### Git and GitHub

**Contributing to Open Source** 

### **GitHub** Campus Experts









Vaibhav Shrivastava mishuvs Campus Expert





Shri Govindram Seksaria...

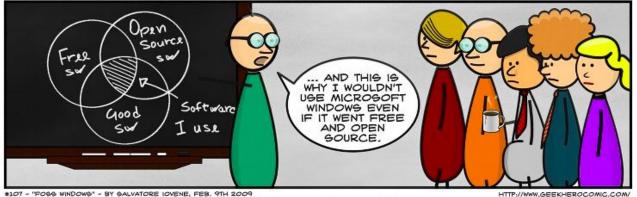
## What's Open Source?

Open source software is software that users have the ability to run, distribute, study and modify for any purpose.

Open source is a collaborative software-development method that harnesses the power of peer review and transparency of process to develop code that is freely accessible.

Open source is only as strong as the community behind it!!





## Why contribute to Open Source softwares? What's in it for me?

## $\overline{n}$

## Contributing to YOUR CAREER

## secret patented formula to GETTING ANY JOB YOU WANT:

- 1. Learn skills and gain experience using those skills
- 2. Create public artifacts that demonstrate those skills
- 3. Make connections with people that need those skills

Brandon Keepers, GitHub

## open source is a great way to gain *experience*, build a *reputation*, and make *connections*.

# Open Source is the ultimate referral

Chris Dibona, Google Contributing to open source may not bring you fame or niches,

but it will bring you experience, opportunity, and fulfillment.

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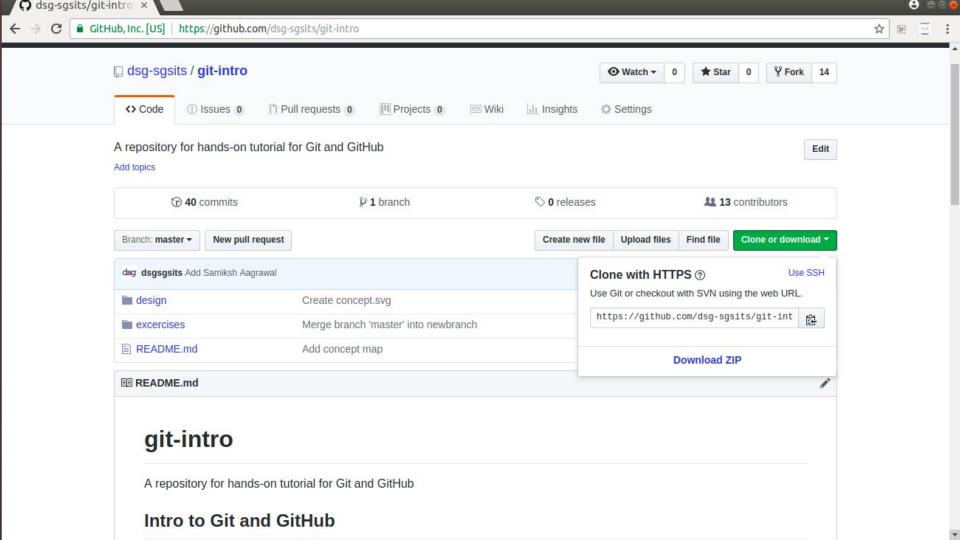








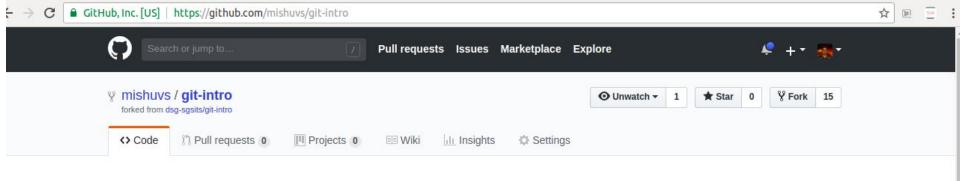
## Let's learn to collaborate



### **Forks**

A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.





### Forking dsg-sgsits/git-intro

It should only take a few seconds.



#### vaibhav@terminator: ~/qit-workshop/qit-intro File Edit View Search Terminal Help



vaibhav@terminator:~/git-workshop\$ git clone https://github.com/dsg-sgsits/git-intro.

ait

Cloning into 'git-intro'...

vaibhav@terminator:~/git-workshop\$ ls

git-intro

remote: Counting objects: 126, done.

remote: Total 126 (delta 0), reused 0 (delta 0), pack-reused 126

Receiving objects: 100% (126/126), 23.94 KiB | 5.98 MiB/s, done.

Resolving deltas: 100% (41/41), done.

vaibhav@terminator:~/git-workshop\$ cd git-intro/ vaibhav@terminator:~/git-workshop/git-intro\$ ls -a design excercises .git README.md vaibhav@terminator:~/git-workshop/git-intro\$

```
vaibhav@terminator: ~/git-workshop/git-intro/excercises

File Edit View Search Terminal Help
vaibhav@terminator: ~/git-workshop/git-intro$ ls
design excercises README.md
vaibhav@terminator: ~/git-workshop/git-intro$ cd excercises/
```

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ cat gdg-attendees.txt

//<seat\_no / unique\_no> <name> (put your name on line number = your seat number + 2)

s.txt

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ ls

vaibhav@terminator:~/git-workshop/git-intro/excercises\$

//attendee names here seat numbers:

attendees.txt gdg-attendees.txt 'paragraph 1' ss1.txt ss.txt

```
gdg-attendees.txt
  GNU nano 2.9.3
//attendee names here seat numbers:
//<seat_no / unique_no> <name> (put your name on line number = your seat number + 2)
00: Vaibhav Shrivastava
                                  [ Read 3 lines ]
^G Get Help
              ^O Write Out
                            ^W Where Is
                                          ^K Cut Text
                                                        ^J Justify
                                                                      ^C Cur Pos
              ^R Read File
                                          ^U Uncut Text ^T To Spell
```

Replace

vaibhav@terminator: ~/git-workshop/git-intro/excercises

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^X Exit

Go To Line

```
vaibhav@terminator:~/git-workshop/git-intro/excercises$ git branch newbranch
vaibhav@terminator:~/git-workshop/git-intro/excercises$ git status
On branch master
Your branch is up to date with 'origin/master'.
  (use "git reset HEAD <file>..." to unstage)
```

Changes to be committed: modified: qdq-attendees.txt

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git checkout newbranch

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git branch

vaibhav@terminator:~/git-workshop/git-intro/excercises\$

excercises/gdg-attendees.txt

Switched to branch 'newbranch'

newbranch

M

```
On branch master
Your branch is up to date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)
no changes added to commit (use "git add" and/or "git commit -a")
vaibhav@terminator:~/git-workshop/git-intro/excercises$ git add gdg-attendees.txt
vaibhav@terminator:~/git-workshop/git-intro/excercises$ git status
On branch master
Your branch is up to date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
       modified: qdq-attendees.txt
vaibhav@terminator:~/git-workshop/git-intro/excercises$ git commit -m "Add Vaibhav"
```

vaibhav@terminator: ~/git-workshop/git-intro/excercises

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git status

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vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git commit -m "Add Vaibhav" [master b9fa224] Add Vaibhav

1 file changed, 1 insertion(+)

(use "git push" to publish your local commits)

vaibhav@terminator:~/git-workshop/git-intro/excercises\$

nothing to commit, working tree clean

vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git status

On branch master Your branch is ahead of 'origin/master' by 1 commit.

```
File Edit View Search Terminal Help

vaibhav@terminator:~/git-workshop/git-intro/excercises$ git remote show origin

vaibhav@terminator:~/git-workshop/git-intro/excercises$ git remote show origin

* remote origin

Fetch URL: https://github.com/dsg-sgsits/git-intro.git

Push URL: https://github.com/dsg-sgsits/git-intro.git

HEAD branch: master

Remote branch:
```

master tracked

Local branch configured for 'git pull': master merges with remote master Local ref configured for 'git push':

master pushes to master (fast-forwardable)

vaibhav@terminator:~/git-workshop/git-intro/excercises\$

vaibhav@terminator: ~/git-workshop/git-intro/excercises

File Edit View Search Terminal Help vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git push myremote newbranch

Username for 'https://github.com': mishuvs

Password for 'https://mishuvs@github.com': remote: Repository not found.

fatal: repository 'https://github.com/mishuvs/git-intro/' not found vaibhav@terminator:~/git-workshop/git-intro/excercises\$ git push myremote newbranch Username for 'https://github.com': mishuvs

Password for 'https://mishuvs@github.com': Counting objects: 4, done.

Delta compression using up to 4 threads.

Compressing objects: 100% (4/4), done.

Total 4 (delta 3), reused 0 (delta 0)

remote: Resolving deltas: 100% (3/3), completed with 3 local objects. To https://github.com/mishuvs/git-intro

\* [new branch] newbranch -> newbranch

vaibhav@terminator:~/git-workshop/git-intro/excercises\$

Writing objects: 100% (4/4), 361 bytes | 361.00 KiB/s, done.









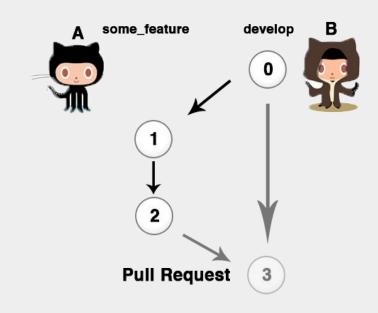


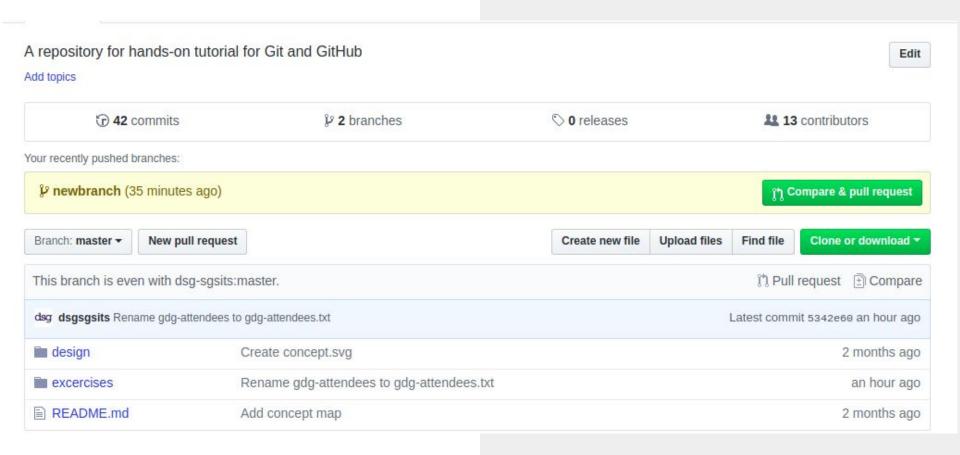




## To make a pull request:

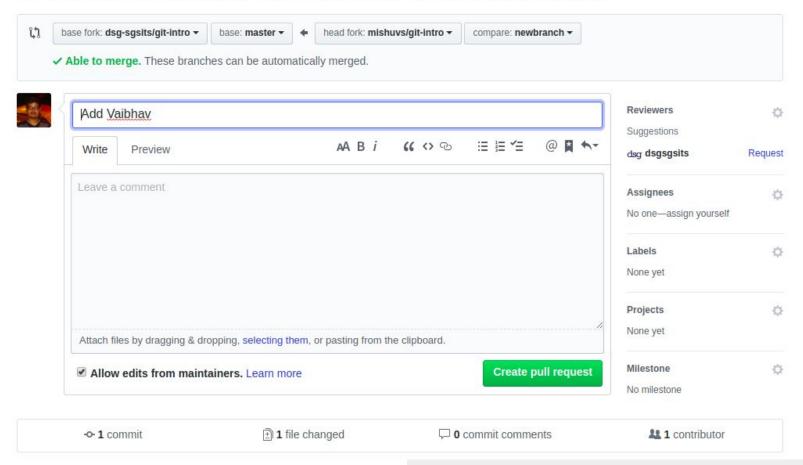
- base branch on remote
- compare branch on remote





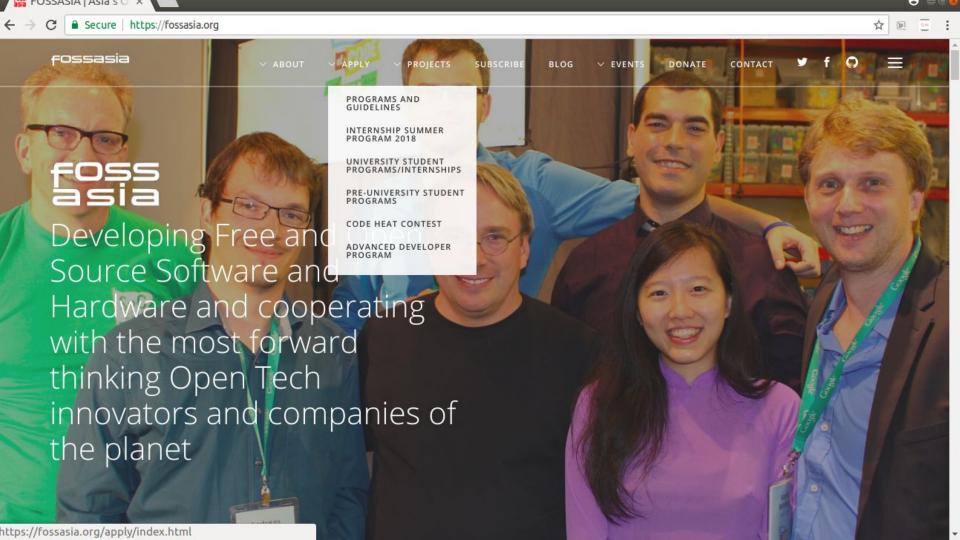
### Open a pull request

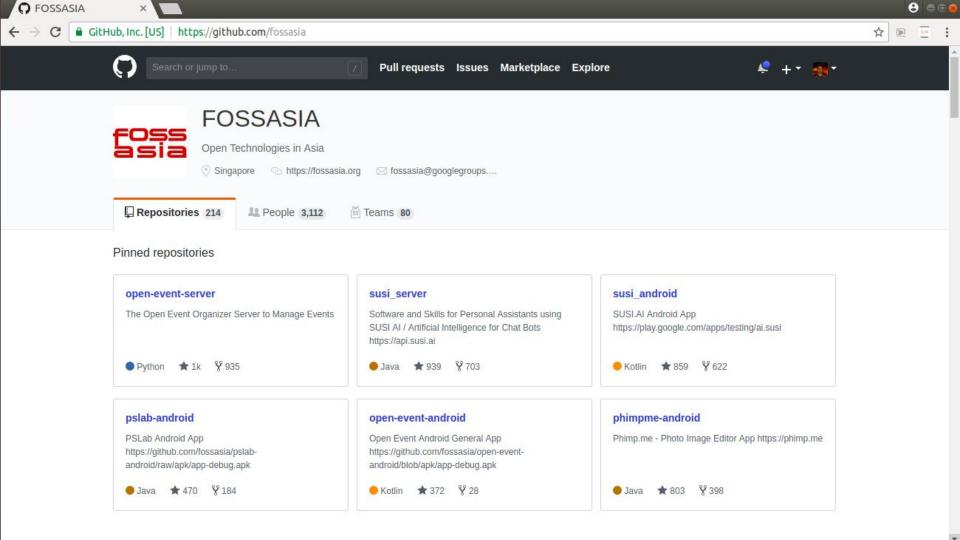
Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks.



## So, which project are you going to







### **Thanks**

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