Git Going With Git

Git overview presentation for Data Fridays

https://gitgoingwithgit.com/

- Data Friday
- October 15, 2021

What is Git?

- " Git is software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively...
 - -- Wikipedia
- A file structure for logging the history of a software project
- A set of tools for maintaining said file structure

Clone the repository for this presentation:

git clone https://github.com/Git-Going-With-Git/Data-Fridays-Presentation

Data Fridays, UTRGV SMSS

22

Terminology

- repository
- commit
- diff
- branch
- remote
- conflict
- merge

Git Remotes

- GitHub
- GitLab
- BitBucket

Note: Using *markdown* together with git is common and encouraged.

Markdown

```
# Git Going With Git
## Overview
  point 1
* point 2
  point 3
## Resources
  resource 1
* resource 2
* resource 3
```

Installation

Installing git

Installation of git may vary depending on the operating system.

Download git from git-scm.com

Configuration

On first use, git should be configured.

Your local git installation should also be configured to authenticate to a remote such as GitHub. This requires the creation of a GitHub personal access token.

Local Configuration

After installing git, we must set our name and email:

```
git config --global user.name "SpongeBob Squarepants"
git config --global user.email "spongebob@squarepants.com"
```

Verify this was saved by listing the global configuration:

```
git config -1
```

GitHub Configuring

To clone a repository or pull changes from GitHub, you must authenticate first. In GitHub, go to settings and

- 1. choose *Developer settings*
- 2. choose Personal access tokens
- 3. Generate new token and choose name (ie Laptop)
- 4. choose an expiration
- 5. copy the generated token. It will **not** be available again.

Connect git to GitHub

The first time clone ing a project from GitHub, you will be prompted for a *username* and a *password*. This is misleading as GitHub now requires the personal access token to be used as the password.

Clone this presentation's repository with

git clone https://github.com/Git-Going-With-Git/Data-Fridays-Presentation

and enter your personal access token when prompted for password.

GUI Clients

Git GUI clients are graphical applications to make working with git easier.

Some popular ones can be found in Git SCM's GUIs

Resources

Interactive Learning

- Learn Git Branching
- Git Kata
- GitHub Learning

Books

• Pro Git

Cheat Sheets

- Interactive Cheat Sheet
- GitHub Markdown Cheatsheet.
- GitHub Git Cheat Sheet

General

- GitLab Training
- Official Documentation
- Command list

12