Code Collaboration and Submission

Git, GitHub, and Devpost

whoami

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Professional nerd.

- Fifth year Software Engineering @ UF

- Officer of the UF Student InfoSec Team

- Full stack web developer

- Currently web eng lead at Quottly

- Former security intern at Tumblr

- Former intern at BlockScore

- Reach me @andrew on Slack

Git

At it's core, git is version control

What is version control?

Version control tracks changes in your code

```
diff --git a/presentation.md b/presentation.md
index 08d6441..c24a825 100644
--- a/presentation.md
+++ b/presentation.md
@@ -102,4 +102,6 @@ slidenumbers: true

  ## so what is version control?


+---


+## version control tracks changes in your code
```

(END)

Why is this useful?

Collaboration

How does this work?

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4. Version control figures out what has changed and applies those changes to the codebase

Cool, so let's talk about git

Git Basics

Open up a terminal!

1. Make a new directory

2.git init

3. git status

4. Make a file

5. git status

6.git add .

6. `git add .`

- "staged files" are files that are ready to be committed to git

- "unstaged files" are files that have changes that have not been prepared to be committed

can also use `git add [filename]` for individual files

7.git status

8. `git commit -m 'Summary of changes'`

9.git log

Any questions?

Git Branches

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- The main code base is normally "master"

- Once the developer is done, can "merge" it back into master

git branch [branchname]

Once we have a new branch, we follow the git flow

We have new code on a branch, how do we merge back?

git checkout master

git merge [branchname]

Using branches allows for multiple developers to work on the same code base

Any questions?

Git Remotes

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- A remote server for your git repository!

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- This is where GitHub comes in...

GitHub

Powerful collaboration, code review, and code management for open source and private projects.

Helps put a GUI on top of git!

Sign up for GitHub at github.com

Once signed up, create a repository

Get the remote ssh url

Back to the command line...

git remote add origin [url]

git remote -v

So, how do we get code on our remote?

git push

Awesome! Now we've got code on GitHub

Once a teammate pushes changes, make sure to use `git pull` to download the new changes

Any questions?

GitHub + Devpost

Projects   Hackathons   Teams ALPHA

Post a new project

Please respect our community guidelines.

⬡ **Import from GitHub**   Save time by importing your project name, tagline, and README from GitHub.

Preparing your GitHub repo for submission

1. Create a README.md file

Example: https://github.com/andrewjkerr/hackathon-mentor-request-slackbot

Mentor Request for Slack

A slackbot to help hackathons manage mentorship requests during their hackathon. Written during KnightHacks from Jan 15, 2016 - Jan 16, 2016.

Usage

There are three kinds of users: attendees, mentors, and admins.

Attendees

Want help with something? Use this Slack bot to help! There are a few commands that you should be aware of:

`.mentor`

The base command that the bot looks for. It also brings up the help menu 😁

2. Set the description

"A slackbot to help manage mentorship requests for hackathons (aka SwampHacks)."

Anddd that's it! Pretty easy, eh?

To review

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1. `git pull`

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2. `git checkout -b branch`

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5. git commit -m 'commit summary'

To review

1. git pull

2. git checkout -b branch

3. Make changes

4. git add .

5. git commit -m 'commit summary'

6. git checkout master

To review (continued...)

1. `git pull`

To review (continued...)

1. `git pull`

2. `git merge branch`

To review (continued...)

1. git pull

2. git merge branch

3. git push

To review (continued...)

1. `git pull`

2. `git merge branch`

3. `git push`

4. Do it all again!

Git and GitHub can help teams work more efficiently on code

(And it doesn't hurt that GitHub works well with Devpost)

Any questions?

Slides available at talk.andrewjkerr.com