

Introduction to GitHub

Where the world builds software

Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world.



56+ million
Developers

3+ million
Organizations

100+ million
Repositories

72%
Fortune 50





GitHub

Locally

Online

file.txt
24-08-2021 13:56

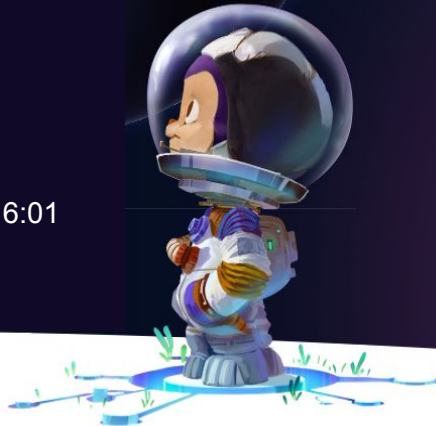
PULL

file.txt
24-08-2021 14:49

file.txt
24-08-2021 16:01

PUSH

file.txt
24-08-2021 16:01



On your own

With others

Storage
infinite & safe



Version Control



Code Sharing



Collaboration



... and more!

*Packaging, Continuous Integration, Code Quality,
Project management, Community, Raising Issues...*



1. **Pull** from remote repository (*GitHub*)
2. **Stage** local changes
3. **Commit** local changes with informative message
4. **Merge** branches -> *conflict?*
5. **Push** local changes to remote repository (*GitHub*)

WHERE AM I AT?

GO ELSEWHERE

`git pull`

`git add .`
`git commit -m`

`git merge`
`git push`

`git branch`
`git status`
`git log --oneline`
`git diff`

`git checkout`
`[branch, commit]`



Let's do it!

Log onto
<https://github.com>



features

develop

releases

hotfixes

main

Tag 0.1

git what?

hands on

workflow

tags

documentation



features

develop

releases

hotfixes

main



git branch **develop**
git checkout -b **develop**



features

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Tag 0.1

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features

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Tag 0.1

```
git checkout -b cool-feature develop
```



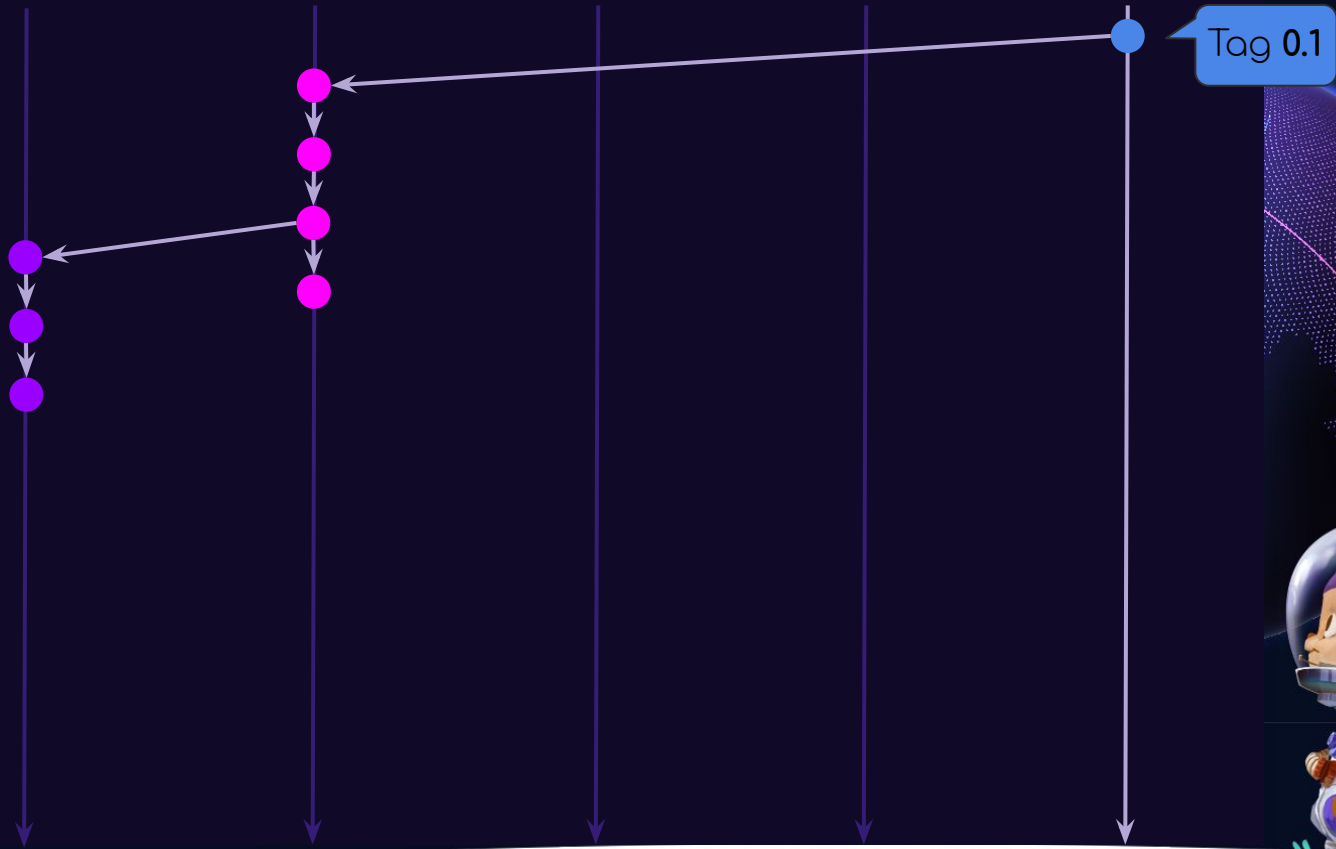
features

develop

releases

hotfixes

main



Tag 0.1



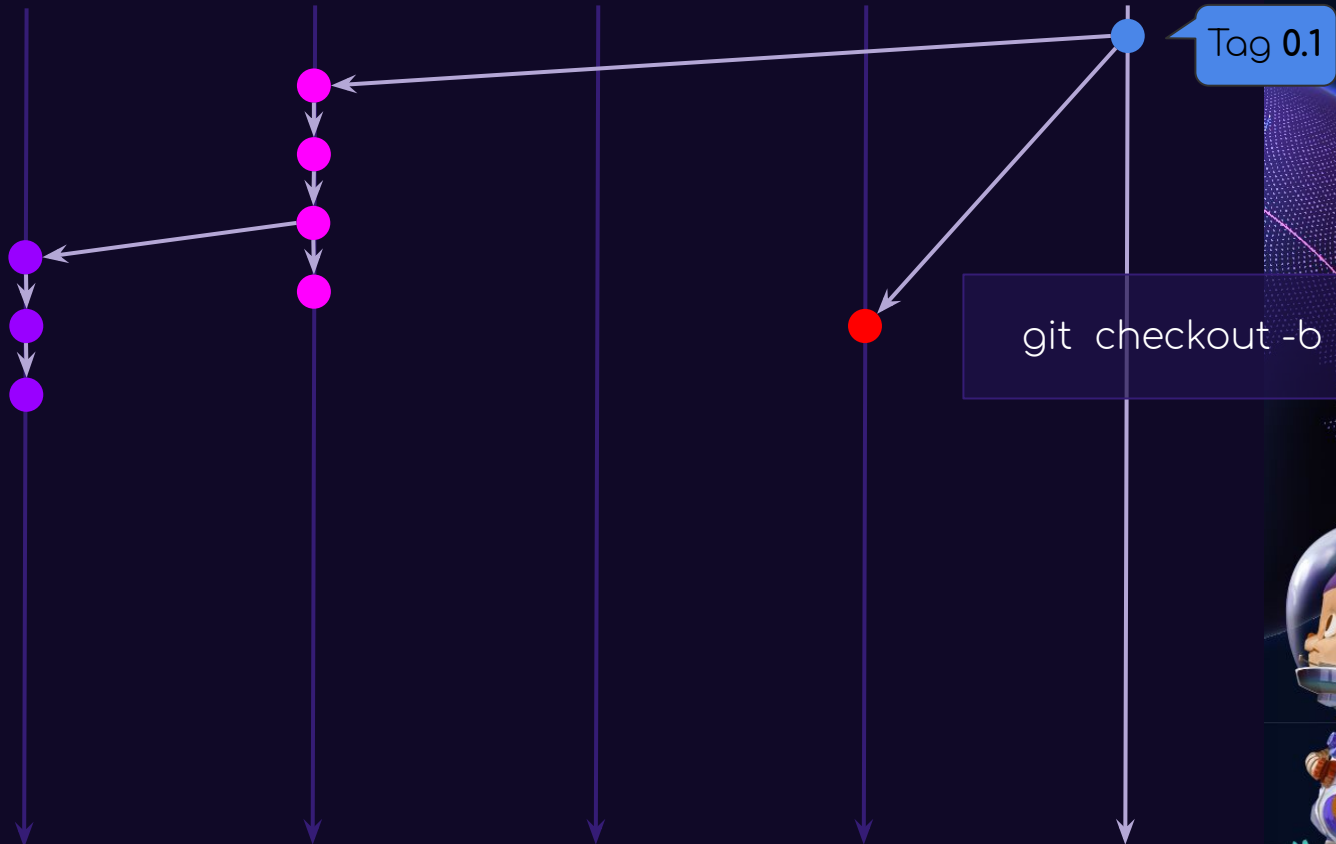
features

develop

releases

hotfixes

main



Tag 0.1

git checkout -b hotfix-0.2 main



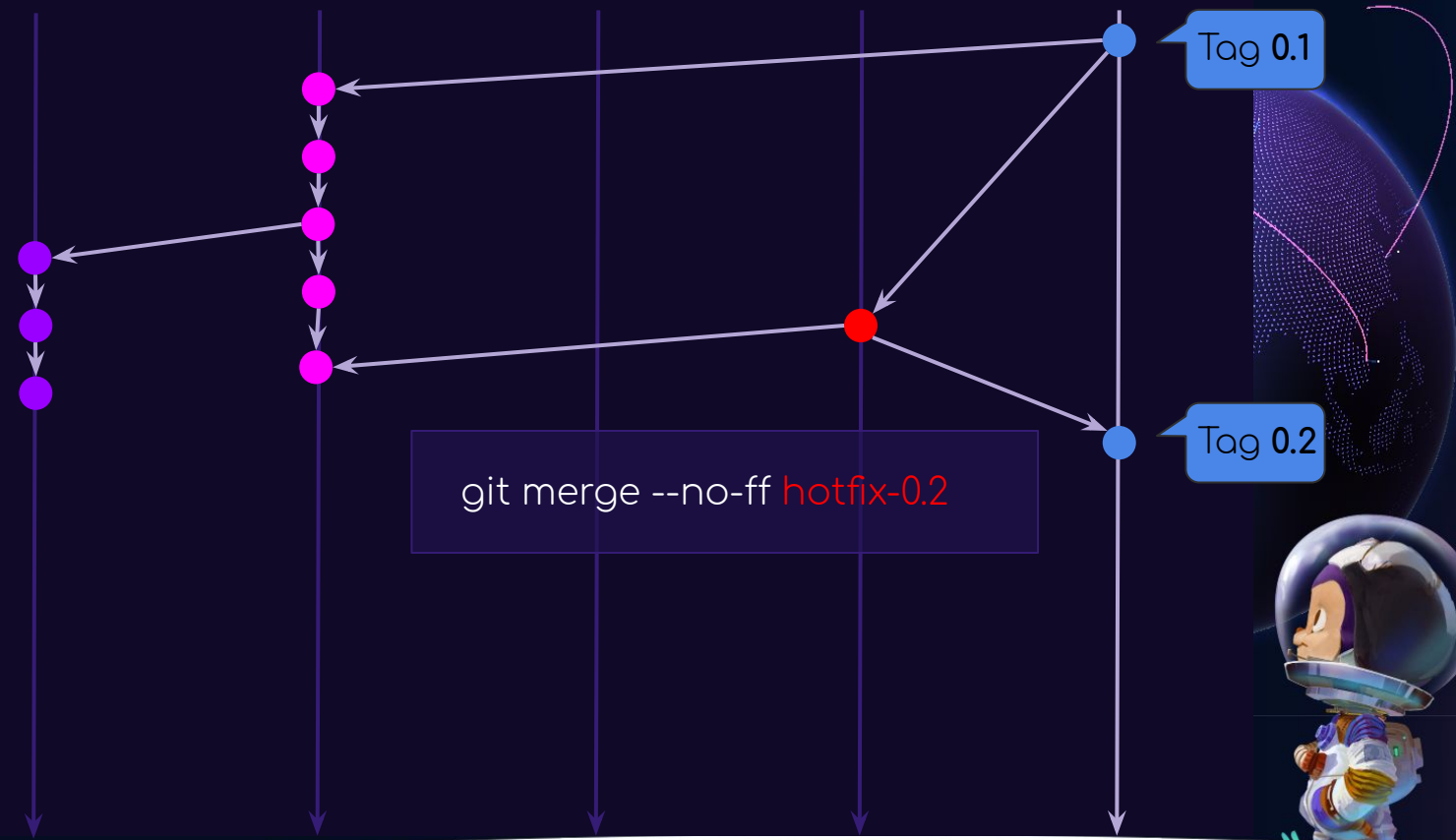
features

develop

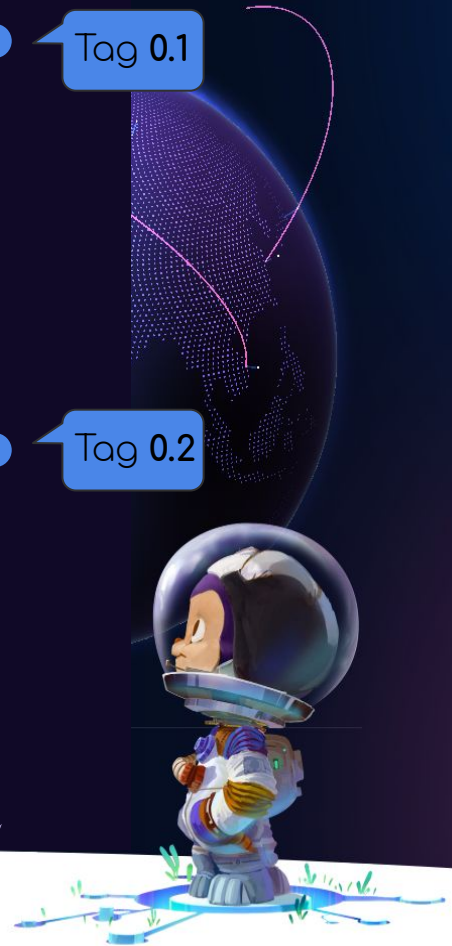
releases

hotfixes

main



git merge --no-ff hotfix-0.2



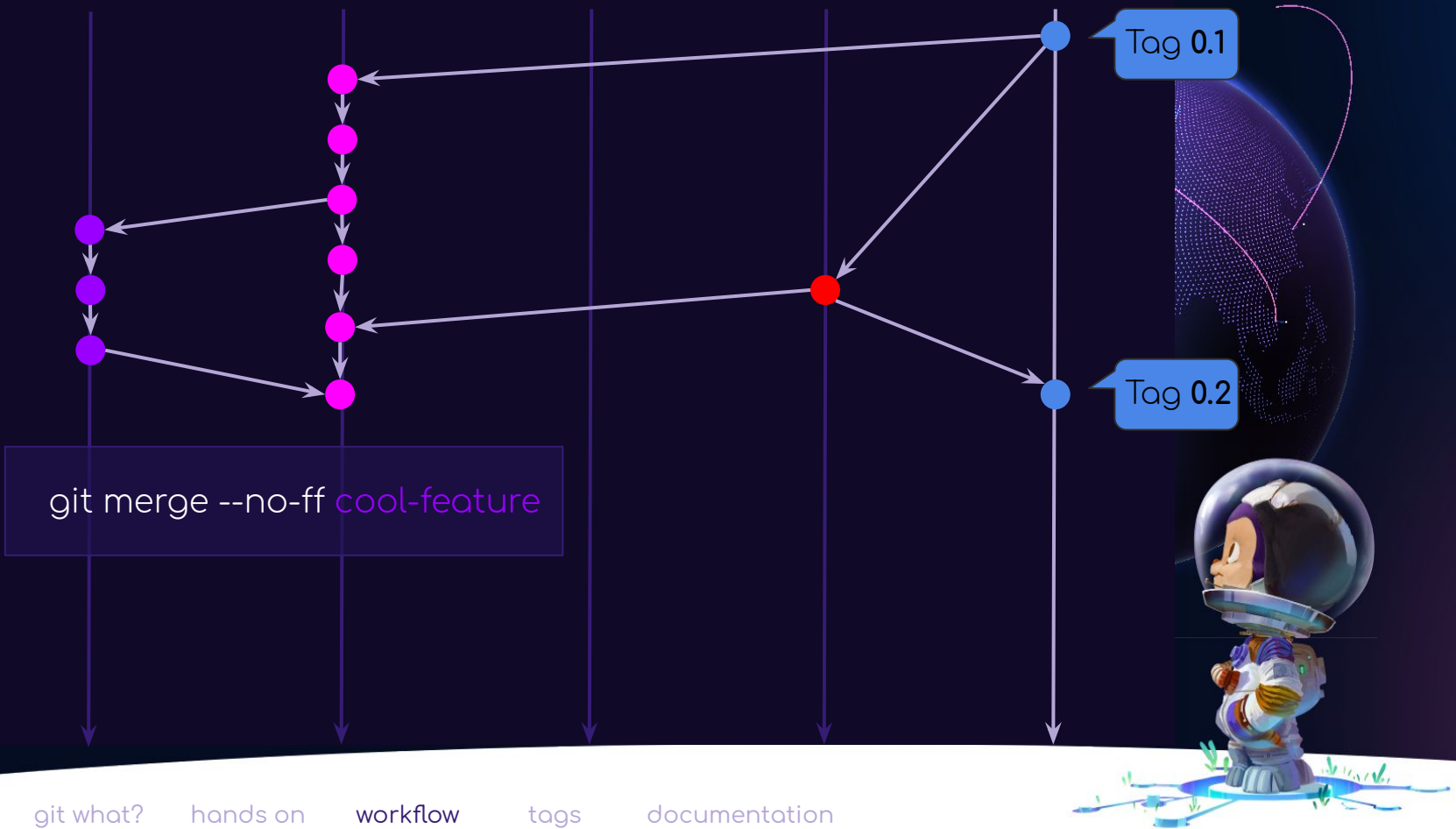
features

develop

releases

hotfixes

main



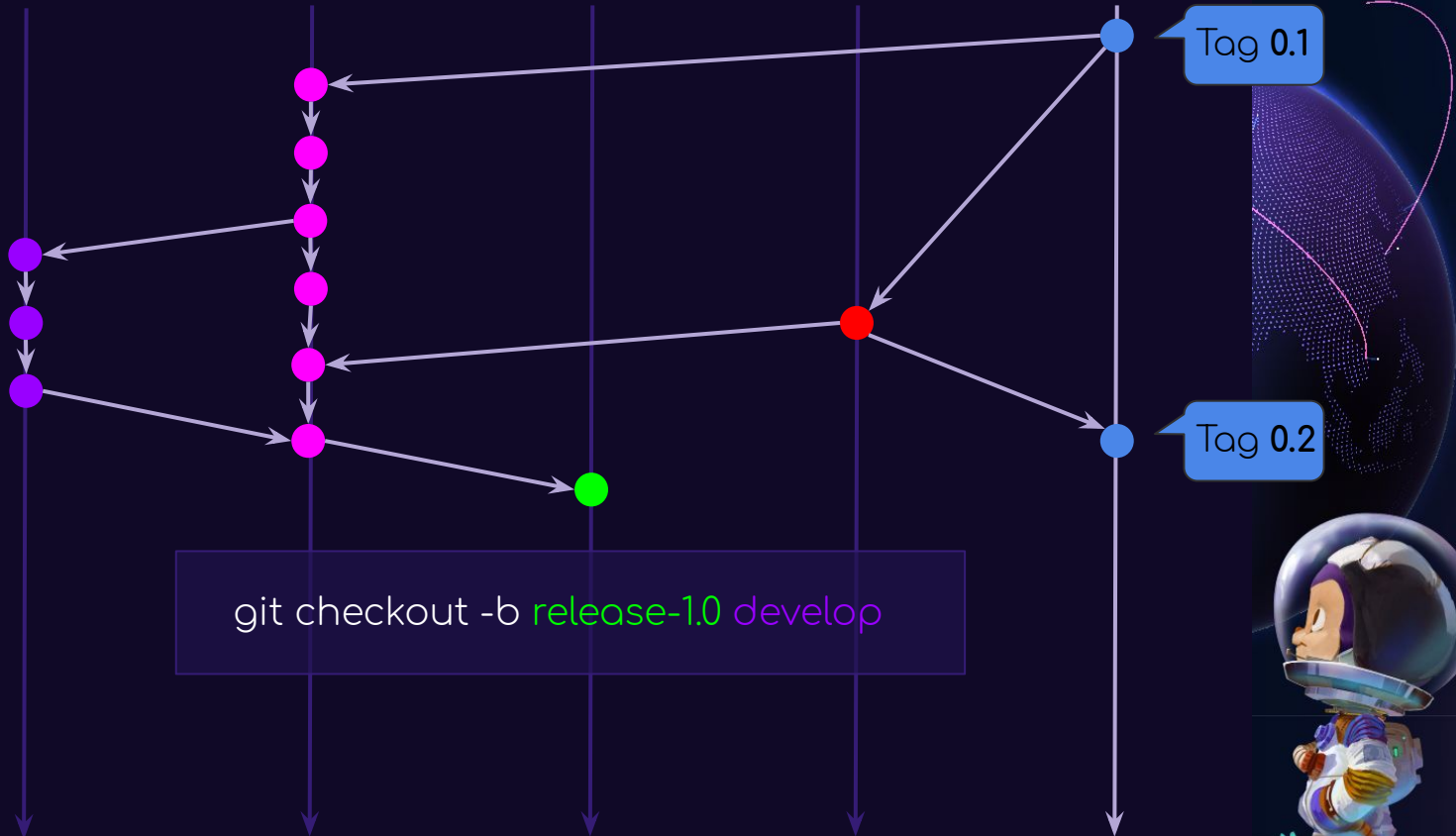
features

develop

releases

hotfixes

main



Tag 0.1

Tag 0.2

git checkout -b **release-1.0** develop



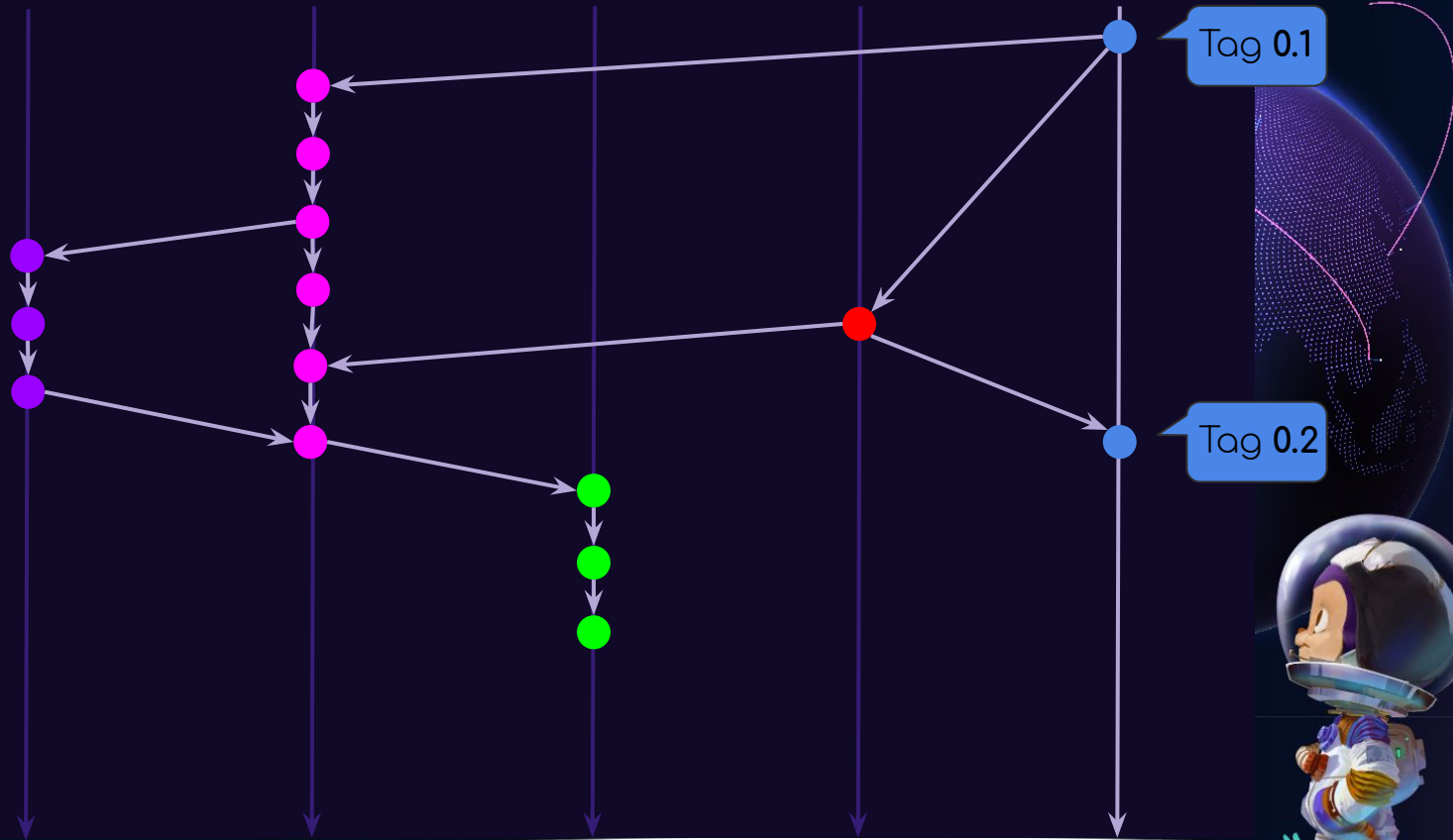
features

develop

releases

hotfixes

main



Tag 0.1

Tag 0.2



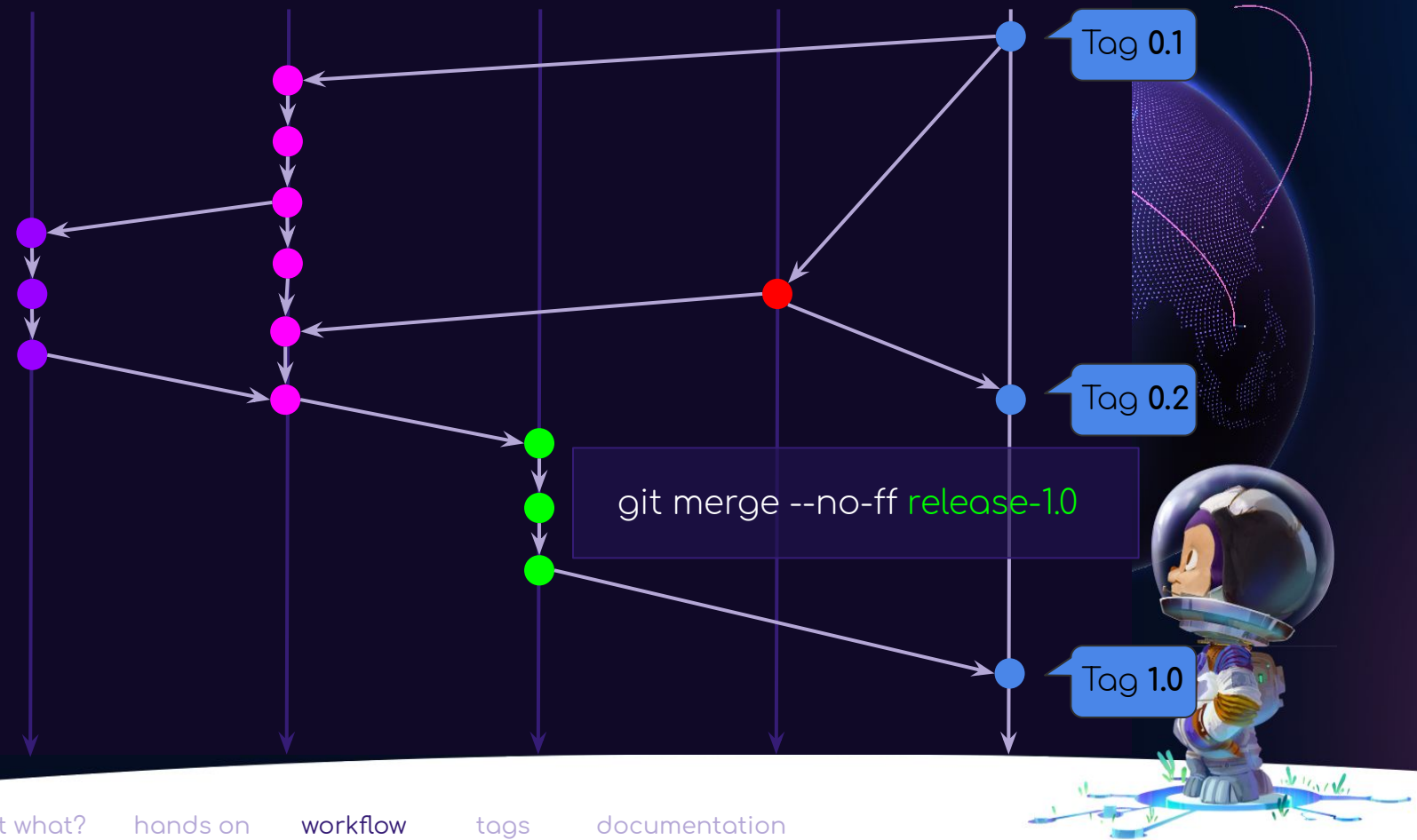
features

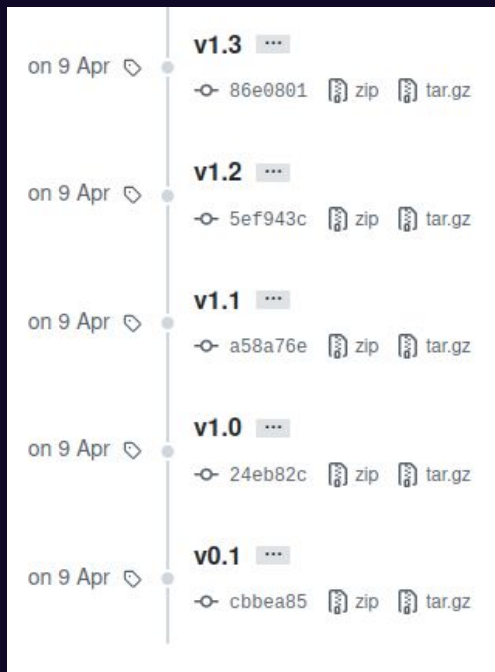
develop

releases

hotfixes

main





TAG HEAD

VIEW TAGS

PUSH TAGS

```
git tag -a v1.0 -m
    "new feature"
```

```
git tag
```

```
git push origin v1.0
git push origin --tags
```



How to make a README

<https://www.makeareadme.com/>

How to use Markdown

<https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>

How to choose a LICENCE

<https://choosealicense.com/>

How to use tags

<https://git-scm.com/book/en/v2/Git-Basics-Tagging>

How to use command line

<https://www.git-tower.com/blog/command-line-cheat-sheet/>

