Deployment: Closing the loop

Programs that are never deployed have not fulfilled their purpose. We must deploy!

But we must answer:

- Is our application in a working state?
- Do we have the necessary HW/SW resources?
- · How do we actually deploy?

Continuous Integration (CI)

- Maintain a single repository With always deployable branch
- Automate the Build (Build is a proper noun) And fix broken builds ASAP
- · The Build should be self testing
- Everyone integrates with master frequently Small "deltas" facilitate integration and minimize bug surface area
- Automate deployment Practice "DevOps" culture

Martin Fowler "Key practices of Continuous Integration"

DevOps

- Involvement of the operations function in each phase of a system's design and development
- Heavy reliance on automation versus human effort
- The application of engineering practices and tools to operations tasks







Student advice: Branch-per-feature

- "Aggressive branch-per-feature minimized merge conflicts"
- "With this many people you NEED branchper-feature to avoid stepping on each other"

Our goal is to work efficiently as a project team. Practice now the processes you will need in your project!

Adapted from Berkeley CS169