Using Git to Manage Your xv6 Code

When working with xv6, it's helpful to keep a record of every change you make. Git makes this easy and gives you tools to compare versions, save differences, and return to a clean state whenever needed.

Checking Whether Git Is Installed

Begin by confirming that Git is available on your system:

git --version

If this command reports a version number, you're set. If not, install Git with:

sudo apt install git

Creating a Snapshot of Your Changes

As you modify xv6, you may want to save a summary of what has changed. Git can produce this summary, called a diff, which shows exactly how your files differ from the original code.

To create and store the diff:

git diff > mychanges.patch

The .patch file contains all your modifications in a format Git can use later.

Returning to the Original xv6 Code

If you decide at any point that you want to get rid of your changes and return to a clean version of the code, Git can revert your working directory:

git stash

This clears out your modifications and restores the original files.

Restoring Your Work From a Patch File

After resetting the code, you may want to reapply your saved changes. A patch file makes this straightforward:

git apply mychanges.patch

This brings back all the changes recorded in the diff.