

Merge vs Rebase

Computing

Two ways to integrate a branch, and which one to use where.

Merge

- Creates a merge commit
- History shows what actually happened
- Safe on shared branches
- Graph can get tangled
- `git merge main`

Rebase

- Replays your commits on the new base
- Linear, readable history
- REWRITES commit hashes
- Never on a branch others have pulled
- `git rebase main`

THE DIFFERENCE THAT MATTERS

The golden rule: never rebase commits that exist outside your own machine. Rewriting shared history breaks everyone else's clone.

`git pull --rebase` keeps a linear history for your own unpushed work, and is a safe default.