



12 Days of Git

DAY 8
MERGING WITH GIT

What is merging?

Merging is where you take two branches and combine them. Git will take the commit pointers it has within the two branches and attempt to find a common base commit between them and then unify the two branches.

Merge two Git branches together

You've got a branch and it's ready to merge into your main one.

The first thing you need to do is make sure you are in the branch you want to merge your changes into.

In this example I have a branch called

"update-query-structure",

and I want to merge it with my main branch. I first switch over to my main branch:

```
(base) → PyPi-connectdb git:(update-query-structure) X git checkout main
D      update.py
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
(base) → PyPi-connectdb git:(main) X
```

Now I am in the branch I want to merge my changes into I type:

```
git:(main) X git merge update-query-structure
```

I now have to push this merge from my local repository to my remote repository, I do that with the command:

```
PyPi-connectdb git:(main) X git push
```

Merge more than one branch

You can merge more than one branch at a time. There could be conflicts and issues when doing so, and we'll be looking in future.

In this example, I have 2 branches with minor changes, and I want to merge them into my dev branch.

I issue the command

git merge update-query-structure main

```
git merge update-query-structure main
```

View the log of merging

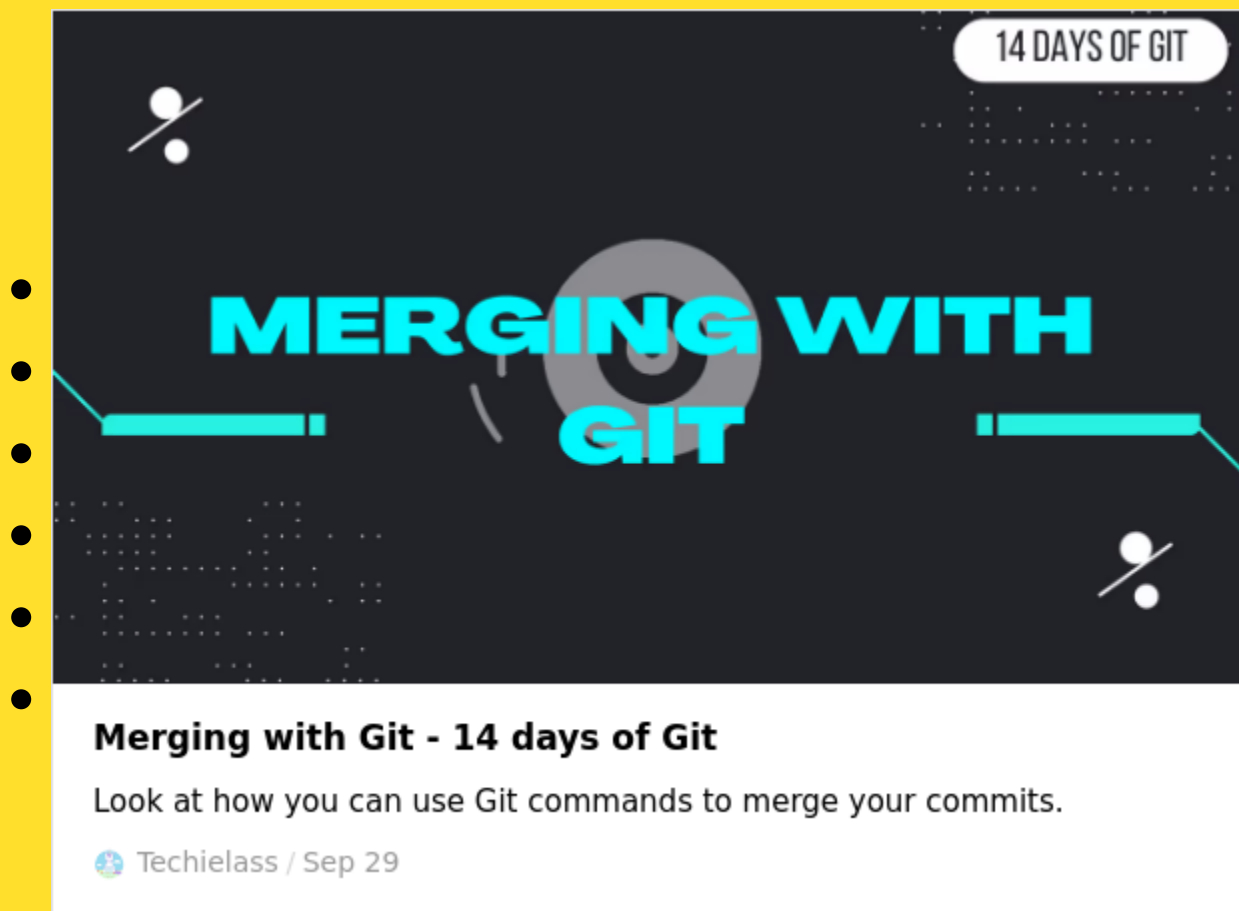
We saw that there is a command called `git log` that we can use to find out more information about the current state of the repository. If we append more options to that command, we can get a graphical version of our commits.

```
git log --graph --oneline
```

```
* Update .gitlab-ci.yml
* Update .gitlab-ci.yml
* First ci file
* Update phd.html
* Merge branch 'hotfix' into 'master'
| \
| * Update my-hotfix.html
* | Merge branch 'develop' into 'master'
| \ \
| | /
| / |
| * Merge branch 'fun_feature' into 'develop'
| / |
| * add feature-file
| /
* update home.html
* add three files
* Initial commit
```

Git merge strategies

When digging into merging, I found there were different merge strategies available for different use cases.



Learn more about them on
<https://git-scm.com/docs/merge-strategies>

For more visit:
<https://www.techielass.com/merging-with-git/>

