11th April 2021

Previous Day:-

- What is github?
- git rm --cache <filename> / git rm --cache <filename>
- git clone
- git diff HEAD
- git push
- git pull
- Merge conflict
- git remote add origin <url>

Web Architecture

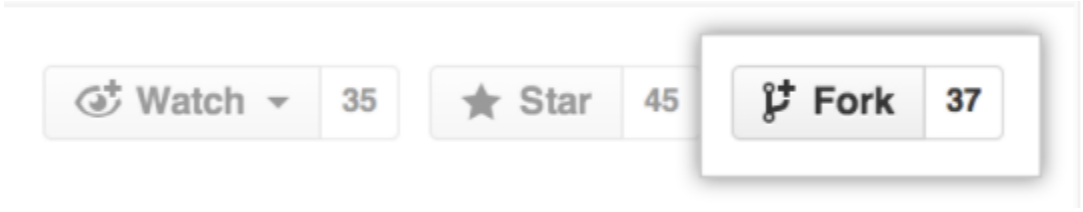
Lecture Flow:-

- forking project
- git push -f origin main:main
- branches
- MCQs

Topics and Explanation

1. Forking Project:-

click here for reference



Forking others projects to work on that project with the owner of the project. You can make changes and staged it and ask the owner to pull it into the repository.

Clone your fork:-

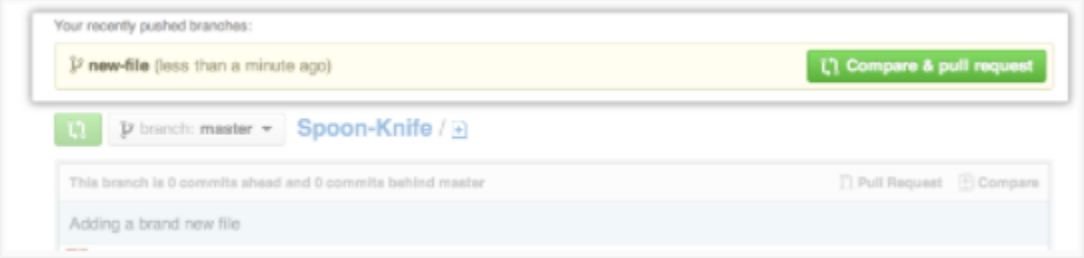
Forking the project will only exist on the Github.To be able to work on the project, you will need to clone it to your computer. You need to clone it to your local computer. For that you will clone by using the “git clone” command.

Making few changes and staged it:-

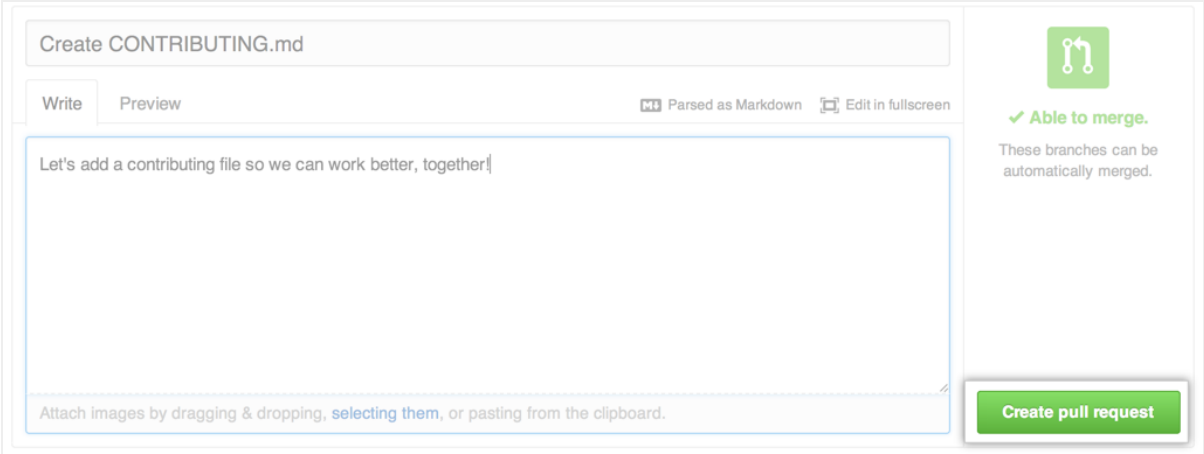
Make a few changes to the project You could, for example, change the text in index.html to add your GitHub username.
When you’re ready to submit your changes, stage and commit your changes.

Making a pull request:-

At last, you’re ready to propose changes into the main project! This is the final step in producing a fork of someone else’s project, and arguably the most important. If you’ve made a change that you feel would benefit the community as a whole, you should definitely consider contributing back.
To do so, head on over to the repository on GitHub.com where your project lives. For this example, it would be at https://www.github.com/<your_username>/Spoon-Knife. You’ll see a banner indicating that you’ve recently pushed a new branch, and that you can submit this branch “upstream,” to the original repository:



Clicking on Compare and Pull Request sends you to a discussion page, where you can enter a title and optional description. It’s important to provide as much useful information and a rationale for why you’re making this Pull Request in the first place. The project owner needs to be able to determine whether your change is as useful to everyone as you think it is.
When you’re ready to type out your heartfelt argument, click on Send pull request. You’re done!



2. git push -f origin main:main:-

click here for reference

When somebody made any changes to your repository so the terminal asks you to pull it before pushing it giving message like in the below image

```
Updates were rejected because the remote contains work that you do
not have locally. This is usually caused by another repository pushing
to the same ref. You may want to first integrate the remote changes
(e.g., 'git pull ...') before pushing again.
```

But anyway you want to push it so, we use command force push from main to origin main.

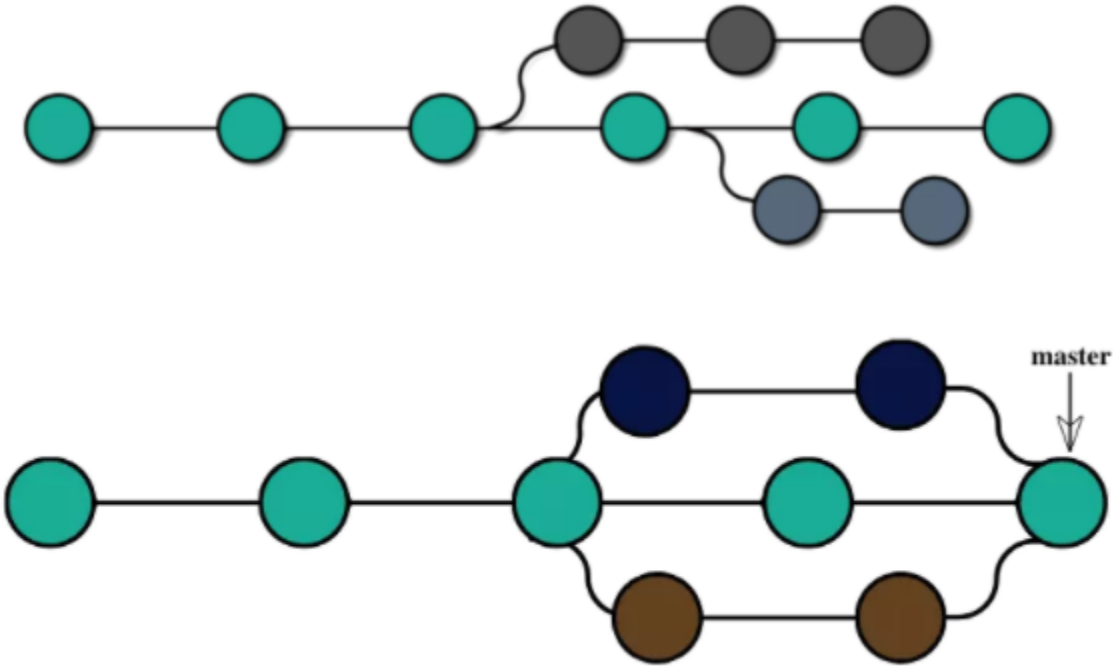
Key takeaways:-

```
1. if you want to force push something use, git push-f origin main:main

2. if you have made some changes to the content of a public repo, push it to your own fork
and make a Pull Request (PR) and ask the owner to merge your changes.

3. whenever you merge remote-remote, remote-local, local-remote github always checks if
there is no merge conflict automatically and then creates a new merge commit and you need
to just push it.
```

3. Branches:-

click here for reference

Branch in Git is similar to the branch of a tree. Analogically, a tree branch is attached to the central part of the tree called the trunk. While branches can generate and fall off, the trunk remains compact and is the only part by which we can say the tree is alive and standing.



MCQs:-

Which command defines the author email to be used for all commits by the current user?

Attempted - 35 (61.4%) | EASY

- [ ] git clean -f
- [x] git config --global user.email — 94.29%
- [ ] git merge --no-ff — 2.86%
- [ ] git email--amend — 2.86%

The main objectives of Git are

Attempted - 34 (59.65%) EASY

- [ ] speed
- [ ] data integrity
- [ ] team work 8.82%
- [x] all of the above 91.18%

Which of the following command line environment is used for interacting with Git ?

Attempted - 34 (59.65%) EASY

- [ ] Github 5.88%
- [x] GitBash 64.71%
- [x] Terminal 35.29%
- [ ] GitLab

Which of these Git client commands creates a copy of the repository and a working directory in the client's workspace?

Attempted - 34 (59.65%) EASY

- [ ] checkout 5.88%
- [x] clone 94.12%
- [ ] update
- [ ] import