



Git Ready for Action

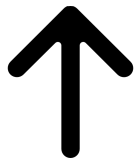
<https://bit.ly/gitready4actions>



In Case of Fire



git commit



git push



exit the building



Tweet it

Distributed Working Environment

What could possibly go wrong?

Copy and update sources
from shared drive



Files are shared via email
and USB drive



What is Git?

Version control system, keep track of changes in your files

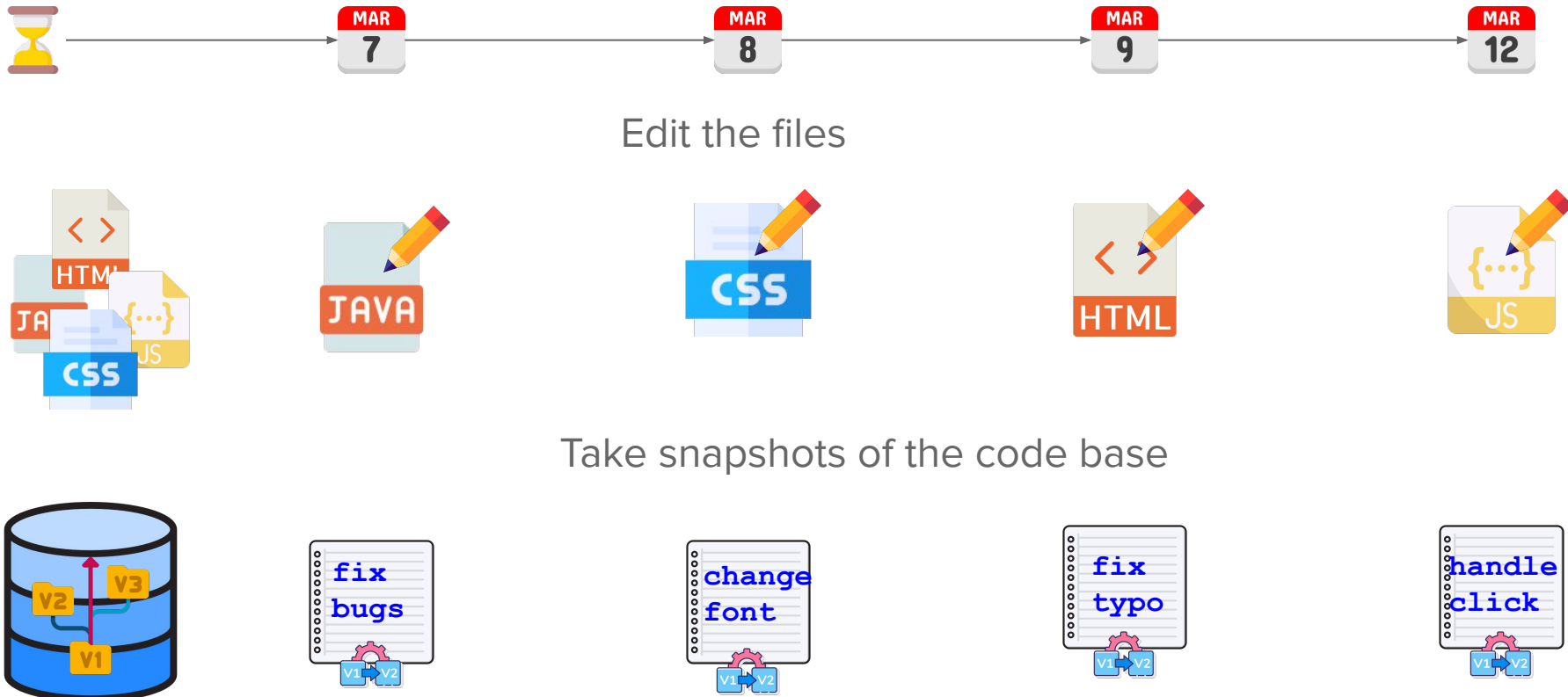
Created by Linus Torvalds in 2005

- In 10 days (not sure if this true)
- After BitKeep revoked access to Linux source code

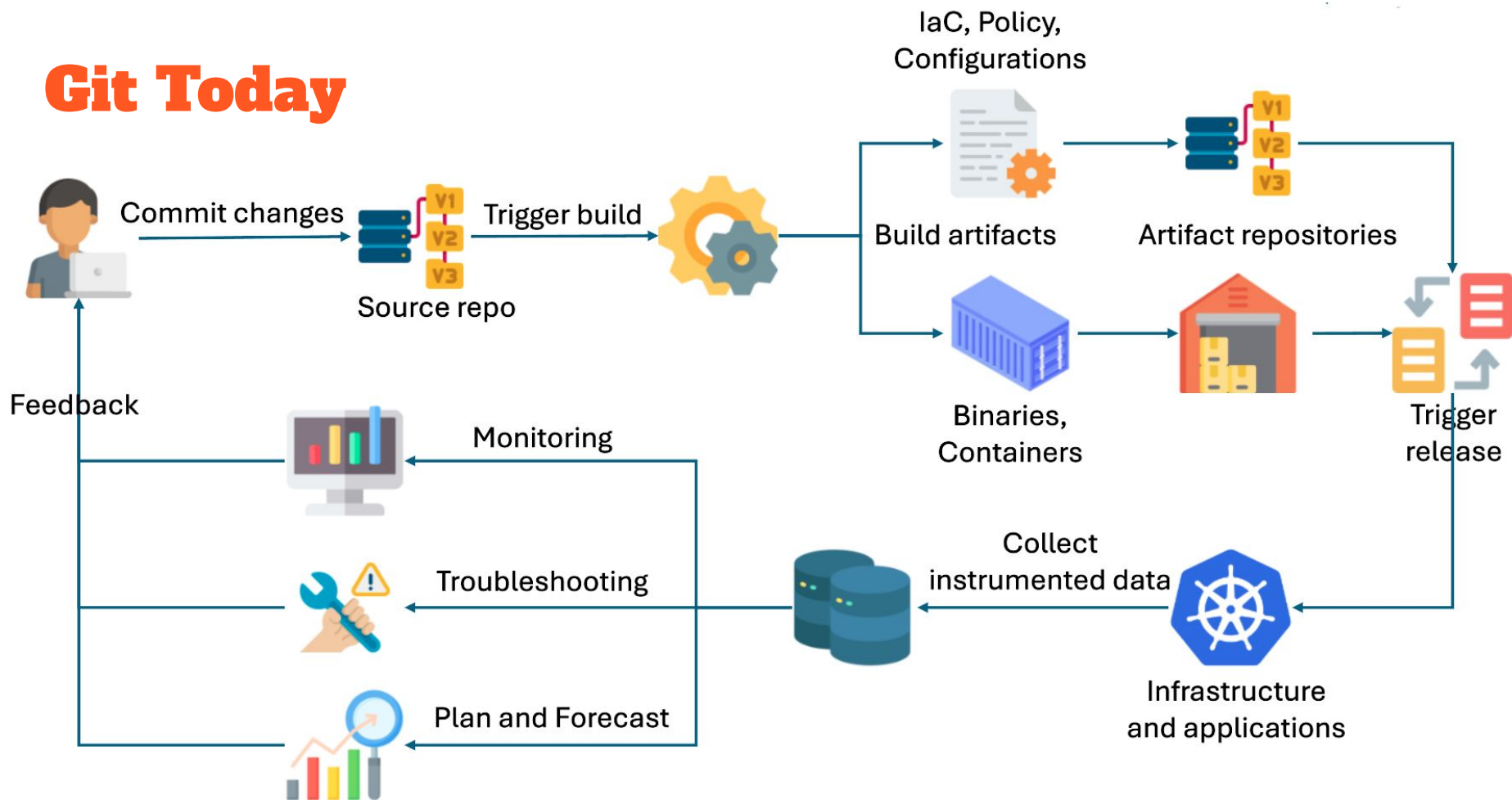
Distributed version control system

- Track changes in your file

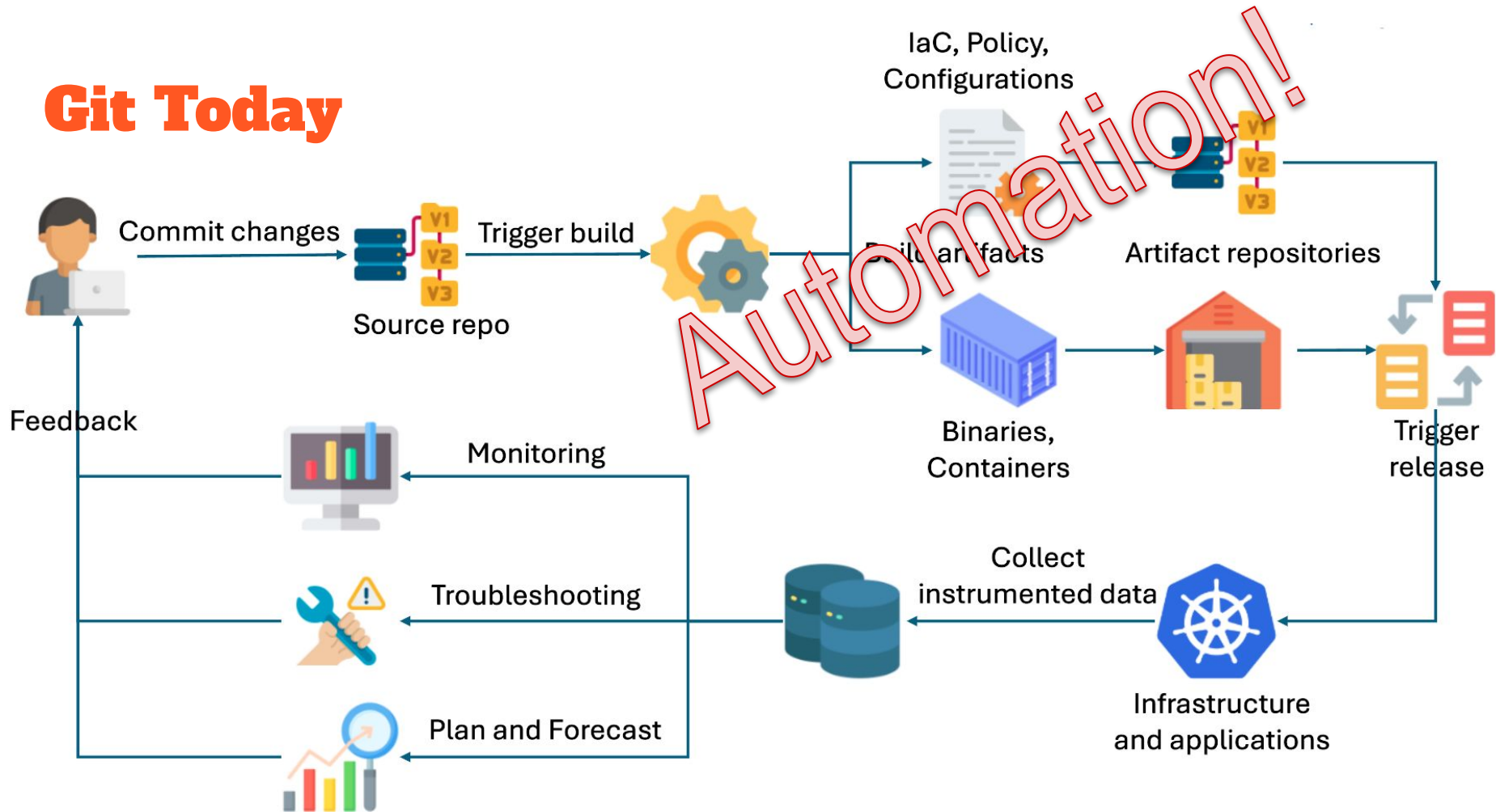
What is Git?



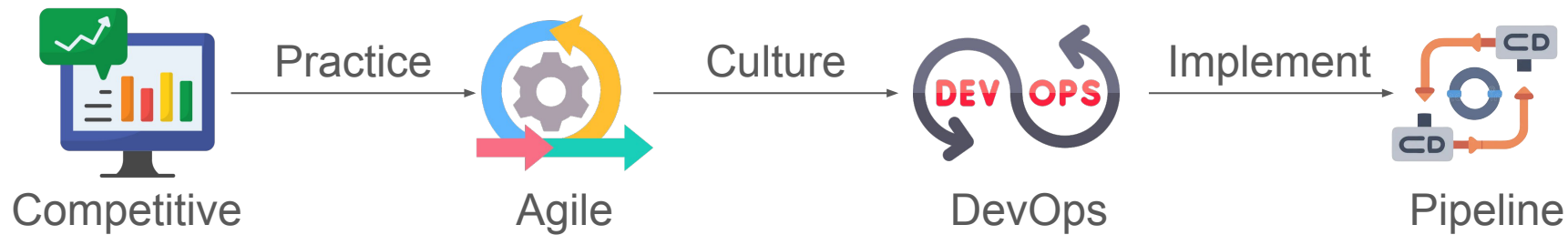
Git Today



Git Today



Why Automation?



git vs gh

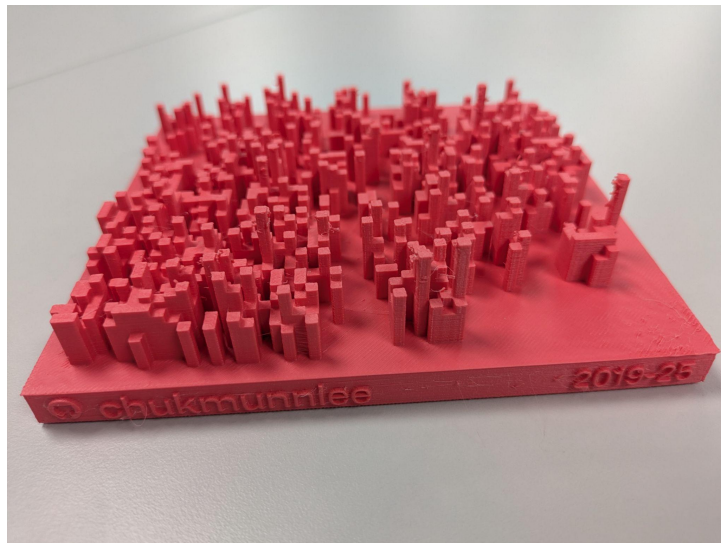
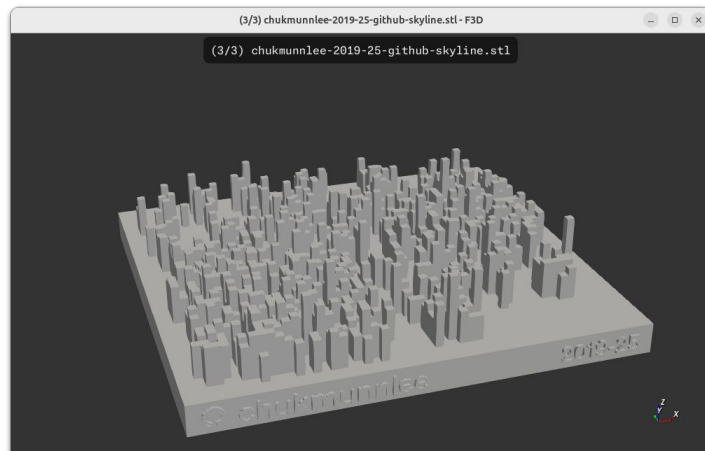
git - tool to work with git repository

- Can be used with any git repository
- <https://git-scm.com/downloads>

gh - GitHub's official tool, integrates with GitHub

- Only works with GitHub
- Creates repository, list issues, merge PR, etc
- <https://cli.github.com/>
- Extensions! skyline
 - <https://github.com/github/gh-skyline>

<https://bit.ly/gitready4actions>



Workflow

A sequence of steps to accomplish a goal

- Eg. perform a new build

Triggered automatically, manually or scheduled

- Eg. triggered when new code is pushed into a repository
- Eg. run workflow every day at 5PM except weekends

Automated workflows is the key component of CI/CD pipelines

GitHub and GitLab added workflow support

- GitLab around May 2016
- GitHub around Nov 2019

Workshop 0

Setup

<https://bit.ly/gitready4actions>

Workshop 0

Create a Git repository and push it to GitHub or vice versa

Add some content to the repository and push it to GitHub

Workshop 1

Basics

<https://bit.ly/gitready4actions>

Workshop 1

Create the workflow directory `.github/workflows`

Workflow structure

Execute bash commands with `run :`

Execute reusable actions with `uses :`

Action contexts

Passing data between steps

Triggering workflows on Github and locally

Workshop 2

Building and Deploying

Workshop 2

Building an Angular application

- ng build

Deploying to Netlify

- netlify deploy --prod --dir=path/to/compiled/files

Workshop 3

Building and

Deploying

Workshop 3

Create a Git repository from workshop ZIP archive

Building an Angular application

- ng build

Deploying to Netlify

- netlify deploy --prod --dir=path/to/compiled/files

Workshop 4

Pipeline

<https://bit.ly/gitready4actions>

Workshop 4

Setup the workflow directory with a workflow flow

Setup the environment

- Checkout source
- Setup node environment

Build and deploy application

Send message to Slack after deployment to Netlify

Conditional workflow

If time permits

Workshop 5

Deploy on Release

Workshop 5

Create a release

Build and publish only when a release is created

Thank you

A polar bear is lying down on a large, white ice floe. The bear's fur is a light cream color. It is surrounded by a sea of smaller, broken ice chunks. The water between the ice floes is a dark, cold blue-grey color. The overall scene is a stark, cold Arctic environment.

Enjoy the rest of your weekend!