

Introduction to Git and GitHub

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Objectives

- ✦ Understand the purpose of source control
- ✦ Understand the git branching model and work process
- ✦ Understand the GitHub working and collaboration process
- ✦ Understand the basic command line tools needed for git

What is source control?

- ✦ Manages *changes* to code, documents, markup, or other data.
- ✦ Can distribute these changes across multiple copies of the same repository.

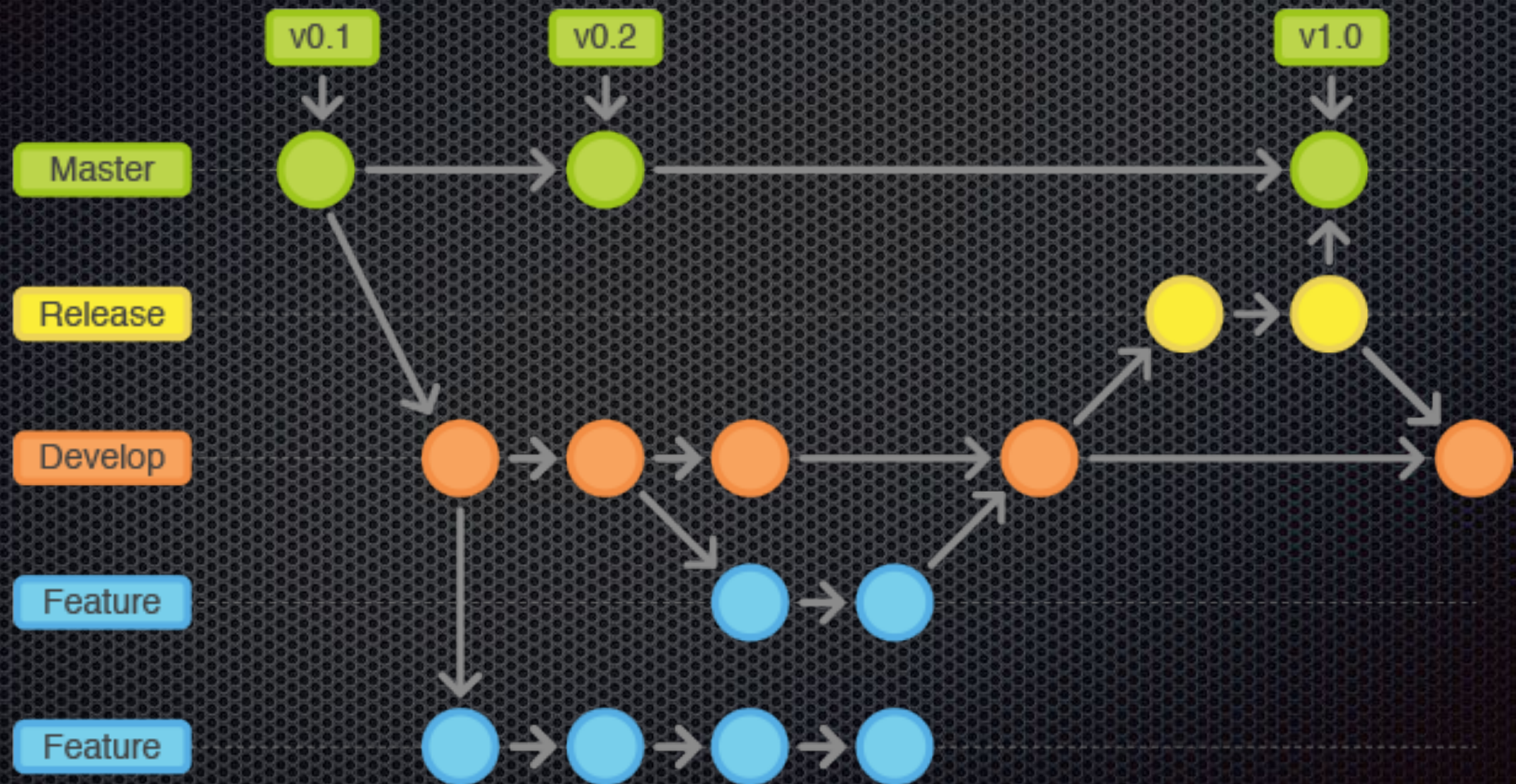


Git



- ✦ Command line utility
- ✦ Linus Torvalds, 2005
- ✦ Distributed source control
- ✦ Branching model

Git Branching Model



GitHub

- ✦ Online git repository hosting service.
- ✦ Largest collection of open source projects in the world.
- ✦ Provides invaluable project management tools.



Command Line Navigation

- ✧ cd - Change Directory
- ✧ ls - LiSting
- ✧ . - current directory
- ✧ .. - parent directory

Common Git Commands

- ✦ `git clone [repository-link]`
- ✦ `git checkout [-b] [branch-name]`
- ✦ `git add .`
- ✦ `git commit -m "[commit message here]"`
- ✦ `git push`

Collaborating on GitHub

- ✦ Pull Requests
- ✦ Issues
 - ✦ Discussions
 - ✦ Bugs
 - ✦ Tasks
- ✦ Markdown



Resources

- ✦ Pro Git <https://git-scm.com/book/>
- ✦ GitHub YouTube <https://www.youtube.com/user/github>