Best Practice: Using Git with AWS VMs for EECS 489

When working on EECS 489 assignments using AWS virtual machines, Git is your friend. AWS VMs are powerful, but they are not reliable for long-term storage. VMs frequently crash, reset, or are accidentally deleted, which can result in losing all local progress.

To avoid this, you should treat Git as your source of truth and commit early and often.

Recommended Workflow

1. Fork the EECS 489 GitLab Repository

- Go to the EECS 489 GitLab repo
- Create a fork under your own GitLab account
- This fork is your personal copy of the assignment repository

2. Clone Your Fork onto the AWS VM

On your AWS VM:

$ git clone <your-fork-url>
$ cd public

Do not clone and attempt to work off of the course's main repository. You will not be able to push due to the permissions on the repo.

3. Commit Frequently!

Make small, frequent commits:

- After finishing a function
- After debugging something tricky
- Before running large experiments
- Before logging off the VM

Example:

$ git status
$ git add .
$ git commit -m "Implement TCP handshake logic"
$ git push

If your VM dies tomorrow, you can spin up a new one and pick up where you left off.

4. Working with a Partner

Using Git correctly also makes collaboration smoother:

- Share access to the fork
- Pull each other's changes
- Resolve conflicts early
- Always git pull before starting work
- Use separate branches for each team member