

Marcin Woźniak

**VML**

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# Git: how it works?



# Today

- History of GIT
- Why should we use git?
- GitHub – setup account
- Git – configuration
- Markdown
- Git – commands
- Git Tools
- Workshops
- Sources

# History of GIT

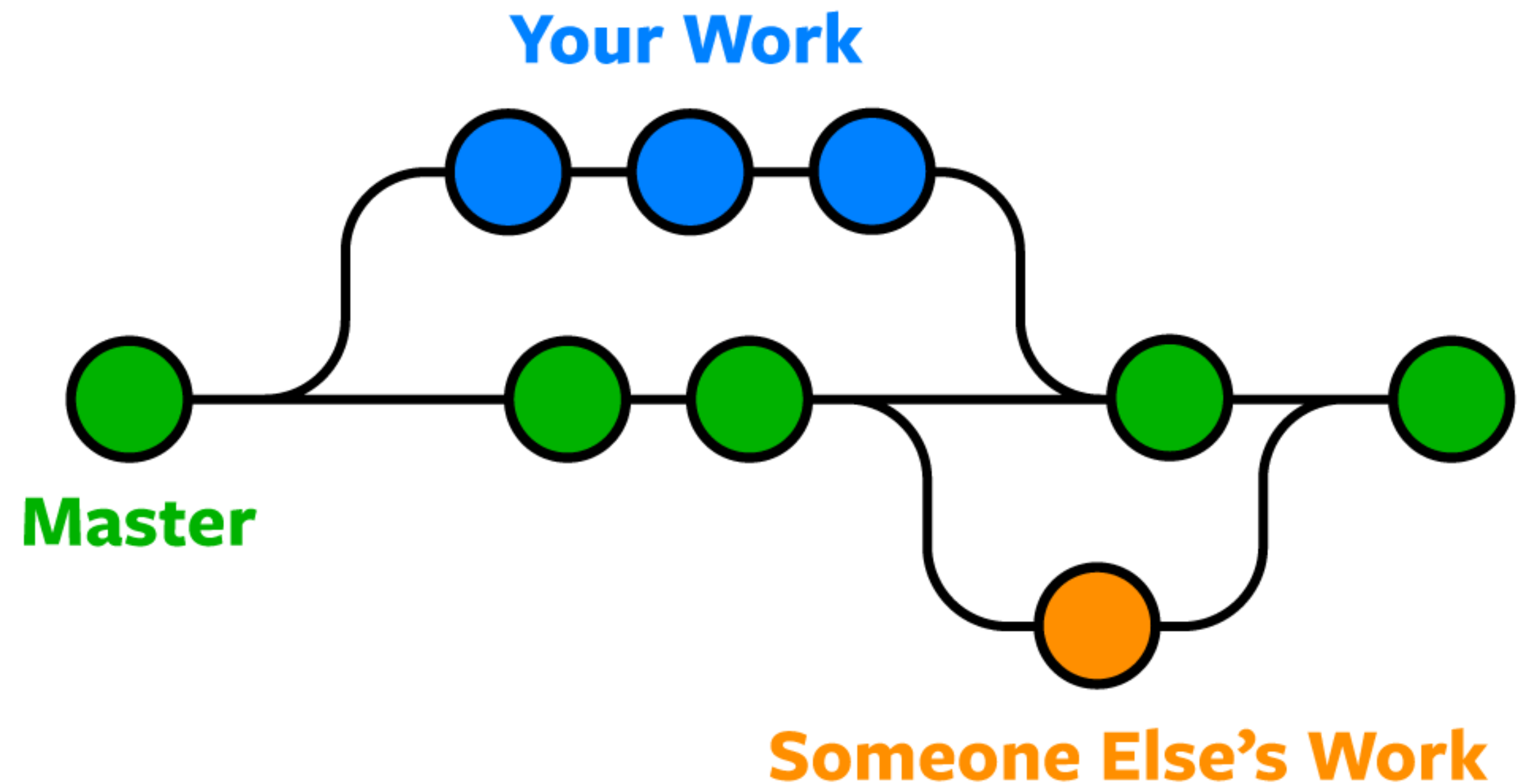


Git - is software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows (thousands of parallel branches running on different systems)

Git was originally authored by Linus Torvalds in 2005 for development of the Linux kernel, with other kernel developers contributing to its initial development

# Why should we use git?

- Locally Repositories
- Remote Repositories (BitBucket, Github, Gitea)
- Branches & Merging
- Collaboration
- Pull Requests



# Git – configuration

```
$ git config --global user.name "Marcin Wozniak"  
$ git config --global user.email marcin.wozniak@vml.com
```

# Git – configuration - ssh

Settings

Public profile

Account

Appearance

Accessibility

Notifications

Access

Billing and plans

Emails

Password and authentication

Sessions

**SSH and GPG keys**

Organizations

Enterprises

Moderation

Code, planning, and automation

Repositories

Codespaces

Packages

Copilot

Pages

Saved replies

Security

Code security

Integrations

Applications

Scheduled reminders

Archives

Marcin Woźniak (marcin-wozniak-wttech)

Your personal account [Switch settings context](#)

Go to your personal profile

SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

Authentication keys

Work

SHA256:WspUSNY4UZBoeg0SM3vLRHEKPEdrswxvUIJ2NAy7Le4

Added on Oct 31, 2023

Last used within the last week — Read/write

Configure SSO

Delete

Check out our guide to [connecting to GitHub using SSH keys](#) or troubleshoot [common SSH problems](#).

GPG keys

New GPG key

There are no GPG keys associated with your account.

Learn how to [generate a GPG key and add it to your account](#).

Vigilant mode

☐ Flag unsigned commits as unverified

This will include any commit attributed to your account but not signed with your GPG or S/MIME key.

Note that this will include your existing unsigned commits.

[Learn about vigilant mode.](#)

VML

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# Markdown style

<https://www.markdownguide.org/basic-syntax/>

## WTT INFRASTRUCTURE MERAKI

### Download the requirements

```
ansible-galaxy install --force -r roles/requirements.yml
```

### How to use it?

```
ansible-playbook -e "MERAKI_API_KEY=XXXXXXXXXXXX" playbooks/ <SWITCH-NAME >.yml
```

### Example configuration

- Begining configuration of switch:

```
- name: Configure SW_A1_30
  hosts: localhost
  connection: local
  gather_facts: no
  collections:
    - cisco.meraki
    - cisco.meraki.meraki_ms_stack
    - cisco.meraki.meraki_organization
  vars_files:
    - ../vars/vars.yml
```

```
# WTT INFRASTRUCTURE MERAKI
```

```
## Download the requirements
```

```
```bash
ansible-galaxy install --force -r roles/requirements.yml
```
```

```
## How to use it?
```

```
```bash
ansible-playbook -e "MERAKI_API_KEY=XXXXXXXXXXXX" playbooks/ <SWITCH-NAME >.yml
```
```

```
## Example configuration
```

```
- Begining configuration of switch:
```

```
```yaml
- name: Configure SW_A1_30
  hosts: localhost
  connection: local
  gather_facts: no
  collections:
    - cisco.meraki
    - cisco.meraki.meraki_ms_stack
    - cisco.meraki.meraki_organization
  vars_files:
    - ../vars/vars.yml
```

# Git - commands

- git init
- git clone

```
$ git clone git@github.com:y0rune/knowledge-sharing.git
```

```
$ git clone https://github.com/y0rune/knowledge-sharing.git
```

- git add [file]
- git add -p
- git commit / git commit -m [Message]
- git diff
- git status / git status -s
- git branch (e.g COGITOPS-8241)



# Git - commands

- git checkout
- git reset [file]
- git log
- git remote add [alias] [url]
- git fetch [alias]
- git merge
- git rebase
- git push
- git rm [file]
- git submodule

# Git Tools - Lazy Git

The screenshot shows the LazyGit terminal interface with the following sections:

- Status:** `↑0↓0 chinczyk-meeting → main`
- Files - Submodules:** (Empty panel)
- Local Branches - Remotes - Tags:** `* main ↑0↓0`
- Commits - Reflog:** `703b5b34 Added the chinczyk.txt`
- Stash:** (Empty panel)
- Log:**

```
* commit 703b5b3 (HEAD -> main, origin/main)
Author: Marcin Wozniak <marcin.wozniak@wundermanthompson.com>
Date: 20 minutes ago

    Added the chinczyk.txt
```
- Command Log:** (Empty panel)

At the bottom, a status bar displays navigation instructions: `1-5: jump to panel, esc: cancel, pgup/pgdown: scroll, q: quit, x: menu, < > ▲ ▼: navigate`. On the right, it shows [Donate](#), [Ask Question](#), [unversioned](#), and the timestamp `Mon 09:23:41 2022-03-21`.

# Git Tools – Source Tree

Commit Pull Push Fetch Branch Merge Stash Discard Tag

WORKSPACE

File Status

History

Search

BRANCHES

main

TAGS

REMOTES

STASHES

All Branches Show Remote Branches Date Order

Graph

main origin/main origin/HEAD Pull request #28: Resolve that issue

Resolve that issue

Pull request #27: Changed customfield\_16401 to customfield\_16400

Changed customfield\_16401 to customfield\_16400

Pull request #26: COGITOPS-8241 Add threshold into Zabbix

Merged in Adding-default-settings-vscode (pull request #25)

Added settings

Pull request #24: Reformatted code using the prettier

Reformatted code using the prettier

Pull request #23: Changed the customfield from 11302 to 16401

Added formatter

Merge branch 'main' of ssh://bitbucket.cognifide.com/it/kpi-raport into COGITOPS-8209

Uncomment

Changed the error msg

Pritter and added exception

Changed the customfield from 11302 to 16401

Changed item\_id\_db from ZABBIX\_ITEMS to ZABBIX\_ITEMS\_ID\_DB

Added option inserting\_items\_zabbix in insert\_data\_to\_table

Inserting data to DATA and changed function insert\_data\_to\_table

Adding trigger into ZABBIX\_TRESHOLDS

Added function to get trigger

Added cleaner to ZABBIX\_TRESHOLDS, ZABBIX\_ITEMS\_ID\_DB

Added get\_triggers function

Reimplementation of insert\_data\_to\_table

Created util for clean VIRTUAL\_MACHINES, ITEMS, DATA in the KPI\_Test

Pritter zabbix.py

Sorted by file status

Commit: 417a4b96fa7bda0290adc57822adc60a0f218356 [417a4b9]

Parents: 00cb77d6e2, af0a3b2a42

Author: Marcin Wozniak <marcin.wozniak@wundermanthompson.com>

Date: poniedzialek, 31 stycznia 2022 22:18:54

Committer: Marcin Wozniak

Pull request #28: Resolve that issue

Merge in IT/kpi-raport from COGITOPS-8521 to main

\* commit 'af0a3b2a420bbe28055768cfa52ad6c0994d0c75':

Resolve that issue

functions/zabbix.py

Hunk 1: Lines 318-326

Reverse hunk

318 318 ...def inserting\_date(item\_name\_db, host\_name, item\_id, value):

319 319 ...# Inserting zabbix\_item\_name into ITEMS-DB

320 320 ...dict\_values = {"Name": [item\_name\_db]}

321 ...insert\_data\_to\_table(dict\_values, "ITEMS", None, True)

321 ...zabbix\_item\_id = get\_items\_from\_table("Name", "ITEMS", item\_name\_db)

322 ...if zabbix\_item\_id == []:

323 ...insert\_data\_to\_table(dict\_values, "ITEMS", None, True)

322 324 ...

323 325 ...# Inserting zabbix\_item\_id into ZABBIX\_ITEMS\_ID\_DB

324 326 ...name\_item\_id\_db = get\_items\_from\_table("Name", "ITEMS", item\_name\_db)

Hunk 2: Lines 493-503

Reverse hunk

491 493 ...)

492 494 ...value\_of\_column = insert\_data.get(data)[0]

493 495 ...item\_id\_db = get\_items\_from\_table("Name", "ITEMS", data)

494 ...item\_id\_db = get\_items\_from\_table(

495 ..."Id",

496 ..."ZABBIX\_ITEMS\_ID\_DB",

497 ...int(item\_id),

498 ...)

496 ...item\_id\_db = get\_items\_from\_table(

497 ..."Id",

498 ..."ZABBIX\_ITEMS\_ID\_DB",

499 ...int(item\_id),

500 ...)

499 501 ...columns = get\_columns\_from\_table(table\_name)

500 502 ...columns.remove("Id")

501 503 ...columns.remove("Inserted\_date")

# Workshops

1. You can open a cheat sheet

- <https://education.github.com/git-cheat-sheet-education.pdf>
- <https://githubtraining.github.io/training-manual/book.pdf>

2. Clone the testing repo when you can find in the out BitBucket  
<https://github.com/y0rune/knowledge-sharing.git>

3. Please create a file with `name` and commit and push into a repo

4. Please create a branch with `test-branch-name`

5. Create another file with `name-<RANDOM-NUMBER-FROM-1-3>`

6. Commit and push into your branch

7. Create the PR (Pull Request) and add Chinczyk (or/and random person from call) into Reviewers

8. Resolve conflicts

