

GitHub Fundamentals

AN INTRODUCTION TO GIT



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Overview



What's in this course for you?

Hello Git

Base concepts of Git

Getting your machine ready

Working with Git



What's in This Course for You?



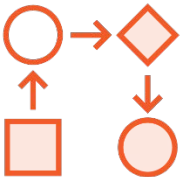
What You'll Learn from This Course



Concepts of Git



Deep understanding of GitHub



Functionalities beyond the basics





Use GitHub efficiently

For your own and professional projects

Get involved and learn



Hello Git



What is Git?



Widely adopted source control system



Distributed



Free and open-source, created by Linus Torvalds



Advantages of Using Git

Fast

Disconnected

Powerful but easy

Branching

Pull requests



So...Why Maybe Not Git?

It's... different

Learning curve

Tooling and commanding

Binary files



What Is GitHub?



Hosting service using Git



Much more than just source code management



Free and paid plans



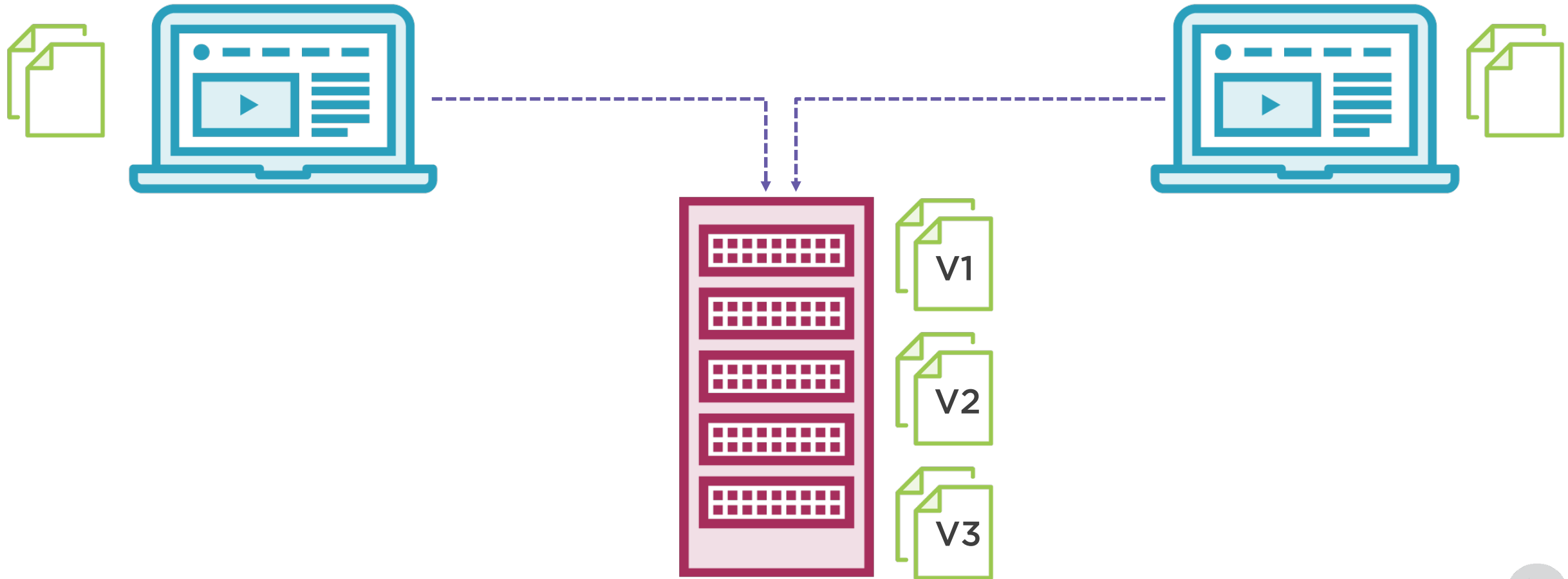
We'll start exploring GitHub
in the next module!



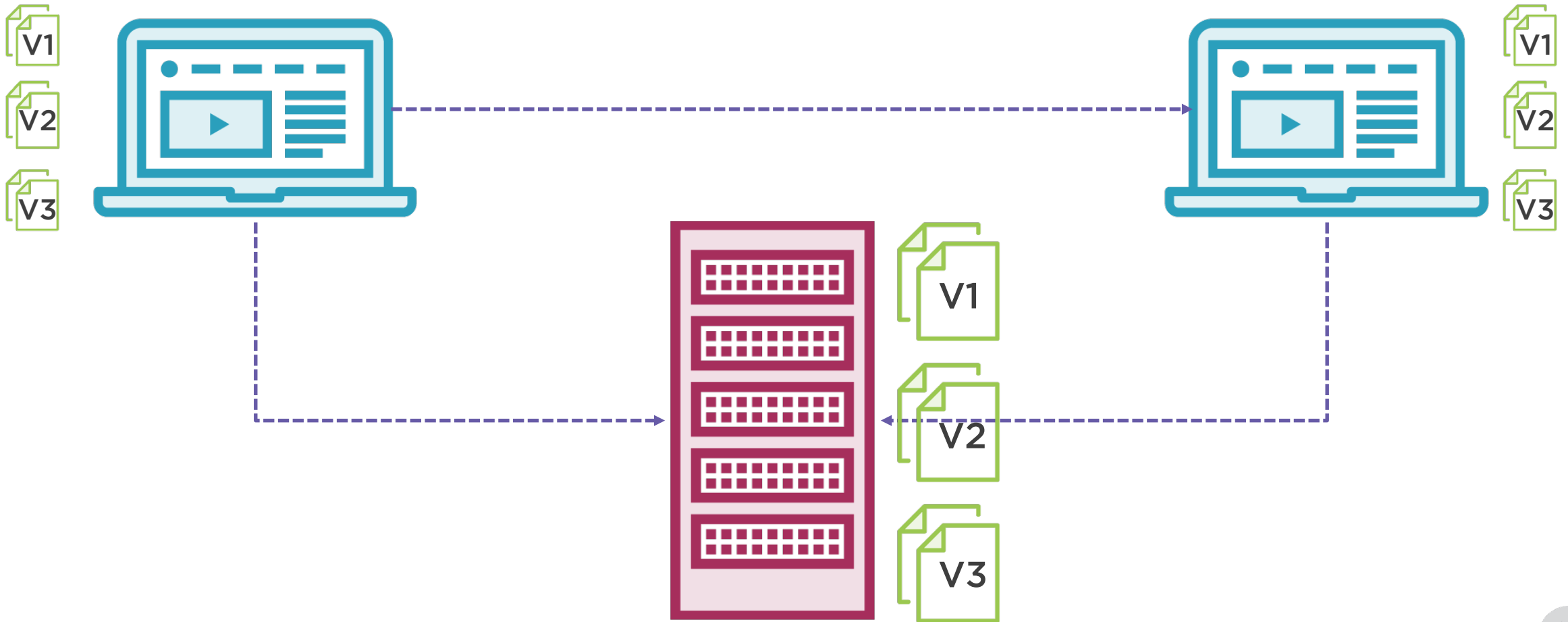
Base Concepts of Git



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



UI

Using a UI for Git

GitHub Desktop

Sourcetree

GitKraken

Git Extensions



We will use
the command line!



Getting Your Machine Ready



Git Is Widely Supported

Windows

Mac

Linux





What you need

- Download Git from <https://git-scm.com/downloads>
- An editor (Notepad++)
- GitHub account (soon)

Demo



Setting up a Windows environment



Working with Git



Some commands
to get us started...



```
$ 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



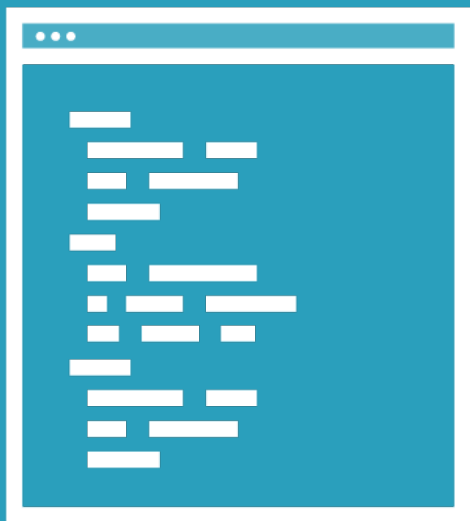
Concepts of Git

Up and running on your system

- Basic configuration

Base commands

- Creating a repo
- Local commits



Up next:
Getting started with GitHub

