

GitHub Collaboration

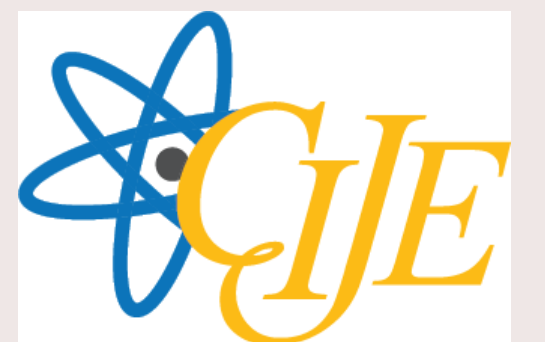
Jay Smallwood, Ph.D.
CIJE, Director of Research and Development



Audience and Goals

Audience and Goals

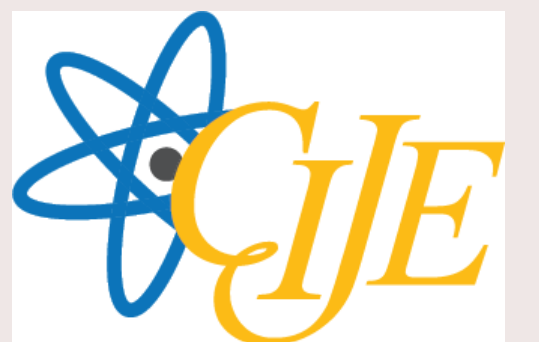
- This PD is for absolute beginners new to GitHub
- If you are an experienced GitHub user, you will likely not gain much
- Goals:
 - Understand purpose of GitHub
 - Create a new account
 - Walk through Hello World tutorial
 - Collaborate on editing an Arduino program (if time)



Why GitHub?

Why?

- GitHub it an online document collaboration platform that allows for easy code sharing and remote collaboration for any size group.
- It allows for easy tracking of changes, even in complex software with hundreds (or more) of collaborators.
- It is a **required** skill at any technology firm in the world.



Why?

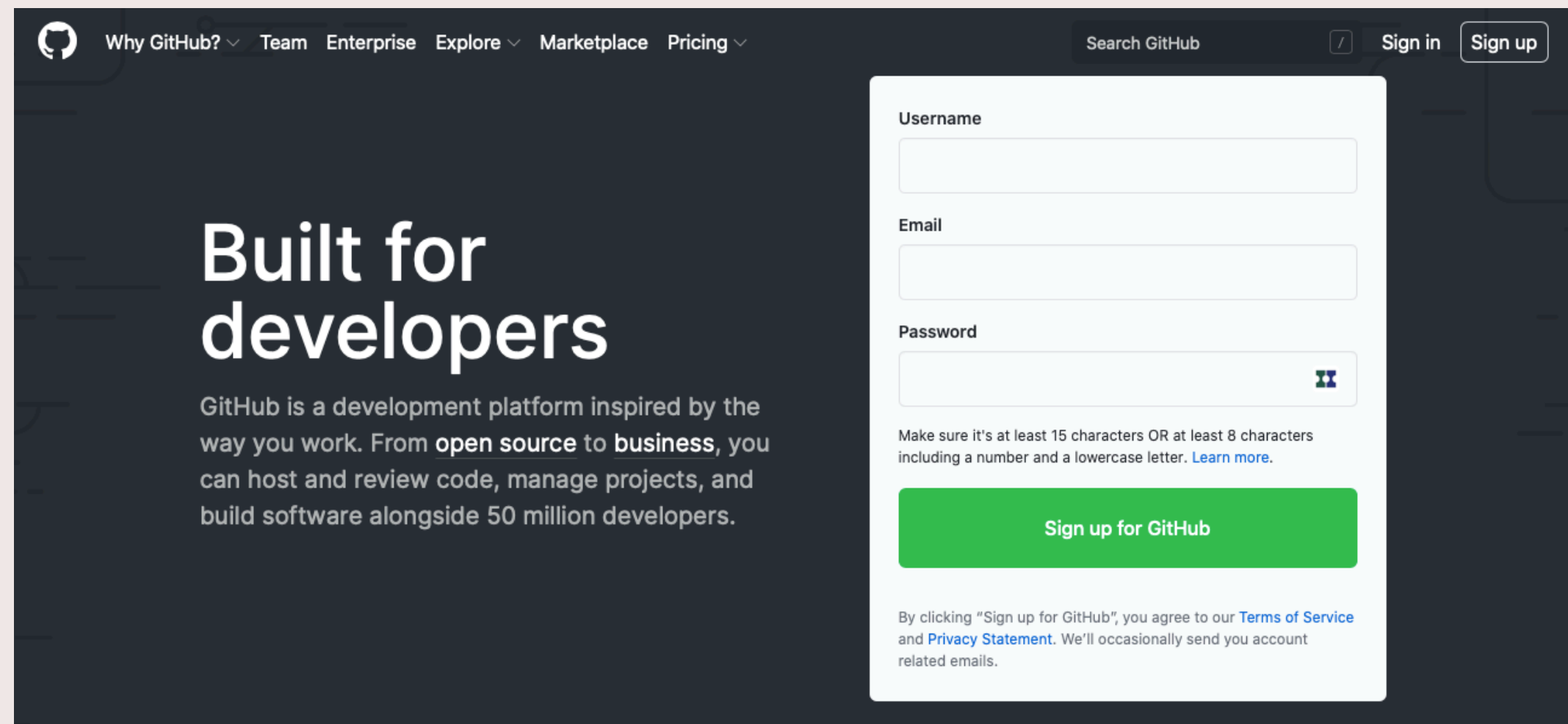
- It is an excellent way for students to work remotely on a collaborative project (hello, capstone!)
- Single location for teacher reviews and grading



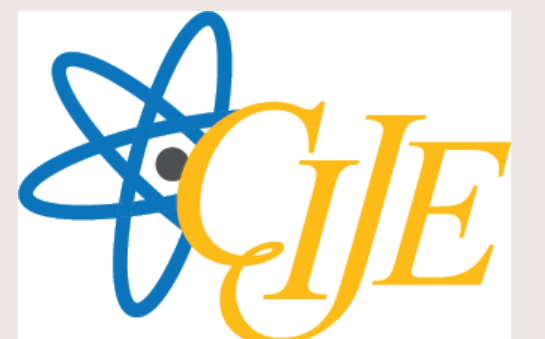
Create Personal Account

Directions for Sign Up

- Go to <http://www.github.com>

A screenshot of the GitHub website's sign-up page. The page has a dark blue header with the GitHub logo and navigation links: 'Why GitHub?', 'Team', 'Enterprise', 'Explore', 'Marketplace', and 'Pricing'. A search bar and 'Sign in'/'Sign up' buttons are on the right. The main content area is dark blue with the text 'Built for developers' and a description of GitHub. On the right, there is a white sign-up form with fields for 'Username', 'Email', and 'Password'. Below the password field is a green 'Sign up for GitHub' button. At the bottom of the form, there is a small disclaimer about terms of service and privacy.

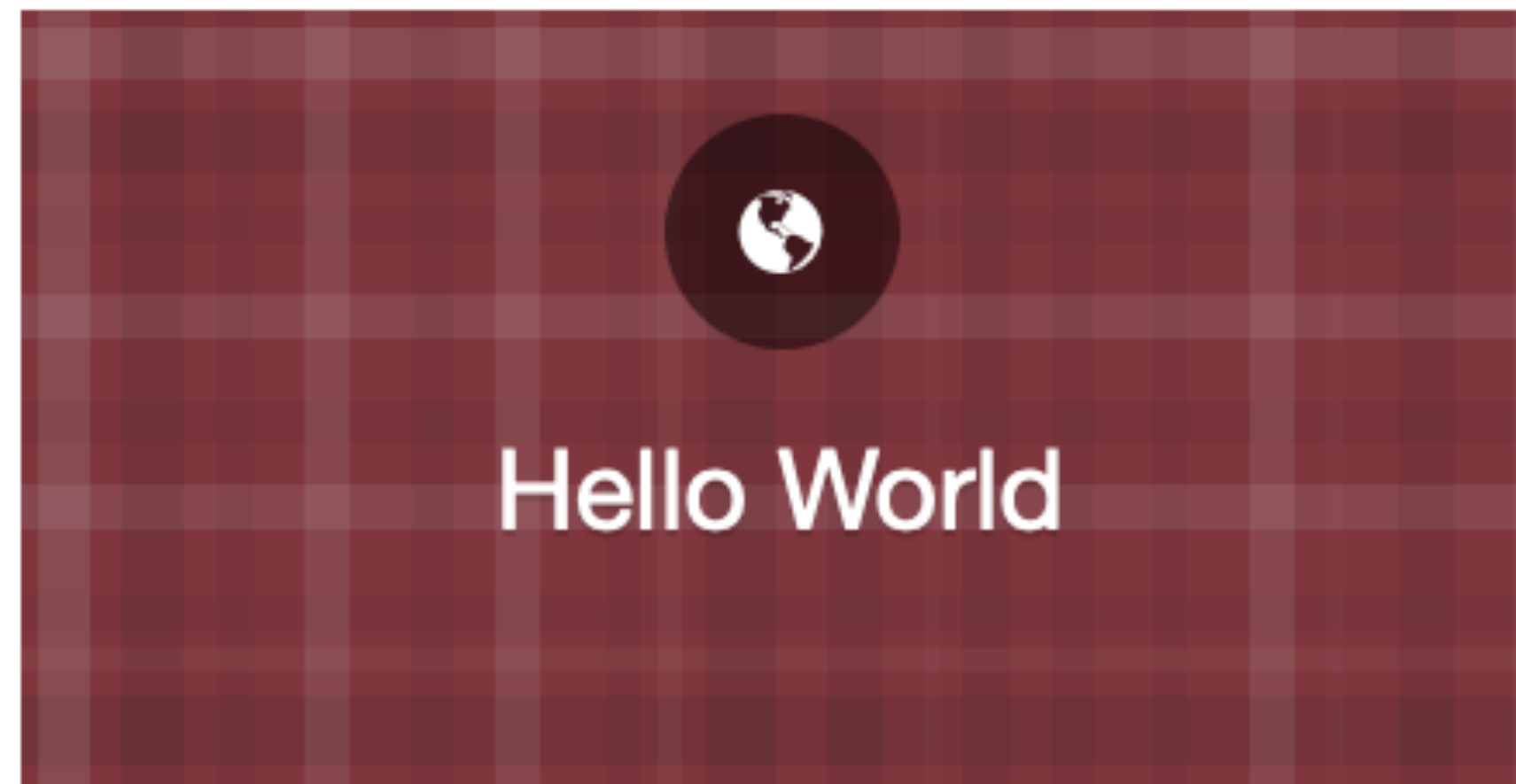
- Verify account in email address



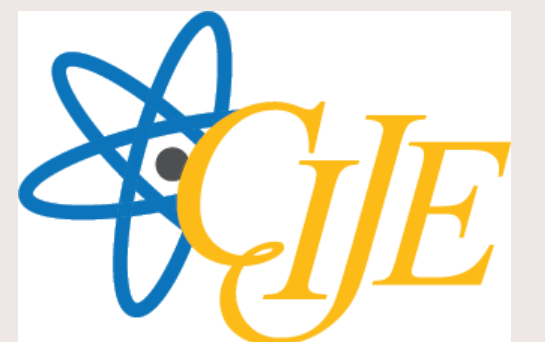
GitHub Hello, World

Hello World

- Go to guides.github.com
- Select Hello World



The easiest way to get started with GitHub. In this guide you'll complete a time honored "Hello World" exercise, and learn GitHub essentials.



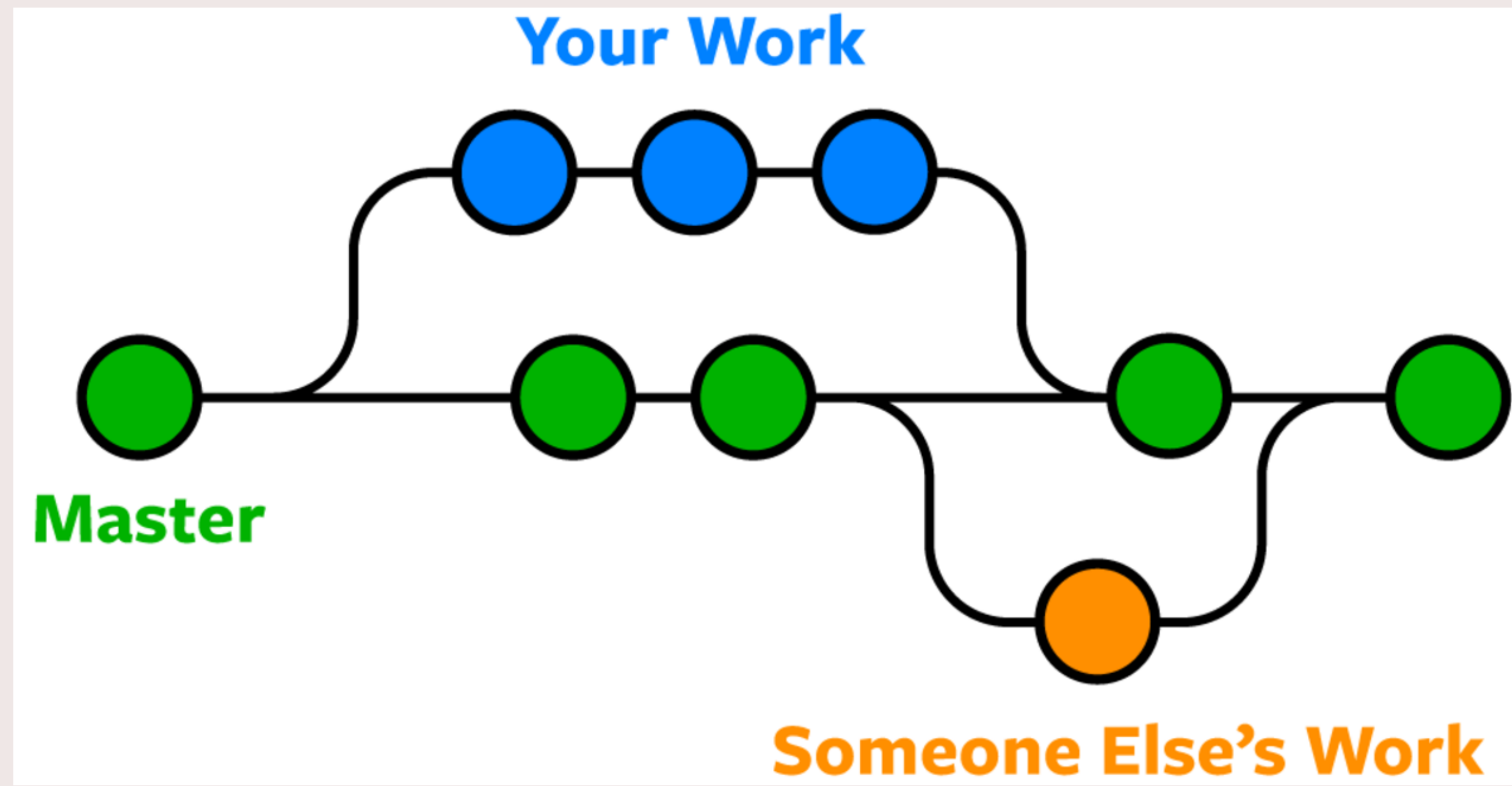
Hello World

- [Go through create repository live]



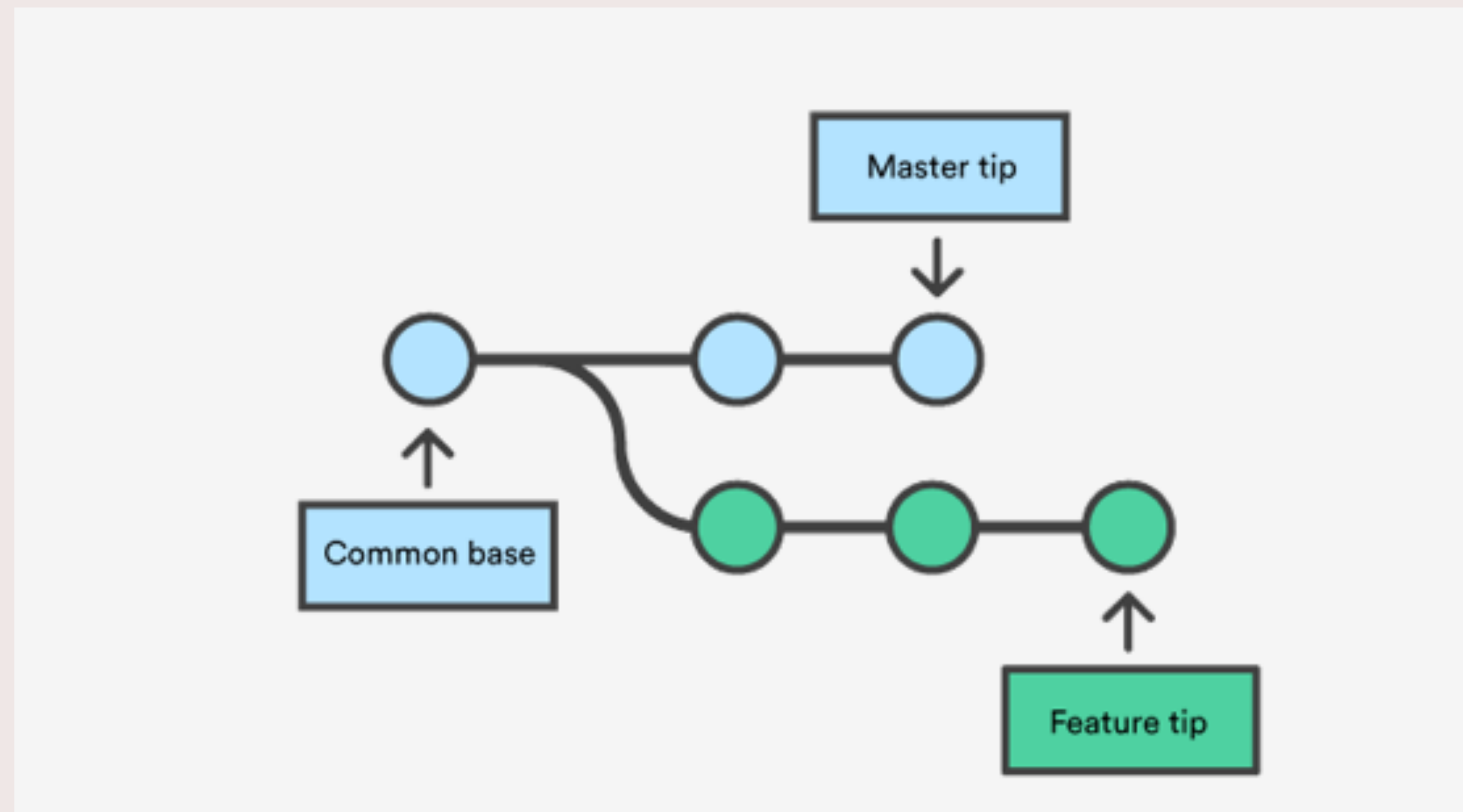
Terminology: Branches

- A branch is an independent set of files starting from a common base



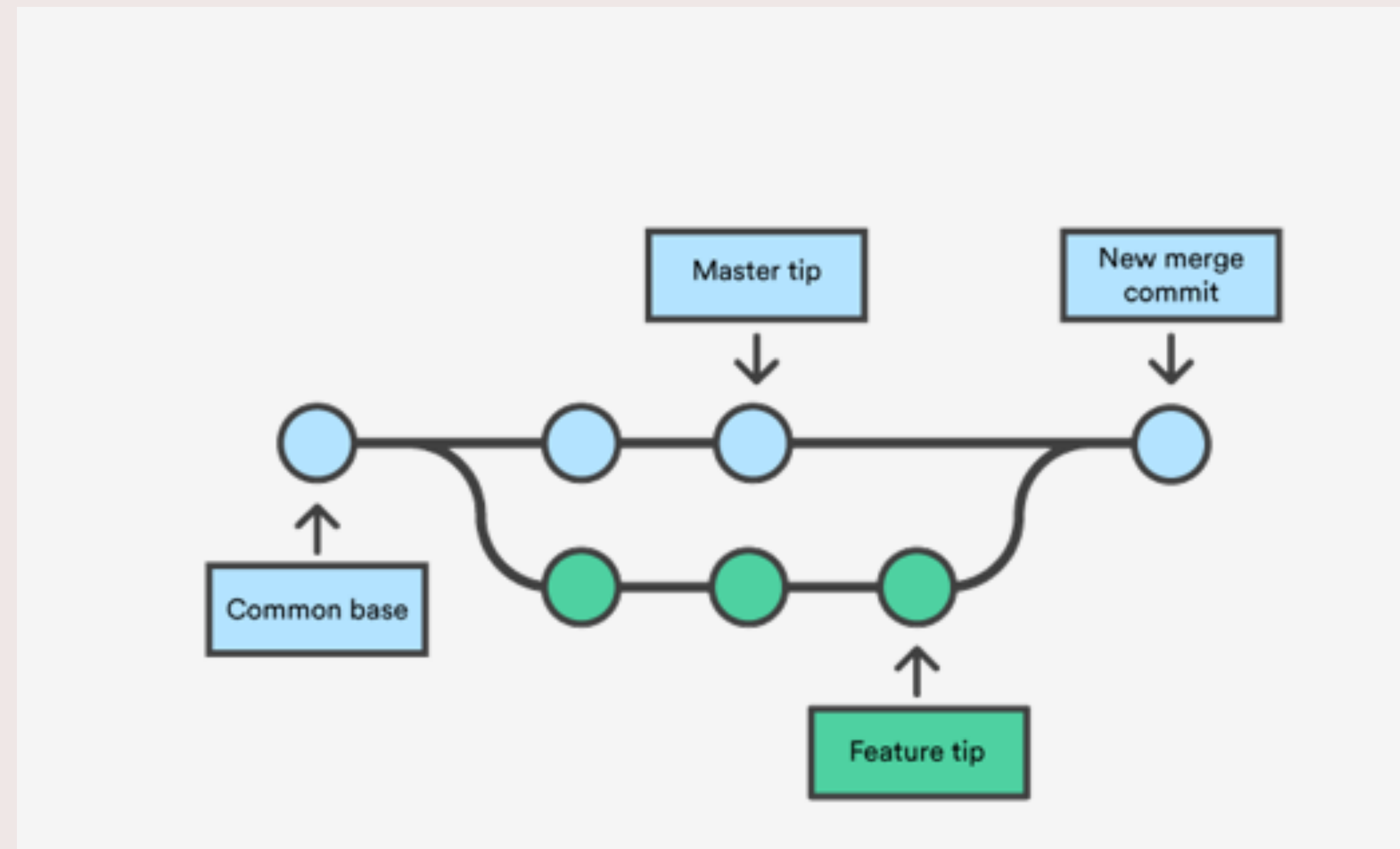
Terminology: Branches

- Individual user can work independently on a new feature WITHOUT affecting original



Terminology: Branches

- When (IF) the feature is completed, it can be *merged* into the common project



Hello World

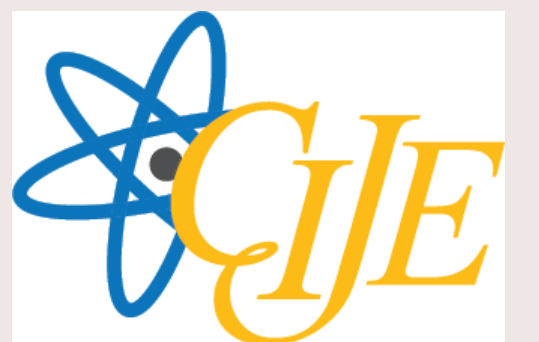
- [Finish the rest of the Hello World guide live]



Collaborate

Collaborate

- Go to github.com/CIJE-STEM
- Go to github-learn-1 repository
- Submit an Issue saying how long an LED should stay on.
- Separately, edit Blink-Blink.ino, changing the delay time, and submit pull request.



Where We Are



Further Resources

Further Resources

- Further guides at guides.github.com
- GitHub Learning Lab at lab.github.com
- For advanced learners:
 - For learning Git (the underlying system of GitHub) Atlassian's Git tutorials are awesome:
 - <https://www.atlassian.com/git/tutorials>

