git
because we like silly names

Sachin

Indian Institute of Technology, Bombay

May 27, 2014

What is git?

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

Other version control systems

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

Why should I use git?

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

Usefulness

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

Basic concept

scipy_proposal.org

scipy_proposal1.org

scipy_dec_18_2013.org

scipy_dec_24_2013.org

scipy_dec_final.org

scipy_cfp.org

Figure 1: life of a file

Installing `git`

Ubuntu(or Debian)

`sudo apt-get install git`

From source - Download and compile/install

`http://git-scm.com/downloads`

Basic setup

Your name

```
git config --global user.name "Sachin"
```

Your Email

```
git config --global user.email "isachin@iitb.ac.in"
```

Make a project

Make a directory/folder to store your file(s)

`mkdir octo`

Tell git to manage it

Initialize git

`git init`

at this time I want to know the status of my project

`git status`

Add file to your project

```
git add <FILE NAME>
```

for files with similar extensions

```
git add *.txt
```

to add everything

```
git add .
```

Check status of your project

```
git status
```

Commit it if your are happy :D

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

See changes w.r.t last commit

`git diff`

Difference w.r.t file

`git diff <FILENAME>`

Update modified file(s)

to update already committed file

`git add -u`

(*do some more commits*)

View commits

```
git log

git log --oneline

git log --graph --decorate --oneline
```
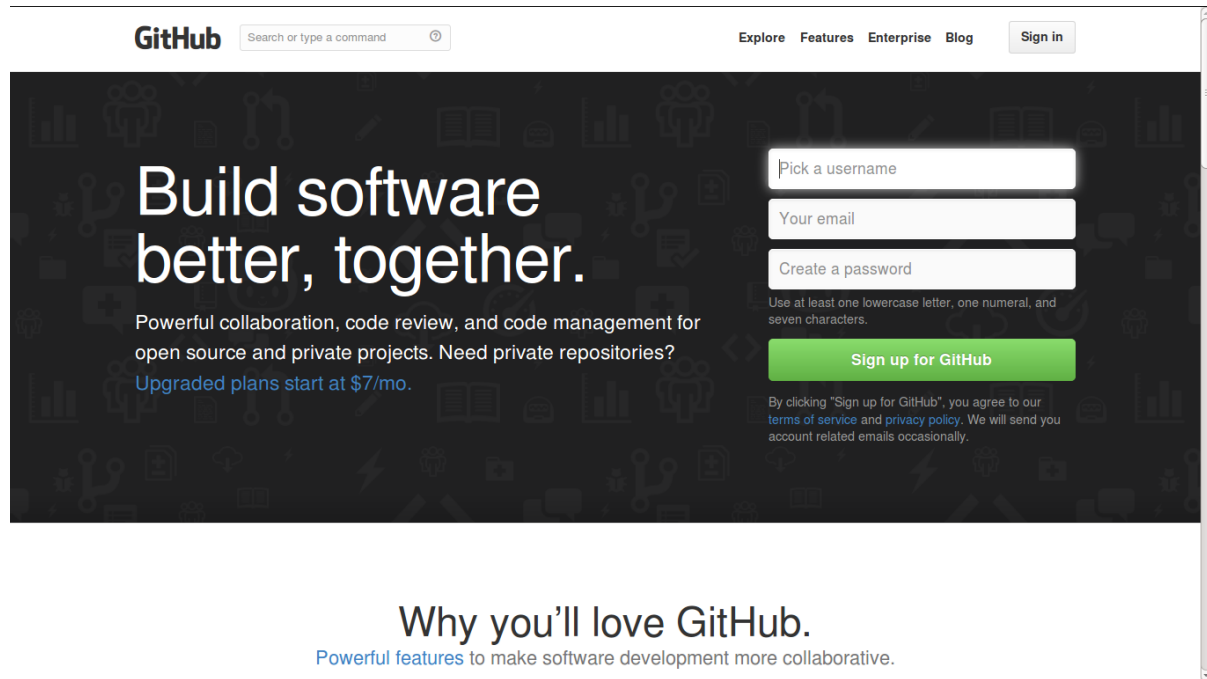
Get back to old commit

- With no history

  ```
  git reset --hard <COMMIT HASH>
  ```

Hosting your code

Figure 2: GitHub
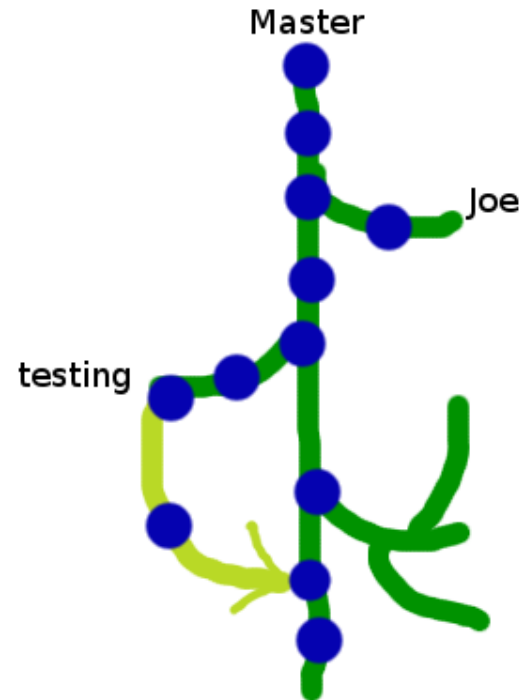
Git branch: What is that?

Figure 3: Git branches

Hosting sites

- github.com
- gitlab.com
- bitbucket.org

`isachin@iitb.ac.in`

Reference

- *Pro Git*

Links

- http://git-scm.com/