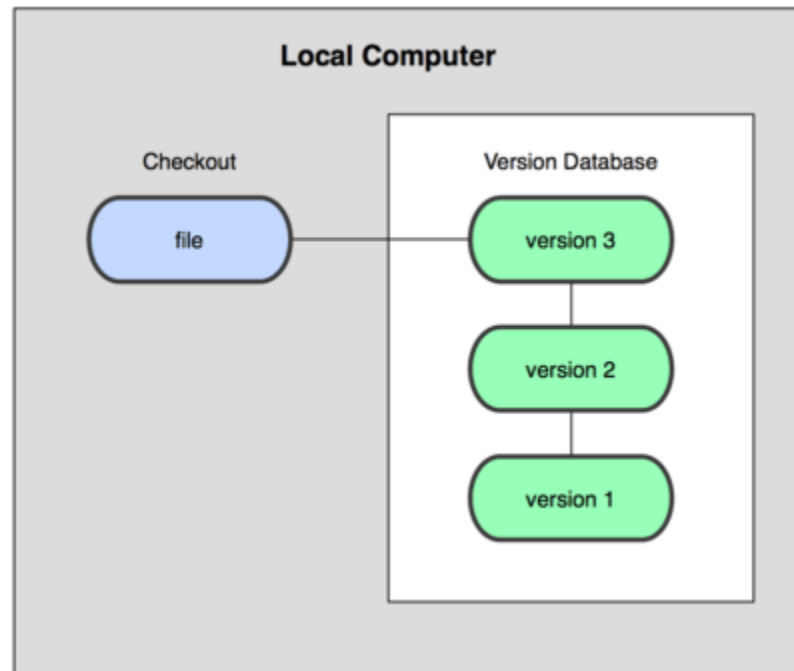
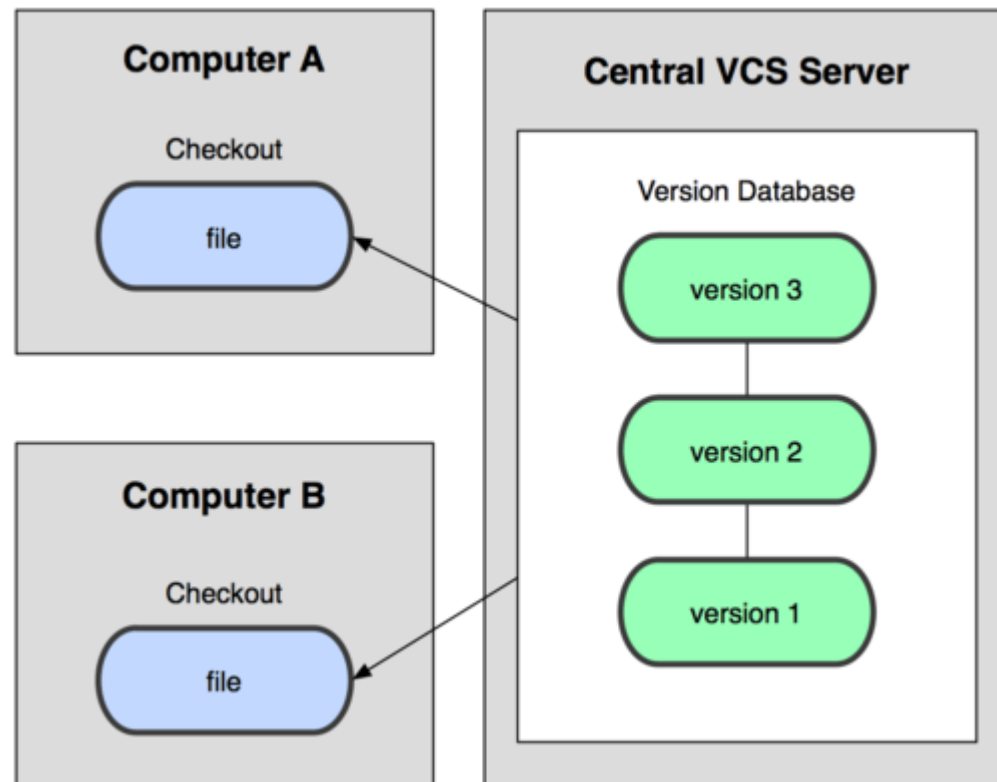


# Version Control Systems

# Local systems

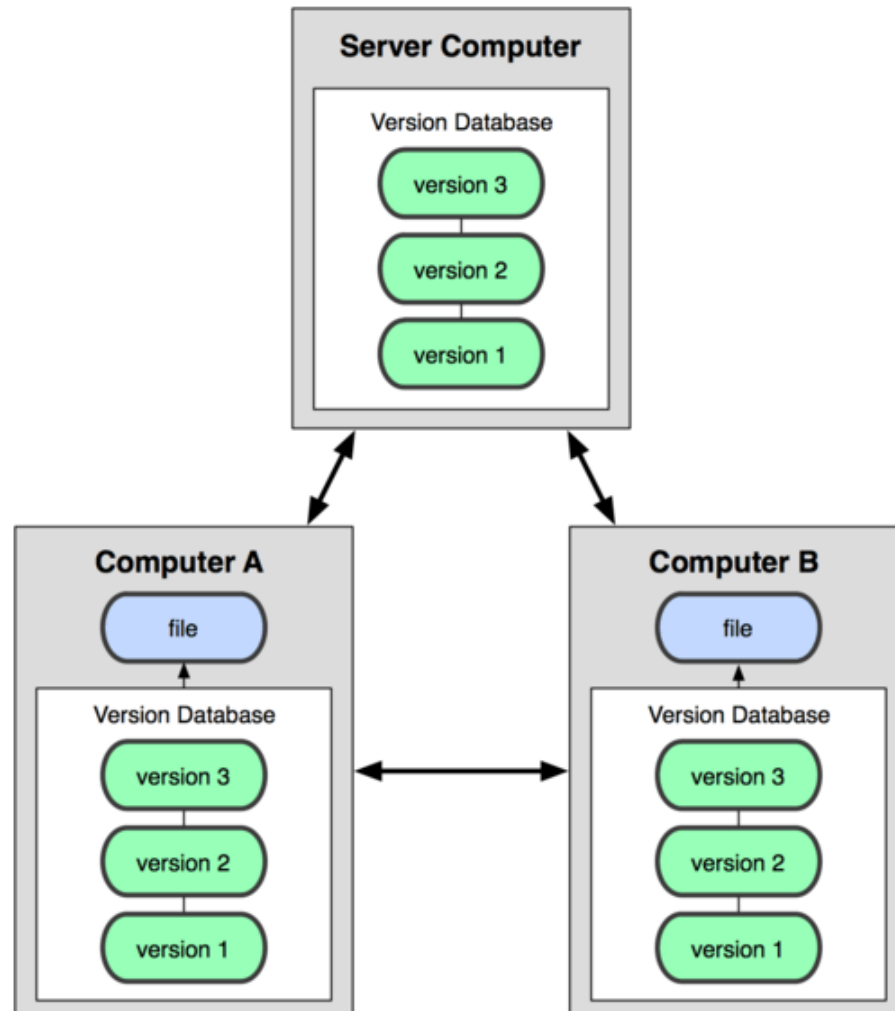


# CVCS - Centralized Version Control System



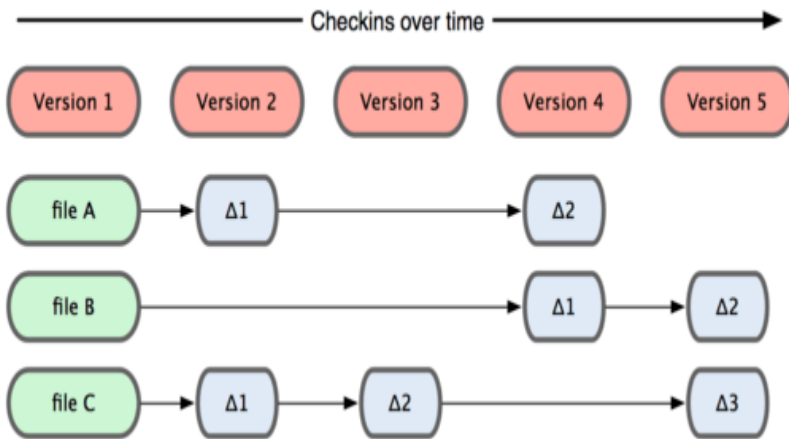
Rys. <https://git-scm.com/book/pl/v1/Pierwsze-kroki-Wprowadzenie-do-kontroli-wersji>  
CVS, Subversion

# DVCS - Distributed Version Control System

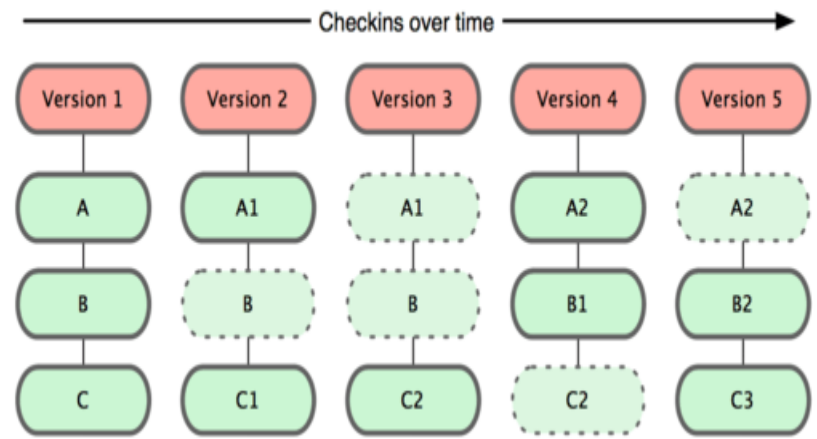


Git, Mercurial

# CVCS vs DVCS

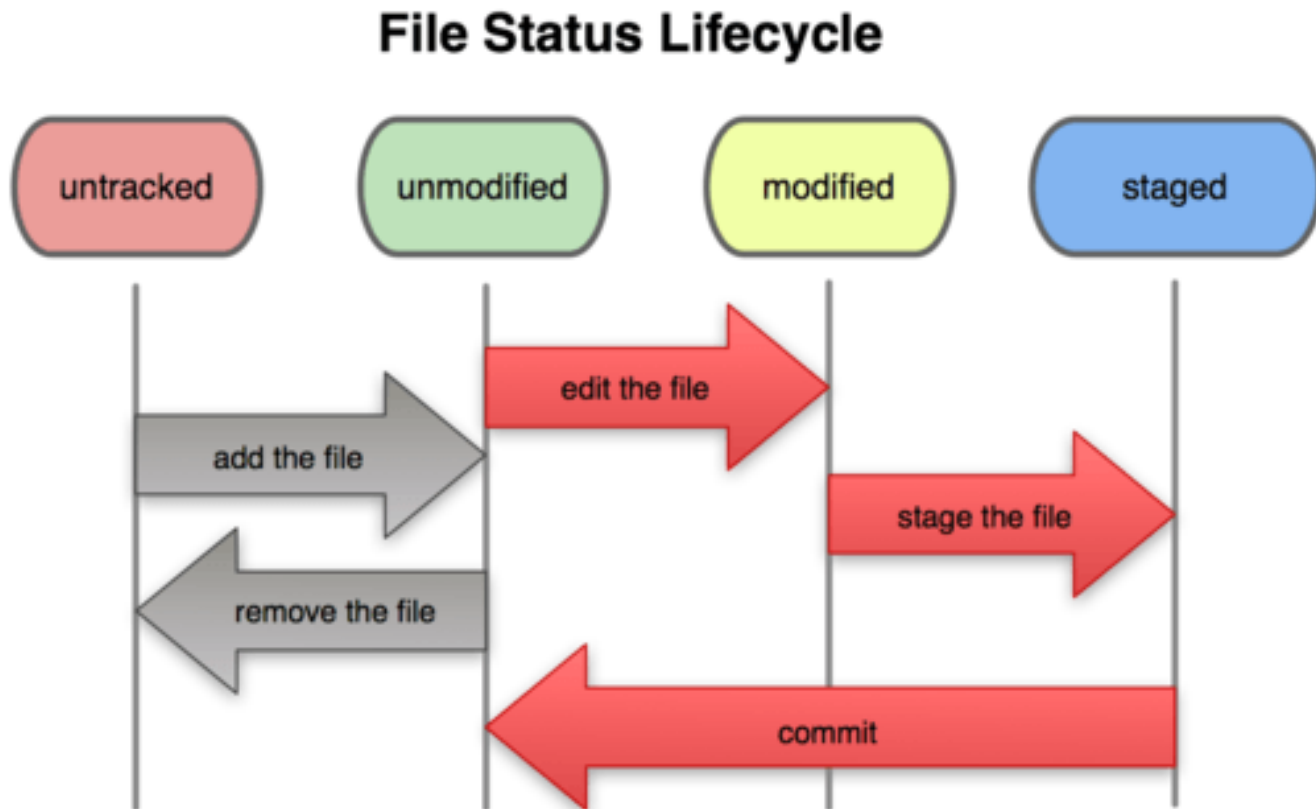


Subversion – differences between files

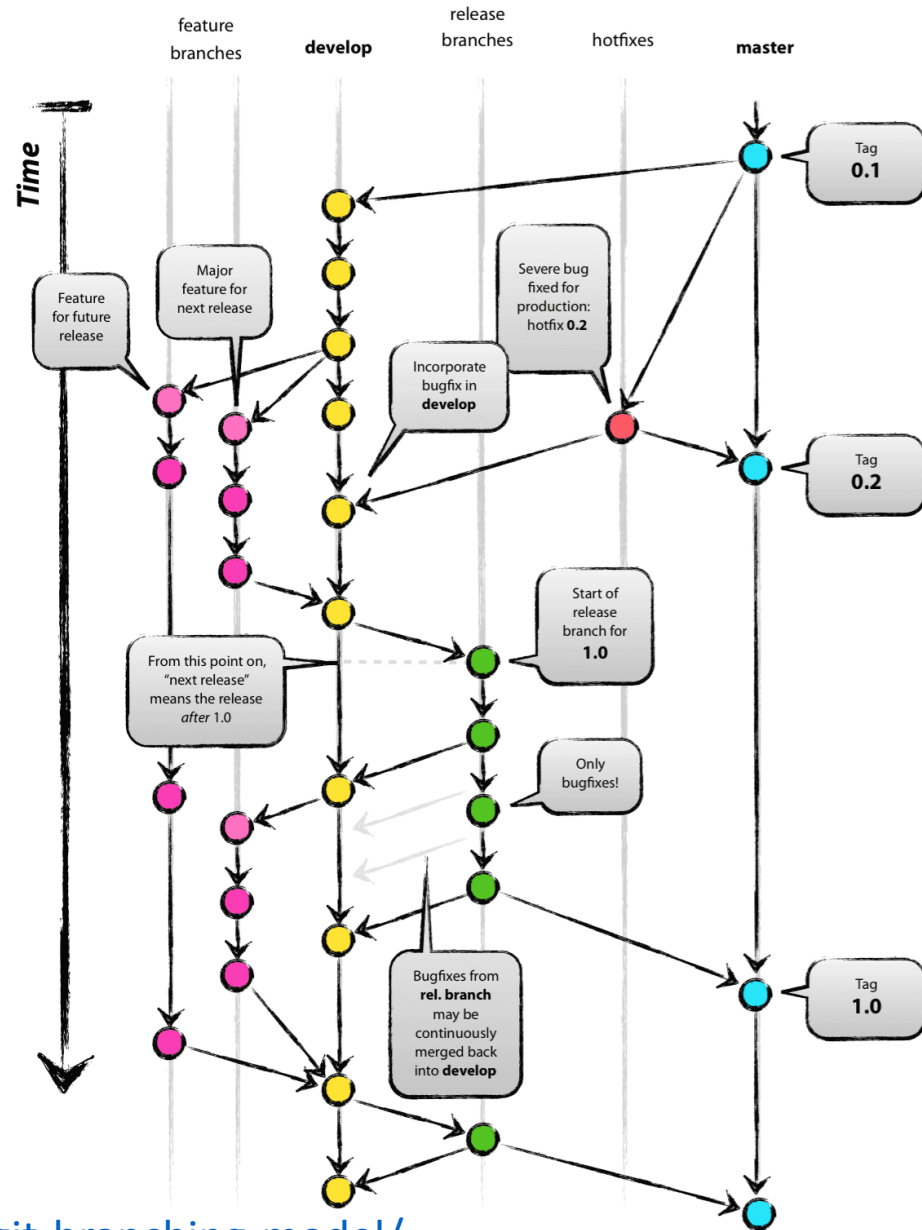


Git – snapshots and references

# Git operation

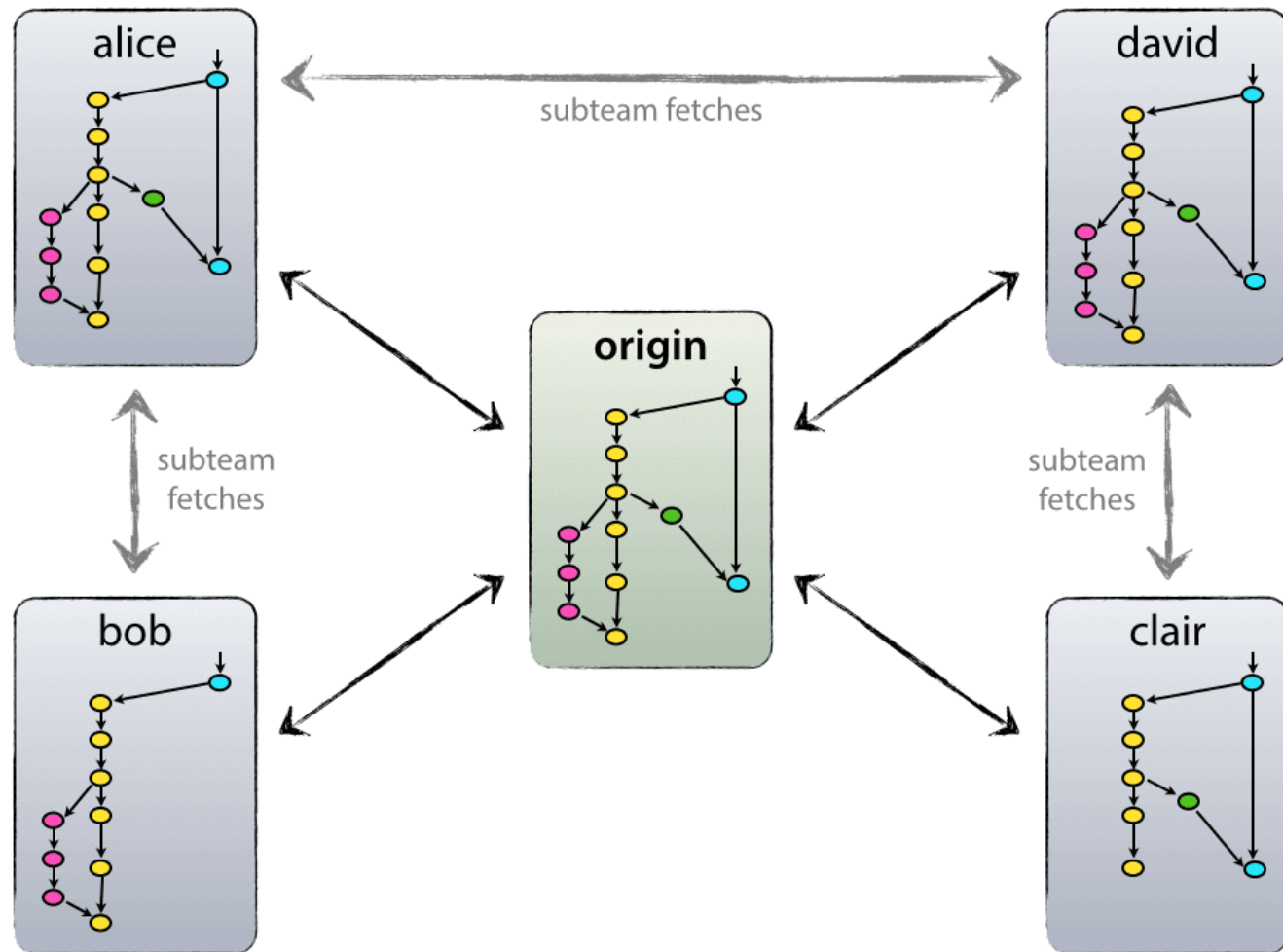


# Branches



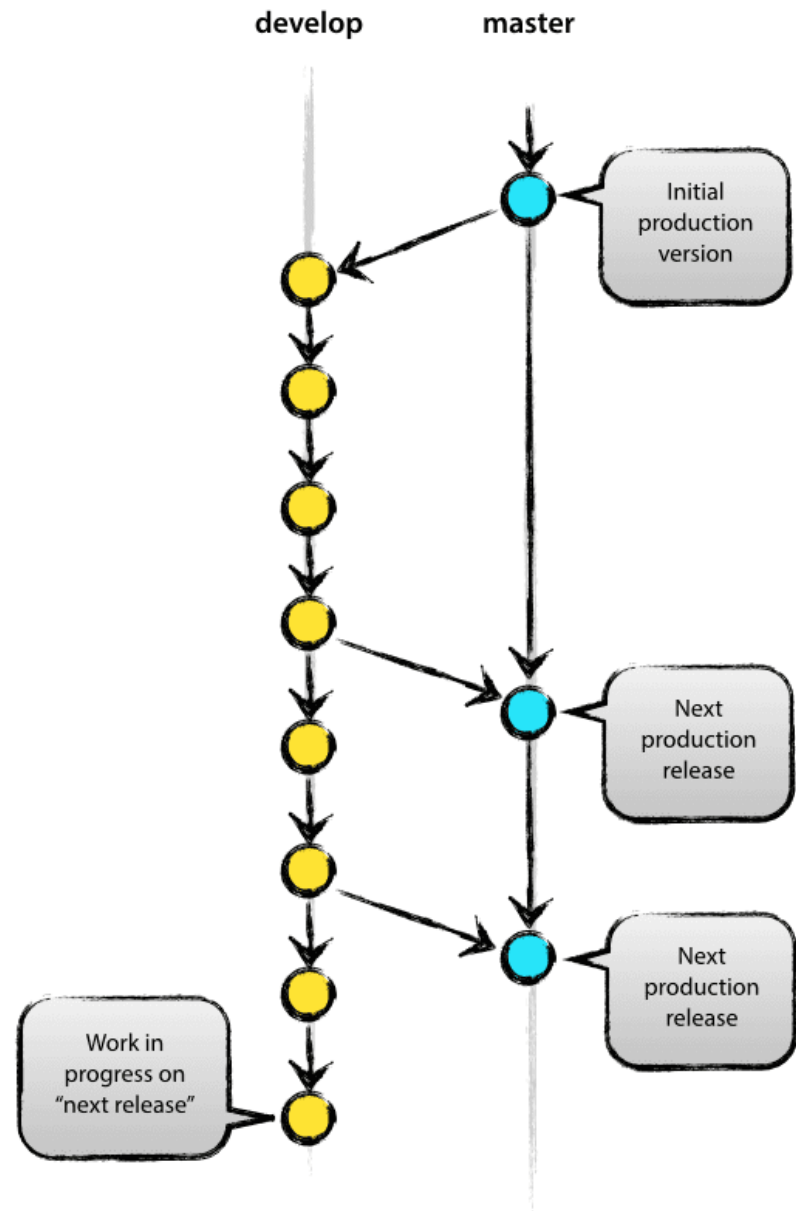
<https://nvie.com/posts/a-successful-git-branching-model/>

# Decentralized system



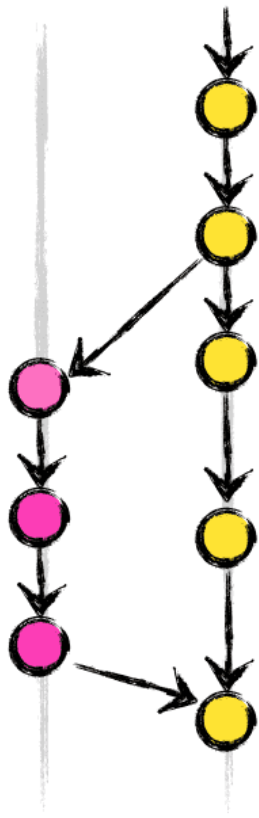


# Master and develop

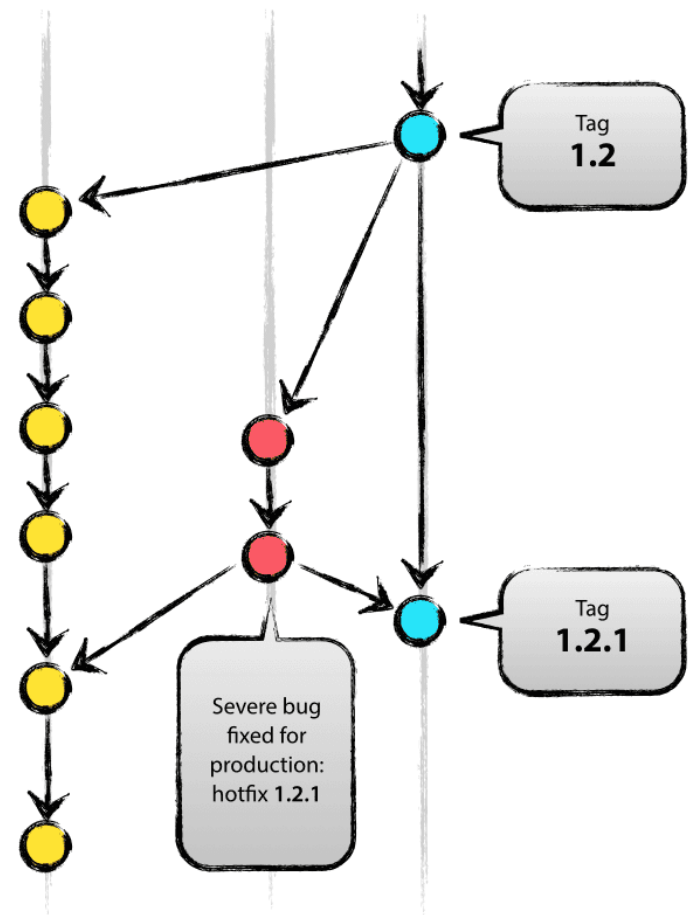


# Supporting branches

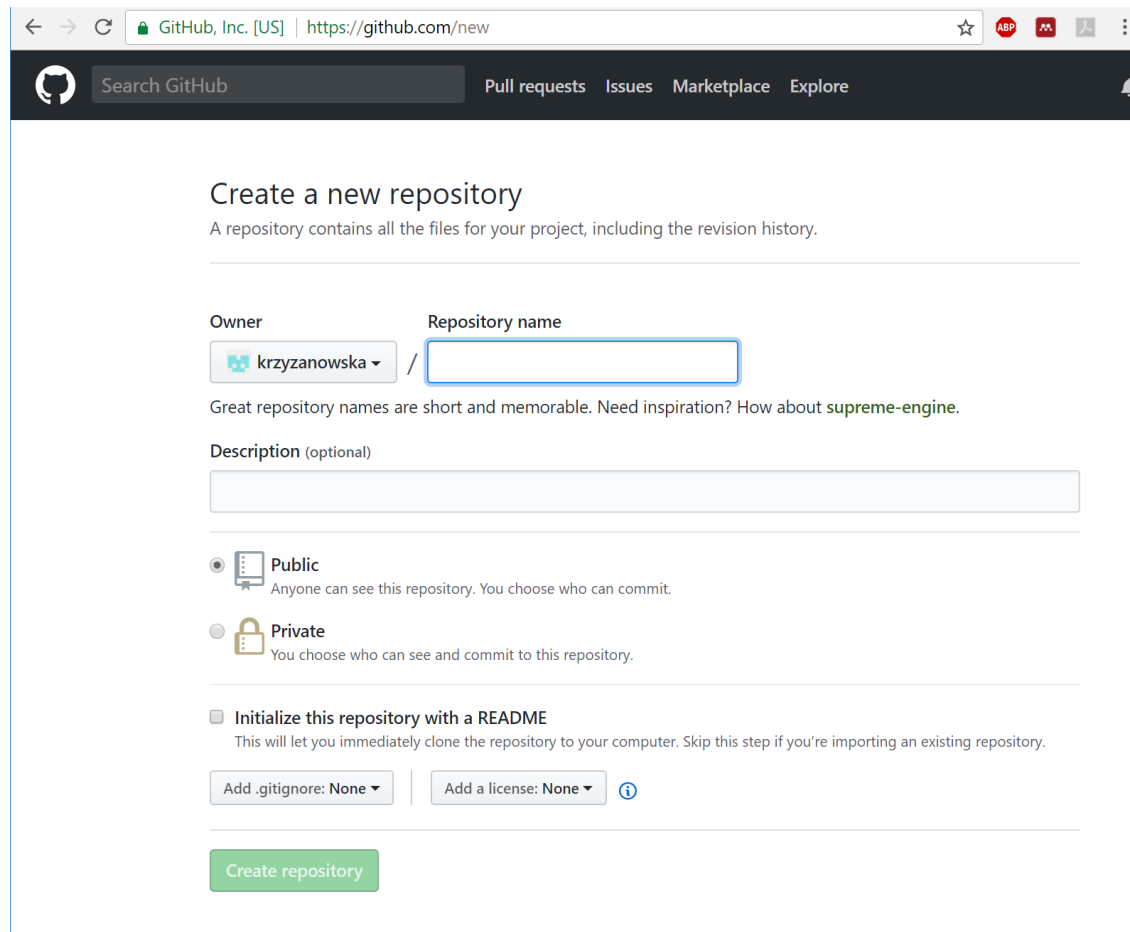
feature  
branches      develop



develop      hotfixes      master



# Create a new project on github



The screenshot shows the GitHub 'Create a new repository' page. The browser address bar displays 'GitHub, Inc. [US] | https://github.com/new'. The GitHub navigation bar includes a search bar, 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. The main heading is 'Create a new repository' with a subtext: 'A repository contains all the files for your project, including the revision history.' The form fields include: 'Owner' (krzyzanowska), 'Repository name' (empty), 'Description (optional)' (empty), 'Public' (selected), 'Private' (unselected), 'Initialize this repository with a README' (unselected), 'Add .gitignore: None', and 'Add a license: None'. A green 'Create repository' button is at the bottom.

← → ↻ GitHub, Inc. [US] | https://github.com/new ☆ ABP .NET

Search GitHub Pull requests Issues Marketplace Explore

## Create a new repository

A repository contains all the files for your project, including the revision history.

Owner Repository name

krzyzanowska /

Great repository names are short and memorable. Need inspiration? How about **supreme-engine**.

Description (optional)

☐ **Public**  
Anyone can see this repository. You choose who can commit.

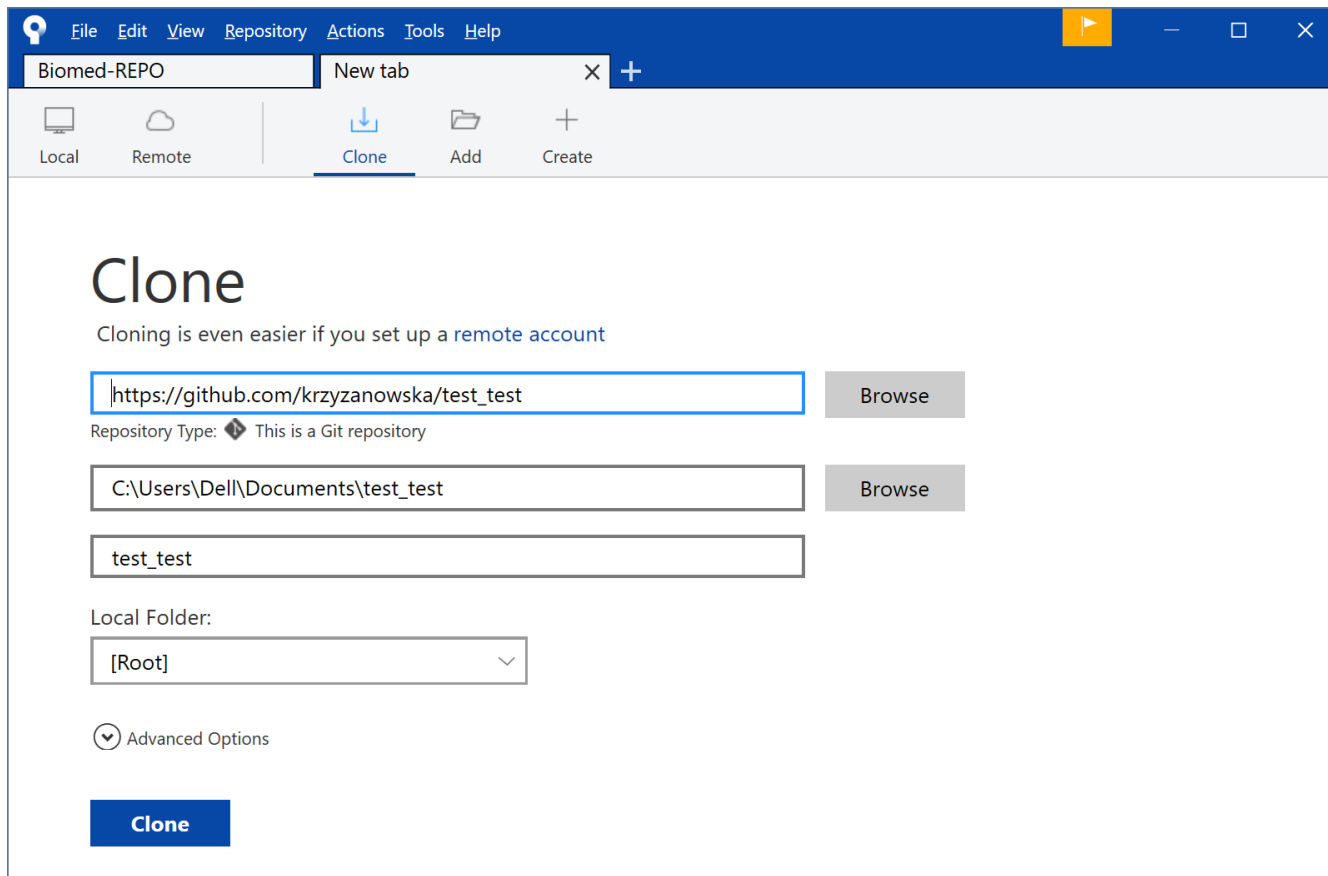
☐ **Private**  
You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**  
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None | Add a license: None ⓘ

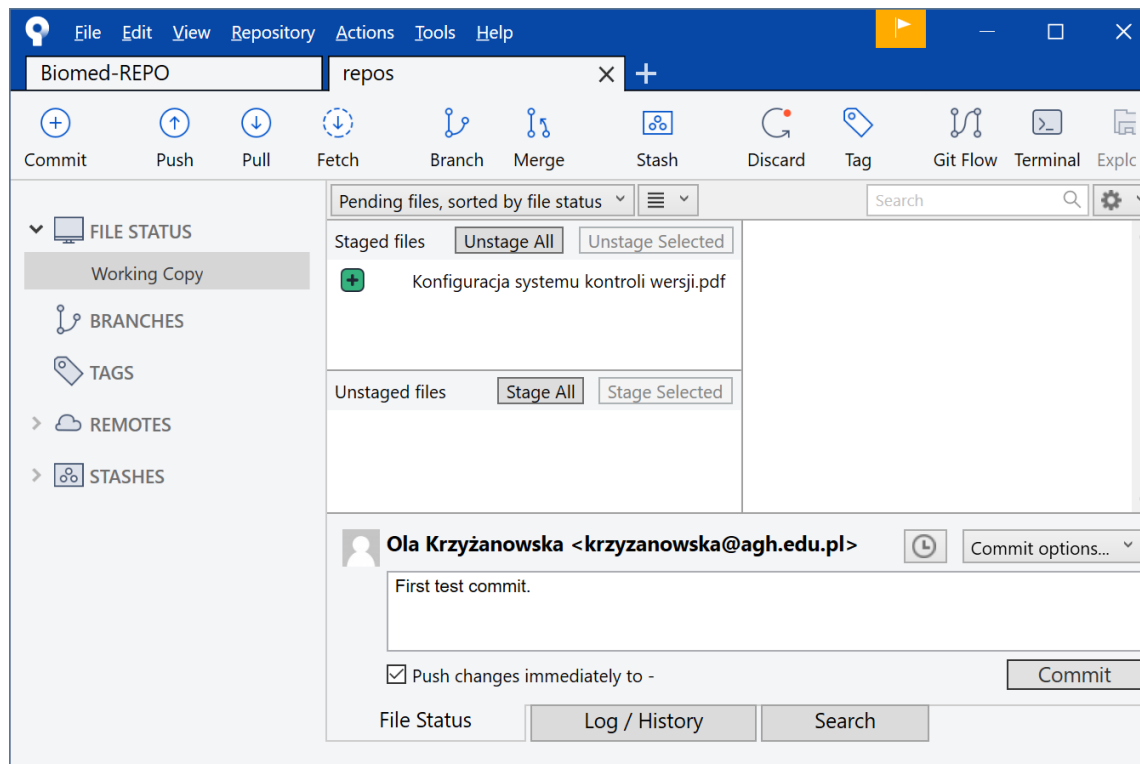
Create repository

# Clone the project with SourceTree



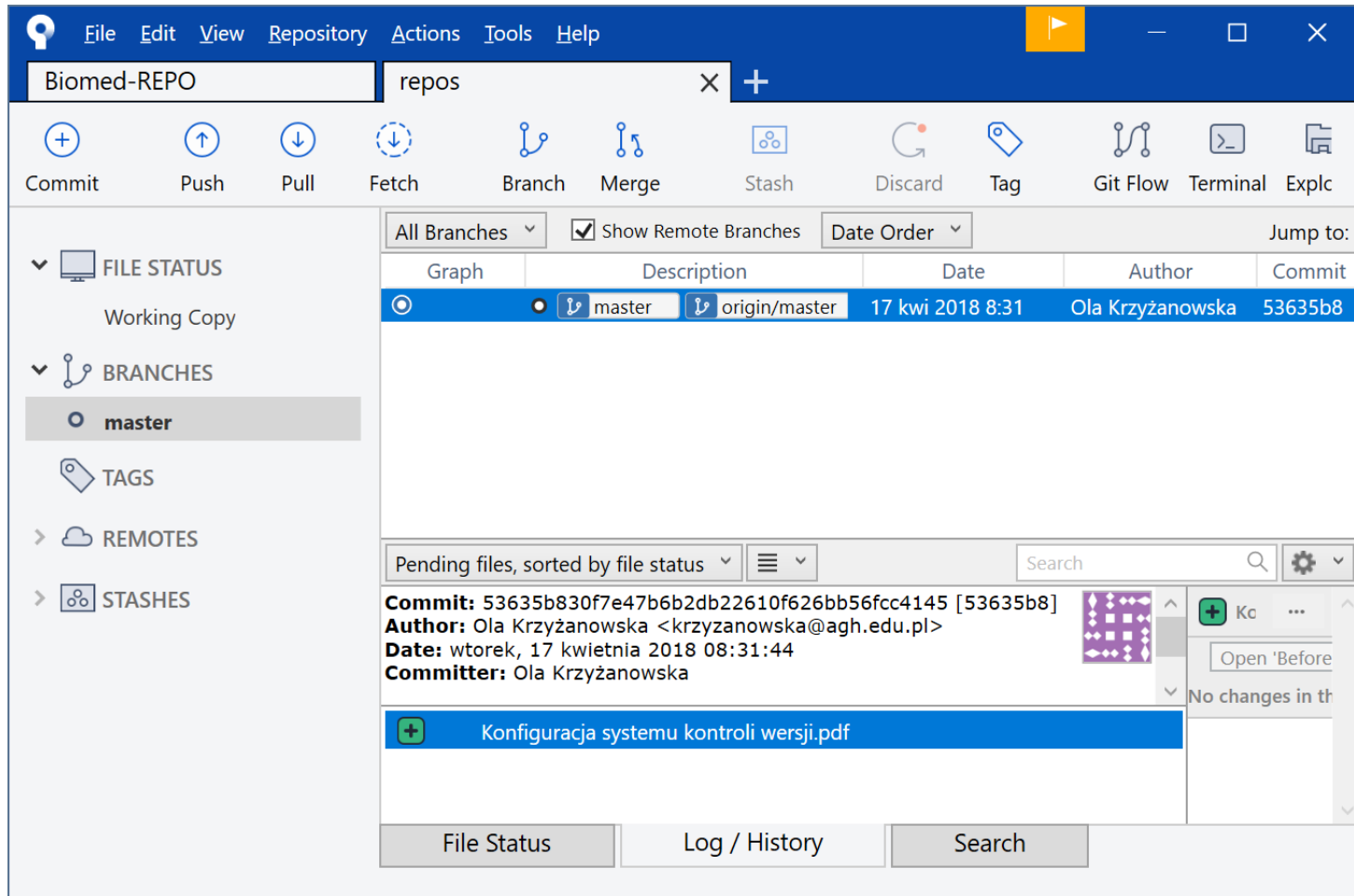
# Work with SourceTree

Add files to your directory on disk , stage all and commit with a comment.



# Work with SourceTree

Check your branch - master.



# Check your project on github

The screenshot shows the GitHub interface for a repository named 'test\_test' by user 'krzyzanowska'. The browser address bar shows the URL 'https://github.com/krzyzanowska/test\_test'. The repository page includes a header with navigation links like 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below the header, the repository name is displayed along with statistics: 0 Watch, 0 Star, and 0 Fork. A tab bar shows 'Code' as the active tab, with other tabs for 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Insights', and 'Settings'. The main content area shows a message: 'No description, website, or topics provided.' with an 'Edit' button. Below this, statistics are listed: 1 commit, 1 branch, 0 releases, and 1 contributor. A row of buttons includes 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit history section shows a single commit by 'krzyzanowska' titled 'First test commit.' with the latest commit hash '53635b8' and a timestamp of '6 minutes ago'. Below the commit history, a file named 'Konfiguracja systemu kontroli wersji.pdf' is listed as the first commit. At the bottom, a blue banner encourages adding a README with an 'Add a README' button.

← → ↻ GitHub, Inc. [US] | https://github.com/krzyzanowska/test\_test ☆ ABP

This repository Search Pull requests Issues Marketplace Explore

krzyzanowska / test\_test Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

No description, website, or topics provided. Edit

Add topics

1 commit 1 branch 0 releases 1 contributor

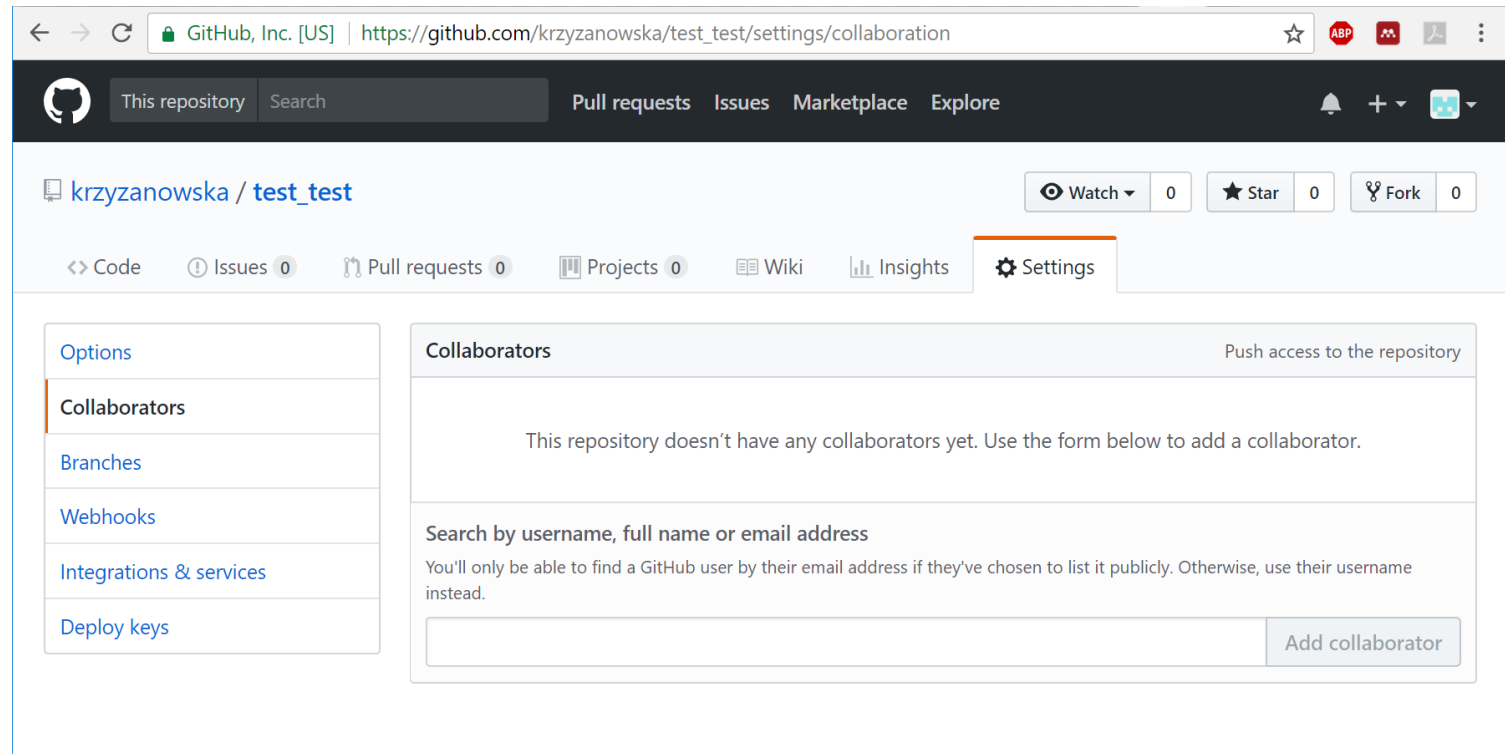
Branch: master New pull request Create new file Upload files Find file Clone or download

krzyzanowska First test commit. Latest commit 53635b8 6 minutes ago

Konfiguracja systemu kontroli wersji.pdf First test commit. 6 minutes ago

Help people interested in this repository understand your project by adding a README. Add a README

# Add collaborators on github



The screenshot displays the GitHub interface for the repository 'krzyzanowska / test\_test'. The browser address bar shows the URL 'https://github.com/krzyzanowska/test\_test/settings/collaboration'. The repository name is 'krzyzanowska / test\_test'. The page is divided into a left sidebar with navigation links: Options, Collaborators (selected), Branches, Webhooks, Integrations & services, and Deploy keys. The main content area is titled 'Collaborators' and includes a sub-header 'Push access to the repository'. Below this, a message states: 'This repository doesn't have any collaborators yet. Use the form below to add a collaborator.' A search bar is provided with the instruction 'Search by username, full name or email address' and a note: 'You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.' The search bar is followed by an 'Add collaborator' button.

GitHub, Inc. [US] | [https://github.com/krzyzanowska/test\\_test/settings/collaboration](https://github.com/krzyzanowska/test_test/settings/collaboration)

This repository Search Pull requests Issues Marketplace Explore

krzyzanowska / test\_test

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Options

Collaborators

Branches

Webhooks

Integrations & services

Deploy keys

Collaborators Push access to the repository

This repository doesn't have any collaborators yet. Use the form below to add a collaborator.

Search by username, full name or email address

You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.

Add collaborator



# Basic commands

- **Clone** – copy a remote repository
- **Fetch** – retrieve new objects and references from the remote repository
- **Pull** – fetch and merge commits locally
- **Commit** – add new objects and references to the local repository
- **Push** – add new objects and references to the remote repository

# References:

<https://git-scm.com/book/pl/v1/Pierwsze-kroki-Wprowadzenie-do-kontroli-wersji>

<https://www.atlassian.com/git/tutorials/comparing-workflows#!workflow-gitflow>

<https://github.com/GSoft-SharePoint/Dynamite/wiki/Getting-started-with-SourceTree,-Git-and-git-flow>

SVN: <https://www.youtube.com/watch?v=dbE6rHGvqYU>

GIT: <https://www.youtube.com/watch?v=iVRKQCDeDjc>

Mercurial: <https://www.youtube.com/watch?v=ie5BeYHVL7I>

Sourcetree course: <https://www.coursera.org/learn/version-control-with-git#>

<https://learngitbranching.js.org/>