git
Because we like silly names

Sachin

Red Hat

February 1, 2018

What is git?

A programs that remembers the changes in your file(s)

Other version control systems

- Mercurial(hg)
- Subversion Control(svn)
- bazaar(bzr)

redhat

Why should I use git?

- Once you get familiar it will be a part of you life.
- Cleaner approach to file management

redhat.

Usefulness

I'm no coder or a developer, can I use git?

Basic concept

Figure 1: life of a file

Installing `git`

```
1   # RHEL/Fedora
2   sudo dnf install git
3   # or
4   sudo yum install git
5
6   # Ubuntu
7   sudo apt-get install git
```

redhat.

Basic setup

```
1   # Your name
2   git config --global user.name "Sachin"
3
4   # Your Email
5   git config --global user.email "psachin@redhat.com"
```

redhat

Create a project

```
1  git init octo
2
3  # Check status of project
4  cd octo
5  git status
```

Add file to the project

```
1   # Create file
2   echo "git -- a version control tool" > introduction.txt
3
4   # Add file
5   git add introduction.txt
6
7   # or add everything within current directory
8   git add .
9
10  # or add files using wild card entries
11  git add *.txt
```

Check status of your project

```
git status
```

Commit if your are happy :D

```
git commit -m "My message"
```

redhat.

Make changes to file

```
echo "I use it to manage project" >> introduction.txt
```

See changes w.r.t last commit

```
1  git diff
2  # or
3  git diff introduction.txt
```

redhat.

Update modified file(s)

```
1   # to update already committed file
2   git add -u
```

(*do some more commits*)

redhat

View commits

```
git log

# Each commit on single line
git log --oneline

# A more decorated view. Looks great when working with branch
git log --graph --decorate --oneline
```

redhat

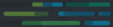The world's leading software development platform · GitHub

https://github.com/

Duck Duck Go

The world's leadi...

Features   Business   Explore   Pricing

Search GitHub

Sign in or **Sign up**

Built for developers

GitHub is a development platform inspired by the way you work. From **open source** to **business**, you can host and review code, manage projects, and build software alongside millions of other developers.
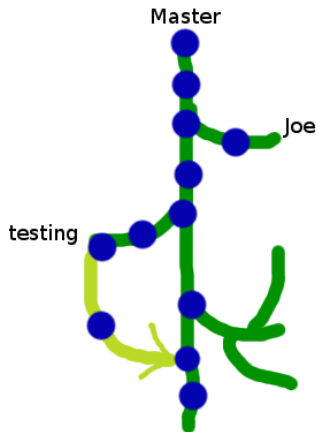
Your email address

Create a password

Use at least one letter, one numeral, and seven characters.

Sign up for GitHub

By clicking "Sign up for GitHub", you agree to our **terms of service** and **privacy policy**. We'll occasionally send you account related emails.

redhat.

Git branch?

Git branch

```
1  # Create new branch from master
2  git branch new-feature
3
4  # Change from master branch to new-feature branch
5  git checkout new-feature
6
7  # Or perform above steps in one go
8  git checkout -b new-feature
```
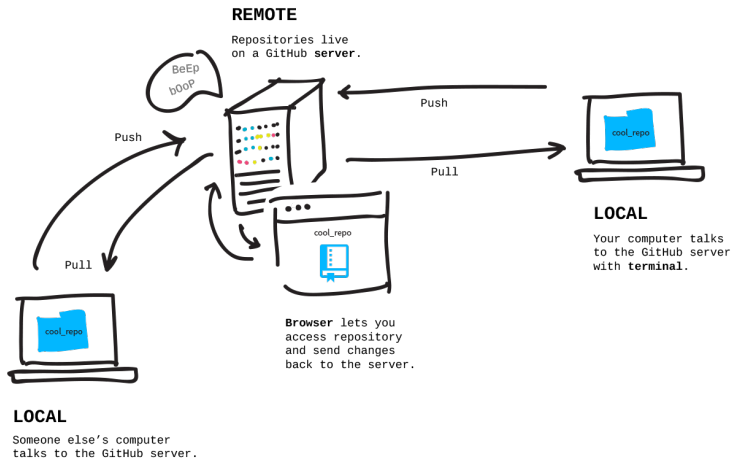
Git remote

REMOTE

Repositories live
on a GitHub **server**.

Push

Push

Pull

LOCAL

Your computer talks
to the GitHub server
with **terminal**.

cool_repo

cool_repo

BeEp
bOoP

Pull

Browser lets you
access repository
and send changes
back to the server.

LOCAL

Someone else's computer
talks to the GitHub server.

cool_repo

Image source: http://jlord.us/git-it/challenges/remote_control.html redhat

Git remote

```
1   # Display remote host
2   git remote
3   # Or add verbosity
4   git remote -v
5
6   # Syntax: Add remote hosts
7   git remote add <REMOTE_NAME> <REMOTE_URL>
8
9   # Example
10  git remote add origin https://github.com/psachin/octo.git
```

redhat

git pull/push

```
1   # Syntax: Push commit for the first time
2   git push -u <REMOTE_NAME <BRANCH_NAME>
3
4   # Example
5   git push -u origin master
6
7   # You can use 'git push' afterwards
8
9   # To download latest changes from current branch
10  # (assuming remote is added)
11  git pull
```

redhat.

Hosting sites

- savannah.gnu.org
- gitlab.com
- github.com
- bitbucket.org
- sourceforge.net
- notabug.org

Thanks

git

https://git-scm.com/book/en/v2

Thanks

Email

psachin@redhat.com

IRC

psachin@{freenode, gnome, OFTC}

Blog

https://psachin.github.io