Git & Github

Workshop

Day 1
(28/01/2022)

For any comments/questions : contact

Day 1

1. Version control
2. Git
3. Github
4. Setting Up
5. Creating and using a new repo
    a. Create on github
    b. Clone, add, Commit
    c. Traceback commits
6. Extra notes

GIT?

- Free and open source version control software.
- Created by Linus Trovalds in 2005 for the linux kernel development.

But what is version control?

- Management of file changes in projects

GIT version control

What are the daily tasks in your day today work

You,

- Create
- Edit
- Save

Let's talk about the **Save**.

When do we Save ?

- Files Saves occur on changes to files.

- Usually we keep track of the changes.
  - Comments.
  - Different files.

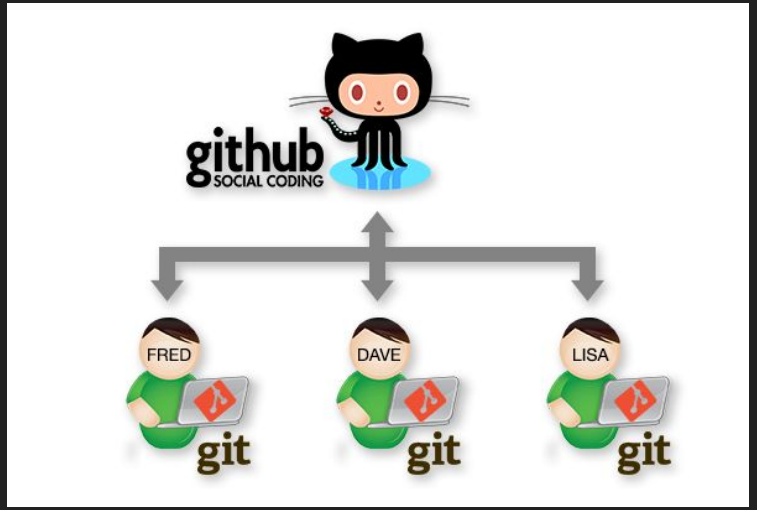
- But gets messy in the long run.

Team collaboration

Need to keep track of file changes answering

When, Why, What, Who

Need to successfully merge



Why is GIT important?

- Git can run locally without a server setup.
- Fast (Written in C++) and modern
- History of content changes
- Collaborative changes
- Easy to use commands but powerful .

Note: Start with the minimum subset and learn as you go

GITHUB

GitHub is a code hosting platform for version control and collaboration.

It lets you and others work together on projects from anywhere.

Getting started

Create a GitHub account

Download git

Git - Downloads

Git commands references

https://git-scm.com/docs

>> man git

Cheatsheet

https://education.github.com/git-cheat-sheet-education.pdf

Git Setup

1. Generate ssh keygen
   cd ~
   ssh-keygen -t rsa -b 4096 -C “email”

2. Copy and paste .pub contents on account SSH & GPG Keys
   cat .ssh/id_rsa.pub

3. Check if ssh agent is running
   eval “$(ssh-agent -s)” ← Linux
   eval `ssh-agent -s` ←WSL/Git bash

4. Add ssh key to your computer
   ssh-add ~/.ssh/id_rsa

5. Configure username and email
   git config - -global user.email “email”
   git config - - global user.name “username”

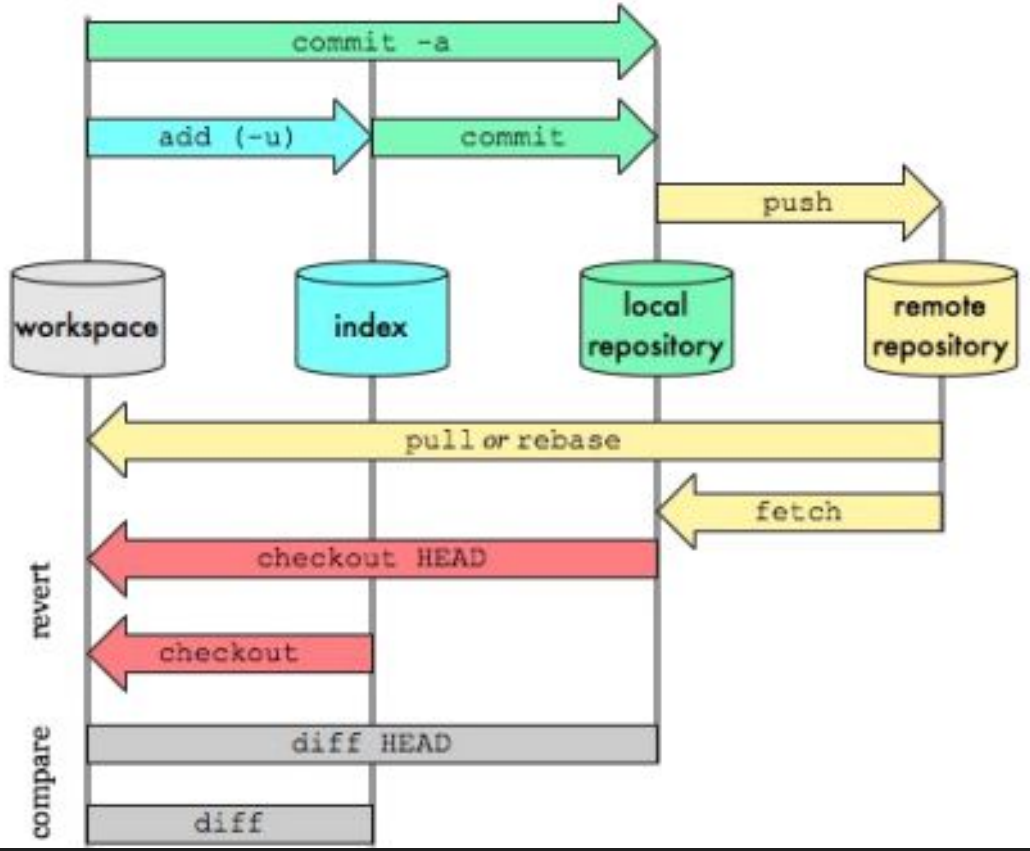
Creating a repo

Demo time ….

- Create repo on github
- Clone to local computer (clone)
- Make changes
- Create first commit (add, commit , push)
- See logs (checkout)
- gitignore
- undo (reset)

Git Data Transport Commands

http://osteele.com



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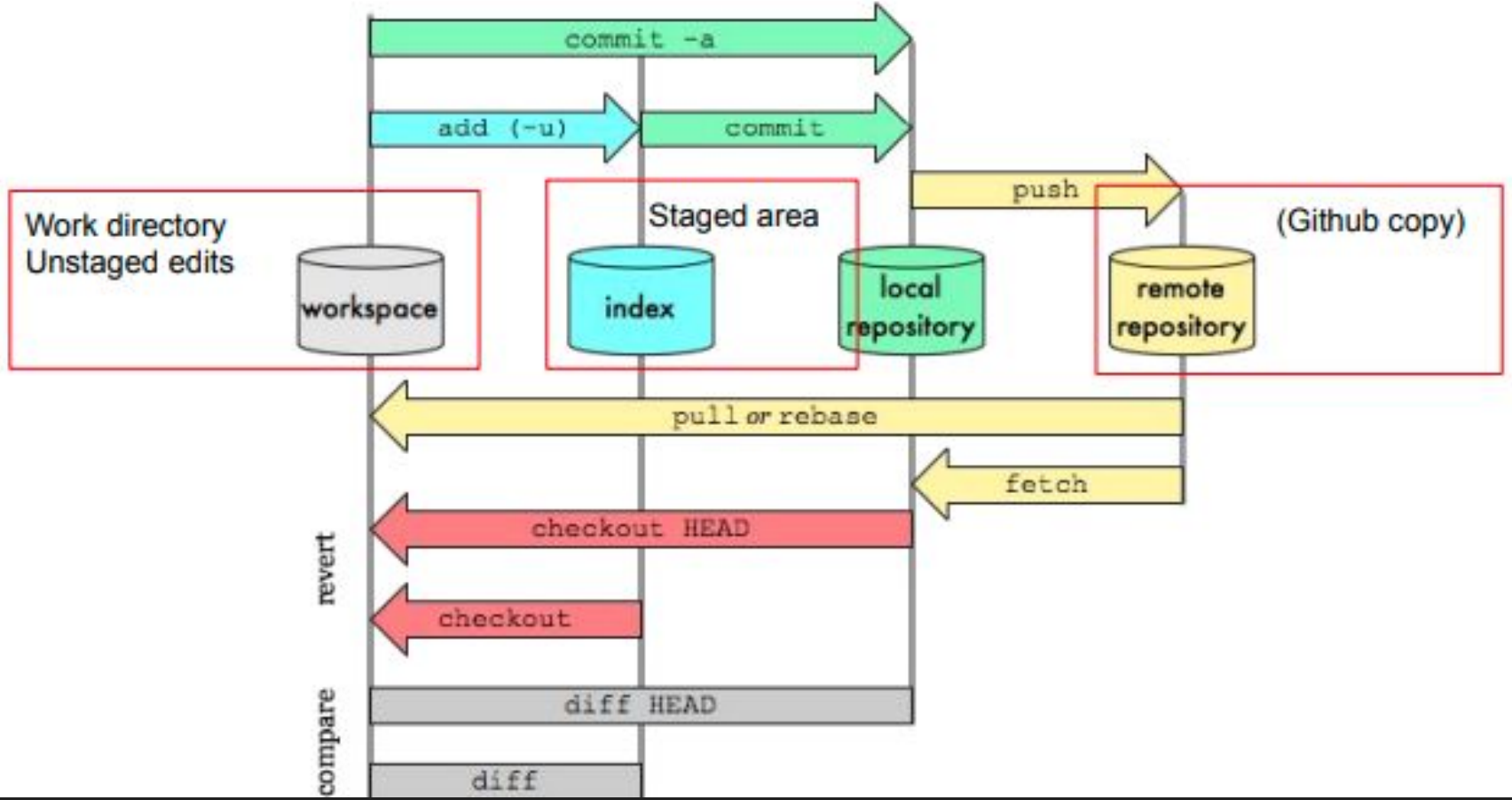

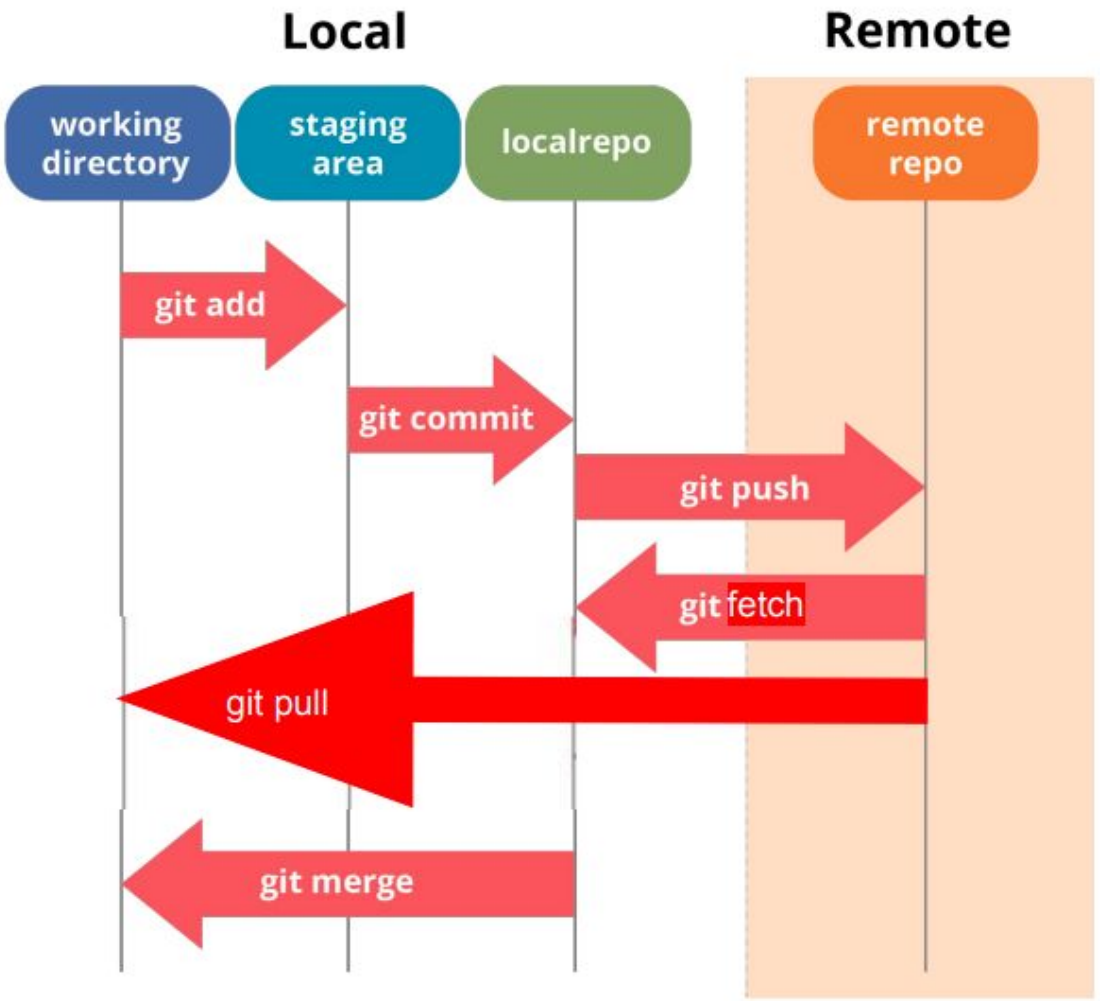
Local
Remote
working directory
staging area
localrepo
remote repo
git add
git commit
git push
git fetch
git pull
git merge

Extra Notes

1. .gitignore / .git
2. Website on git - https://docs.github.com/en/pages/setting-up-a-github-pages-site-with-jekyll/creating-a-github-pages-site-with-jekyll
3. Using ‘.’ in github
4. cepdnaclk

Links

Setting up ssh - https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent

Git Bash setup - https://gist.github.com/bsara/5c4d90db3016814a3d2fe38d314f9c23

Wsl Setup - https://docs.microsoft.com/en-us/windows/wsl/install