



# git



Introdução ao Git e GitHub e seus  
conceitos básicos

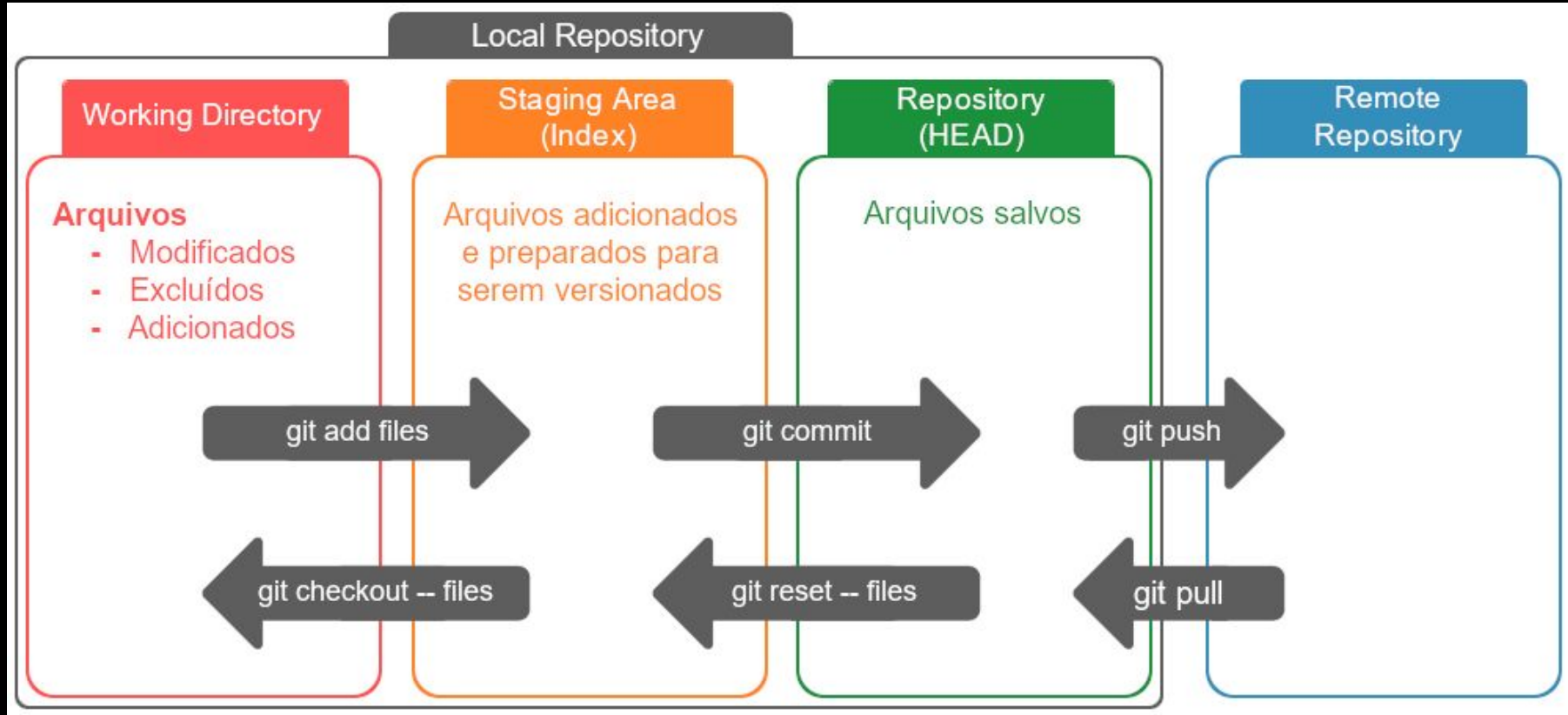
# O que é Git?



O Git é um projeto de código aberto maduro e com manutenção ativa desenvolvido em 2005 por Linus Torvalds, o famoso criador do kernel do sistema operacional Linux.

Ele é um sistema de controle de versão, assim sendo utilizado para a criação de um histórico de alterações em código fonte de projetos de desenvolvimento de software.

# Dicionário Git e GitHub





Working  
Directory

git init



Initialization

git add



Staging Area



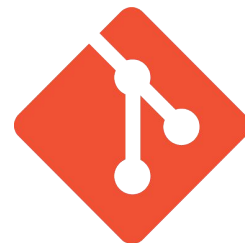
github

git push



Local  
Repository

git commit



## Create a Repository

From scratch -- Create a new local repository

```
$ git init [project name]
```

Download from an existing repository

```
$ git clone my_url
```

## Observe your Repository

List new or modified files not yet committed

```
$ git status
```

Show the changes to files not yet staged

```
$ git diff
```

Show the changes to staged files

```
$ git diff --cached
```

Show all staged and unstaged file changes

```
$ git diff HEAD
```

Show the changes between two commit ids

```
$ git diff commit1 commit2
```

List the change dates and authors for a file

```
$ git blame [file]
```

Show the file changes for a commit id and/or file

```
$ git show [commit]:[file]
```

Show full change history

```
$ git log
```

Show change history for file/directory including diffs

```
$ git log -p [file/directory]
```

## Working with Branches

List all local branches

```
$ git branch
```

List all branches, local and remote

```
$ git branch -av
```

Switch to a branch, my\_branch,  
and update working directory

```
$ git checkout my_branch
```

Create a new branch called new\_branch

```
$ git branch new_branch
```

Delete the branch called my\_branch

```
$ git branch -d my_branch
```

Merge branch\_a into branch\_b

```
$ git checkout branch_b
```

```
$ git merge branch_a
```

Tag the current commit

```
$ git tag my_tag
```

## Make a change

Stages the file, ready for commit

```
$ git add [file]
```

Stage all changed files, ready for commit

```
$ git add .
```

Commit all staged files to versioned history

```
$ git commit -m "commit message"
```

Commit all your tracked files to versioned history

```
$git commit -am "commit message"
```

Unstages file, keeping the file changes

```
$ git reset [file]
```

Revert everything to the last commit

```
$ git reset --hard
```



## Synchronize

Get the latest changes from origin  
(no merge)

```
$ git fetch
```

Fetch the latest changes from origin  
and merge

```
$ git pull
```

Fetch the latest changes from origin  
and rebase

```
$ git pull --rebase
```

Push local changes to the origin

```
$ git push
```

# Finally!

When in doubt, use git help

```
$ git command --help
```

Or visit <https://training.github.com/>  
for official GitHub training.

`git log (pretty-oneline)`

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## 1. Default (less)

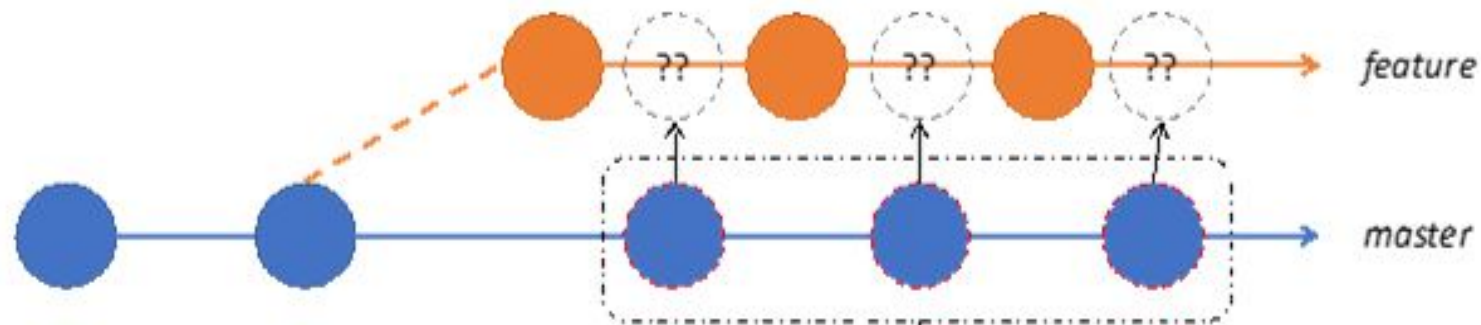
```

qjlee@ABCs-Air ~/Documents/projects/pwa-starter-kit (master)$ git log --pretty=oneline
1c1708eac9dd67ff301159c5b0b462c5ca6ed5f7 (HEAD -> master, origin/master, origin/HEAD) Merge pull request #194 from monkick/put-import-shop-item
8e162466a2320f2b6476c93ef4521071921657aa Add import syntax to import shop-item.js
da792a5275fbb2bc06f0c88dbf31873bf76342d Remove `minimum-scale=1,user-scalable=yes` from viewport <meta> (#186)
b50a93748677c8be0bdcdc5ed71a03747628fc57 Update browser-capabilities and other deps
a6509372e8840c9ac3928d0f6544717e1d9ba544 Merge pull request #184 from Polymer/fix-redux-example
9b6746cc7953679ffff564f494db209e2f3f15a26 regenerate screenshots for the new example
0bc565089f96c36cf6c215ab5f244b2025c2d7eb fix selectors
db7f9b66acd672206bf5e13bafd3756d88d33567 Merge pull request #129 from cacophobe/cart-bubble-change
aa38ded781443be4f126ff8eafbd7e116d5612a3 Merge pull request #178 from abandonrd/update-deps
5e74c25ec2a8a9bd253eae582a866dc729034a8d Remove Node v10 warning
5c6d314ce5ea8368671908bc58c74ea333ce297b Merge pull request #180 from abandonrd/patch-1
6a7b97506cd06b6f9c5b22464baedd9f93139d3b Update setPassiveTouchGestures URL
b77e14eb741a9e524776d587614dba2ffac9f90c Update dependencies
5bf557f92063b401b5f47375cfe1d6506494fd5c Merge branch 'master' into cart-bubble-change
a420ceb5d3e101568dd2b2ab4e8b0a3629d41445 Merge pull request #162 from univhack/master
8555156c495bf7c7f4e2535ce58e130d8e52994f Update index.html
8960cc52702860192157c3fbdc276b1a1073326b Merge pull request #173 from Polymer/server-package-json
c0ba9e22cc05b292775da98b72d0d1d60e84946e Remove redundant info from server/package.json
375074f02723f7ca903ee7d8712ac3c408791a29 Merge pull request #168 from Polymer/update-link-to-wiki
9d77572aa4250cf722465a9c0218d387f6eeb391 Merge pull request #167 from Polymer/update-cli
533392c0284086cec965c4793ccb18f34967dc4f update readme
681cdd71a17632c9a5c617948928af42fed30cc8 update to polymer-cli#1.7.4 which fixes sauce testing issue
fbd26f2416cb52a9063d11aa9ade7beb77726317 Performance tweaks
1fcf5abc46a6090d7d2e39f4720333c1d87a708a Merge pull request #159 from Polymer/package-lock
bf01ec92579806a85af3b42e030c2a4e437e41de update deps
6b5fcad15839044146ab12813b7652015b356f98 Merge pull request #155 from Polymer/ie11
225d79b2472482775ea6dc763e3e0cb2d9782b42 keep <main> and set display: block in CSS for IE11
ed07ad0ac274e6a56f091b2a1c105c8003d2add0 Merge pull request #154 from monkick/put-semicolons
2355410316abe859c191452ca5c8f33727103065 update to use lit-element#0.5.2; use role="main" since <main> is not a thing in IE
917b05f74b83edc8fa57271d62b965b29e1edbfb9 Put semicolons at files below src directory
6e62ab336da3b424ba91b25c139ca96eb3e6986e Merge pull request #151 from Polymer/keanulee-patch-1
25f0b367f486a678299b0f225580ec6dfd260e14 Remove yarn.lock from .gitignore
20ceeabb6a968030336ce2df37620ab812c2fdff Merge pull request #145 from Polymer/font-fixes

```

git rebase

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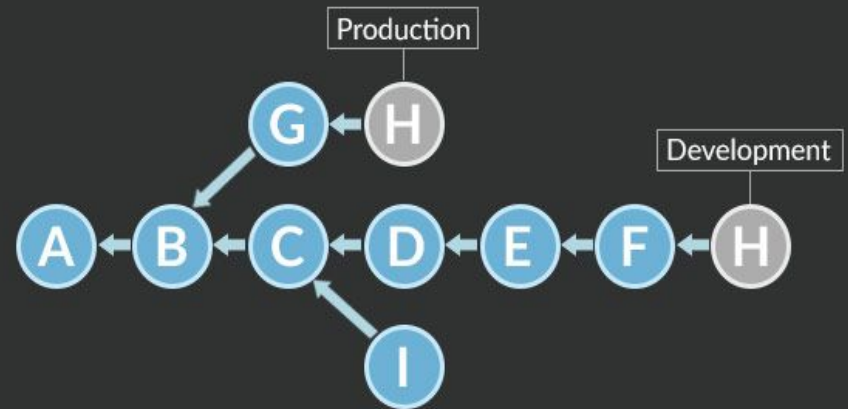
Commits posteriores que não existem  
no branch da nossa tarefa

git cherry pick

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# Git cherry-pick:

*Why and How*





# semantic versioning



1 . 3 . 1

**BREAKING . FEATURE . FIX**

incompatible  
API changes

**breaking**  
change

add backwards-  
compatible  
functionality

new  
**feature**

make backwards-  
compatible bug fix

bug  
**fix**

commits semantics

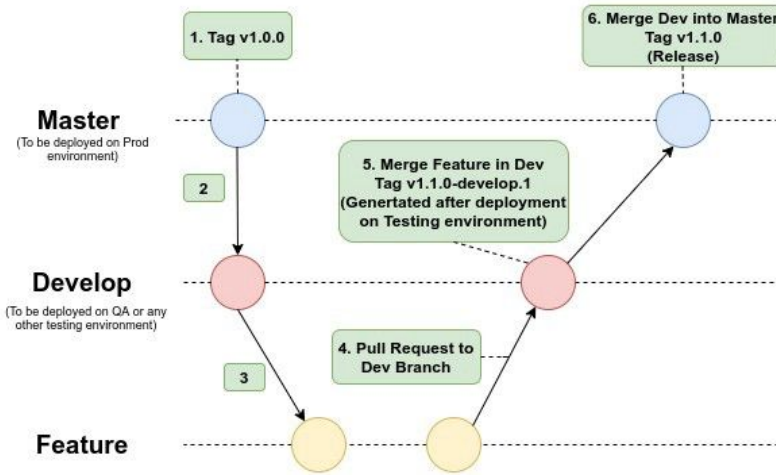
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- **feat:** que serve para novas features que você adicionar
- **fix:** o nome já diz, serve para você corrigir algum fodasse lá
- **docs:** mais um fácil, para algo relacionado a documentações, README e afins
- **style:** mexeu no estilo, CSS? Manda brasa então nesse cara
- **refactor:** precisou alterar, melhorar algum fodasse? É esse caboclo aqui
- **perf:** quando você mexer em algo relacionado a performance, fique à vontade em usar esse aqui
- **test:** para testes, ok?
- **chore:** geralmente o mais emblemático. Serve para coisas relacionados a build, configs e afins. Por exemplo, mexeu em algo no package.json? Use esse cara, seja atualizando a versão do pacote ou instalando novas dependências

Com commits semânticos	Sem commits semânticos
refactor(CachorroService): otimizando busca por cachorros com risco de pulga	melhorando métodos da service
fix(CachorroClient): ajustando URL da chamada pro client	ajustando url do client
refactor: padronizando logs em todo o serviço	ajustando logs do serviço
feat(GatoApi): adicionando endpoint novo para buscar os gatos pelo ID	adicionando novo endpoint de gatos
build: adicionando variável para buscar ambiente no Jenkinsfile	update Jenkinsfile
test: adicionando testes de contrato para todos endpoints de gato e cachorro	adicionando testes



## SEMANTIC RELEASE GIT WORKFLOW



PRODUCTION ENVIRONMENT



QA ENVIRONMENT



Jenkins

# Dicas e ferramentas

Commitlint : <https://github.com/conventional-changelog/commitlint>

Commitizen: <https://commitizen-tools.github.io/commitizen/>

GitDesktop: <https://desktop.github.com/>

SourceTree: <https://www.sourcetreeapp.com/>

GitKraken: <https://www.gitkraken.com/>

SmartGit: <https://www.syntevo.com/smartgit/>

Git Cola: <https://git-cola.github.io>

GitForce: <https://sites.google.com/site/gitforcetool/setup/linux>

Alguma dúvida?

