

Intro to Git

Basics of git

Outline

- What is git?
- Why do I need it?
- How does it work?
- Basic commands
- Common workflows and examples

Outline

- **What is git?**
- Why do I need it?
- How does it work?
- Basic commands
- Common workflows and examples

What is git?

- Version control system
- Commonly used for software development

What is git?

Good

- Source code
- Text based files
- Single-person project
- Small and large teams

Not Good

- Large binary files
- Files with a large metadata i.e. word document

Comparison with SVN

Git

- Distributed

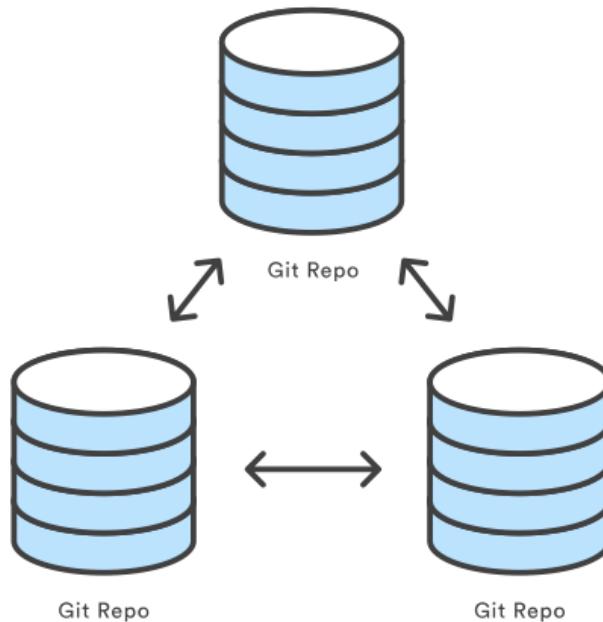
SVN

- Central

Comparison with SVN

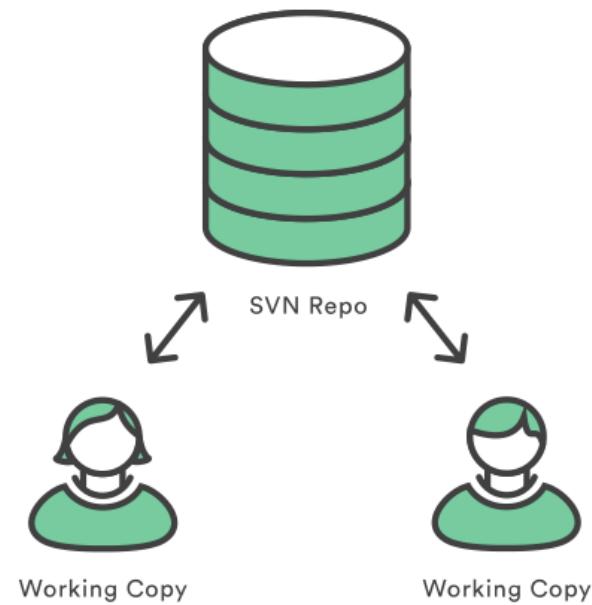
Git

Repo-To-Repo Collaboration



SVN

Central-Repo-to-Working-Copy Collaboration



Comparison with SVN

Git

- Distributed
- Branches are easy
- Merge happens all the time
- Resolving merge conflicts aren't fun
- You can do selective commits/pushes
- Bad history, only status

SVN

- Central
- Branches are scary
- Merge is scary
- Resolving merge conflicts are HELL
- You need to commit all changes at one time
- Great history

Outline

- What is git?
- **Why do I need it?**
- How does it work?
- Basic commands
- Common workflows and examples

Why do I need it?

I'm the ONLY person working on this project
and it's just a personal project.

Do I need to use git?

Why do I need it?

I'm the ONLY person working on this project
and it's just a personal project.

Do I need to use git?

YES

Why do I need it?

- Git is great for personal projects.
- Local repository – a lot easier than svn
- Save snapshots of working stable version
- Try something wacky

Why do I need it?

I already know svn.

Why don't I just use that?

Why do I need it?

I already know svn.

Why don't I just use that?

Trust me, you're missing out!

Why do I need it?

I heard it's hard to use...

Why do I need it?

I heard it's hard to use...

It really isn't hard.

It just has some weird vocabs.



Outline

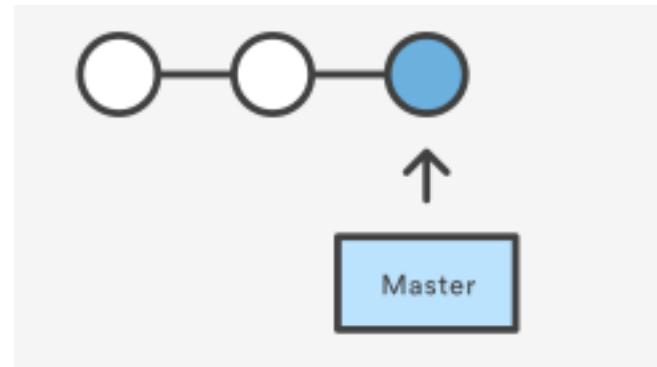
- What is git?
- Why do I need it?
- **How does it work?**
- Basic commands
- Common workflows and examples

How does it work?

- Start from local directory

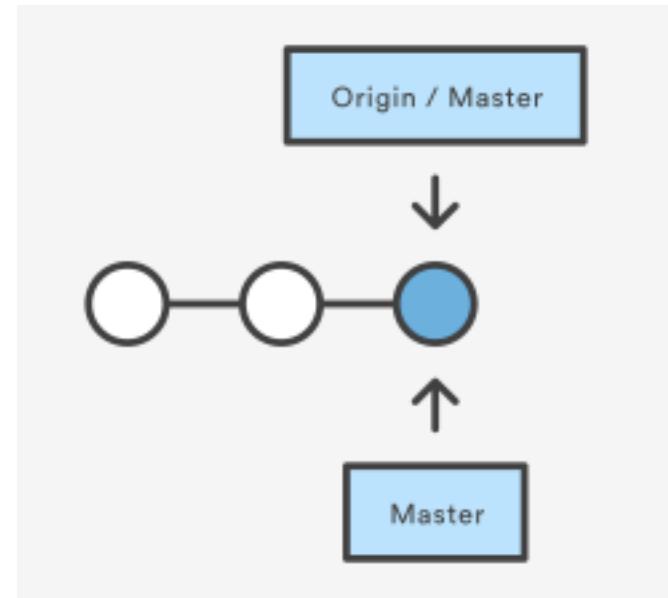
How does it work?

- Start from local directory
- Create a git repo
- Save snapshots as you change the code/contents



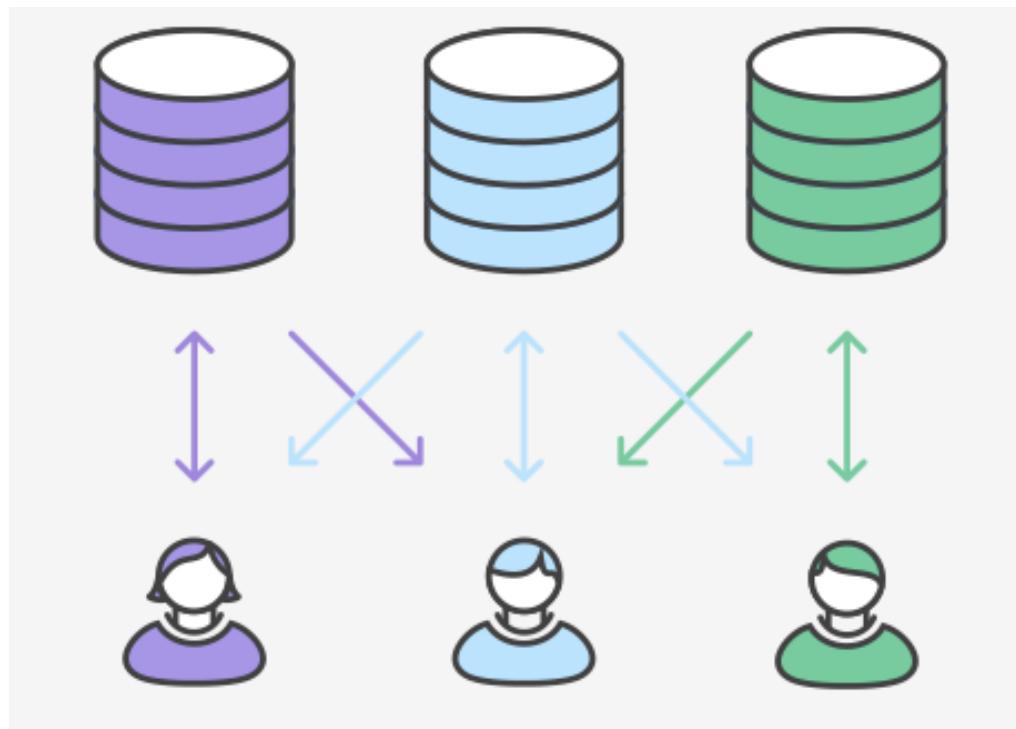
How does it work?

- **Clone** from existing git repo
 - Make changes and synchronise changes



How does it work?

- Fork from existing git repo



Outline

- What is git?
- Why do I need it?
- How does it work?
- **Basic commands**
- Common workflows and examples

Basic Commands

- git init
- git clone
- git status
- git add
- git commit

Outline

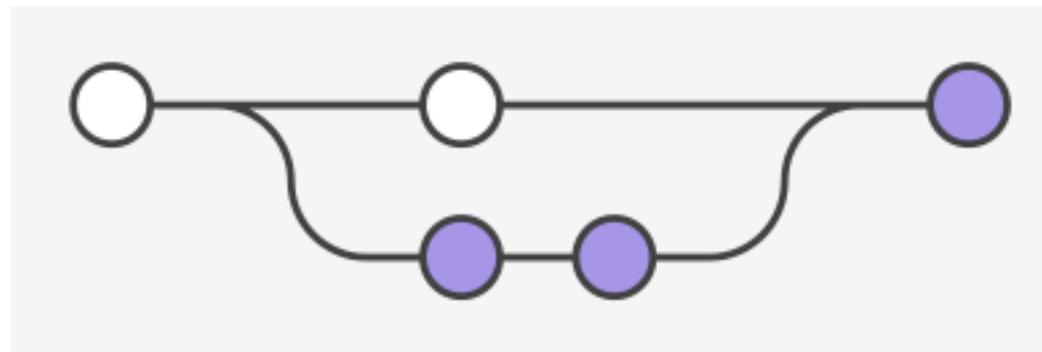
- What is git?
- Why do I need it?
- How does it work?
- Basic commands
- **Common workflows and examples**

Workflow

- Feature Branch Workflow
- Gitflow Workflow
- Forking Workflow

Feature Branch

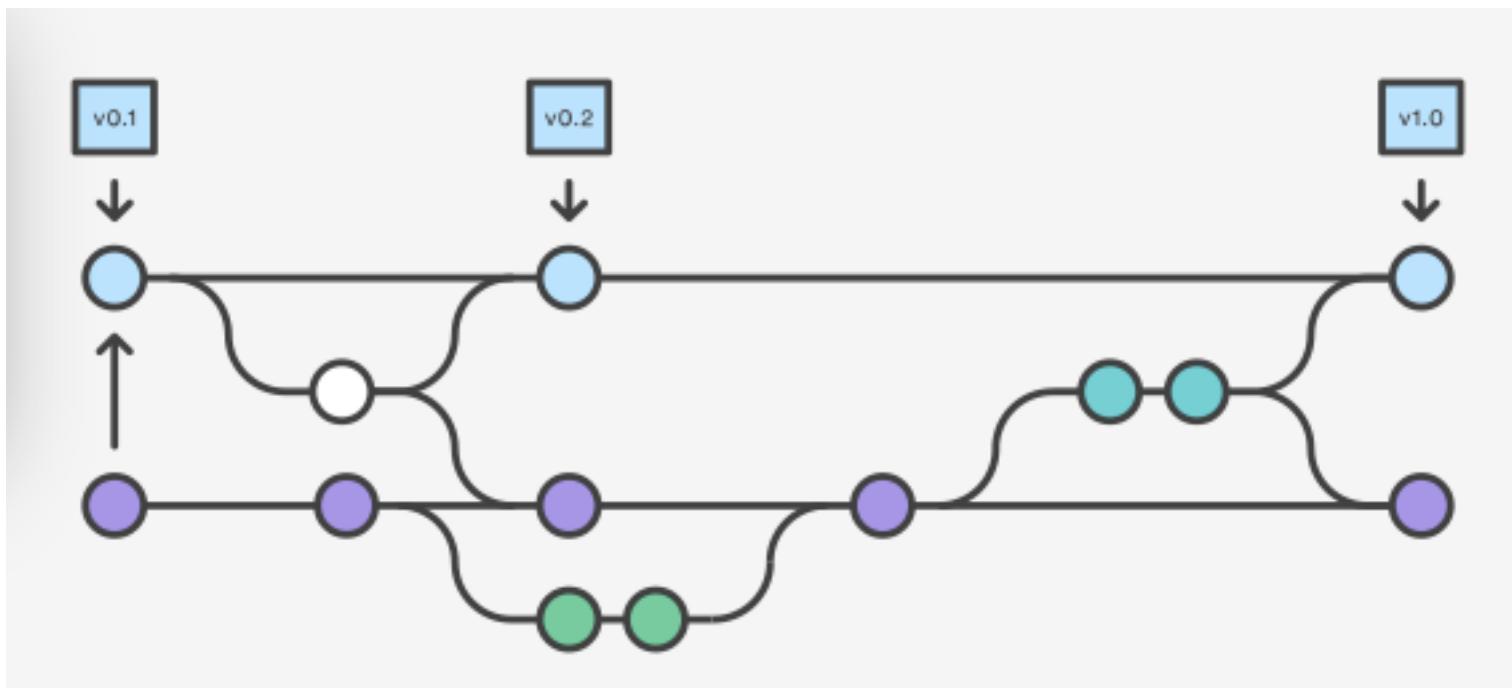
- Every feature is a branch



Gitflow

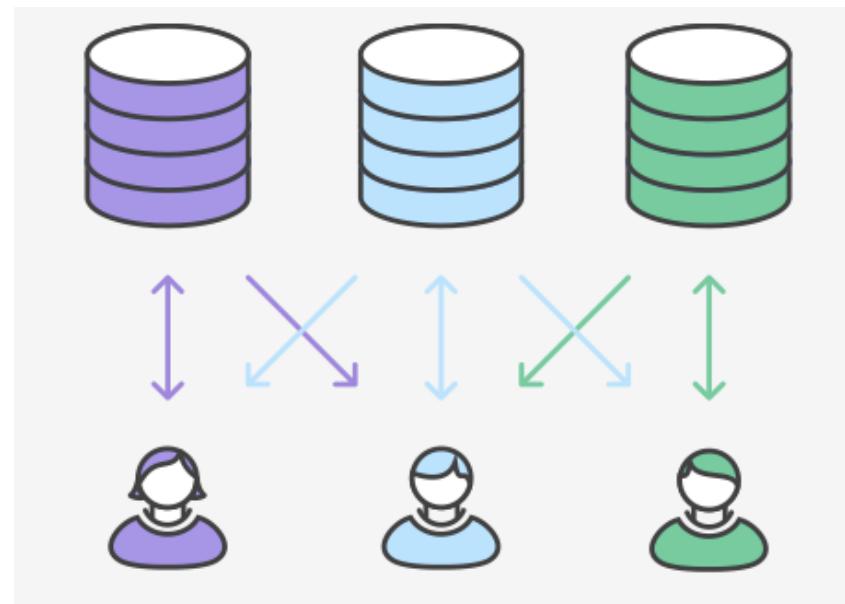
- **master** branch – release version
- **dev** branch – main development
- **feature** branches
- **bugfix / hotfix** branches

Gitflow

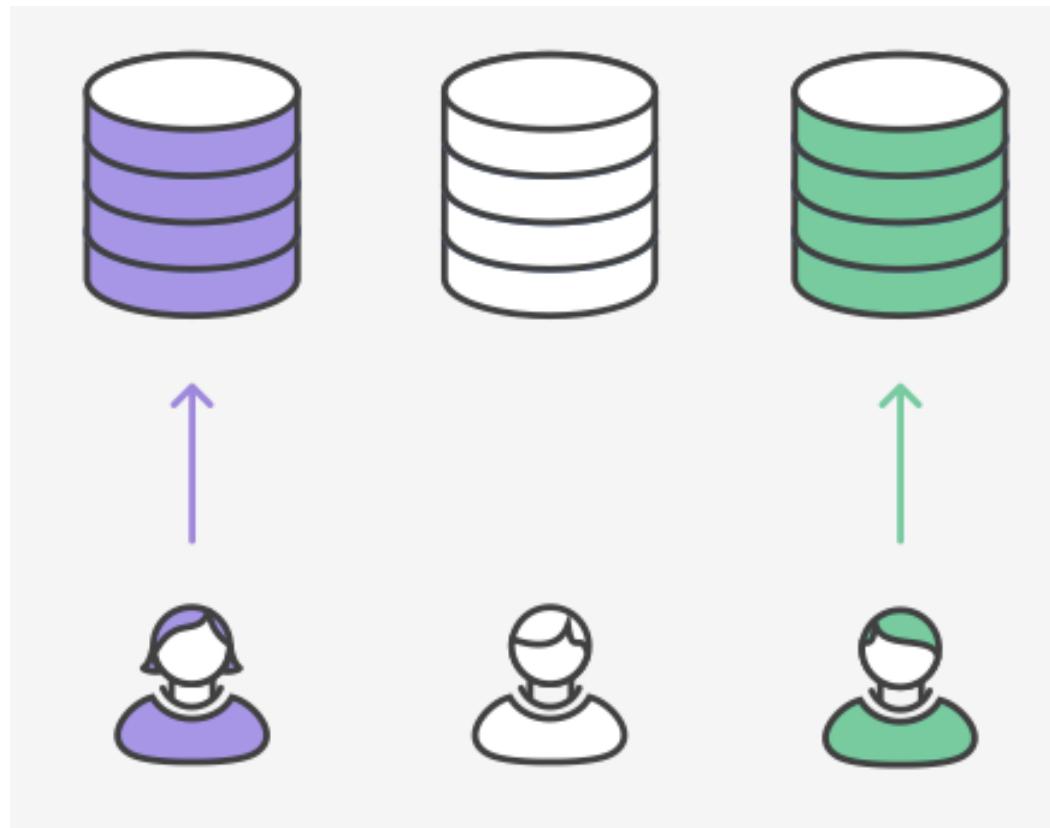


Fork

- Each developer has their own repo
- Can sync both ways



Fork



Fork

