

Welcome to the Onish Summer Computing Workshop 2022!

1 - 1:30 pm Jessica Hill - Intro Computing Systems and Hardware

1:30 - 2 pm Andrew Moore - Programming Languages and Their Usages

2 - 2:30 pm David King - Installation and Package Management

2:30 - 3 pm Robert Williams - Working on GitHub

after 3pm Mixer – stay for light snacks!

Version control with Git, GitHub, and GitHub Desktop

Nishimura Lab Computational Workshop

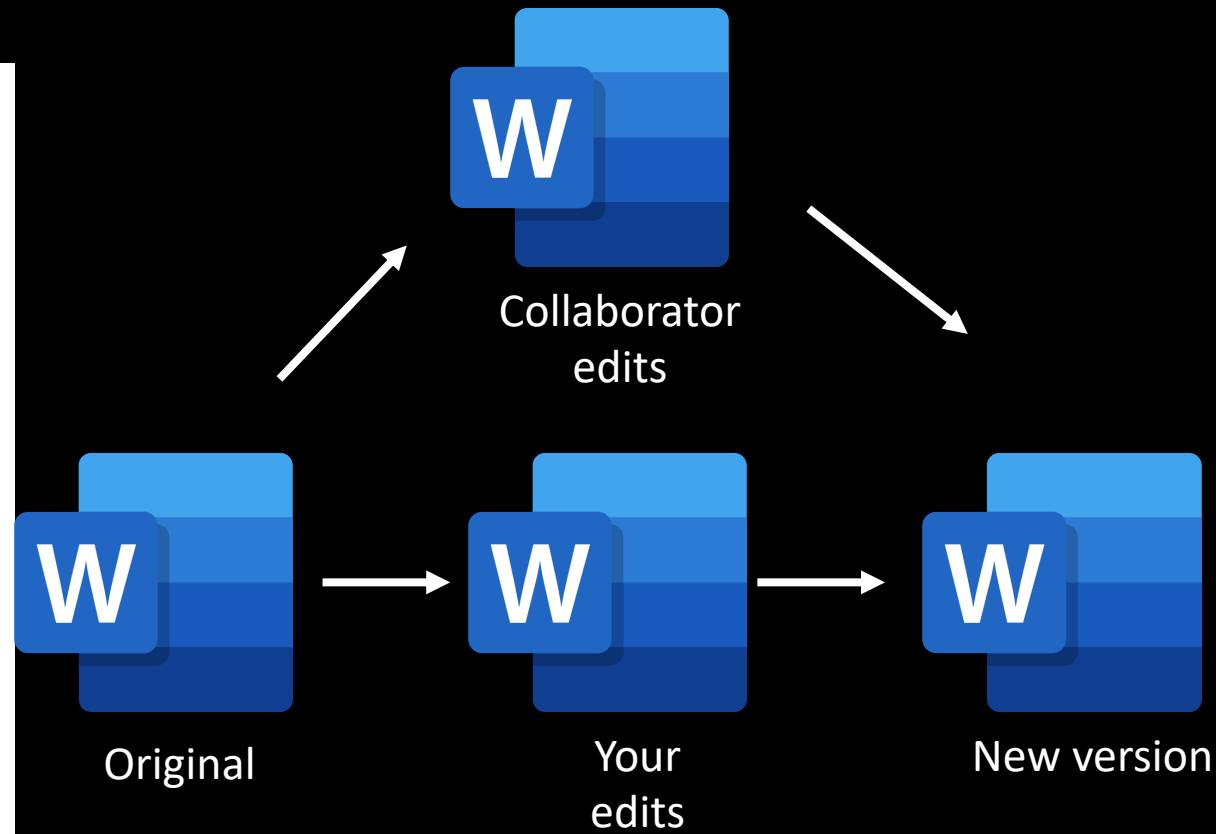
What is version control?

Twas the Night Before Christmas.doc - Word

Twas the Night Before Christmas: A Visi
by Clement Clarke Moore (1779-1863)

Twas the night before Christmas, when all through the house
-Not a creature teacher was stirring, not even a mouse spouse.
-The stockings were flung hung by the chimney with care I swear,
In hopes that St Nicholas Nick soon would be there is on Medicare.

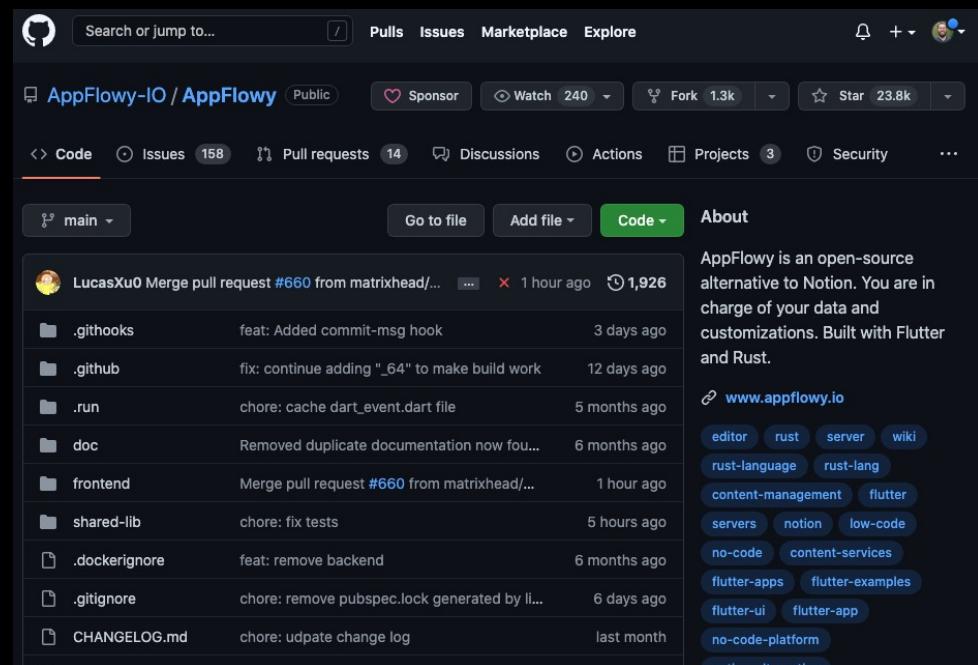
The children were nestled all snug in the shedir beds,
While millions visions of beanie babies sugar plums danced in on their sledheads.
And mamma in her spurs kerchief, and I in my chapseap,
Had just settled a quarrel over reggae or rapour brains for a long winter's nap.



Git vs GitHub

- <https://www.geeksforgeeks.org/difference-between-git-and-github/>
- Git is command line software, GitHub is a webservice + storage
- Git is for text file code, not for binary files like MS Word
- Alternatives like bitbucket and subversion

```
$ git init
Initialized empty Git repository in /tmp/tmp.1MBYSY7R8Y/.git/
$ cat > README << 'EOF'
> Git is a distributed revision control system.
> EOF
$ git add README
$ git commit
[master (root-commit) e4dcc69] You can edit locally and push
to any remote.
 1 file changed, 1 insertion(+)
 create mode 100644 README
$ git remote add origin git@github.com:cdown/thats.git
$ git push -u origin master
```



GitHub Desktop

- A convenient user interface ([dl here](#))
- Will not cover adding SSH key to your account ([info here](#))

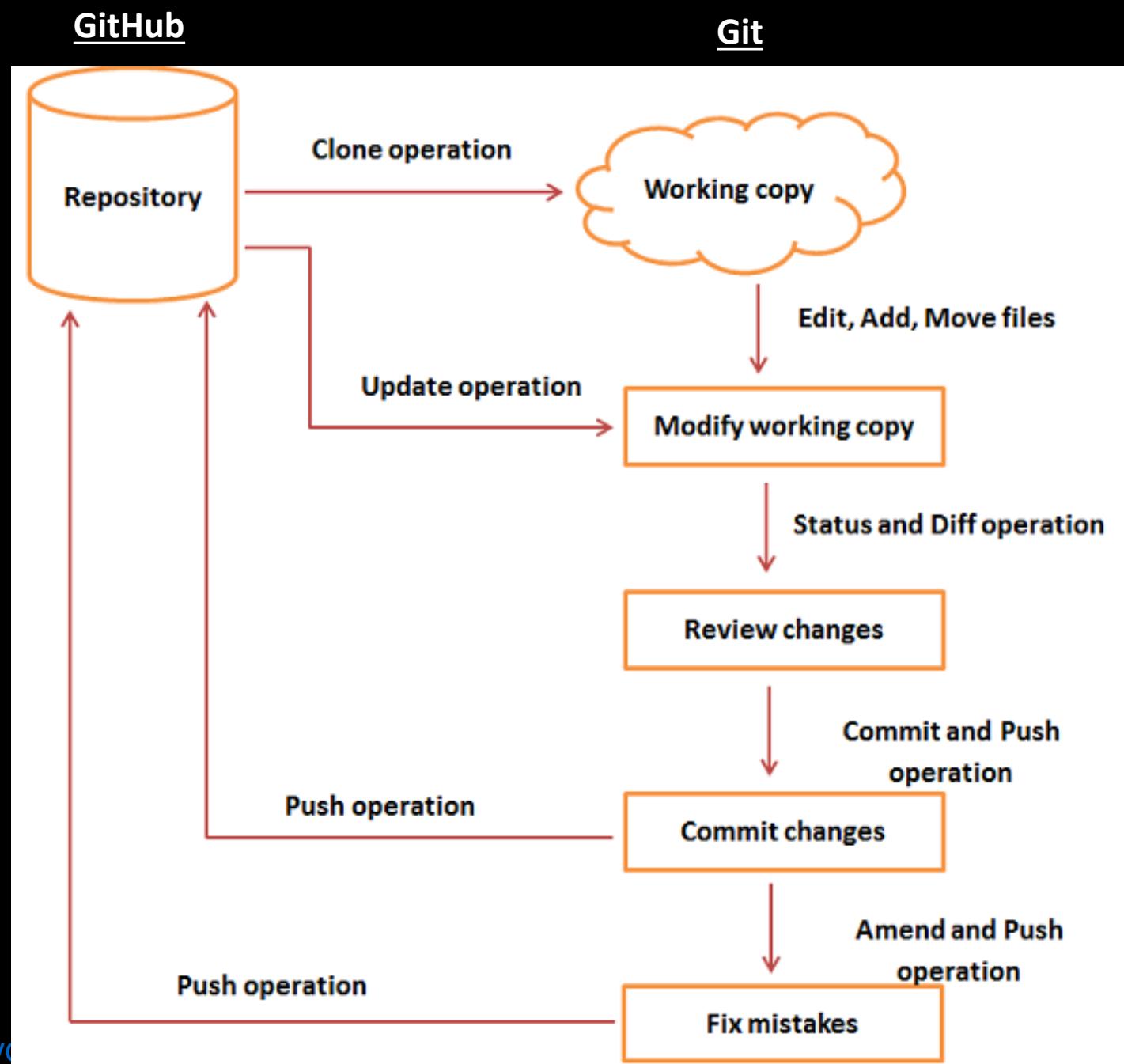
The screenshot shows the GitHub Desktop application interface. At the top, there's a menu bar with File, Edit, View, Repository, Branch, and Help. Below the menu is a toolbar with 'Current repository' set to 'desktop', 'Current branch' set to 'esc-pr' (with a green checkmark), and 'Fetch origin' status. The main area has tabs for 'Changes' and 'History', with 'Changes' selected. It lists several commits from different users (iAmWillShepherd, Markus Olsson, Neha Batra, Brendan Forster) across various pull requests and branches. On the right, a detailed view of a commit from 'esc-pr' is shown, displaying the file 'app\src\ui\toolbar\dropdown.tsx'. The code editor shows a diff between lines 145 and 258, with changes highlighted in green and red. The code includes imports like 'OcticonSymbol' and 'KeyboardEvent<HTMLElement>', and logic for handling escape key events.

```
@@ -145,6 +145,10 @@ export class ToolbarDropdown extends React.Component<
    this.state = { clientRect: null }

 146   146 }
 147   147
 148 + private get isOpen() {
 149 +   return this.props.dropdownState === 'open'
 150 + }
 151 +
 152   152 private dropdownIcon(state: DropdownState): Octic
 153     // @TODO: Remake triangle octicon in a 12px ver
 154     // right now it's scaled badly on normal dpi mo
 155
 156   156 @@ -249,6 +253,13 @@ export class ToolbarDropdown ex
 157     this.state = { clientRect: null }

 253   253   }
 254   254 }
 255   255
 256 + private onFoldoutKeyDown = (event: React.Keyboard
 257 +   if (!event.defaultPrevented && this.isOpen && e
 258 +     event.key === 'Escape') {
 259 +       event.preventDefault()
 260 +     }
 261   }
 262 }
```

Git lifecycle



Live Demo

- Making a repository with GitHub desktop
- Commit and push
- Reverting changes
- Collaboration and branches
- Pull requests

README Files



README

Curl is a command line tool for transferring data specified with URL syntax. Find out how to use curl by reading the `curl.1` man page or the `MANUAL` document. Find out how to install Curl by reading the `INSTALL` document.

`libcurl` is the library curl is using to do its job. It is readily available to be used by your software. Read the `libcurl.3` man page to learn how!

You find answers to the most frequent questions we get in the `FAQ` document.

Study the `COPYING` file for distribution terms.

Those documents and more can be found in the `docs/` directory.

CONTACT

If you have problems, questions, ideas or suggestions, please contact us by posting to a suitable mailing list. See <https://curl.se/mail/>

All contributors to the project are listed in the `THANKS` document.

WEBSITE

Visit the curl website for the latest news and downloads:

<https://curl.se/>

GIT

Markdown

<> Edit new file Preview

```
1 # Heading (h1)
2
3 ## Heading 2 (h2)
4
5 ### Heading 3 (h3)
6
7 ##### Heading 4 (h4)
8
9 ##### Heading 5 (h5)
10
11 ##### Heading 6 (h6)
12
13 This is a text body. Lorem ipsum dolor sit amet, consectetur a
14 tempor incididunt ut labore et dolore magna aliqua.
15
16 - This is a list
17 - * or _ makes text italicized
18 - while ** or __ makes text bold
19
20 1. # start a ordered list
21 2. and backticks write `code`
22 3. you can write [links](https://www.mozilla.org/)
23
24 And images:
25
26 ![Mozilla](https://www.mozilla.org/media/img/sandstone/footer-
```

<> Edit new file Preview

Heading (h1)

Heading 2 (h2)

Heading 3 (h3)

Heading 4 (h4)

Heading 5 (h5)

Heading 6 (h6)

This is a text body. Lorem ipsum dolor sit amet, co
dolore magna aliqua.

- This is a list
- * or _ makes text *italicized*
- while ** or __ makes text **bold**

1. # start a ordered list
2. and backticks write code
3. you can write links

And images:

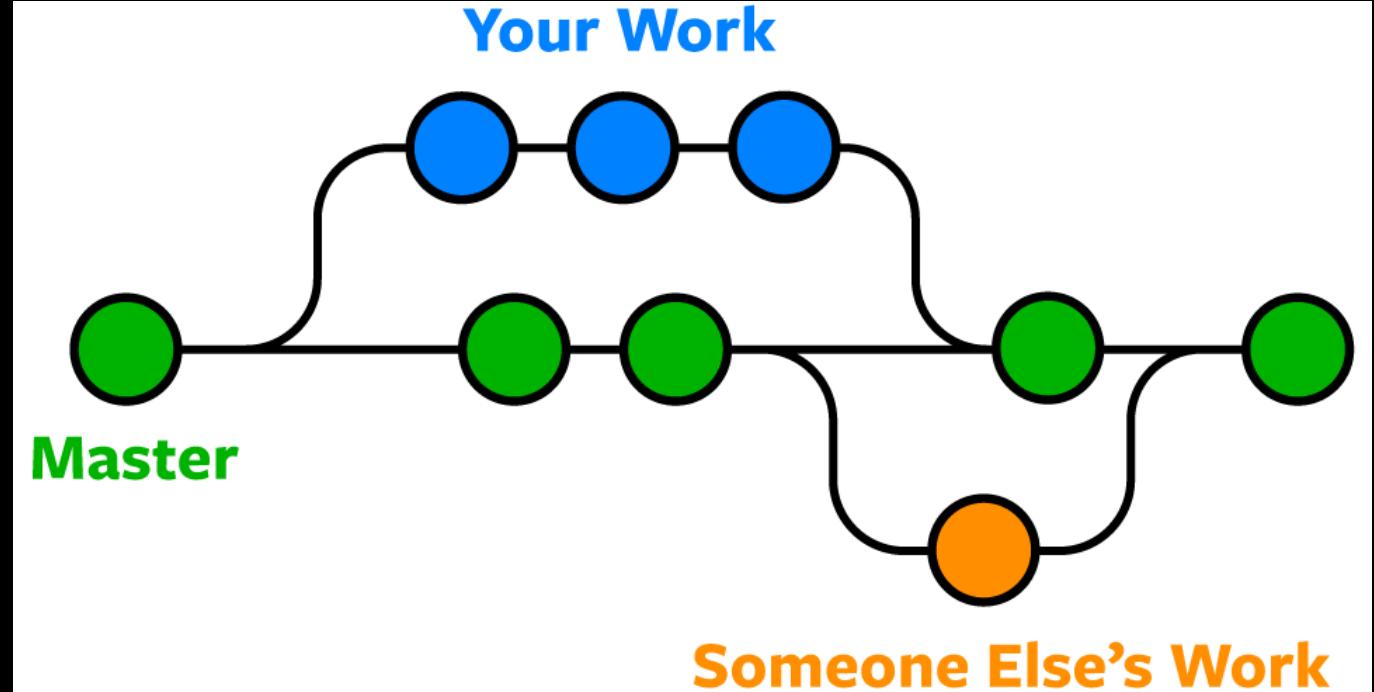
<https://mozilla.github.io/open-leadership-training-series/articles/get-your-project-online/the-github-interface-and-markdown/>

Live Demo

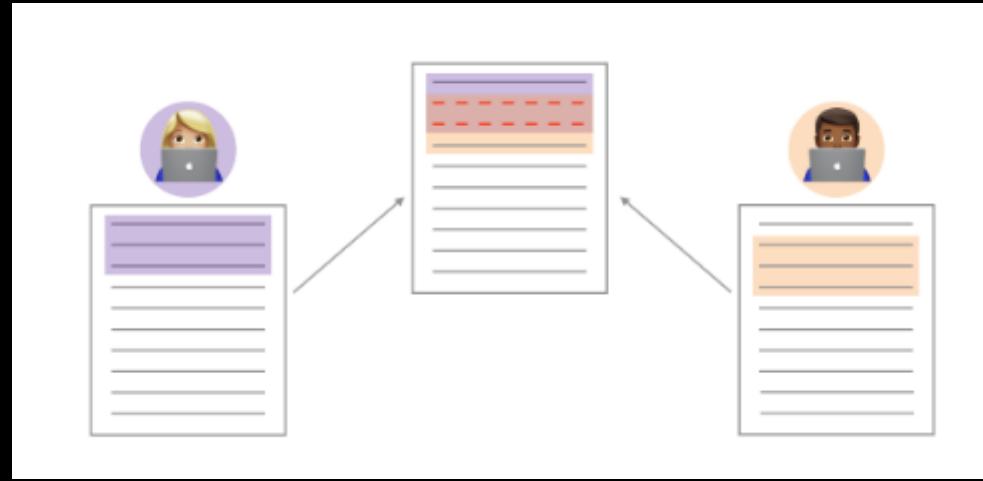
- Making a repository with GitHub desktop
- Commit and push
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- Pull requests

Live Demo

- Making a repository with GitHub desktop
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Merge conflicts



beginning of conflict marker

<<<<< HEAD

identifies you

text you wrote

conflict divider

=====

text in version of file on GitHub

end of conflict divider

>>>>> alphanumeric hash

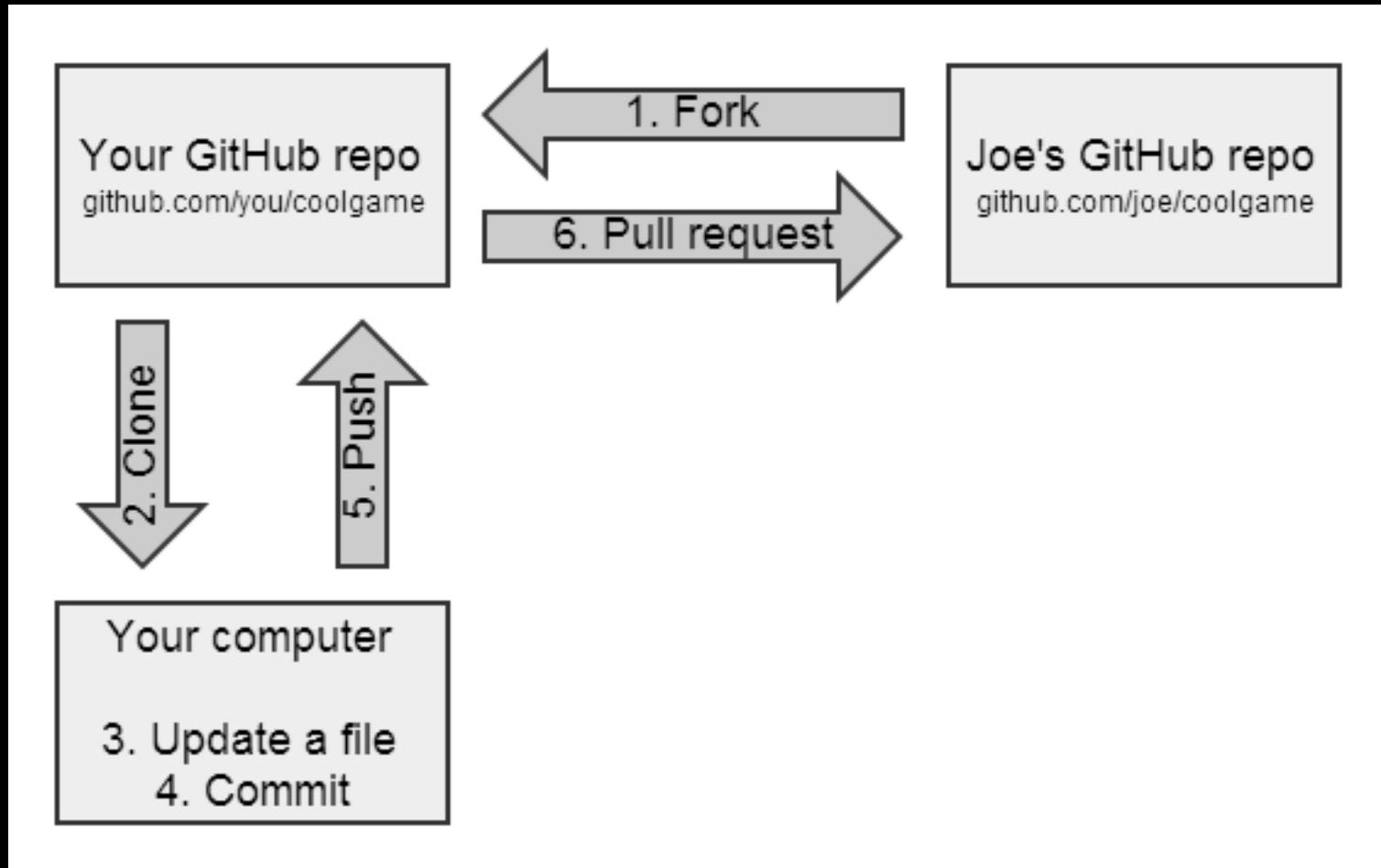
identifies the commit
associated with text on GitHub

Open source collaboration

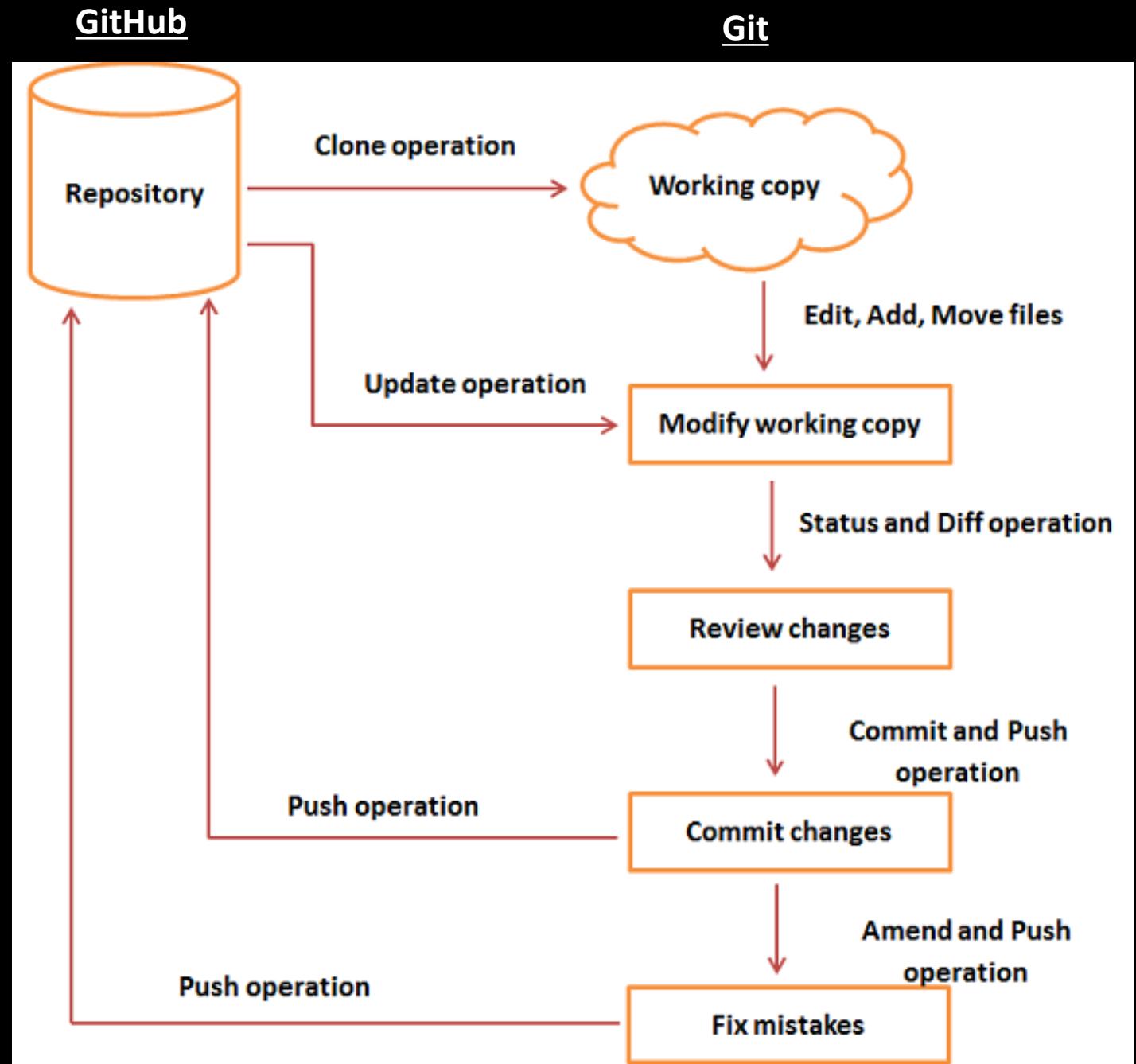
- Issue tracking ([example](#))
- Releases
- Forking a repository

Open source collaboration

- Issue tracking
- Releases
- Forking a repository



Questions?



Thank you for attending the Onish Summer Computing Workshop 2022!

