

Your Code is a Living History.

Mastering Git and GitHub through the art of photography.



We are moving beyond 'saving' files. We are learning to document the evolution of a project using Git (the camera) and GitHub (the gallery).



The Repository (The Album)

- When you click the GitHub Classroom invite link, you receive a dedicated Repository in the Cloud Gallery.
- Think of this as your personal Photo Album.
- It comes labeled with the assignment name and your username. This is where your project's history will live.

Setting the Scene

Action: Creating a file (e.g., `hello.txt`) on GitHub.com.

Metaphor: You are arranging the Scene. You are writing code and getting the subject ready.



Warning: You have only arranged the scene. You have NOT taken the photo yet. If you walk away now, the history is not recorded.

The Commit (The Snapshot)

To save history, you must perform a `Commit`.

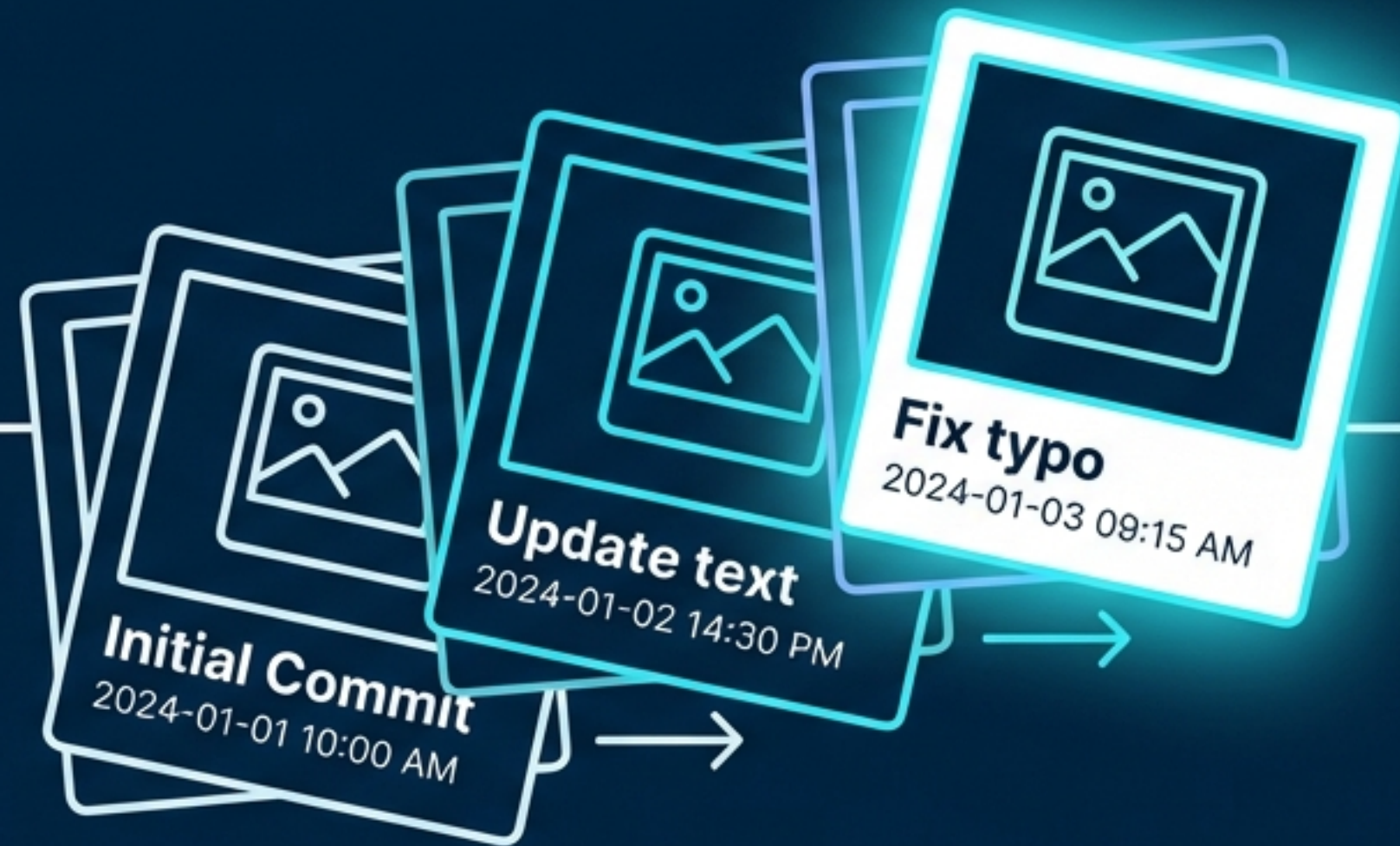
The `Snapshot`: Freezing the state of your files exactly as they look right now.

The `Commit Message`: The 'Caption' you write on the back of the photo to tell your future self WHY you took it.



The Timeline of History

When you edit and commit again, you don't destroy the old photo. You add a new snapshot to the pile. GitHub tracks this History. You can scroll back through time to see how your project evolved, snapshot by snapshot.



Entering the Private Studio



GitHub.com: The Cloud Gallery



Local Computer: The Private Studio

GitHub.com is for viewing and quick edits.

Your computer (using VS Code) is your Private Studio where the heavy lifting happens.

To work here, we need to bring the album home.

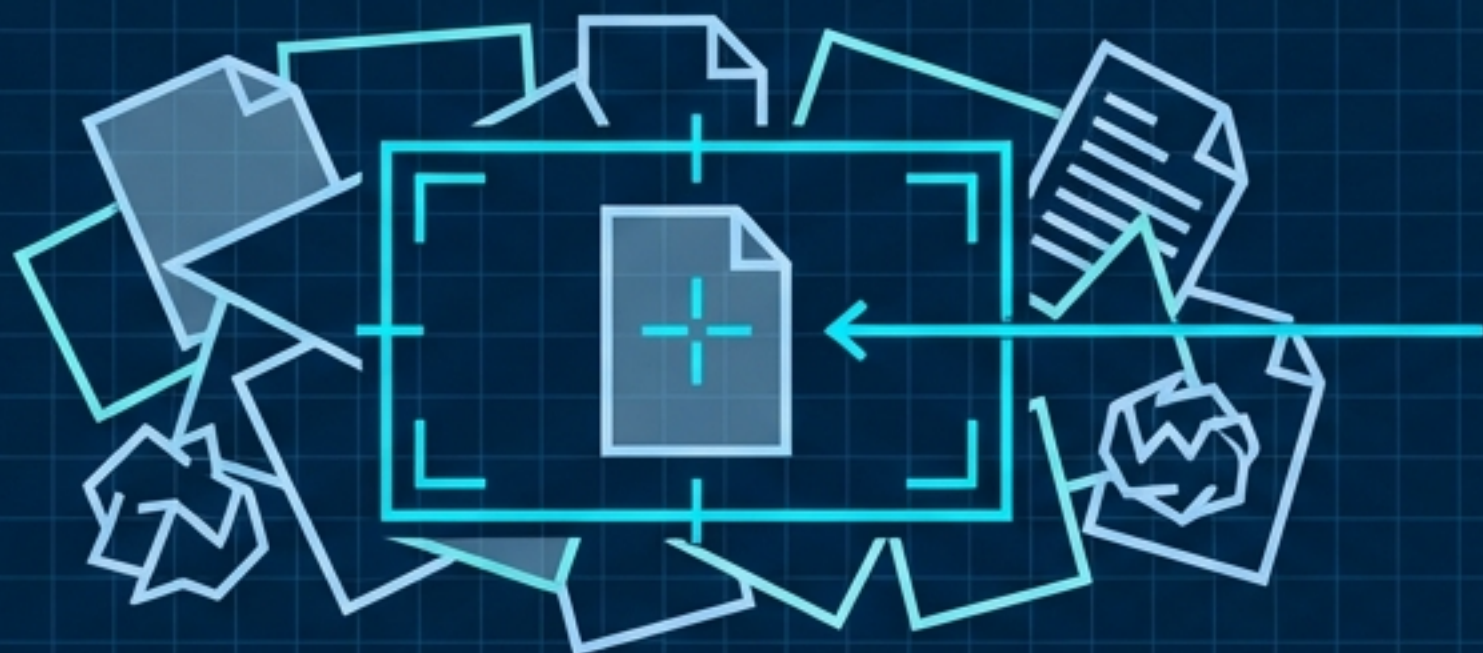


Clone (Copying the Album)

```
git clone <url>
```

Cloning creates an exact duplicate of the Repository on your machine. You aren't aren't just downloading files; you are downloading the entire history of snapshots. The Gallery and the Studio now have matching Albums.

The Local Workflow: Frame & Shoot



Step 1

1. **Stage** (`git add`): Look through the viewfinder. Select exactly which changes you want to include.



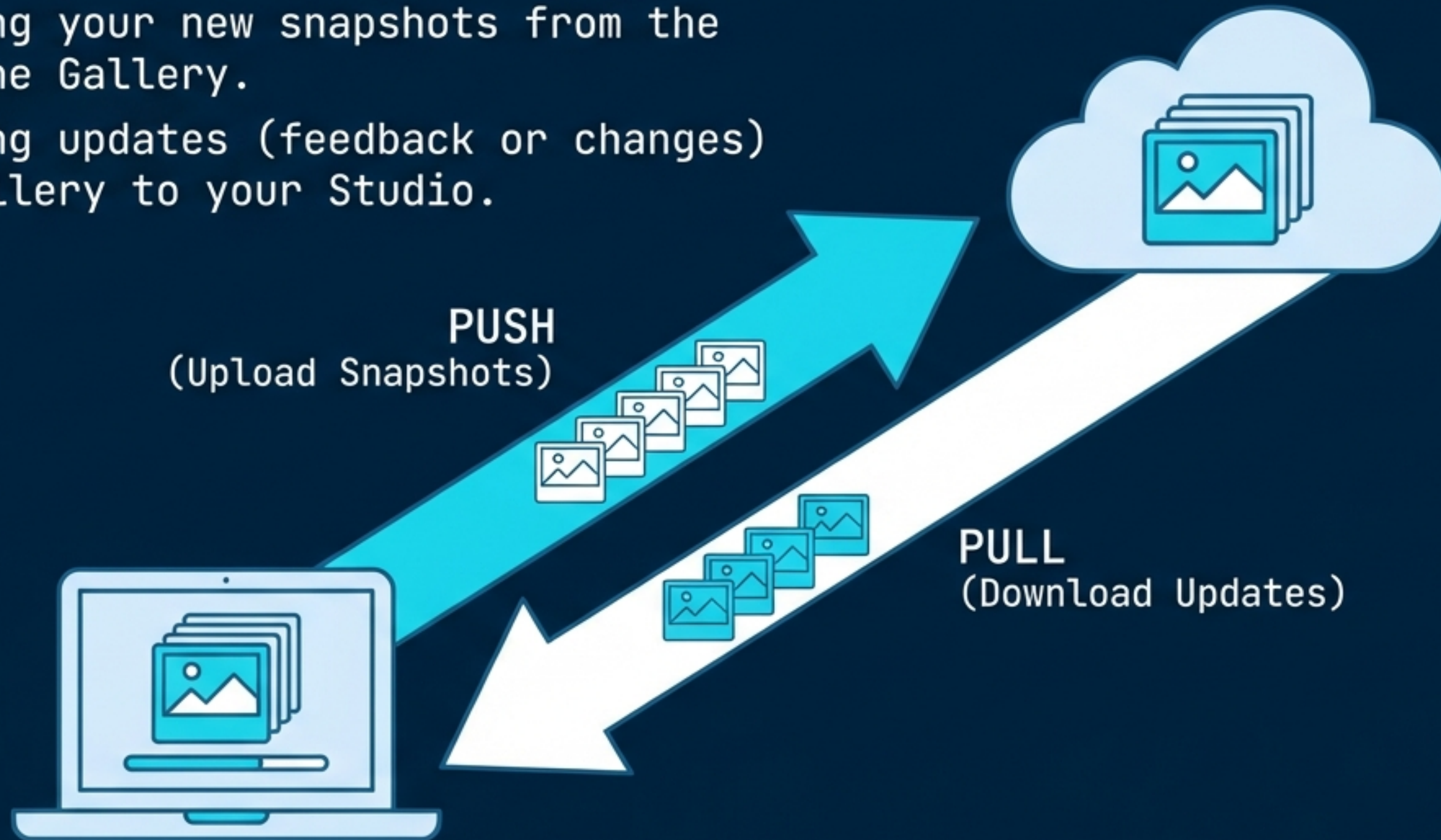
Step 2

2. **Commit** (`git commit`): Press the shutter. Create the permanent snapshot with a descriptive caption.

Push & Pull (Syncing Albums)

Push: Sending your new snapshots from the Studio to the Gallery.

Pull: Getting updates (feedback or changes) from the Gallery to your Studio.



The Creative Cycle



Always check `git status` to see where you are in the cycle.