Office Hours ++ (Git II)
Open Source Projects
Open Source Projects

Examples?
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Examples?

Programming Languages/Frameworks

- Rust
- Swift
- React Native
Open Source Projects

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- Swift
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Package Managers

- Homebrew
Open Source Projects

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Programming Languages/Frameworks

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Package Managers

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Utilities

- Tensorflow
Open Source Projects

Examples?

Programming Languages/Frameworks
  - Rust
  - Swift
  - React Native

Package Managers
  - Homebrew

Utilities
  - Tensorflow

Websites
  - C4CS
Think Bigger...
Think Bigger...

Linux
Okay... but really, what is it?
Okay... but really, what is it?

Software with source code made available to public

- Generally with a specific license
Okay… but really, what is it?

Software with source code made available to public
  • Generally with a specific license

Commonly associated with community driven development (enter Git)
  • Git allows for easy collaboration
  • Version control and release handling
Okay... but really, what is it?

Software with source code made available to public

- Generally with a specific license

Commonly associated with community driven development (enter Git)

- Git allows for easy collaboration
- Version control and release handling

Allows customization of applications for wider usage
Cool. Why should I contribute?
Cool. Why should I contribute?

Community Driven Development helps everyone using a piece of software

- Build something that's useful to others
- Suggest ideas for useful features
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Personal Benefits

- Learn new skills
- Community recognition
- (Looks great on your resume!)
Cool. Why should I contribute?

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It's Fun!

There's a project for pretty much everything
Enough talking.
Let's do something cool.
But first, Markdown.
# Essential Syntax

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Italic</em></td>
<td><em>Italic</em></td>
</tr>
<tr>
<td><strong>Bold</strong></td>
<td><em>Bold</em></td>
</tr>
<tr>
<td># Heading 1</td>
<td><strong>Heading 1</strong></td>
</tr>
<tr>
<td>## Heading 2</td>
<td><strong>Heading 2</strong></td>
</tr>
<tr>
<td><a href="http://commonmark.org">Link</a></td>
<td>Link</td>
</tr>
<tr>
<td><img src="img/breathe.gif" alt="Image" /></td>
<td><img src="img/breathe.gif" alt="Image" /></td>
</tr>
<tr>
<td>&gt; Blockquote</td>
<td>Blockquote</td>
</tr>
</tbody>
</table>
## Essential Syntax

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>* List</td>
<td>• List</td>
</tr>
<tr>
<td>* List</td>
<td>• List</td>
</tr>
<tr>
<td>* List</td>
<td>• List</td>
</tr>
<tr>
<td>1. One</td>
<td>1. One</td>
</tr>
<tr>
<td>2. Two</td>
<td>2. Two</td>
</tr>
<tr>
<td>3. Three</td>
<td>3. Three</td>
</tr>
<tr>
<td>Horizontal Rule</td>
<td>Horizontal Rule</td>
</tr>
<tr>
<td><code>Inline code</code> with backticks</td>
<td>Inline code with backticks</td>
</tr>
<tr>
<td>```</td>
<td>```</td>
</tr>
<tr>
<td># code block</td>
<td># code block</td>
</tr>
<tr>
<td>print '3 backticks or'</td>
<td>print '3 backticks or'</td>
</tr>
<tr>
<td>print 'indent 4 spaces'</td>
<td>print 'indent 4 spaces'</td>
</tr>
<tr>
<td>```</td>
<td>```</td>
</tr>
</tbody>
</table>
Why Markdown?

- Simple to use and easily converts to markup languages
- Can be used in conjunction with Markup (the previous slides were written in HTML)

Additional References

1. [CommonMark Help](#) is the documentation for most standardized flavors of Markdown (also where the previous slides were adapted from)
2. [Mastering Markdown](#) is a Github guide that covers a lot of the basics
3. [Github Help](#)
How to contribute

1. **Fork** the repository you want to contribute to
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository

Use either HTTPS or SSH remote URL
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository
3. **Create an issue**/take ownership of an existing issue

Do this in the parent repository, not your fork
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository
3. **Create an issue**/take ownership of an existing issue
4. Create a branch locally and setup environment

In the directory of your local repository:

```
$ git checkout -b <feature-name>
```

Then follow setup instructions in the README.md
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository
3. **Create an issue**/take ownership of an existing issue
4. Create a branch locally and setup environment
5. Do cool stuff. Make some commits.
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository
3. **Create an issue/take ownership of an existing issue**
4. Create a branch locally and setup environment
5. Do cool stuff. Make some commits.
6. Push your changes to your remote

```
$ git status
$ git add <files>
$ git commit -m "<Descriptive commit message>"
$ git push --set-upstream origin <feature-name>
```
How to contribute

1. **Fork** the repository you want to contribute to
2. **Clone** your forked repository
3. **Create an issue**/take ownership of an existing issue
4. Create a branch locally and setup environment
5. Do cool stuff. Make some commits.
6. Push your changes to your remote
7. Create a **Pull Request** from your fork

(We'll walk through this one)
Congratulations!

You've just joined the open source community
I'm lost, what just happened?

What We Did:

- Built a new feature on a software shipped to hundreds of people
- Worked collaboratively on an international project
- (Hopefully) Learned something new
I'm lost, what just happened?

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Stop Speaking Greek to me

Don't worry, most Git users don't really know what's going on when they're using Git. If you're looking to brush up, the following resources may be helpful:

- Understanding the Github Flow
- Learn Enough Git to Be Dangerous