

Pair Programming

Pair Programming

Definition: a practice in which two programmers work side-by-side at one computer, continuously collaborating on the same design, algorithm, code, or test. This method has been demonstrated to improve productivity and the quality of software products.

Driver - writes code, but does not come up with ideas

Navigator - comes up with ideas, but does not write code

Rules of Pair Programming

Paraphrased from the article: Everything I Needed to Pair Program, I Learned in Kindergarten - 1999 Laurie Williams and Robert Kessler

Share

Both programmers own everything.

The Pair succeeds or fails together

Play Fair

Take turns driving (writing the code) and Navigating (continually reviewing)

Set a limit (time, lines of code, problems, etc) and Switch on time

Set a schedule – determine up front if there are any conflicts over the course the days and be mindful of time zones, and life happenings.

Clean Up

Defects and problems belong to the pair

Work together to solve issues

It is never your partner's fault - you did it together, so you own the blame. You caused the defect together, so fix it together

Hold hands and Stay Together

ALL work must be done together, no exceptions

It is not a competition - it is 2 programmers working together to solve a singular task

If you partner needs a break, then you take a break

Say You're Sorry

Practice Egoless programming

Don't insist on it being your way, even if you think it is better

Don't get defensive

Don't be aggressive

Common Problems

Pairs at different skill levels

One partner taking control

One partner sitting back and not contributing

Scheduling and Reliability

Lack of communication about expectations

Violations of Pair Programming

Taking Turns doing the assignment

Splitting the assignment and each doing half

Working on the assignment without your pair

One partner rewriting code you worked together

Coming to ask an instructor for help without your pair

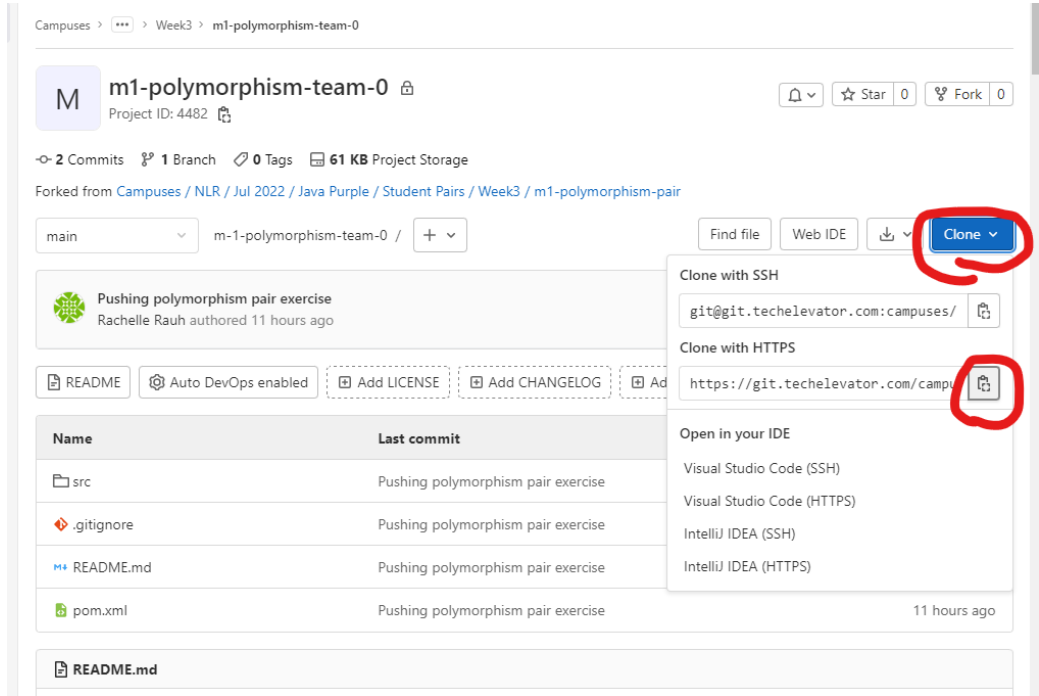
```
cd ~/workspace
```

In GitLab clone your-team-repo

```
git clone url-copied-from-the-step-above
```

In your team repo to push you use the commands:

```
git add -A
git commit -m "some commit message"
git push origin main
```



To pull you use the command:

```
git pull origin main
```