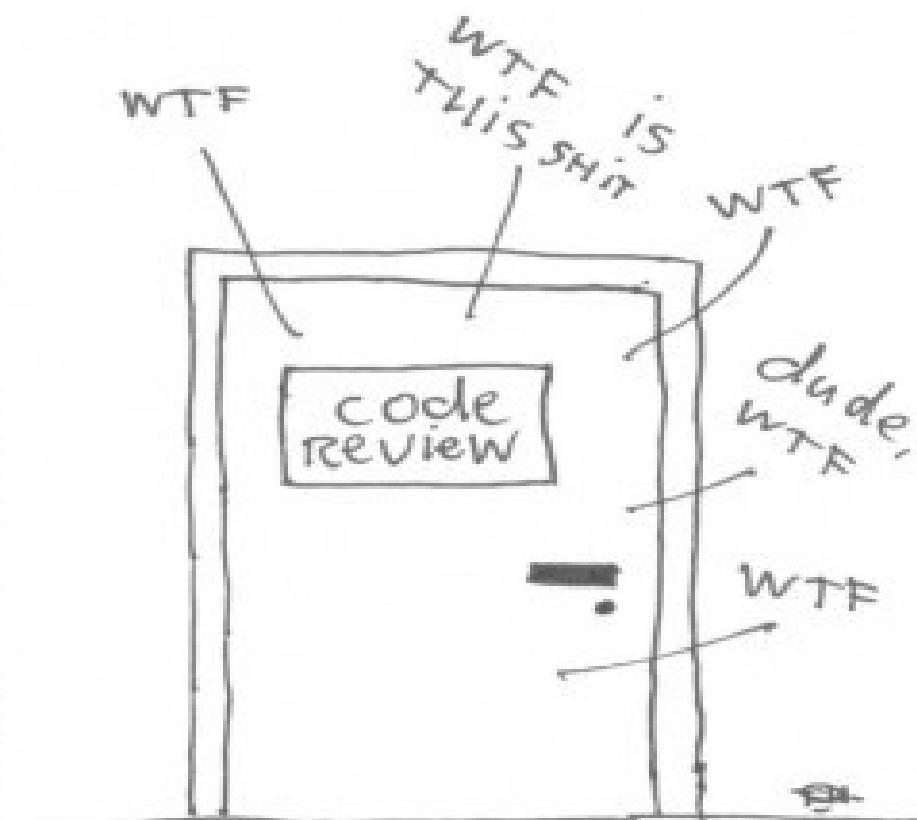
# Revisão de Código

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Engenharia de Software

# The ONLY valid measurement of Code QUALITY: WTFs/minute



Good code.



Bad code.

# ■ Revisão de Código

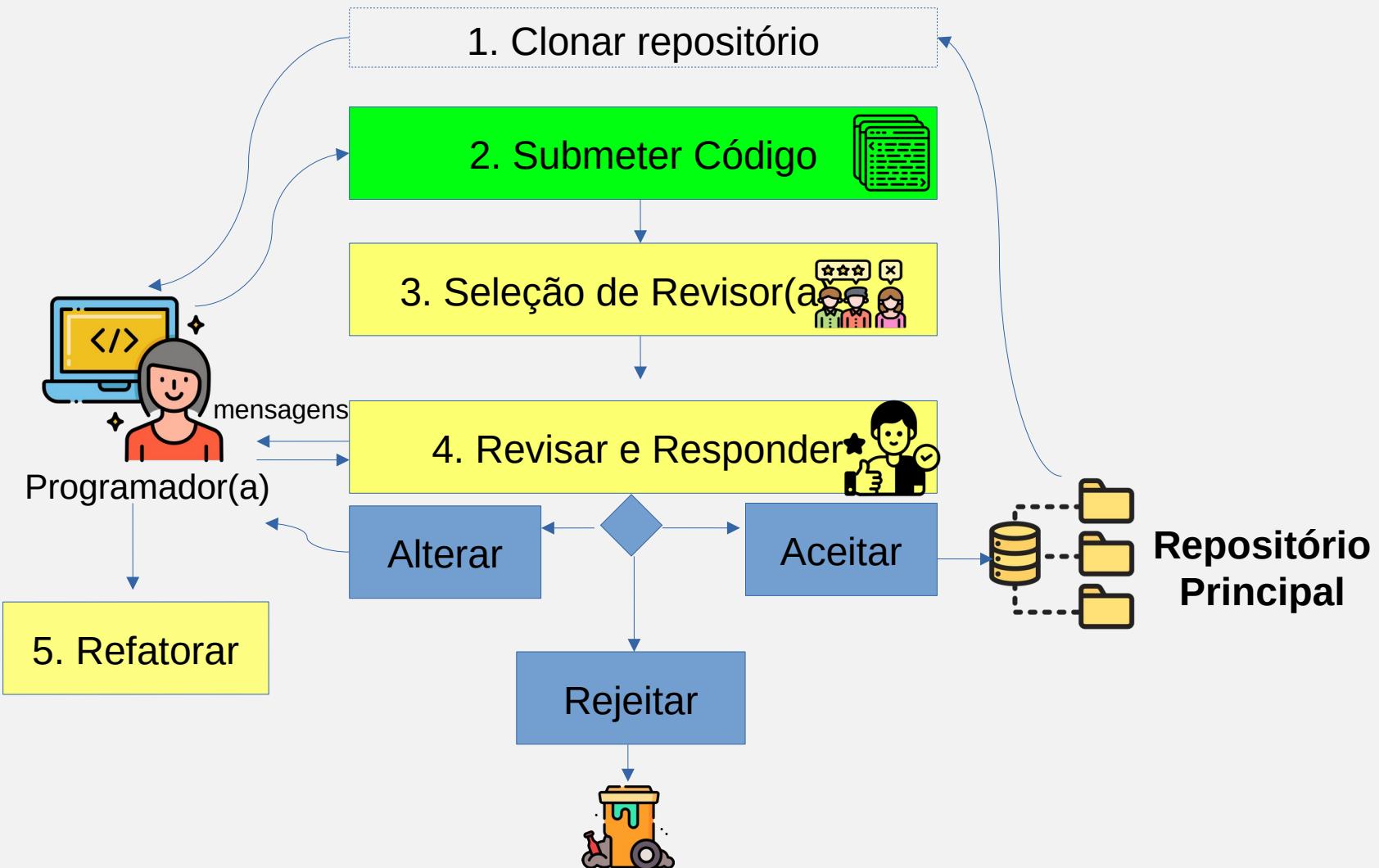
Técnica para melhorar a qualidade do código com uma crítica cuidadosa linha por linha

- Cada alteração simples feita no código base do projeto é revisada por outro desenvolvedor
- Exemplos: consertar um defeito, incluir nova funcionalidade, refatorar, etc.

# ■ Revisão de Código

- Benefícios:
  - Reduzir **defeitos** do código
  - **Aprender** com outros desenvolvedores
  - Transferir **conhecimento** para a equipe
  - Aumentar a **produtividade**

# Processo de Revisão de Código



# Passos para Revisão de Código

- **1) O que o código faz?**
  - Embasamento sobre o código
  - Para que ele serve
  - Qual o papel dele no projeto
- **2) Perfil de revisor:**
  - Experiência com o código e a linguagem
  - Experiência do autor
  - Relacionamento com o autor

# Passos para Revisão de Código

- **3) Testar o código**
  - O código gera erros ou warnings?
- **4) Inspecionar o código**
  - Convenções (nomes, linguagem)
  - Segue o princípio DRY?
  - Há tratamento de erros?
  - Segue o estilo de código do projeto?

# Passos para Revisão de Código

- **5) Escrever a revisão**
  - ser específico e descriptivo
  - Respeitar o autor
  - Cuidar com escolhas pessoais e pormenores de pouco impacto
  - Esteja aberto para discussões com o objetivo de melhorar o projeto

# O que é Open Source?

- Software Open-source é um projeto disponível para ser usado, redistribuído e modificado livremente
- Eles encorajam um processo transparente de evolução por meio de revisões por pares distribuídas
- Para saber mais sobre Open source, visite o tutorial: "[An Introduction to Open Source](#)"

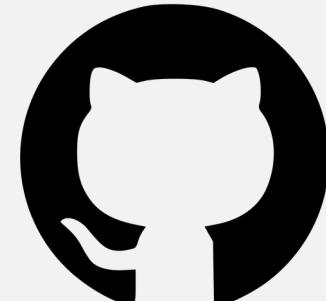
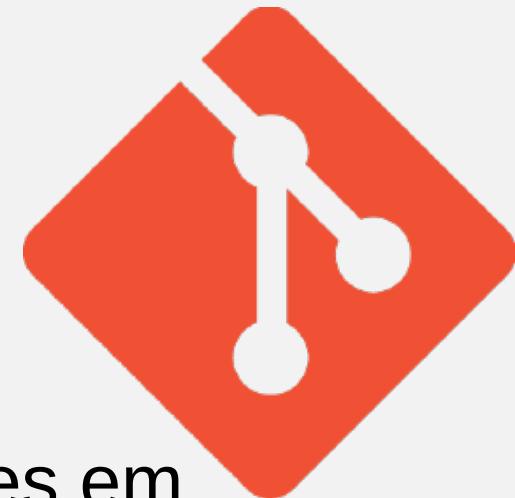
# Sistema de Controle de Versão

- Um sistema de controle de versão serve como um programa de "salvamento" de código, onde ele atribui uma "versão" a um projeto e rastreia as alterações feitas ao longo do tempo em cada arquivo do projeto.



# O que é Git e GitHub?

- Git:
- CVS para gerenciar e rastrear alterações em projetos de software, permitindo a colaboração entre múltiplos desenvolvedores de forma eficiente
- GitHub: O GitHub é um serviço de hospedagem de repositórios Git baseado em nuvem que permite que os desenvolvedores peguem o código que escreveram em suas máquinas locais e o compartilhem com o mundo.



# Criando um Pull Request (PR)

- É utilizado para contribuirmos para um projeto:
  - Código
  - Documentação
  - Design
  - Perguntas e respostas
  - Organização do projeto

# Configurando o Branch (Settings)

The screenshot shows the GitHub repository settings for 'paulorfarah2 / teste'. The 'Settings' tab is highlighted with a red circle. On the left sidebar, the 'Branches' section is also circled in red. The main content area shows the 'Rulesets / Revisar código' configuration, which is active. It includes fields for 'Ruleset Name' (set to 'Revisar código'), 'Enforcement status' (set to 'Active'), and a 'Rules' section. The 'Branch rules' section contains several checkboxes, with 'Restrict deletions' and 'Require a pull request before merging' checked and circled in red. The 'Required approvals' section at the bottom also has a checkbox circled in red.

General

Access

Collaborators

Moderation options

Code and automation

Branches

Secrets and variables

Integrations

GitHub Apps

Email notifications

Rulesets / Revisar código (Active)

Ruleset Name \*

Revisar código

Enforcement status

Active

Rules

Which rules should be applied?

Branch rules

Restrict creations  
Only allow users with bypass permission to create matching refs.

Restrict updates  
Only allow users with bypass permission to update matching refs.

Restrict deletions  
Only allow users with bypass permissions to delete matching refs.

Require linear history  
Prevent merge commits from being pushed to matching refs.

Require deployments to succeed  
Choose which environments must be successfully deployed to before refs can be pushed into a ref that matches this rule.

Require signed commits  
Commits pushed to matching refs must have verified signatures.

Require a pull request before merging  
Require all commits be made to a non-target branch and submitted via a pull request before they can be merged.

Hide additional settings ^

Required approvals

1

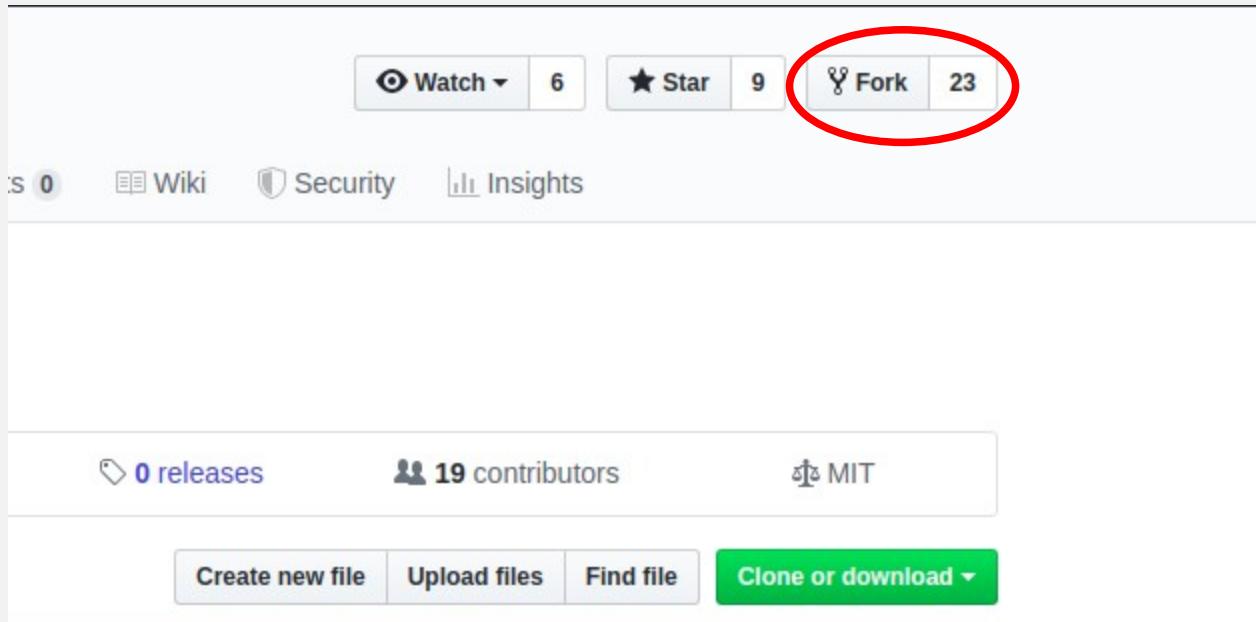
The number of approving reviews that are required before a pull request can be merged.

Dismiss stale pull request approvals when new commits are pushed  
New, reviewable commits pushed will dismiss previous pull request review approvals.

Require review from Code Owners  
Require an approving review in pull requests that modify files that have a designated code owner.

# Criando um Pull Request (PR)

- 1) Copiar o repositório (Fork)



- 2) Clonar o repositório copiado
  - `git clone [link do github]`

# Criando um Pull Request (PR)

- 3) Criar uma branch
- `git checkout -b [nome da branch]`
- 4) Alterar e comitar as mudanças
  - `git status`
  - `git add .`
  - `git commit -m "Descrição"`
- 5) Enviar mudanças para o GitHub
  - `git remote`
  - `git push origin [nome da branch]`

# Revisão de Código

o readme foi alterado para testar a revisão de código #2

The screenshot shows a GitHub pull request interface. A red number '1' highlights the 'Files changed' button in the top navigation bar. A red number '2' highlights the fourth line of code in the diff view, which contains the text '+ agora vamos te tar a revisão de código'. A red number '3' highlights the 'commentário da revisão de código do revisor.' text area in the review comment editor. A red number '4' highlights the 'Start a review' button at the bottom right of the editor.

1 Open paulorfarah2 wants to merge 1 commit into paulorfarah:main from paulorfarah2:development

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

Changes from all commits ▾ File filter ▾ Conversations ▾ Jump to ▾ Review in codespace Review changes

1 README.md

... ... @@ -1,3 +1,4 @@

1 # Projeto para Teste de Revisão de Código

2

3

4 + agora vamos te tar a revisão de código

Write Preview

comentário da revisão de código do revisor.

Attach files by dragging & dropping, selecting or pasting them.

Cancel Add single comment Start a review

# Criando um Pull Request (PR)

- 6) Criar pull request

The screenshot shows a GitHub repository interface. At the top, there is a navigation bar with links: Code, Pull requests (which is highlighted with a red oval), Actions, Projects, Wiki, Security, Insights, and three dots. Below the navigation bar, a yellow banner displays a message: "development had recent pushes 21 minutes ago". To the right of the banner is a green button labeled "Compare & pull request", also highlighted with a red oval. Below the banner, there are search and filter options: "Filters is:pr is:open", "Labels 9", "Milestones 0", and a green "New pull request" button. At the bottom left, there are counts for open and closed pull requests: "0 Open" and "0 Closed".

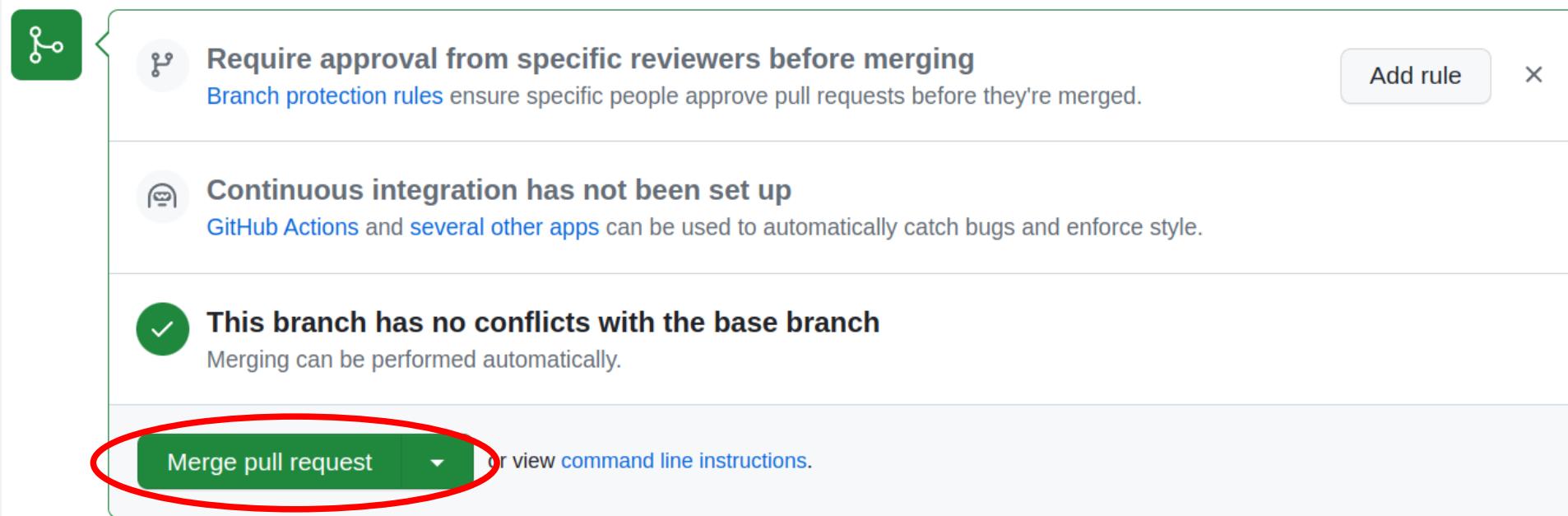
# Criando um Pull Request (PR)

- 7) O projeto original mescla a PR

The screenshot shows a GitHub interface for managing pull requests. At the top, there's a navigation bar with links for Code, Pull requests (which has a red oval around it), Actions, Projects, Wiki, Security, Insights, and more. Below the navigation bar are filters for Labels (9) and Milestones (0), and a green button for creating a new pull request. The main area displays a summary: 1 Open pull request and 0 Closed pull requests. A search bar contains the query "is:pr is:open". The pull request list itself has a header with sorting options: Author, Label, Projects, Milestones, Reviews, Assignee, and Sort. One specific pull request is highlighted with a red oval: it has a green icon and the label "Development". The details for this PR show it was opened 15 minutes ago by the user paulorfarah2.

# Criando um Pull Request (PR)

- 7) O projeto original mescla a PR



A screenshot of a GitHub pull request merge status page. At the top left is a green icon with a gear and circular arrows. To its right is a section titled "Require approval from specific reviewers before merging" with a "Branch protection rules" link and "Add rule" and "X" buttons. Below this is a section titled "Continuous integration has not been set up" with a "GitHub Actions" and "several other apps" link. The third section, "This branch has no conflicts with the base branch", has a green checkmark icon and a "Merging can be performed automatically." message. At the bottom is a green button labeled "Merge pull request" with a dropdown arrow, and text "or view command line instructions." A red oval highlights the "Merge pull request" button.

Require approval from specific reviewers before merging

Branch protection rules ensure specific people approve pull requests before they're merged.

Add rule X

Continuous integration has not been set up

GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request ▾ or view command line instructions.

# Criando um Pull Request (PR)

## Development #1

Merged paulorfarah merged 2 commits into paulorfarah:main from paulorfarah2:development 1 minute ago

Conversation 0

Commits 2

Checks 0

Files changed 1



paulorfarah2 commented 32 minutes ago

Contributor ...

O readme foi alterado como exemplo de pull request.



↑ paulorfarah and others added 2 commits 1 hour ago

-o alterado readme

788d40f

-o o readme foi alterado

96c0574

→ paulorfarah merged commit 74b2b76 into paulorfarah:main 1 minute ago

Revert

# Revisão de Código

The screenshot shows a GitHub code review interface for a file named README.md. The file contains the following content:

```
@@ -1,3 +1,4 @@
1 # Projeto para Teste de Revisão de Código
2
3 3 + ## teste2
```

Annotations are as follows:

- Annotation 1: A red circle highlights the first line of the code, which contains a commit message.
- Annotation 2: A red circle highlights the "Write" tab in the editor interface.
- Annotation 3: A red circle highlights the "Add review comment" button at the bottom of the editor.
- Annotation 4: A large red number 4 is placed in the top right corner of the interface, and a red oval highlights the "Finish your review" button in the top right corner of the main header area.

At the bottom of the interface, there is a green bar with the text "4 + agora vamos testar a revisão de código". Below this, a comment from user "paulorfarah" is shown with the status "Pending".

# Revisão de Código

<https://docs.github.com/pt/pull-requests/collaborating-with-pull-requests/reviewing-changes-in-pull-requests/reviewing-proposed-changes-in-a-pull-request>

# Exibir Revisão de Código

<https://docs.github.com/pt/pull-requests/collaborating-with-pull-requests/reviewing-changes-in-pull-requests/reviewing-proposed-changes-in-a-pull-request>