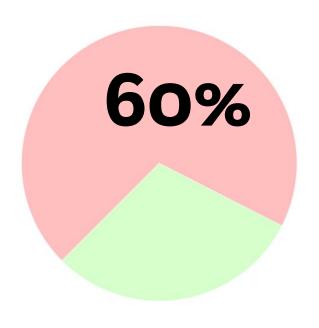
# moz://a

# Cracking the code

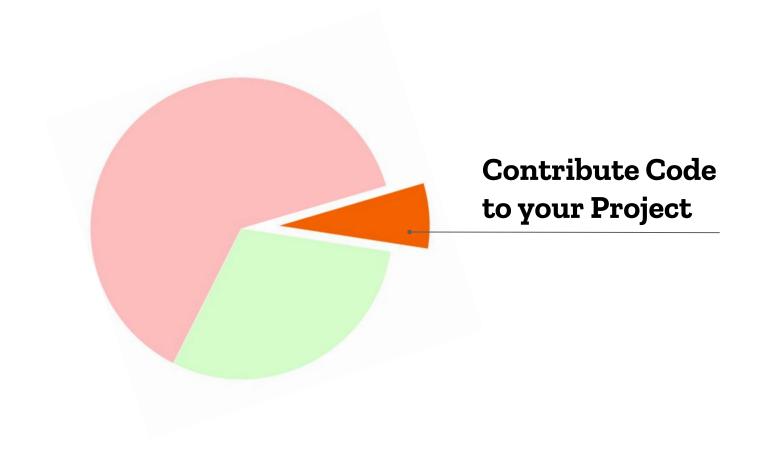
Helping University students contribute code to Open Source Projects





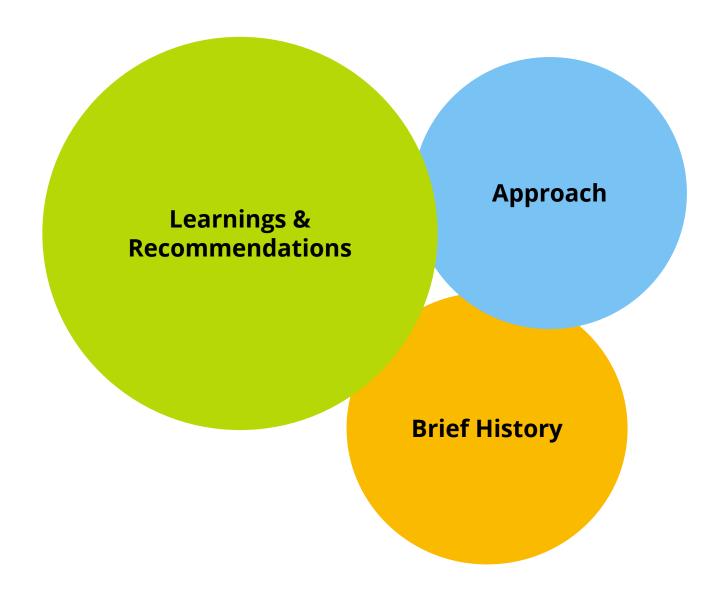
of students failed

## Now Imagine if



# Helping Students Contribute Code to Open Source

# Agenda

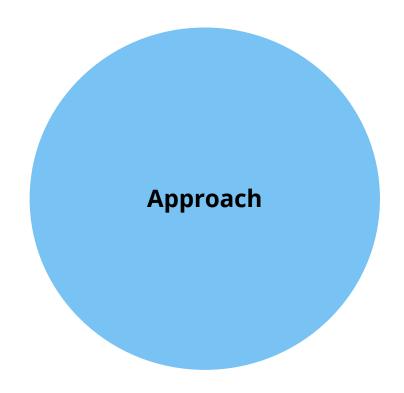


**January 2017:** Identifying the need of the Open Source Student Network

- Open Source is happening primarily outside the classroom
- There is significant interest but low literacy
- There are significant barriers to entry

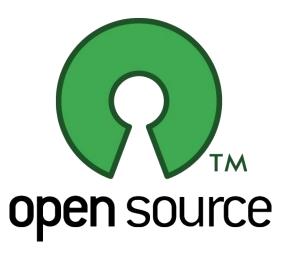
# Open Source Student Network

To fuel the open movement by creating and supporting a network of clubs on university and college campuses in the USA who are learning about and contributing to open source projects.









## User journey towards Open Source contribution

#### **Discovery**

Identifying a project(s) to work

#### **Engagement**

Diving more into the project readme, issues, mainter etc

## **Onboarding**

Setting up the development environment and finding help

#### **Contribution**

Writing code,
pushing it to the
repo and opening a
pull request

#### **Retention**

Figuring what to do after a successful contribution

## **Important Questions**



What are the information students care about?



Which mentorship model is more successful?



What is the best way for surfacing contribution opportunities?





**Approach** 

We are looking to **discover and/or validate opportunities and best practices** for supporting University Tech students throughout their journey towards contributing code to Open Source Projects.

## User journey towards Open Source contribution

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Identifying a project(s) to work

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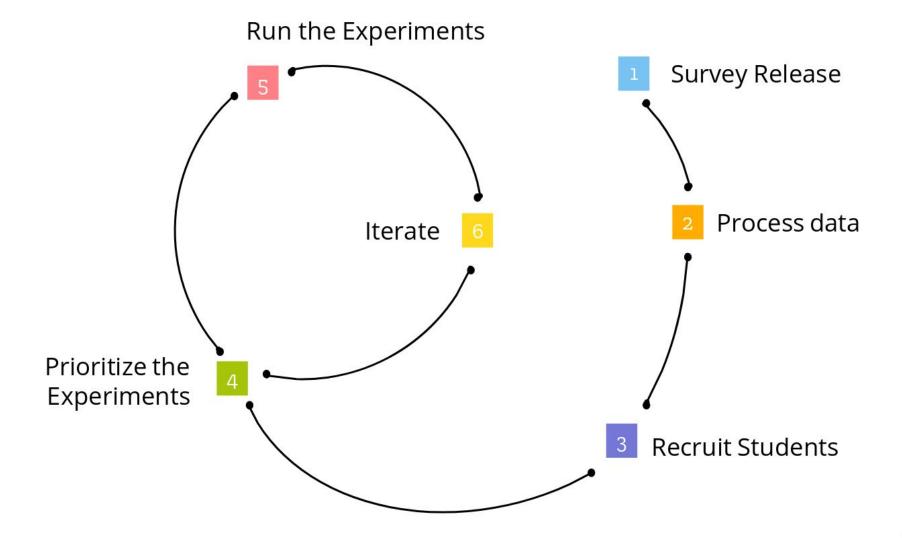
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#### **Contribution**

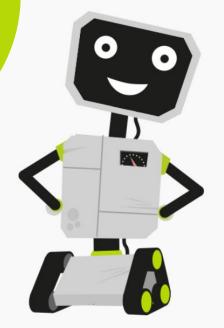
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## **Common Voice**

https://voice.mozilla.org/en

The Common Voice project is Mozilla's initiative to help teach machines how real people speak.

Voice is natural, voice is human. That's why we're fascinated with creating usable voice technology for our machines. But to create voice systems, an extremely large amount of voice data is required.

Most of the data used by large companies isn't available to the majority of people. We think that stifles innovation. So we've launched Project Common Voice, a project to help make voice recognition open to everyone.

#### Setup development environment time:

5' with Docker, 15' without it

Instructions

#### **Technologies**









Nodejs



docker Docker



Amazon S3

Contribute

Contribute Code to Common Voice

Find easy tasks to begin with

#### **Additional resources**

Mozilla Community Participation Guidelines.

By participating in this project, you're agreeing to uphold the For general discussion (feedback, ideas, random musings), head to our Discourse Category.

Come chat with us on Slack: Invite link

Open Source **Student Network** moz://a

## Technologies



## Setup the development environment

#### Docker setup

We provide a docker-compose setup to orchestrate the local development environment configuration using docker.

#### Requirements

- docker
- docker-compose

#### Setup

Fork and clone the repository onto your computer. Then run the following commands to spin off voice-web:

```
> cd voice-web
> docker-compose up
```

#### This is going to:

- · Launch a mysql instance configured for voice-web
- Launch an s3proxy instance to store files locally and avoid going through setting up AWS S3.
- Mount the project using a docker volume to allow reflecting changes to the codebase directly to the container.
- · Launch voice-web server

You can visit the website at http://localhost:9000.

#### Local setup

#### Requirements

Fork and clone the repository onto your computer.

Either create a MySQL root user that conforms to the default <code>DB\_ROOT\_USER</code> and <code>DB\_ROOT\_PASS</code> in <code>/server/src/config-helper.ts</code> or create your own config.

Then cd into the project directory and enter the following commands:

yarn

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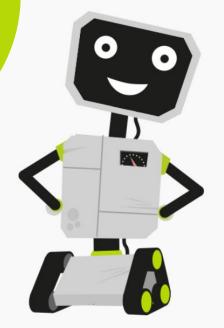
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5 minutes!



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## Mission & project description upfront



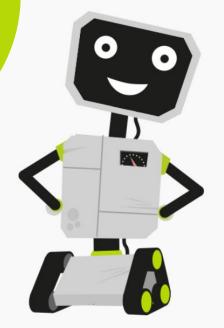
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Amazon S3

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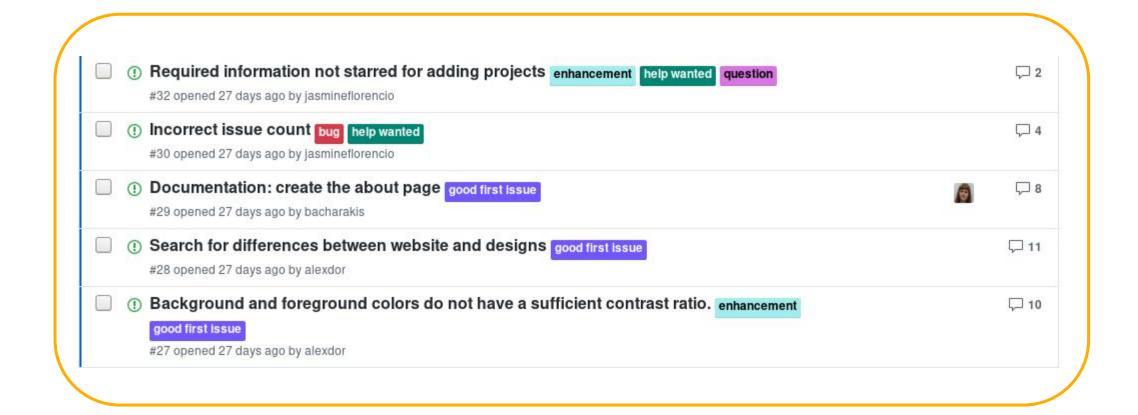
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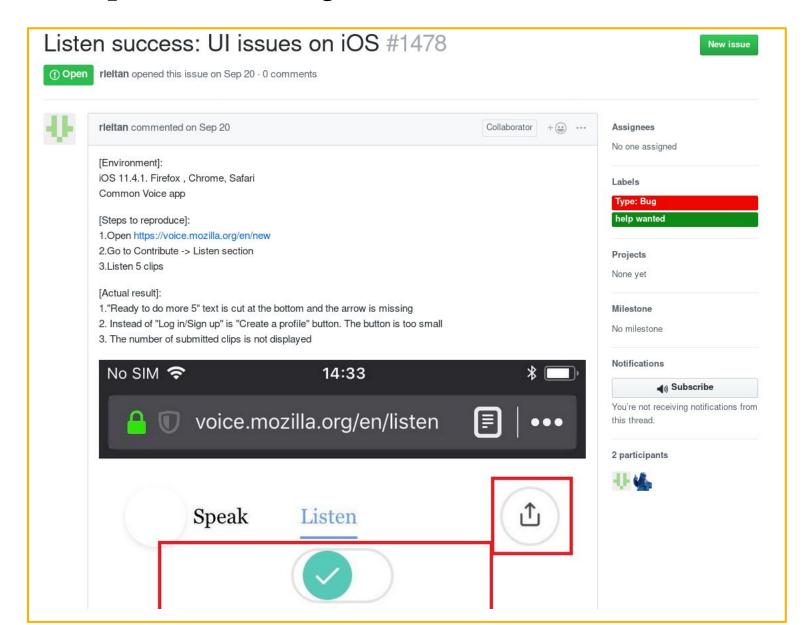
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Open Source **Student Network** moz://a

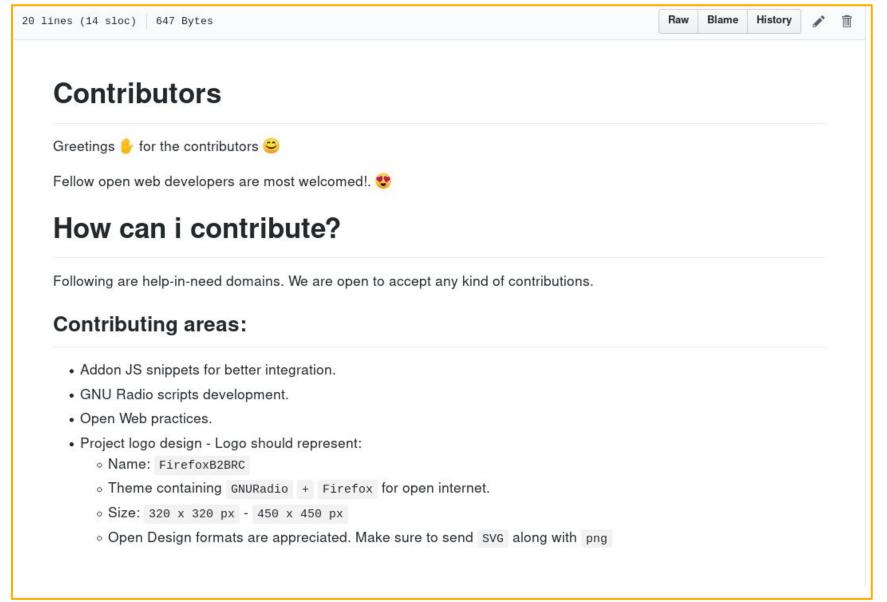
## Easy tasks to begin with



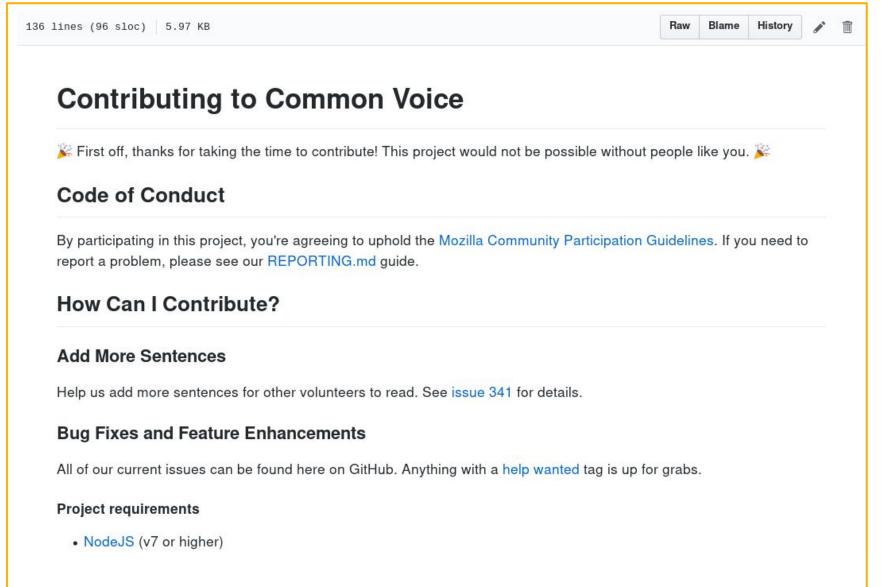
## Easy tasks to begin with - documentation



## **CONTRIBUTING.MD**



## CONTRIBUTING.MD



## The importance of the network



- Community
   Participation
   Guidelines <u>link</u>
- Code of Conduct
- Office hours
- Communication channels

## Recap

Mission and Project description upfront



Specific technologies

Time to setup your dev environment



Community Participation guidelines

Clear documentation Easy tasks to begin with Communication mechanisms

You are a **coder**. Open-source projects need **your skills**.

We'll connect you with meaningful contribution opportunities!

Fix me

LEARN MORE







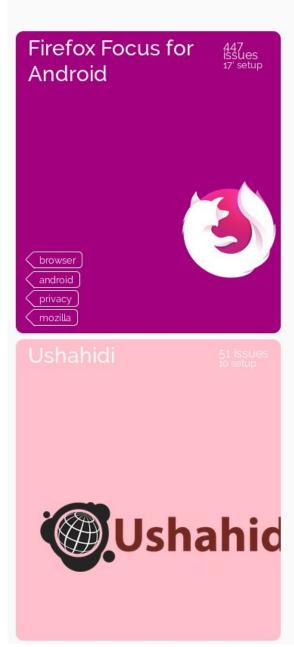
#### Filter

#### Technologies C C++ CUDA Go HTML Java ✓ JavaScript Python Rust Sass TypeScript Level of difficulty Easy ✓ Moderate Not sure Type Enhancement ■ Bugfix Not sure Projects Firefox Focus for Android A-Frame Common Voice

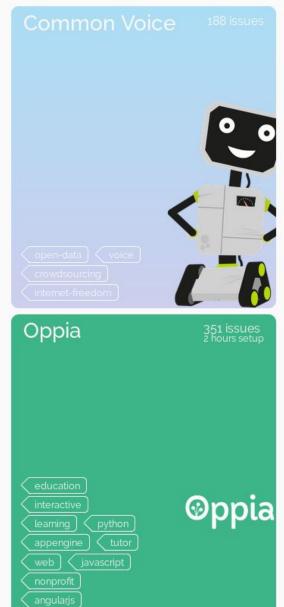
#### Showing 0-20 of 174 issues

Workspace Comment Resize Icon Renders A Little Outside The Ws Comment Box Blockly	Thu Sep 27 2018
Expected Behavior Resize icon is always trimmed to the size of the comment box.	
Actual Behavior	Easy
Resize icon renders a little outside the ws comment box (when comment is unselected) / highlight border (when comment is selected)	Javascript * Bugfix
Code Demo On IOS: Double Execution Upon Tapping Run	Thu Sep 27 2018
Blockly	
Thanks for opening an issue for us! Before you open an issue, - please check if a similar issue exists or has been closed before If you're asking a question about how to use Blockly in your application, - please ask questions on the mailing list, instead of filing issues: - https://groups.google.com/forum/#Iforum/blockly Problem statement	
On iOS Safari and Chrome, in the Blockly Code Demo, tapping the run button will execute the code twice.	
Expected Behavior	
Tapping the run button should only execute the code once.	
Steps to Reproduce	
On an iPad, open the Code Demo in either Safari or Chrome Add one print block from the Text category. Tap the run button.	
Observe the alert dialog shows twice.	
Operating System and Browser	
< TODO: If this issue is browser specific, uncomment the systems you have tested> * Desktop Chrome * Desktop Firefox * Desktop Safari * Desktop Opera * Windows Internet Explorer 10 * Windows Edge Device: IPad mini, 1st gen	<ul><li>Easy</li></ul>
OS: 9.3.5 Browser Safari, Chrome	Javascript
Control of the Control of Property of Control of Contro	Bugfix

## **The Projects**







https://fixme.ossn.club

# Mentorship?

## Mentorship





## Mentorship

- 3-6 month internships
- Paid
- Reviewing process for entering and graduating
- 1:1 mentorship
- 3-6 months strict planning



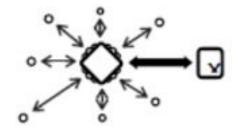


## Students profile

- Limited time
- Have exams 4-6 times per year
- Come and go every two months
- Feel intimidated contributing code
- Don't (clearly) see the benefits of doing Open Source

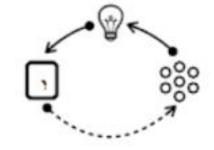
## Design for students

## Creating Together



Sharing the tasks and costs of achieving a preestablished goal

## Soliciting Ideas



Using a community to generate ideas and solutions

A Framework for Open Practises

## Mentorship with the right framework



- Design tasks/work deadline free
  - no urgent tasks/bugs, long release cycles, nice to have features
- Use the students crowdsourcing power for new ideas or solving issues
  - challenges, contests, new features ideation
- Help them solve an issue, not solve it for them

## Next steps

- Use the recommendations to review your project and apply if necessary
- Explore the Framework of Open Practises <u>here</u>
- Add your project into the <u>FixMe</u> platform

Reach out for any suggestions or help <a href="mailto:christos@mozilla.com">christos@mozilla.com</a>

Slides can be found on my twitter:
@bacharakis