

Installation Doubts?

Workshop will start at 2:10 pm.

Git & Github Workshop 2023

Pre-requisites :

- A craving to learn new things
- An enthusiastic mind
- Love for Terminal(Don't worry, you will surely start loving it after knowing about the wonders u can do with it:))

WHAT GIVES PEOPLE FEELINGS OF POWER



@iamnotanartist

Even better: using a terminal in front of a programmer who doesn't know how to use a terminal.

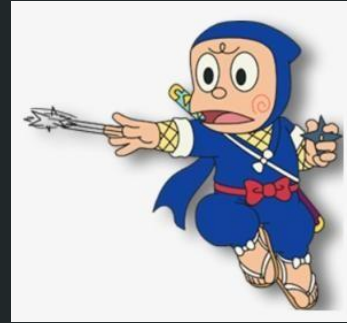
Learning Outcomes

- Familiar with Basic Linux commands
- Realize the importance of Version Control System
- Be able to use Git to track your code
- Be able to push and pull code from Github
- Be able to send a PR properly to an existing Github Repository

Flow

- Raise Doubts
- Hands On
- Fun quiz
- We would be here after the end

Become a Terminal Ninja



What is Git?

Track

- Backup
- History
- Experiment
- Collaborate

How does Git do it - Snapshots AKA Commits

```
commit 9641cc84a1b5d4e84f265000757497dabd1c3d63 (HEAD -> master)
```

```
Author: rakaar <rka87338@gmail.com>
```

```
Date: Sat Oct 10 14:08:27 2020 +0530
```

Finished the climax chapter

```
commit f0155a195dfab4db3d4ebaf3608c1153956bd4a4
```

```
Author: rakaar <rka87338@gmail.com>
```

```
Date: Sat Oct 10 14:07:48 2020 +0530
```

Completed writting second chapter

```
commit ce934582f4a86f10e2d9411b88c0d74594cde45a
```

```
Author: rakaar <rka87338@gmail.com>
```

```
Date: Sat Oct 10 14:07:29 2020 +0530
```

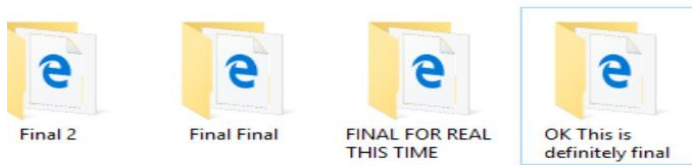
Wrote First Chapter of the book



I prefer the real version control

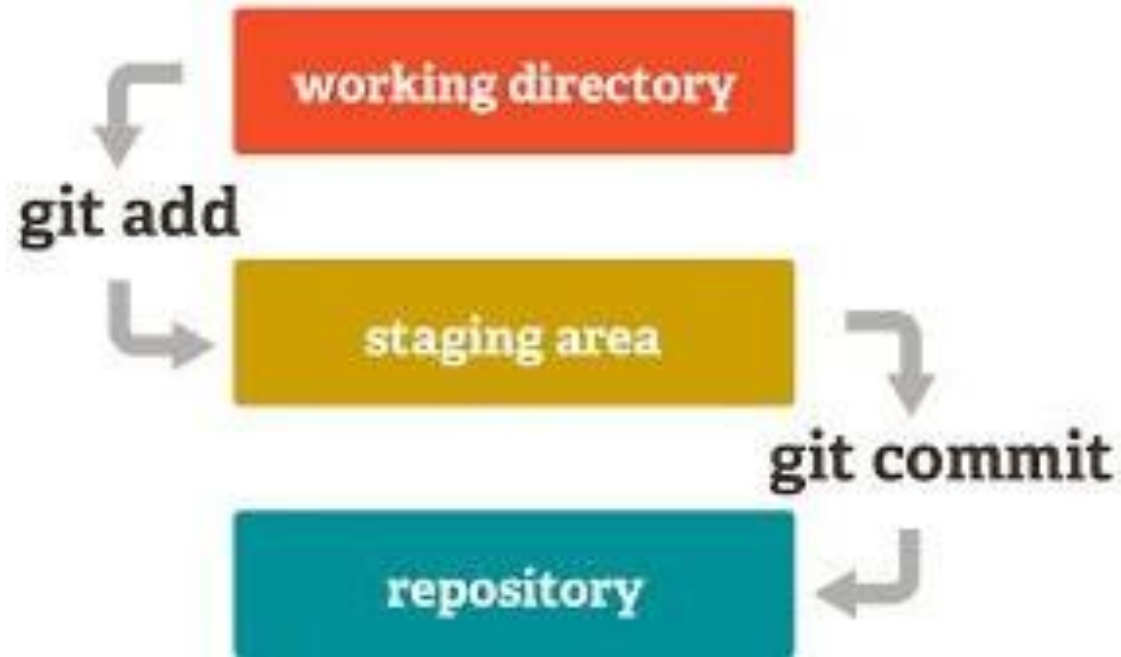


I said the *real* version control



Perfection

Mental Model of Git Workflow



This Staging Area is Confusing!



WORKING
DIRECTORY



© CanStockPhoto.com - csp52904870

STAGING AREA



COMMIT !

DEMO

```
git init
```

```
git add FileName
```

```
git commit -m "A nice commit message"
```

Hands On by Building a “facebook Clone”

JUMPING BETWEEN STAGES - EVIL CAT TRILOGY



Undo the changes after a **Commit**

Case 1

Working tree clean

>Cat comes up and adds rubbish files and and garbage content .

You come back and check git status. It's too chaotic

You want to undo!

Just do **git checkout!!**

And you have recovered our codebase

Restoring code after files are in **Staging Area**

Case 2

This time it plans to commit

It adds rubbish files and rubbish content It does `git add` .

And luckily you come in time and it runs away How do you unstage?

`git reset --hard HEAD`

Going back to a Previous Commit

Case 3

This time the cat makes NOT 1 but 2 Rubbish commits 🙄

Git reset --hard COMMIT_HASH_YOU_WANT_TO_GO_BACK

When you revert a commit



u/DUTCHWIZARD

DOUBTS

Intro to Branching





Richard's copy of Codebase



OriginalCodeBase



Gilfoyle's copy of Codebase

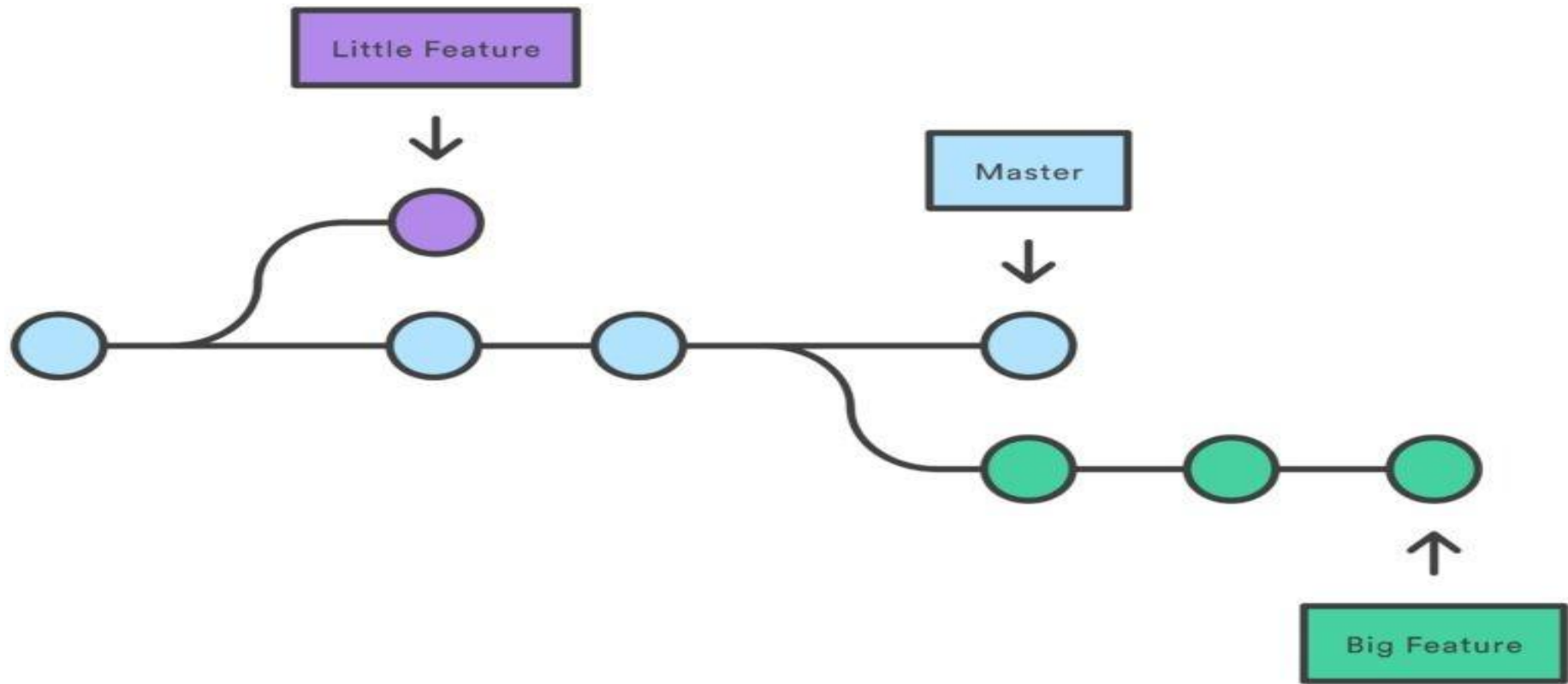


Eric's copy of Codebase



Dinesh's copy of Codebase

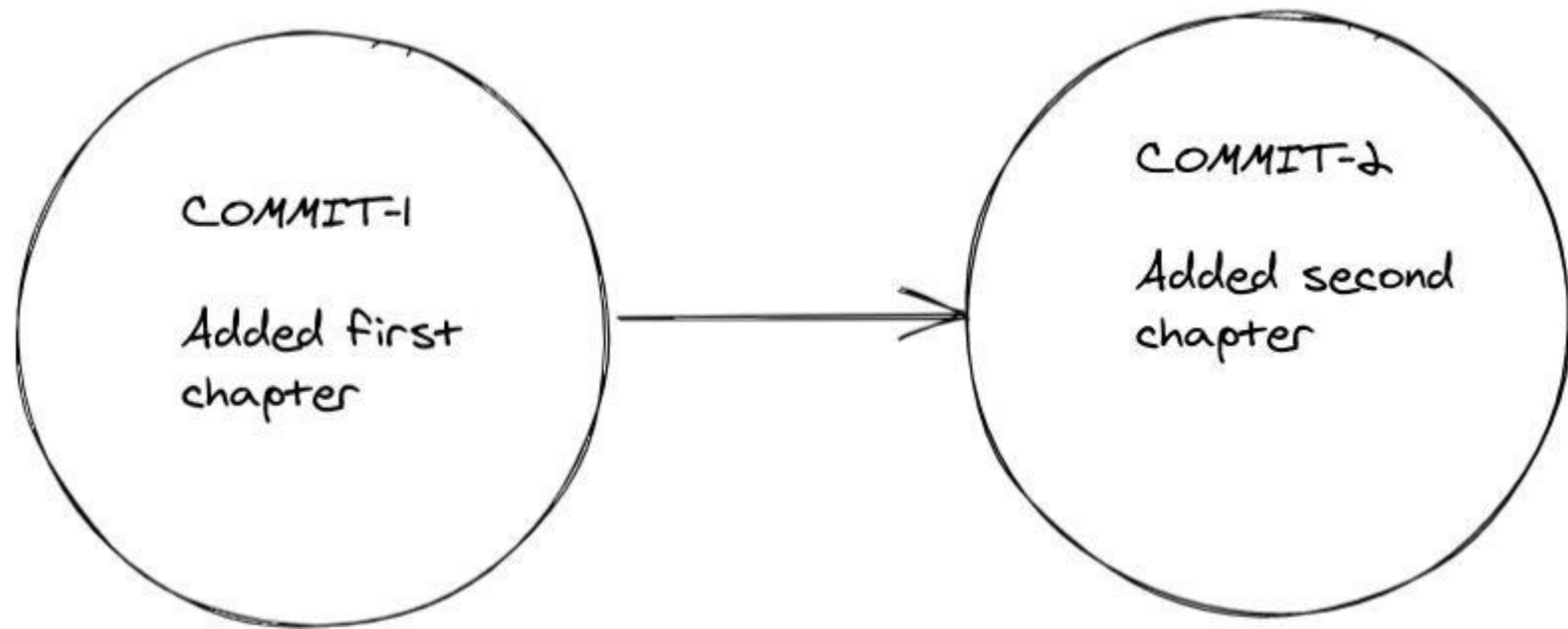
Branching



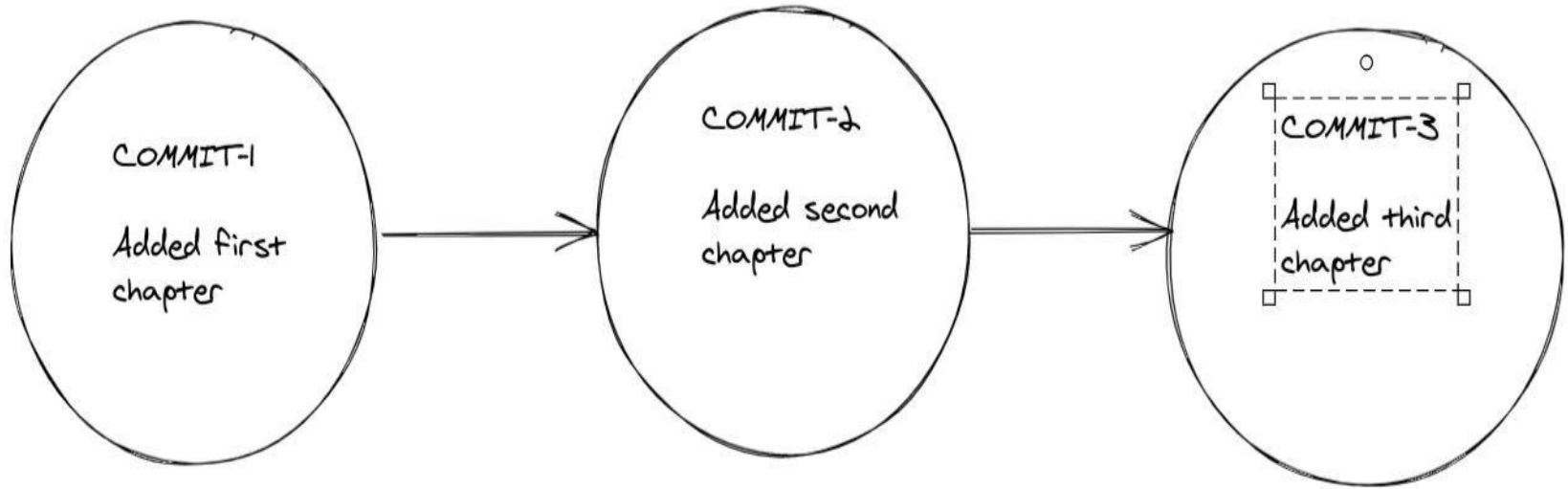
Branching



main
branch

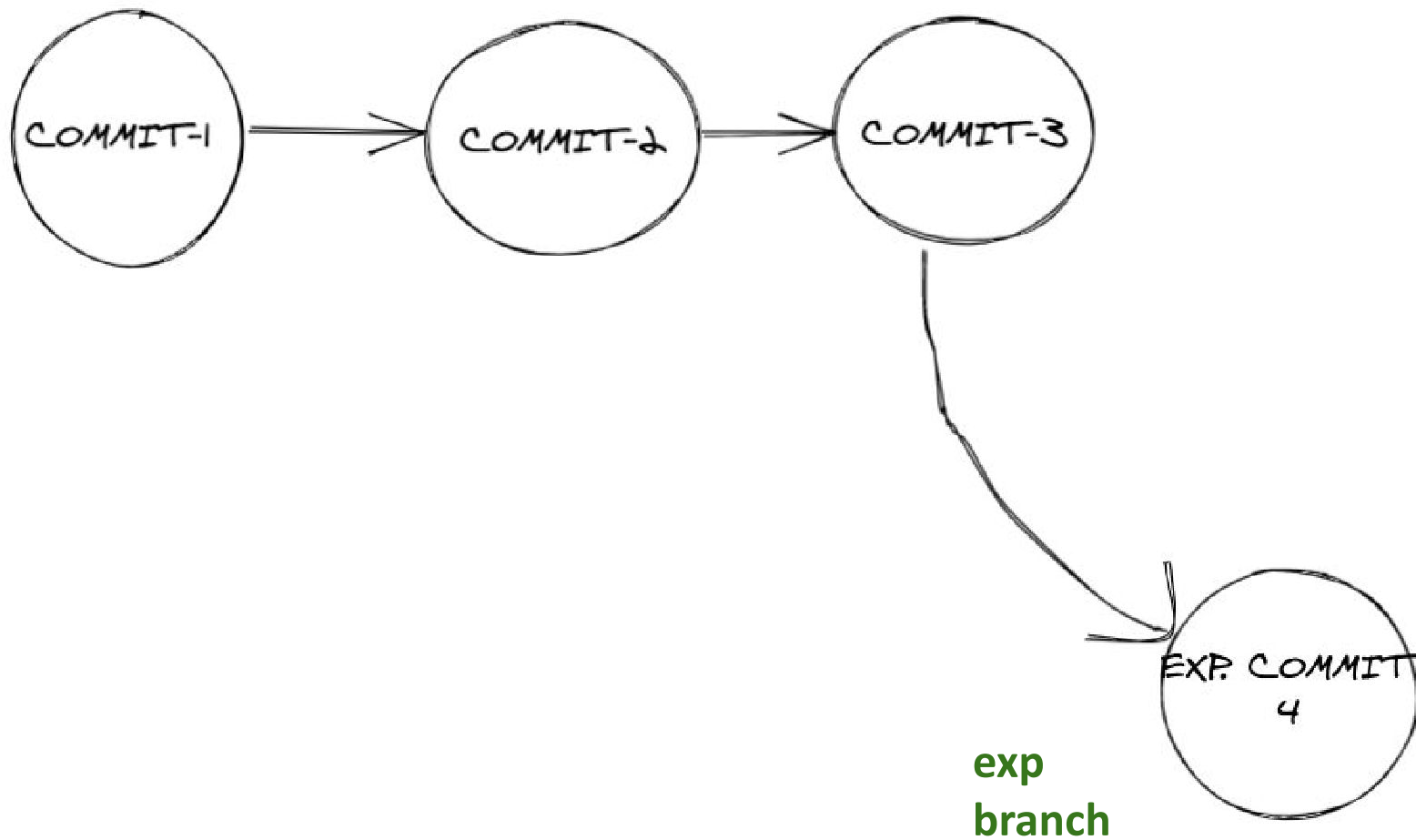


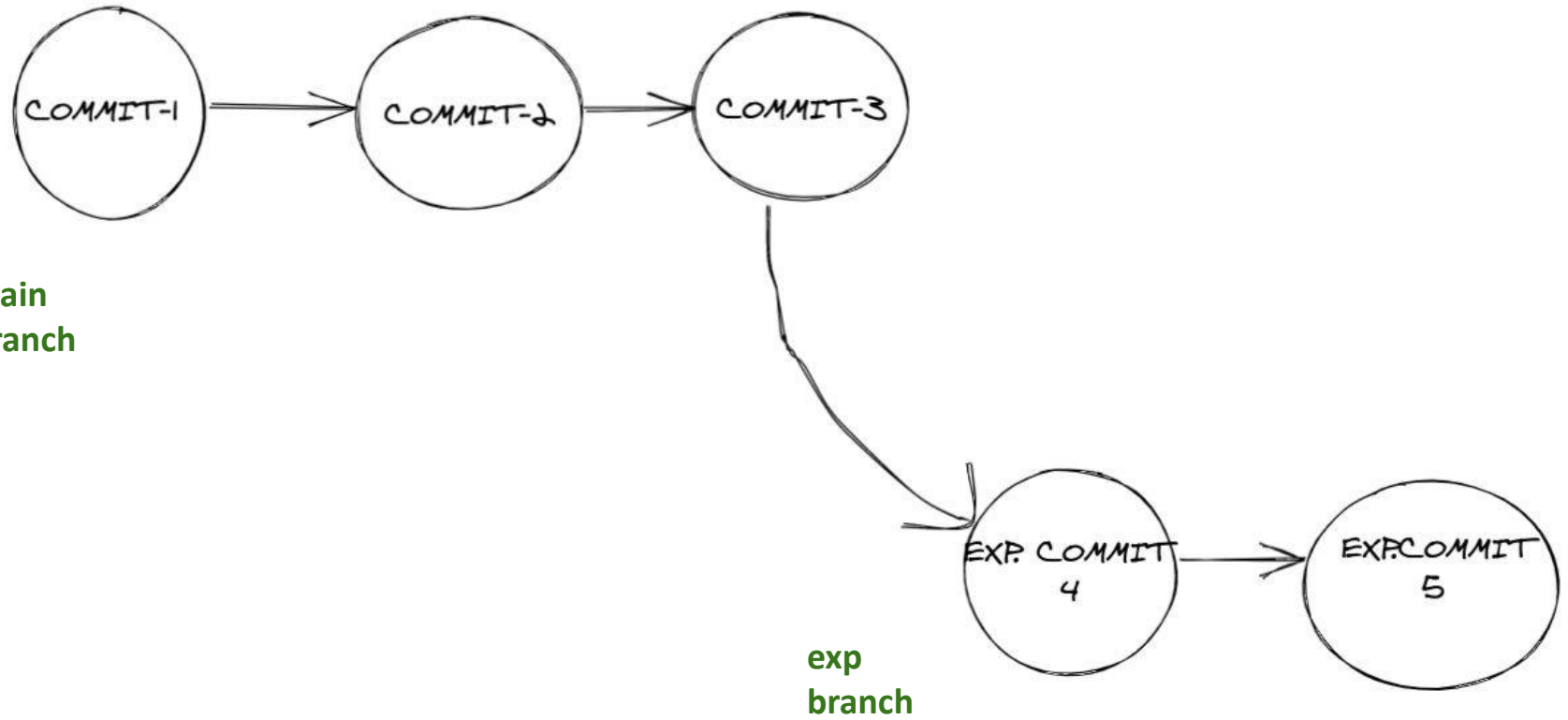
main
branch

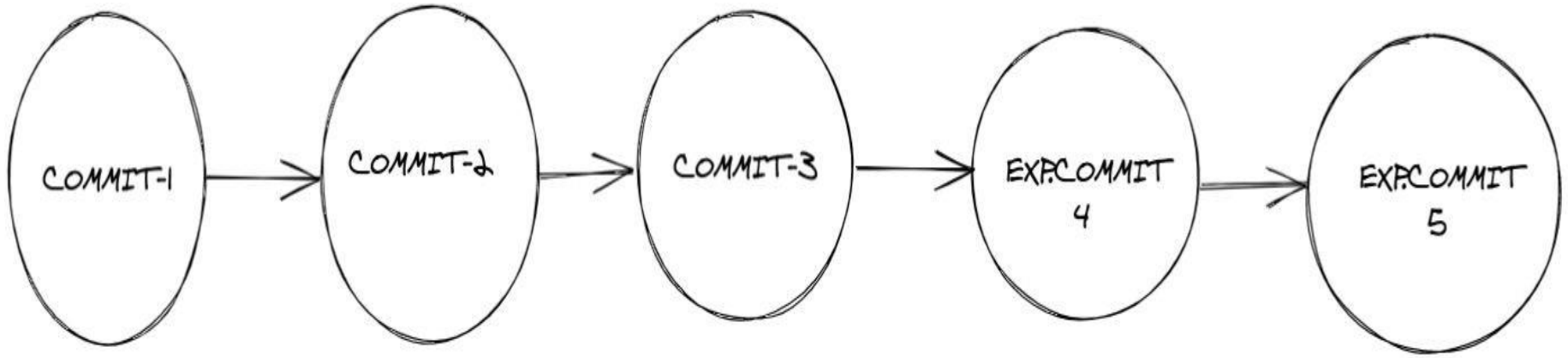


main
branch

main
branch





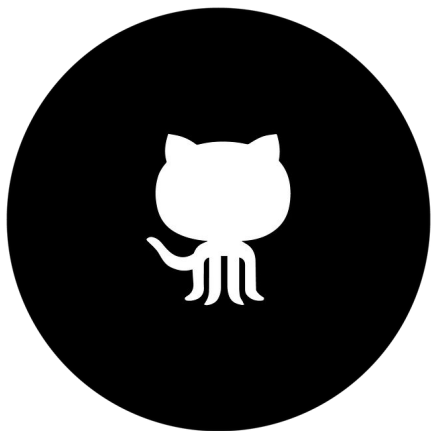


main branch after merging changes from exp branch

Hands On

Make a branch named **poke** and add poke feature

DOUBTS



Github

Alone we can do so little, together we can do so much

-Helen Keller

Github

Authentication:

- Personal Access Token

Let's ~~rock~~ push and ~~roll~~
pull



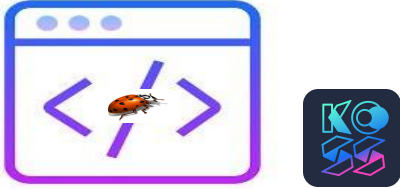
Remotes

origin = https://github.com/username/repoName

Demo - Send a PR

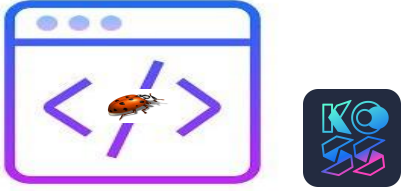
- Fork
- Clone
- New Branch
- Commit
- Push
- Pull Request (in github)

Workflow - Contributing to a Repository on



kossiitkgp/codebase

Workflow - Contributing to a Repository on

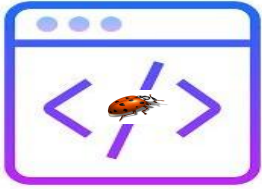


kossiitkgp/codebase



I can fix this!

Workflow - Contributing to a Repository on

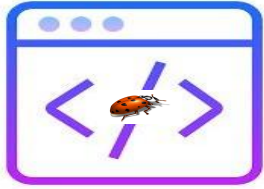


kossiitkgp/codebase

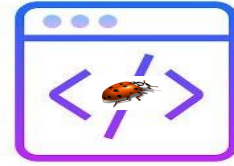


eric/codebase

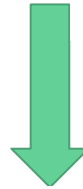
Workflow - Contributing to a Repository on



kossiitkgp/codebase



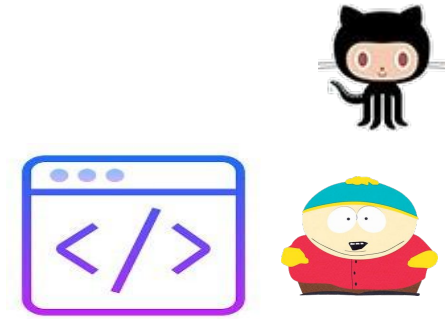
eric/codebase



Clone



Workflow - Contributing to a Repository on



eric/codebase



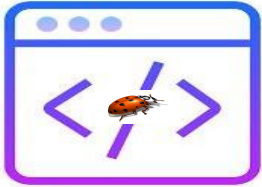
Eric works hard and
fixes the bug and he
PUSHES



Workflow - Contributing to a Repository

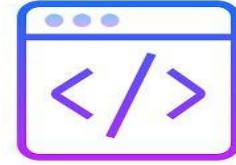


on



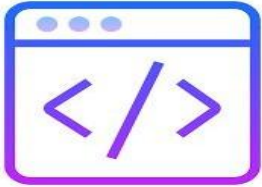
kossiitkgp/codebase

Pull Request



eric/codebase

Workflow - Contributing to a Repository on



After **MERGING** the **Pull Request**,
it is now free of bugs!

kossiitkgp/codebase

We want **you** to send a
PR



**You find a
interesting issue
in the kernel**

**You submitted
a pull request**

**Your pull request
is merged**



Some good places to try out

- Check out [metakgp repositories](#)
- Issues with label - [good-first-issue](#)
- Participate in KWoC-2022 (Keep following [KOSS on facebook](#) for updates)

For more...

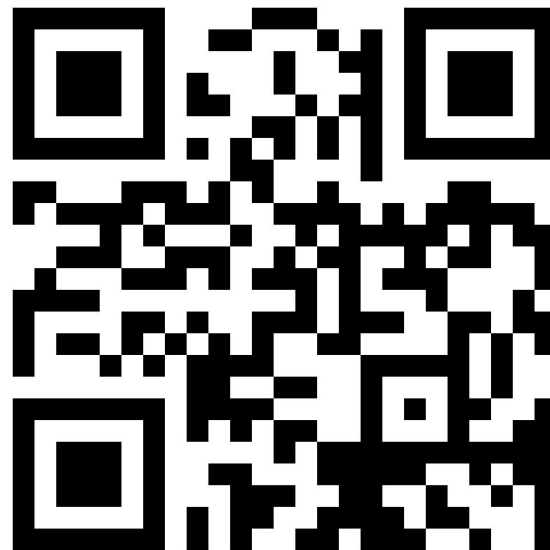
- Check out for advance resources [here](#)
- Get [GitHub Student Pack](#)
- Participate in [Hacktoberfest](#)
- Checkout out [Github Pages](#), host your static site for free



We Want Your Feedback

Feedback form - <http://bit.ly/3mEtLKJ>

Git gud at Git!



DOUBTS
