

A stylized illustration of a hand with a brown skin tone holding a small green ball. The hand is positioned on the left side of the image, with the fingers gently gripping the ball. The background is a light beige color with faint, semi-transparent text and a green circuit-like pattern of lines and squares.

# Git for Beginners

an RCOS workshop  
by Hannah Lim



# What is Git?

- Version control software
- Tracks changes in any set of files
- Takes snapshots of your project state
- Widely used in industry/classes
- GitHub is a cloud-based web platform that uses Git collaboratively

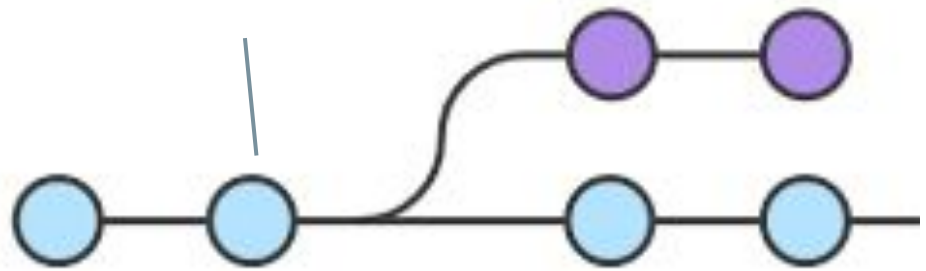
# Git's Branching Model

This is your initial  
project state (one  
version)

Sally contributes a change ->  
state change (one version)

Jill adds a feature  
concurrently

Sally keeps working (2 versions)



A decorative border composed of a repeating pattern of light gray triangles with white outlines, arranged in a larger triangular shape pointing to the right. The border frames a central white rectangular area.

**And now, some  
terminology**

MASTER

v0.5

Hotfix

v1

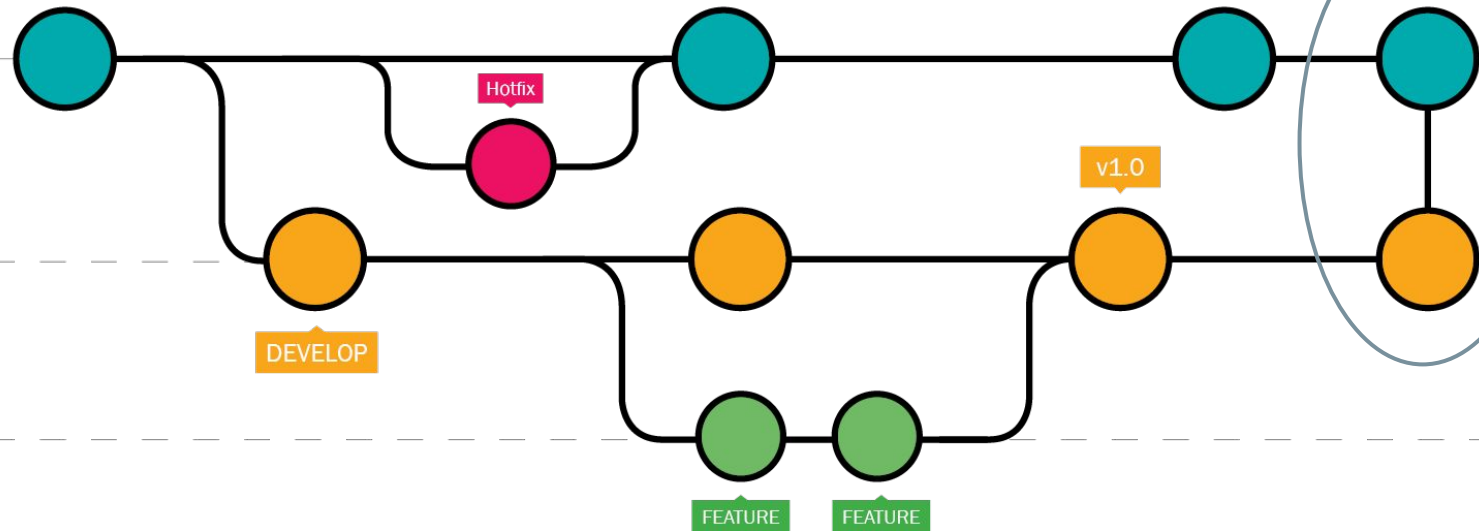
v1.0

DEVELOP

FEATURE

FEATURE

Development branch is  
"merging" with master



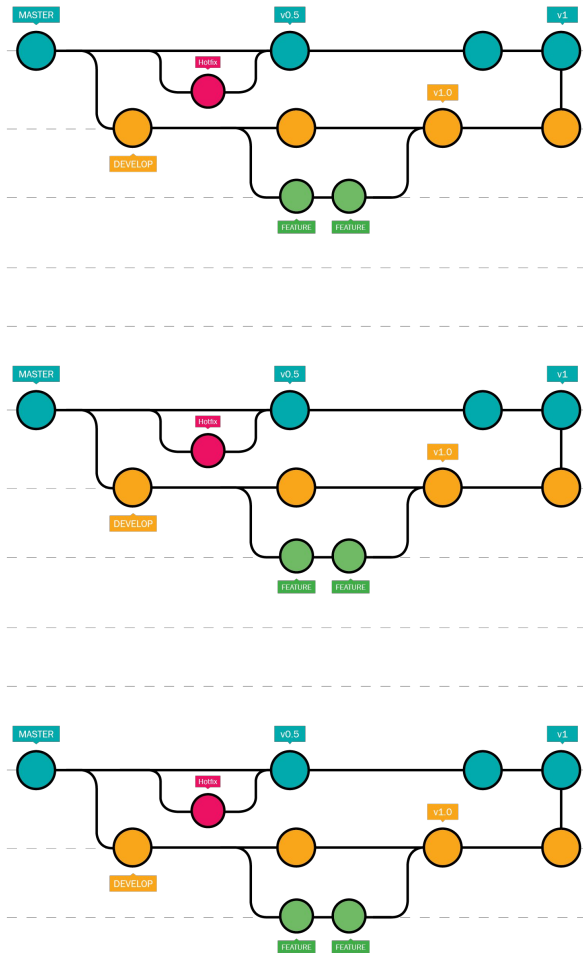
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**Now consider a  
more complicated  
example**

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# The fork model: the project files exist in three places

- Original remote project hosted by GitHub (**UPSTREAM**)
- Your remote fork (copy) of the project hosted by GitHub (**ORIGIN**)
- Your local version of your fork on your personal machine



**UPSTREAM:**  
Alexis's remote

**ORIGIN:**  
your remote fork

**LOCAL:**  
your copy of  
your fork

1

2

3

4

- 1) Make a change in your local copy
- 2) **"Push"** that change to your remote fork, the origin repo
- 3) Submit changes from your origin to your upstream repo by creating a **"Pull Request"**
- 4) **"Pull"** from the upstream to update your local copy again
- 5) Repeat





**Let's work a real  
example!**