

GitHub Fundamentals

An Overview of Git and GitHub



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Overview



What's in this course for you?

Git and GitHub

Getting your machine ready

Foundations of Git



What's in This Course for You?



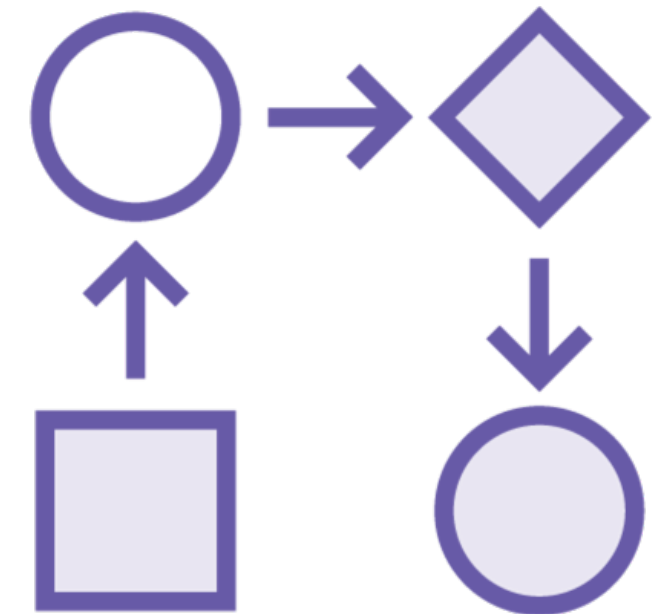
What's in This Course for You?



Concepts of Git



**Understanding
GitHub**



Beyond the basics



Version Check



This version was created by using:

- GitHub (2022)
- Visual Studio Code



Git and GitHub



What Is Git?



Popular source control system



Distributed system



Free and open-source



Why Use Git?

Fast

Disconnected

Powerful yet easy

Branching

Pull requests



But... Why Not Git?

Different

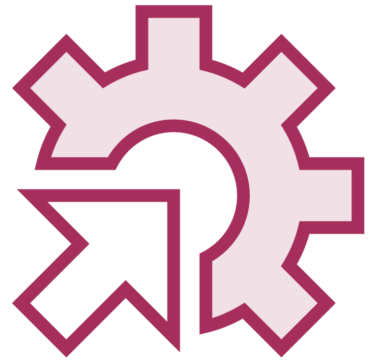
Learning curve

Tools

Binary files



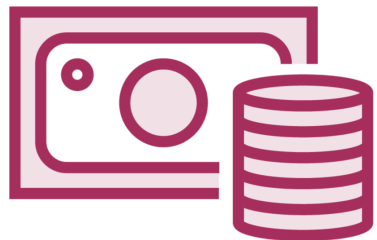
What Is GitHub?



Hosting service based on Git



More than just source control for your code



Free and paid options





We'll start using GitHub
in the next module!



Getting Your Machine Ready



Git Works Everywhere!

Windows

Mac

Linux





What you need

- Download Git from <https://git-scm.com/downloads>
- An editor
 - Visual Studio Code
- GitHub account



Demo



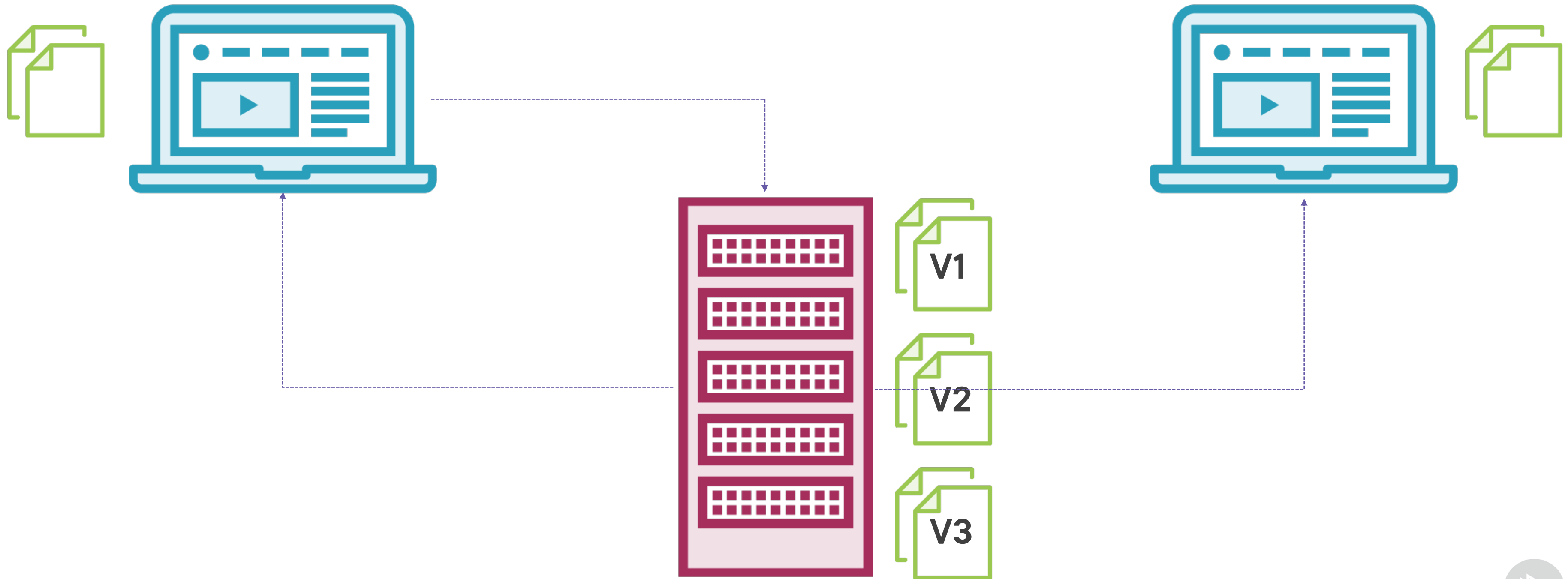
Setting up your environment



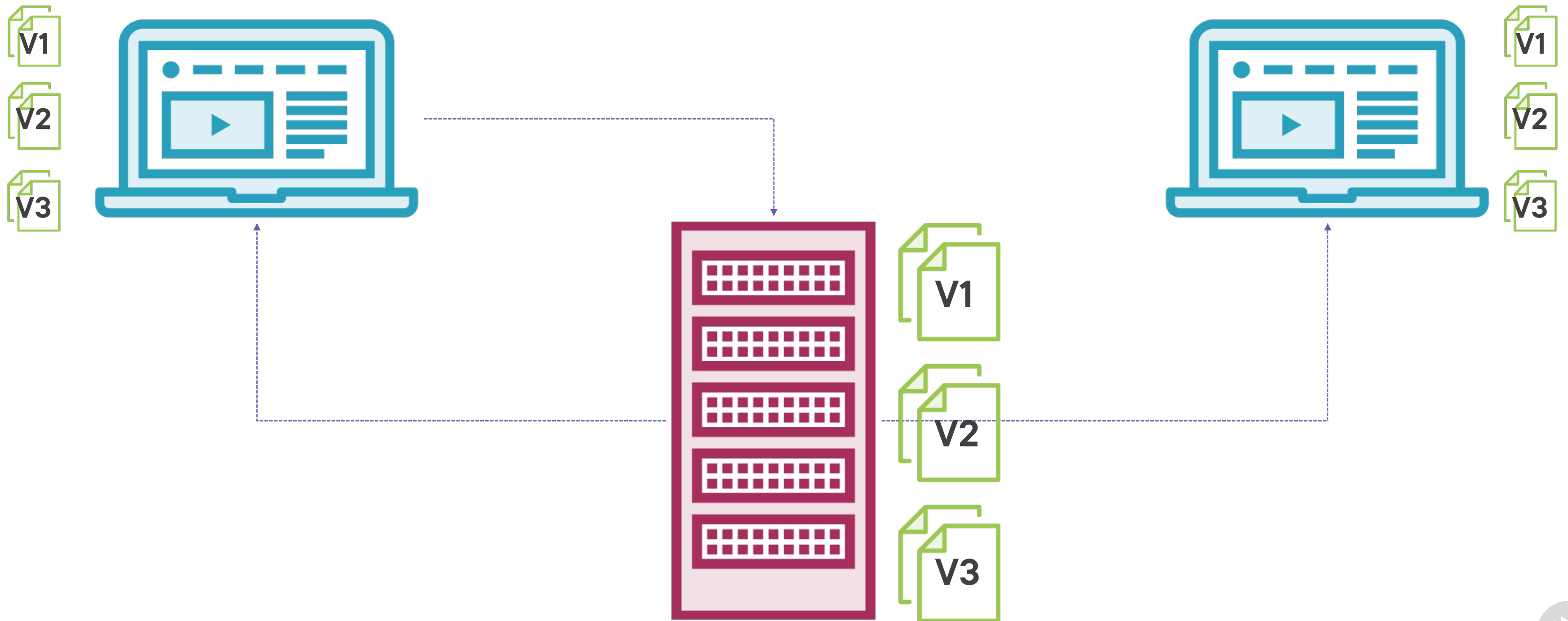
Foundations of Git



Centralized Source Code Management



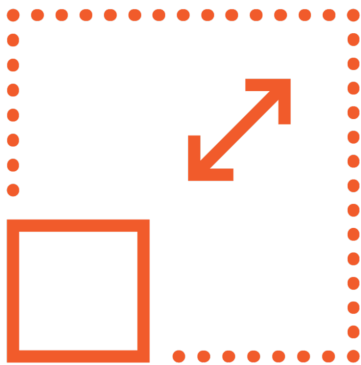
Distributed Version Control



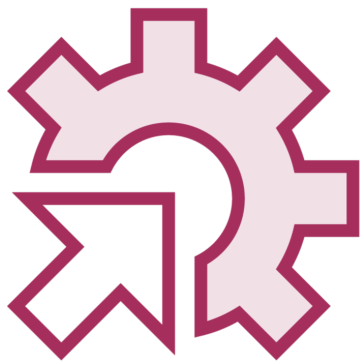
The 3 States of Git



Committed



Modified



Staged



The 3 Areas of Git

**Working
directory**

Staging area

.git repo



Adding a Remote

**Working
directory**

Staging area

.git repo

**Remote repo
GitHub**



Working with Git



Command line (CLI)

We'll use the console in this course



GUI

GitHub Desktop
SourceTree
Tower
Kraken



```
$ git
```

```
$ git config
```

```
$ git init
```

```
$ git clone
```

```
$ git add
```

```
$ git commit
```

◀ It all starts with “git”...

◀ Configure the tooling

◀ Initialize a git local repo

◀ Download a project from remote

◀ Prepare a file (to staging)

◀ Commit a file to the repo



Demo



Create a local repository

Add a file

Commit our changes



Summary



Git is a popular version control system

Command-line driven





Up next:
Getting started with GitHub

