

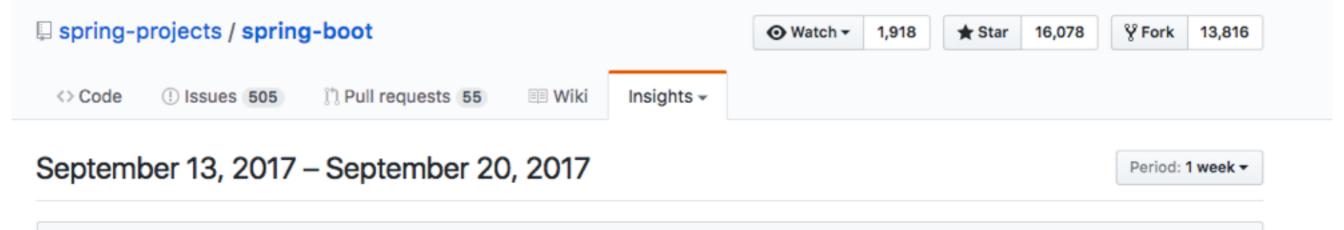
### GitHub Analytics

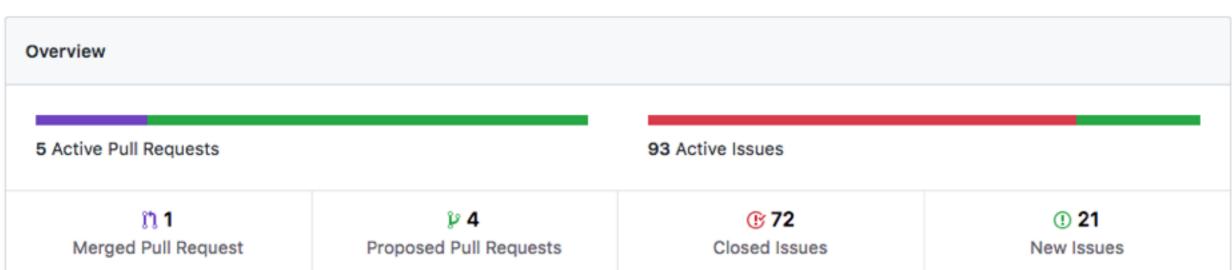
Introduction to the first project

TWEB 2017
Olivier Liechti

https://softeng-heigvd.github.io/Teaching-HEIGVD-TWEB-2017-Main/

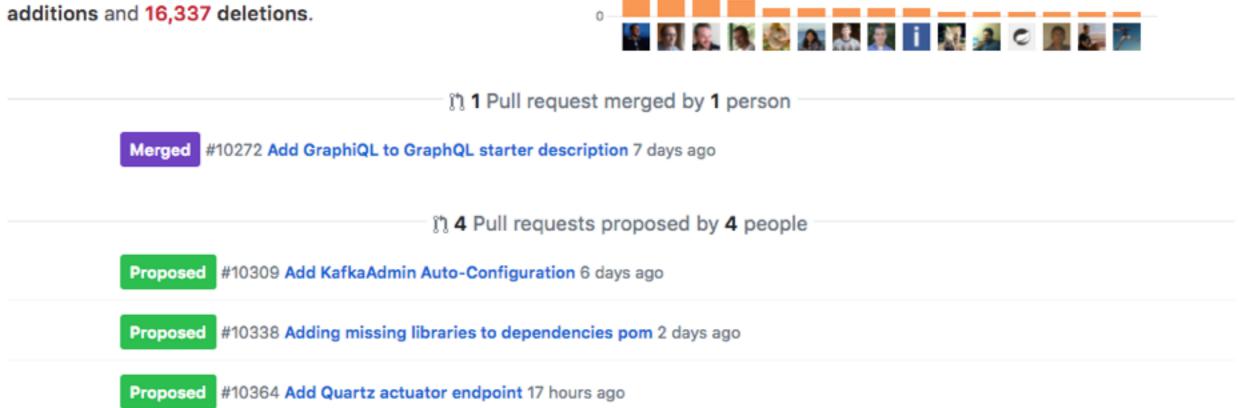
https://t.me/joinchat/CPPWmAsLLgWdXQhoXTaNHwhttps://t.me/joinchat/AAAAAEE3lWzr-jZRRMq3qg





Excluding merges, 21 authors have pushed 85 commits to master and 86 commits to all branches. On master, 466 files have changed and there have been 9,742 additions and 16,337 deletions.





REST API v3 Reference Guides Libraries Webhooks

#### Overview

This describes the resources that make up the official GitHub REST API v3. If you have any problems or requests please contact support.

- i. Current Version
- ii. Schema
- iii. Parameters
- iv. Root Endpoint
- v. Client Errors
- vi. HTTP Redirects
- vii. HTTP Verbs
- viii. Authentication
- ix. Hypermedia
- x. Pagination
- xi. Rate Limiting
- xii. User Agent Required
- xiii. Conditional requests
- xiv. Cross Origin Resource Sharing
- xv. JSON-P Callbacks
- xvi. Timezones

▶ Overview
► Activity
▶ Gists
▶ Git Data
▶ Apps
▶ Issues
▶ Migration
▶ Miscellaneous
▶ Organizations
▶ Projects
▶ Pull Requests
▶ Reactions
▶ Repositories
▶ Search

- xi. List languages
- xii. List Teams
- xiii. List Tags
- xiv. Delete a Repository

Note: The topics property for repositories on GitHub is currently available for developers to preview. To view the topics property in calls that return repository results, you must provide a custom media type in the Accept header:

application/vnd.github.mercy-preview+json

Warning: The API may change without advance notice during the preview period. Preview features are not supported for production use. If you experience any issues, contact GitHub support.

#### List your repositories

List repositories that are accessible to the authenticated user.

This includes repositories owned by the authenticated user, repositories where the authenticated user is a collaborator, and repositories that the authenticated user has access to through an organization membership.

GET /user/repos

#### **Parameters**

Name	Туре	Description
visibility	string	Can be one of all, public, or private. Default: all
		Comma-separated list of values. Can include:  * owner: Repositories that are owned by the authenticated user.

Þ	Organizations
Þ	Projects
Þ	Pull Requests
Þ	Reactions
w	Repositories
	Branches
	Collaborators
	Comments
	Community
	Commits
	Contents
	Deploy Keys
	Deployments
	Downloads
	Forks
	Invitations
	Merging
	Pages
	Releases
	Statistics
	Statuses
	Traffic
	Webhooks
Þ	Search

#### Git**Hut**

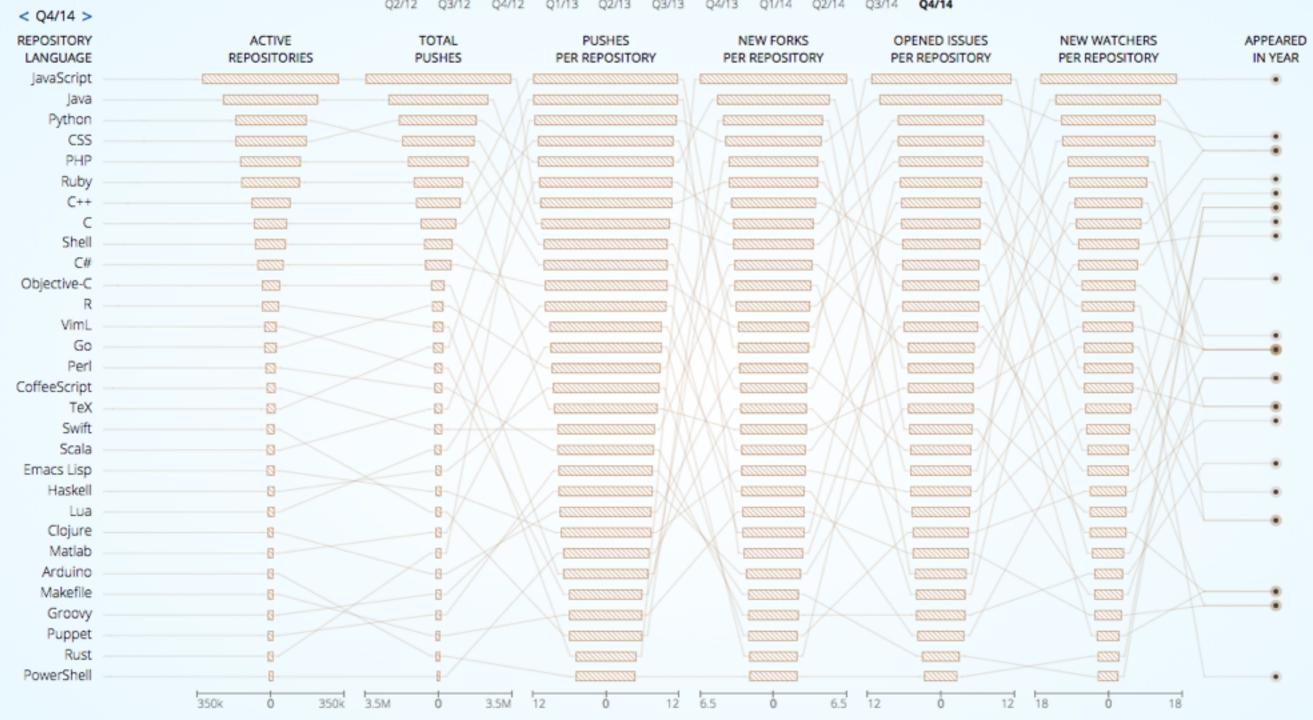






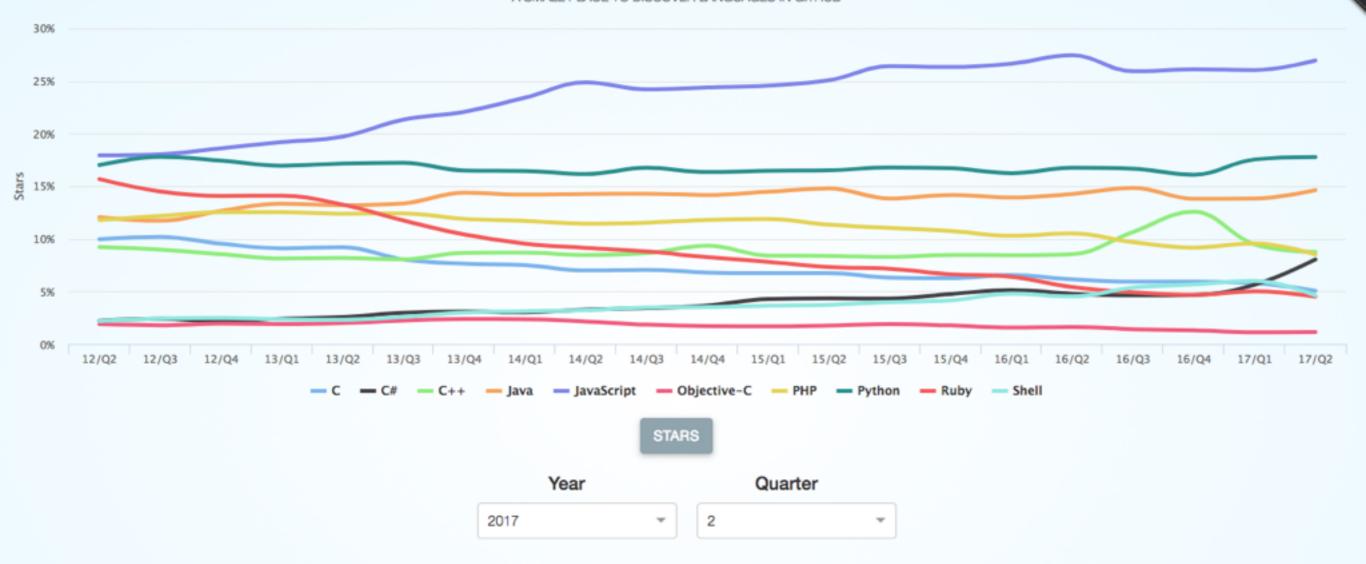
#### A SMALL PLACE TO DISCOVER LANGUAGES IN GITHUB





### GitHut 2.0

A SMALL PLACE TO DISCOVER LANGUAGES IN GITHUB



# Ranking	Programming Language	Percentage (Change)	Trend
1	JavaScript	30.519% (-0.648%)	
2	Python	12.820% (+2.472%)	^
3	Java	12.286% (+0.154%)	~
4	Go	7.059% (+1.233%)	
5	C++	4.928% (+0.374%)	^
6	Swift	4.262% (-1.267%)	~

### Medium



Felipe Hoffa (Follow)

Developer Advocate @Google. Originally from Chile, now in San Francisco and around the world. Sep 8, 2016 · 5 min read

DE GESTION  $^{\prime}\mathrm{DD}$ 



### What countries have more open source developers per capita than the US?

We are going to use GitHub Archive, GHTorrent, population statistics and BigQuery to find the answer.





### OPEN HUB An open project for an open community — IS EVOLVING provide your feedback on the Open Hub

BLOG



**BLACK**DUCK | Open Hub

PEOPLE

**☞** Follow @ OH

◆3 SIGN IN



People ▼

Search...

### People

PROJECTS

#### Account Holders



#### Stefan Küng

Lead developer of TortoiseSVN. And I've created a few other tools as well. Manages 14 projects

ORGANIZATIONS

TOOLS

Open Hub member since October 2006

Tortois...

18186

in ...

Commits

Cand 30 other languages

Tortois...

bowpad

commitM...

and 15 other projects





odvarko

Manages 2 projects

Open Hub member since March 2010

7636
In ... Commits

In ... XML
and 5 other languages

Firebug

Firebug

Firebug

Forebug

Fo

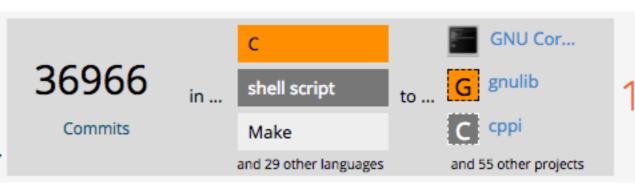




Jim Meyering

Manages 8 projects

Open Hub member since November 2007







heig-vd

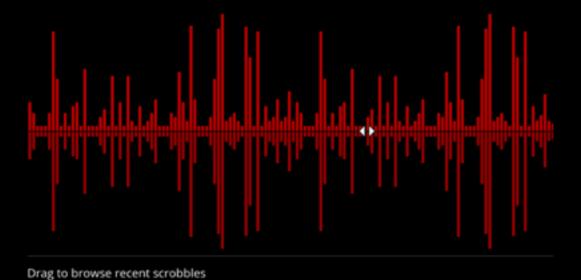
HAUTE ÉCOLE D'INGÉNIERIE ET DE GESTION DU CANTON DE VAUD

www.heig-vd.ch



#### Scrobbling Now

We're entirely powered by our community of music lovers Scroll through to see what's being listened to right now



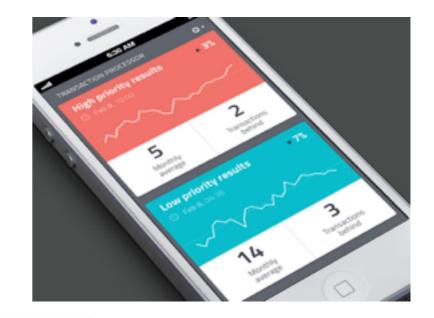
#### Vennetian Snares

Want to hear some 80s Electronic? How about some millennial Metal? Drag the circles to explore various sounds from different eras



#### **Spiking Artists**

These artists are trending globally on Last.fm right now Click one to explore the artist and their similar artists



It's almost happy hour

on **9/22/2017** at **9** : **35** AM

start the countdown





# Sketch



- Before coding anything, take the time to define what you want to build. Use paper or graphical editors.
- What is the question that you will answer in your application? In other words, what is the information that your users will obtain and why does it matter?
- How will users interact with your app? What will they see when they
  arrive on the main page? Will the interaction take place in a single page or will
  the navigate between multiple pages? What will the see on these pages?
- When will you fetch data from GitHub? How often? Will you periodically refresh this data?
- How will you deal with tasks that take a long time? For instance, if it takes
  minutes to run a new analysis, what will the user see?



# 

### Architecture



client

API server

MongoDB

simple - no need for a sophisticated framework

express.js + mongoose is an option

API v3

GitHub

# Questions



- How should I structure my project? Should I use one repo for the client and the server code? Should I use two?
- How do I build interactive pages, mixing text and graphs?
- How do I use the GitHub REST API? Should I used it from my client or my server code?
- How do I deal with asynchronous tasks in Javascript? Should I use callbacks, promises or yet another mechanism?
- How can I use a MongoDB database to store and retrieve information?
- How can I deploy my app "in the cloud" and make it accessible to world?
- Is there a way to run tasks periodically?

## Evaluation



**Deadline: October 22nd** 

GitHub Analytics	25%
Digital Story Telling	35%
Gamification	25%
Final presentations / documentation	15%

**We recommend that you work in pairs.** However, if you want to build something really impressive and want to work in groups of up to 4 students, you can do it. However, be aware that we will have significantly higher expectations for these groups (you will have a harder time to convince us about the bonus points).

# Evaluation



Criteria	Mandatory for 4.5
The app is online and publicly available (e.g. on heroku)	yes
It is possible to test the app locally, with a docker-compose up.	yes
Someone arriving on the app, without prior knowledge of the project, understands what it is about and can use it.	yes
The app uses a nice visual template.	yes
There is a repo with a README.md file that explains what the project is about, how to run it locally and how to build it.	yes
The build process invokes a linter. The linter is happy with the quality of your code (no error).	yes
The app fetches data from GitHub and presents it in the UI.	yes
The app works (no crash, no obvious problem in the interactivity, etc.)	yes

## Evaluation



Criteria	Weight
Extra effort has been put in the UI/UX.	+0.5
Extra effort has been put in the depth of the analysis ("you are not just sorting developers per commit count").	+0.5
Extra effort has been put to make the app "sticky" and/or "viral". There is something about it that makes it particularly original, fun. Or there is something that will make people come back to it.	up to +1.0
Extra effort has been put in the build pipeline.	+0.5
There is something else that you have done and that you think deserves a bonus.	+0.5

#### This is how you can earn extra points to go beyond the 4.5 grade.

If you believe that you have done something particularly interesting/challenging/valuable, **sell us the idea**. You have to convince us not only by showing it to us, but also by writing about it (and make the contribution very clear). We don't expect a 15 pages report, but something that could be published on the course blog. Every "bonus" opportunity that you take should have its own "pitch" (in markdown).