Open Source

Enigma

Why is it called Open Source Software?

> Open : collaboration is open to all

> Source : source code

Ideals of Open Source

What are the ideals of Open Source?

> **Share** the *goal*: a broad group of contributors recognize the same need and agree on how to meet

> **Share** the *work*: projects are broken into smaller tasks, and a review process screens the best contributions

> **Share** the *result*: code should be available to all and improvements should be shared to all

Open Source and Science

> The scientific method rests on a process of discovery and a process of

justification

> For scientific results to be justified, they must be **replicable**

> Replication is not possible unless the source is **shared**

Open Source and Software

> Linux, 18 million users

> Google uses Linux (1000 queries per second!)

> Apache, Open Source web server

> Used in 69% of web servers, 15 million servers!

Open Source Projects

> Program: VS Code, https://code.visualstudio.com/

> Code Editor

> Publishing: Wikipedia, http://www.wikipedia.com

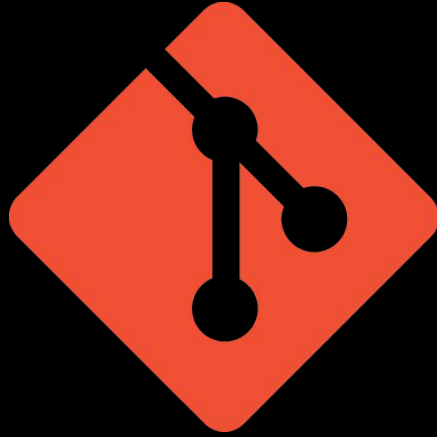> 10000 active contributors, 1000000 articles in 50 languages

> Open Source is not new!

> Open Source is not just software!

> Open Source is based on sharing!

Open Source Initiative

To promote and protect open source
software, projects and communities

Git

What is a VCS?

"A system that records changes to a file or set of files over time so that you can recall specific versions later"

But why?

> Review and revert back to previous versions

> Tryout features/bug fixes without disturbing main codebase
until you're ready

> Reproducible software development

> Clear attribution of work

What is Git?

Distributed (Decentralized)
Version Control System
(VCS)

GIT DOESN'T DELETE

> Git generally only adds data

> If you mess up, you can usually recover
your stuff

> Recovery can be tricky though
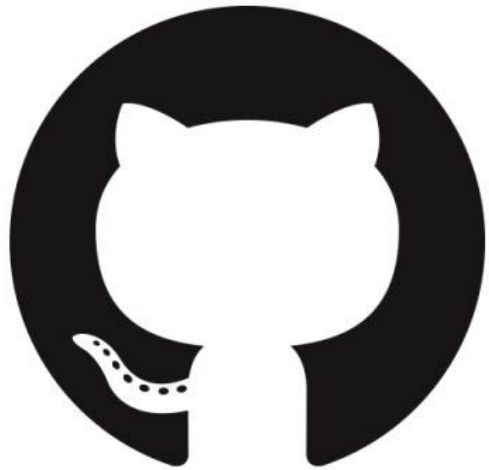
Wut?

A web service for hosting your Git Repositories and managing software projects (e.g. bug tracking, team organisation)

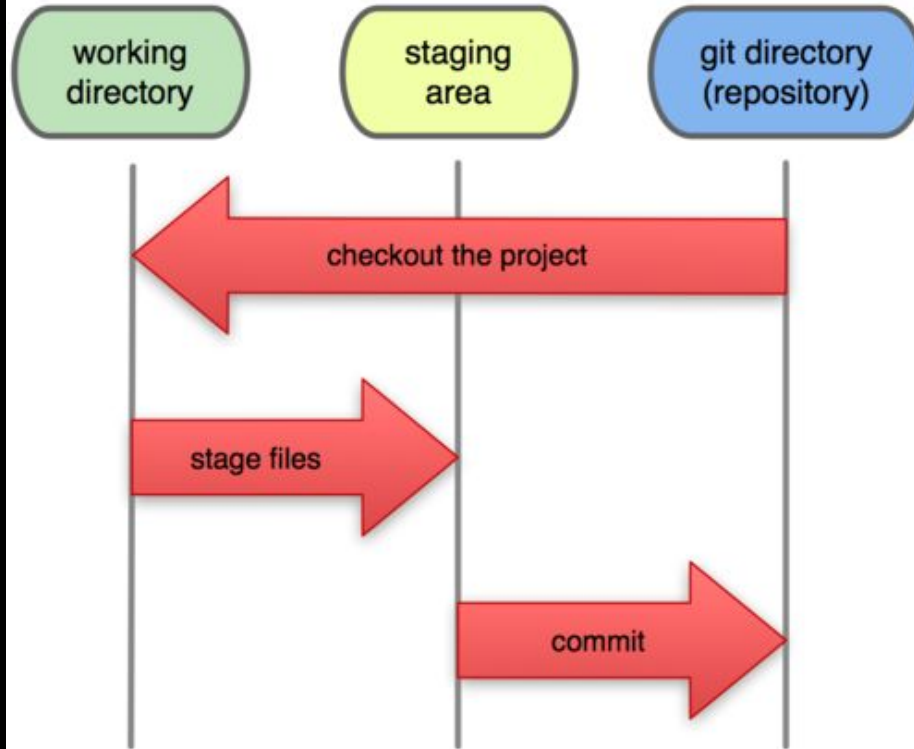**Public GitHub repositories allow you to develop your software in the open**

> Transparency
> Benefit from community collaboration
> Distribute code

Make your GitHub Account

Workflow

Terminology

> **Repository**

A directory that has been "initialized" so that git can record changes made to files within it. Often shortened to "repo".

An initialized repository has a .git folder in it.

`$ git init`

Terminology

> Add

    Add files to the repository locally

<p style="text-align:center">$ git add name_of_file</p>

> Remove

    Remove files from the repository locally

<p style="text-align:center">$ git rm name_of_file</p>

Terminology

> **Commit**

Record changes to a repository

$ git commit -m "commit message"
$ git commit -m "upgrade to include c9 installation"

> **Log**

Show the log

$ git log

Terminology
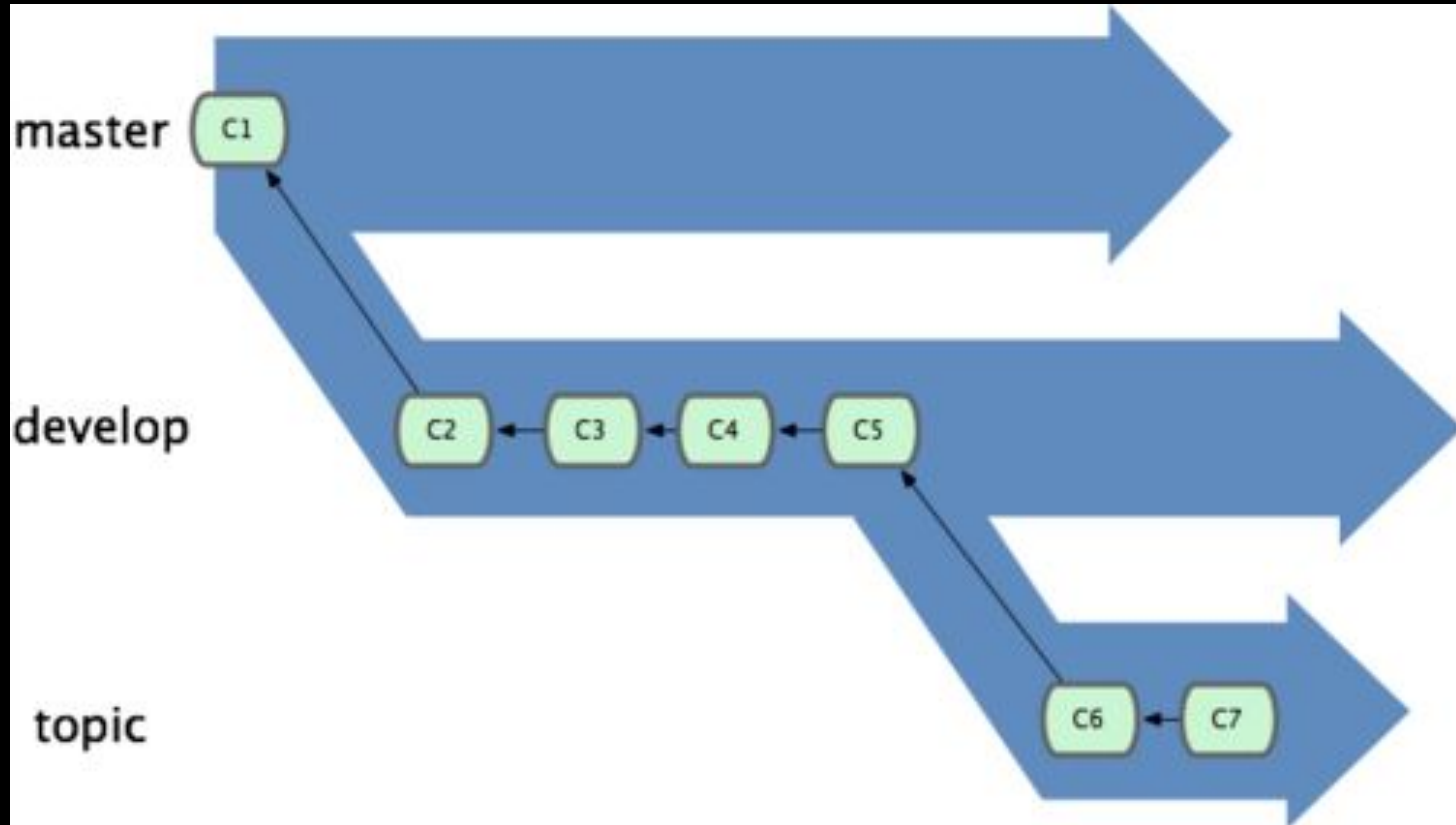
> **Unmodify modified file**

$ git checkout -- *filename*

> **Revert a commit**

$ git revert *commit*

Branches

Branch Management

> Create new Branch

    `$ git branch` *branch*

    `$ git checkout -b` *branch* `master`
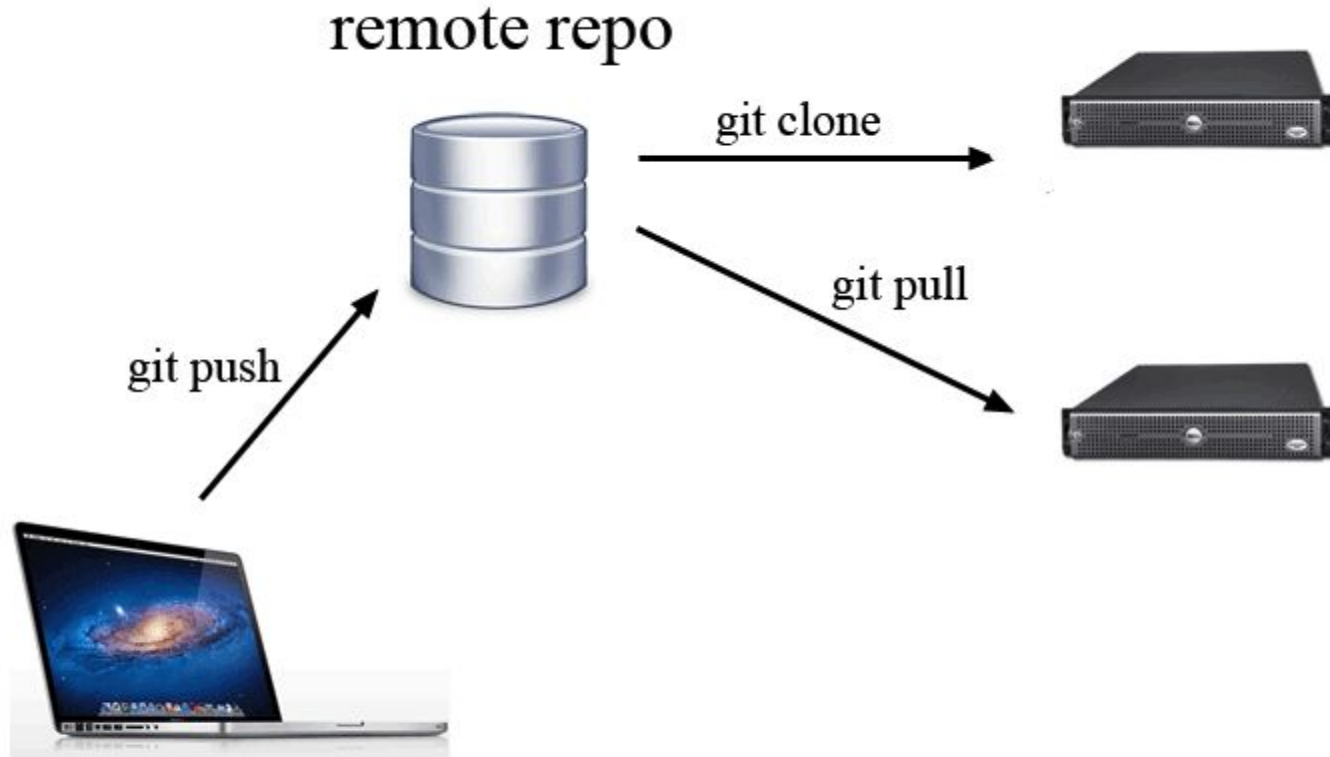
> Switch Branch

    `$ git checkout` *branch*

> Delete Branch

    `$ git branch -d` *branch*

> Show All Branch

    `$ git branch -d` *branch*

Remote Repository

Remote Management

> Push to remote

    $ git push origin *branch*

> Fetch & Merge

    $ git pull

> Clone

    $ git clone *url*

> Fetch

    $ git fetch *branch*

> Merge

    $ git merge *branch_1 branch_2*

> Cherry pick

    $ git cherry-pick *commit*

```
$ git status
```

Discord

Enigma - CS Club | MEC

5 ONLINE

O2

rules-and-info
announcements
faq

GENERAL
chat
tech-chat
off-topic
beginners
articles-videos-and-intere...
ideas-exchange
courses

ADMIN
admin
bot-test-admins
admin-voice

COMMUNITY
suggestions
project-listings
project-discussion
bot-commands
competitions

FORKS
fork-heads-discussion
fork-voice

IceCereal✳
#4108

June 21, 2018

RaghavThePinkCereal 06/21/2018
http://archive.is/Lzyeo 🤣🤣🤣 pretty funny article

archive.is
How To Write Unmaintainable Code
archived 12 Sep 2017 10:35:53 UTC

August 8, 2018

The Toothbrush Last Wednesday at 9:44 PM
oh this place is way better

RaghavThePinkCereal Last Wednesday at 9:51 PM
This is not a spam place... 🐸

The Toothbrush Last Wednesday at 9:51 PM
yeah thats the point

August 9, 2018

RaghavThePinkCereal Last Thursday at 11:57 PM
So, some people were asking me about how to make a discord bot. I learnt from this reference:
https://www.devdungeon.com/content/make-discord-bot-python
If anyone is making a discord bot, you can ping me and I'll help you along the way.

DevDungeon
Make a Discord Bot with Python
This tutorial walks through the process of creating a server, creating
a bot, and writing a custom Python script to power the bot.

August 10, 2018

rahulkumaran Last Friday at 12:01 AM
Just make sure that if you put your code on GitHub and host it on heroku or openshift or something, make the private access key an environment variable on the platforms. Don't make the access key public ! You might lose control over your bot lol

RaghavThePinkCereal Last Friday at 12:12 AM
🐹

Message #tech-chat

PRESIDENT—1
rahulkumaran

VICE-PRESIDENT—1
RochanAvlur
Listening to Spotify

SECRETARY—1
RaghavThePinkCereal

BOT—1
Dyno BOT
Playing dynobot.net | ?help

MEMBER—3
ironman19
MAK
Varshith Reddy

OFFLINE—161
_luckycharms00
aadil53
aaliya ahmad
Abdul Mateen
abhay_daga
Abhijeeth
Abhinav kolla
Abhishek Malapaka
AciRaw Morph
adibhoju
aditya98

RaghavThePinkCereal Aug 8, 2018 9:51 PM

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Aug 9, 2018

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yeah thats th

RaghavThePi
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Varshith Reddy

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RaghavThePinkCereal Aug 10, 2018 12:12 AM
😆

Message #tech-chat

Enigma - CS Club | MEC ⋮ ⋮

Create Instant Invite

∨ INFORMATION +

rules-and-info

announcements

faq

∨ GENERAL +

chat

tech-chat

off-topic

beginners

# articles-videos-and-interes...

ideas-exchange

courses

∨ ADMIN +

IceCereal❄️
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RaghavThePinkCereal Aug 10, 2018 12:12 AM
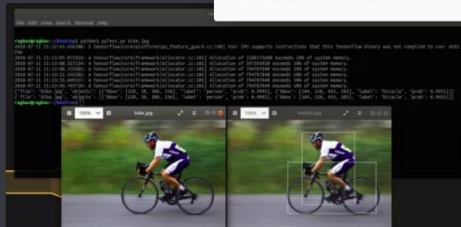
Message #tech-chat

Pinned Messages

Channel Settings

Screenshot_from_2018-0

RaghavThePinkCereal Jul 11, 2018 9:22 PM
As you can see, it's super cool!

Jul 29, 2018

RochanAvlur Jul 29, 2018 10:24 PM
https://developers.google.com/machine-learning/guides

Google Developers
ML Universal Guides | Google Developers

Simple step-by-step walkthroughs to solve
common machine learning problems using best
practices.

Aug 9, 2018

ochod Aug 9, 2018 11:17 AM
https://pjreddie.com/darknet/yolo/ Really fast object
detection algorithm

YOLO: Real-Time Object Detection

You only look once (YOLO) is a state-of-the-art,
real-time object detection system.

Message #ai-and-ml

RaghavThePinkCereal Jul 5, 2018 10:49 AM

If anyone learning ML requires some datasets for computer vision, I find this website very useful. It has datasets in many domains including human actions, medical, video surveillance and loads more.

http://www.cvpapers.com/datasets.html

RochanAvlur Feb 15, 2018 8:49 AM

https://github.com/josephmisiti/awesome-machine-learning

GitHub
josephmisiti/awesome-machine-learning

awesome-machine-learning - A curated list of awesome Machine Learning frameworks, libraries and software.

RochanAvlur Feb 15, 2018 8:47 AM

Tag me with suggestions and I'll consider updating this list along with the channel description.
Books:
(Deep Learning | MIT)
http://www.deeplearningbook.org/
(Neural Network Design) https://goo.gl/15kyPg
(Understanding Machine Learning: From Theory to Algorithms) https://goo.gl/N9k6cv

Videos:
(Neural Networks | 3Blue1Brown) https://goo.gl/CcnSLu
(AI and Games) https://goo.gl/rHqBjz
(Machine Learning with Python | sentdex)

Any Questions?