# GIT

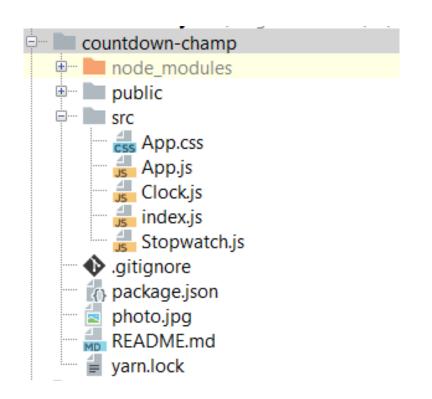
# Czym jest kontrola wersji?

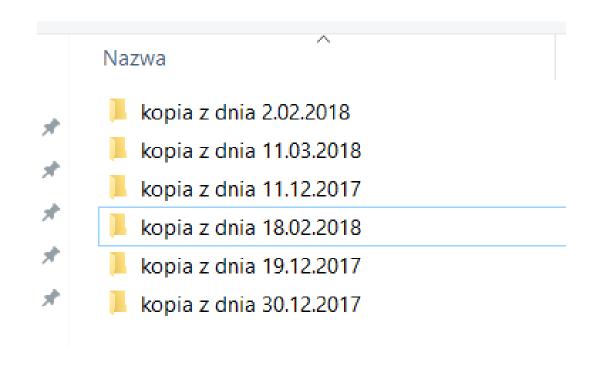
# Czym jest kontrola wersji?

VCS - Version Control System

### "Własnoręczna" kontrola wersji

I jej problemy

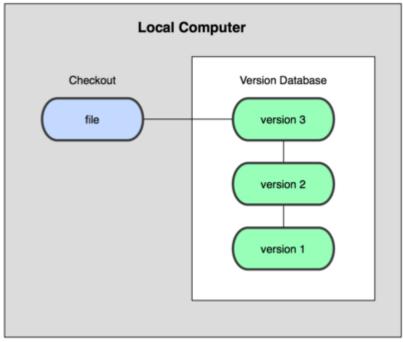


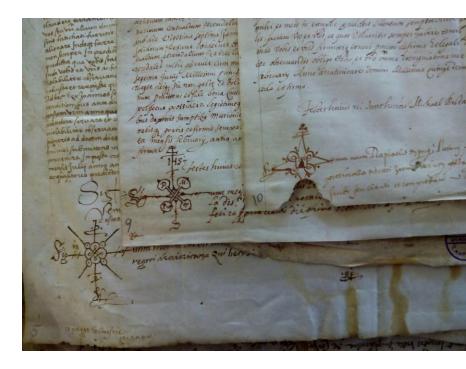


### Lokalny system kontroli wersji

#### **RCS**

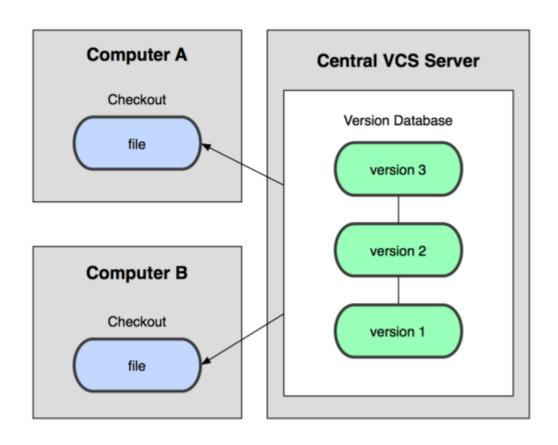






# Ale co w przypadku pracy zespołowej?

# Scentralizowane systemy kontroli wersji



- CVS
- Subversion

# Scentralizowane systemy kontroli wersji

#### **Zalety**

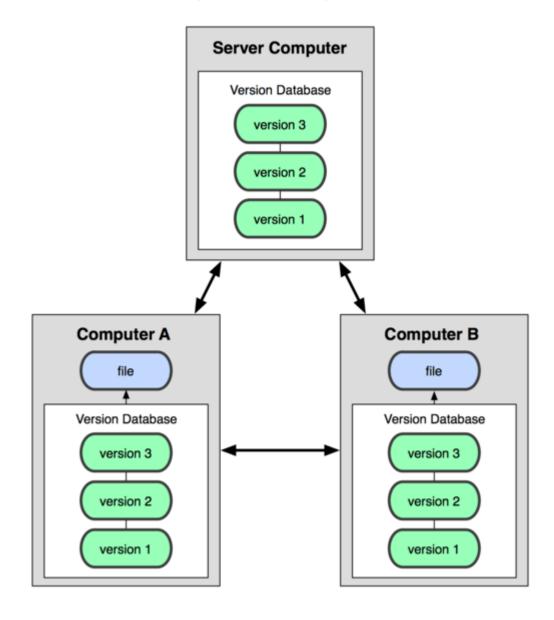
- Wiadomo co robią inni
- Administratorzy mają kontrolę nad uprawnieniami użytkowników
- Łatwe w zarządzaniu

#### Wady

- problem awarii centralnego serwera
- Uszkodzenie centralnej bazy
- Potrzeba ręcznego tworzenia kopii zapasowej bazy

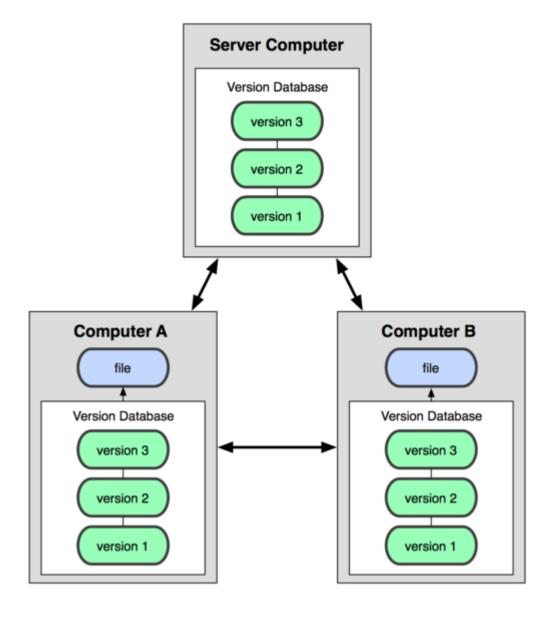
# Rozproszone systemy kontroli wersji

#### Rozproszone systemy kontroli wersji

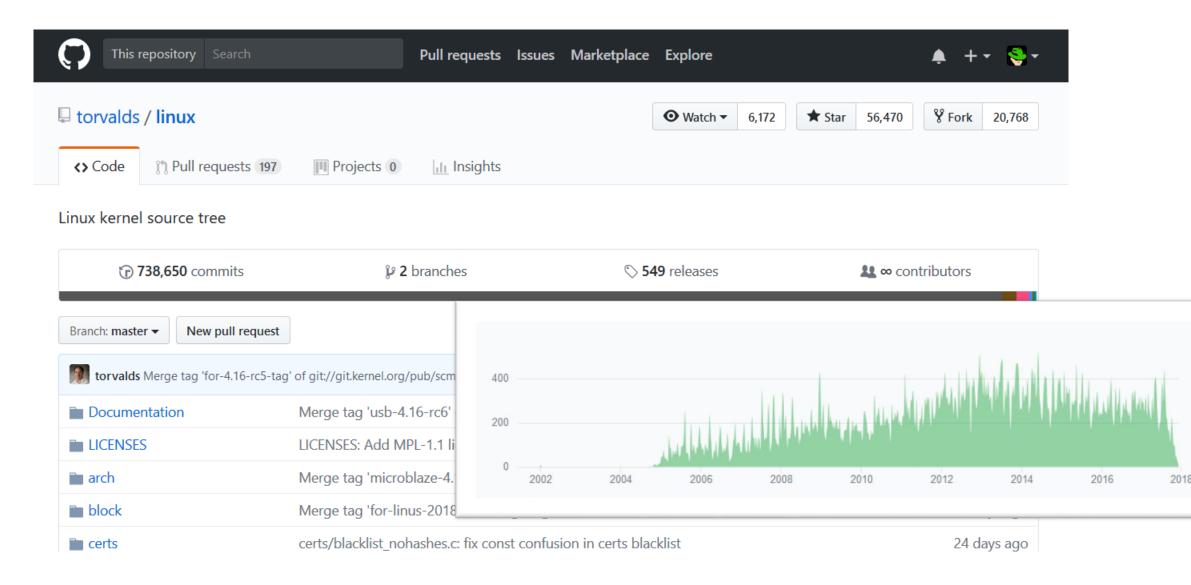


#### Rozproszone systemy kontroli wersji

- Git
- Mercurial
- Bazaar



### Krótka historia Gita



# GIT



**Features** 

Integrations

Enterprise

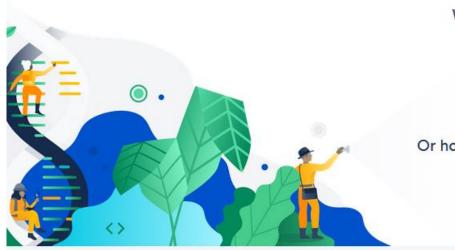
Pricing

Log in

Get started

#### For the code that

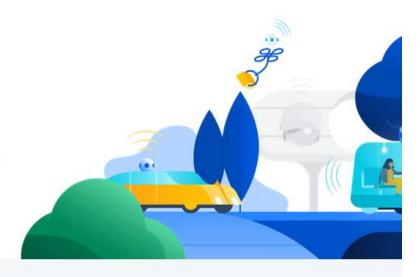
drives us.



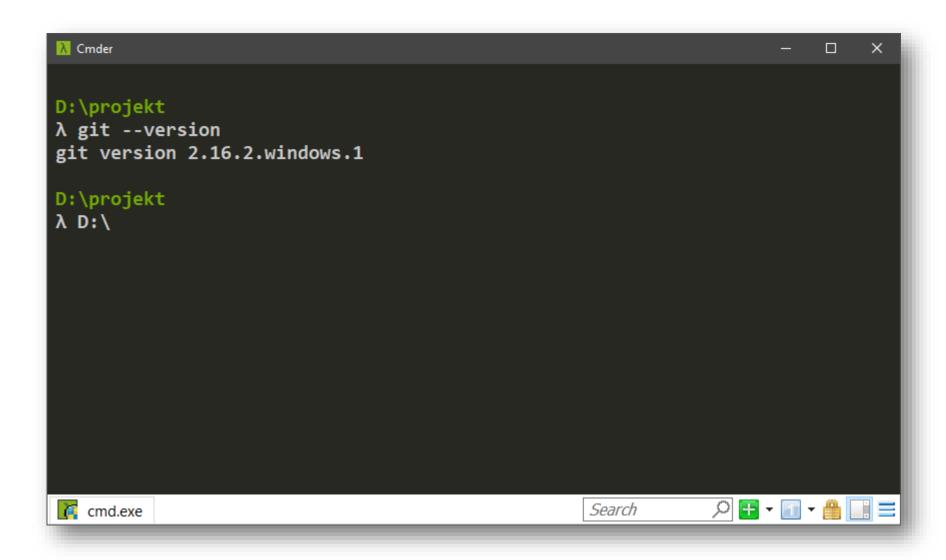
What will your code do?

Get started for free

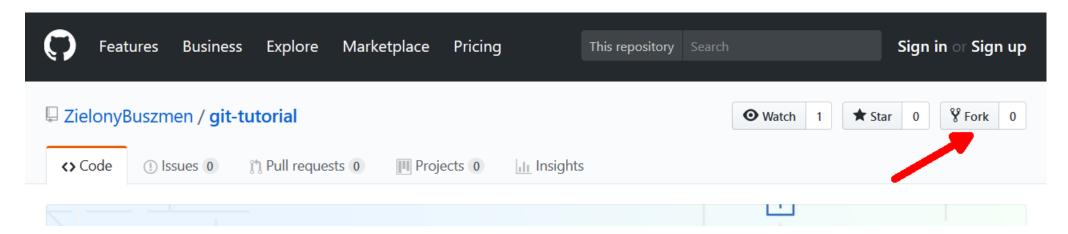
Or host it yourself with Bitbucket Server



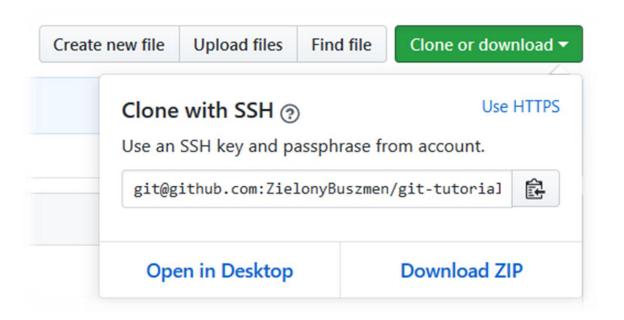
# git --version



### github.com/ZielonyBuszmen/git-tutorial



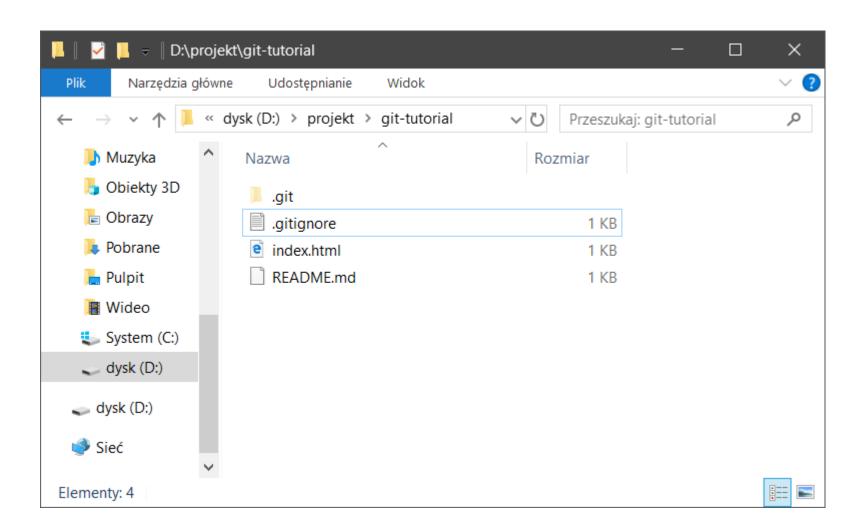


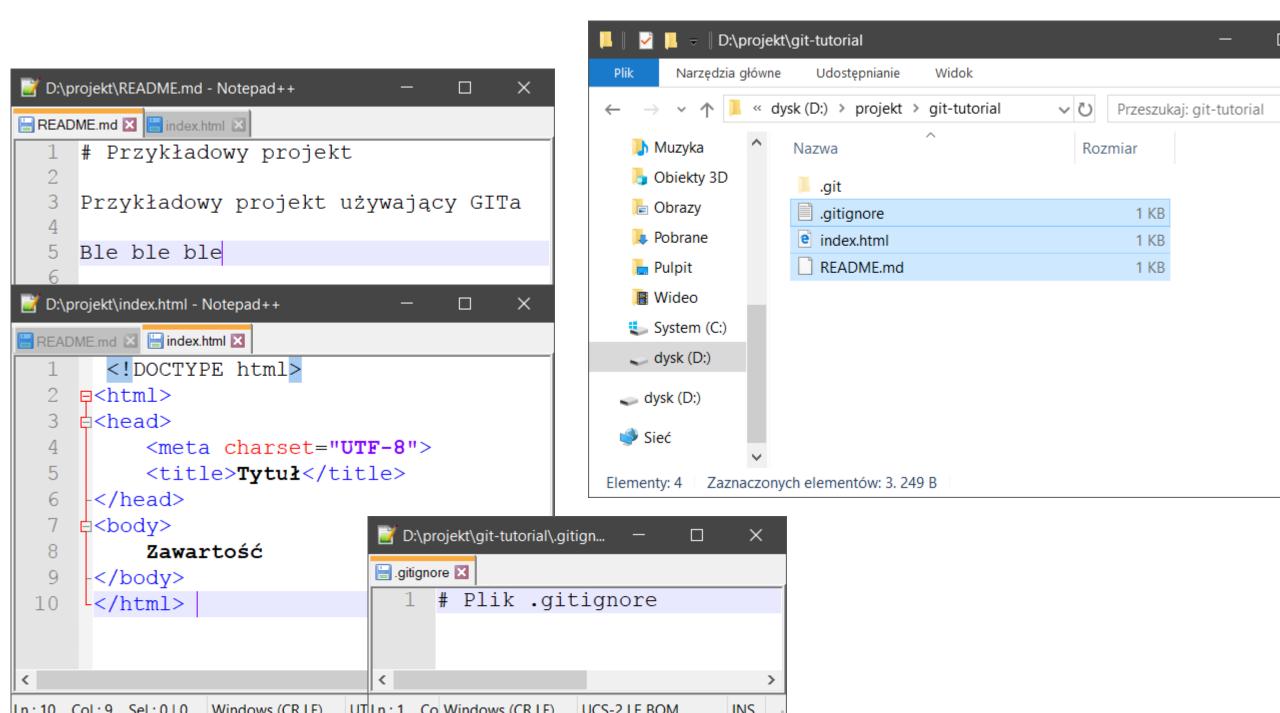


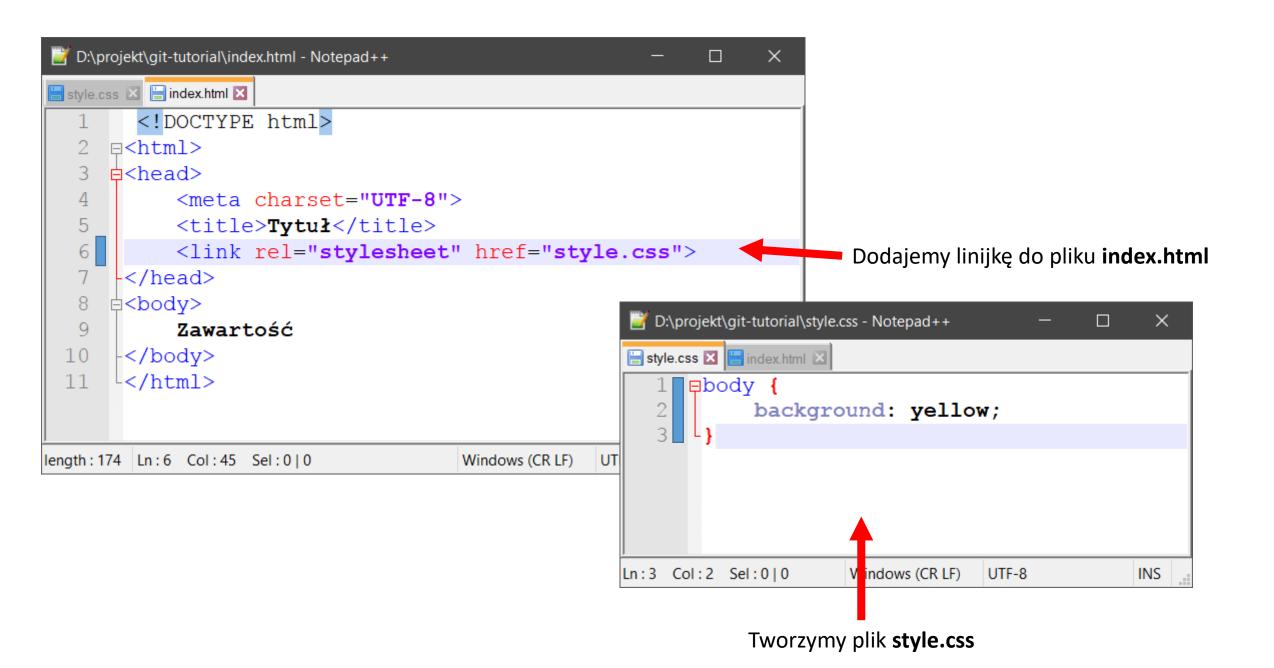
# git clone <u>adres</u>

```
d:\projekt
λ git clone git@github.com:ZielonyBuszmen/git-tutorial.git
Cloning into 'git-tutorial'...
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
d:\projekt
λ cd git-tutorial\
d:\projekt\git-tutorial (master -> origin)
```

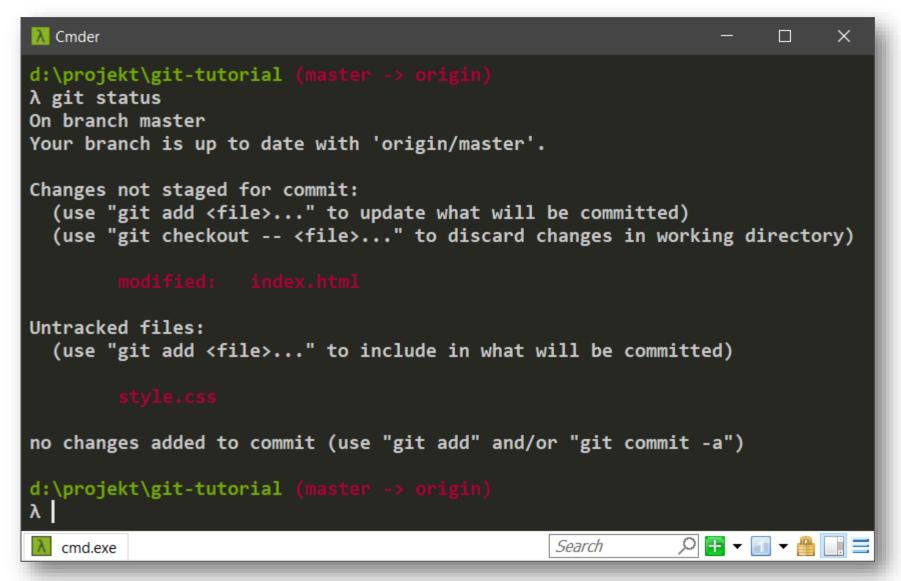
# git clone <u>adres</u>



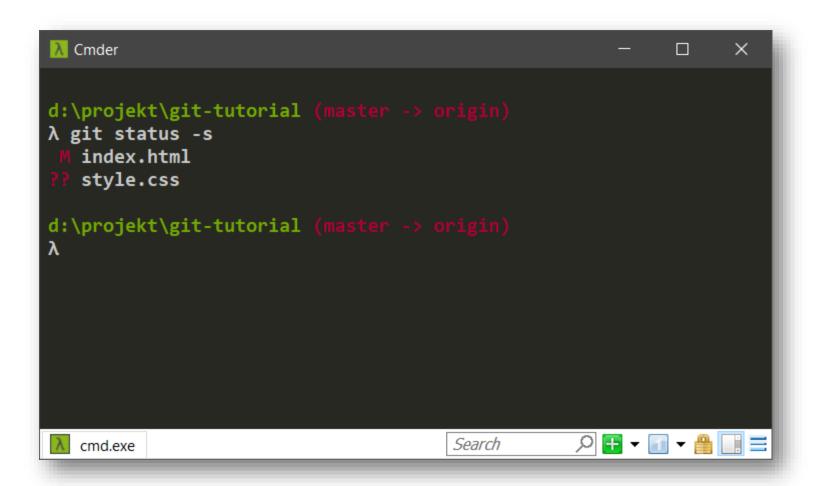




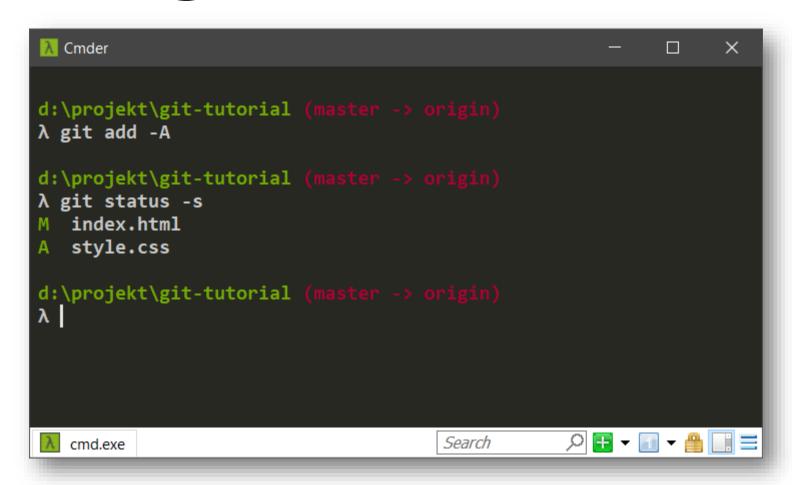
# git status



# git status -s



# git add -A



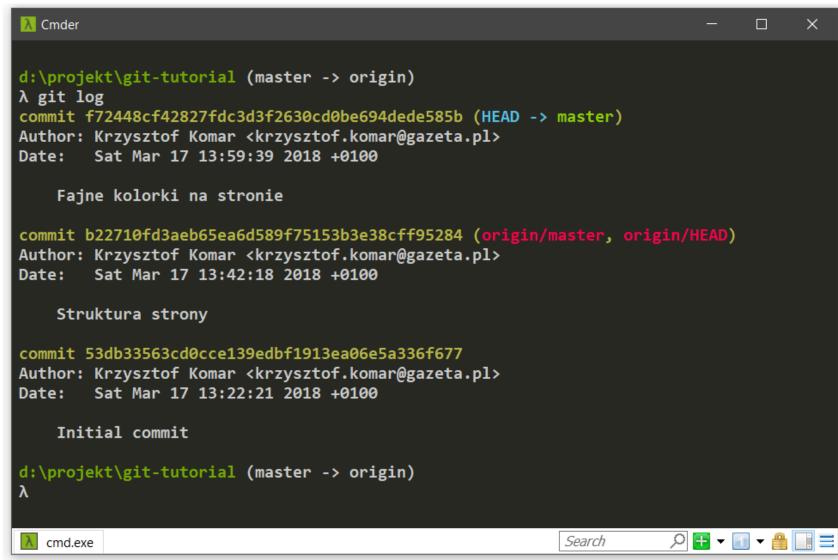
# git commit -m "Fajne kolorki na stronie"

```
d:\projekt\git-tutorial (master -> origin)
λ git commit -m "Fajne kolorki na stronie"
[master f72448c] Fajne kolorki na stronie
2 files changed, 4 insertions(+)
create mode 100644 style.css
d:\projekt\git-tutorial (master -> origin)
```

# git status

```
d:\projekt\git-tutorial (master -> origin)
λ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean
d:\projekt\git-tutorial (master -> origin)
λ git status -s
d:\projekt\git-tutorial (master -> origin)
```

# git log

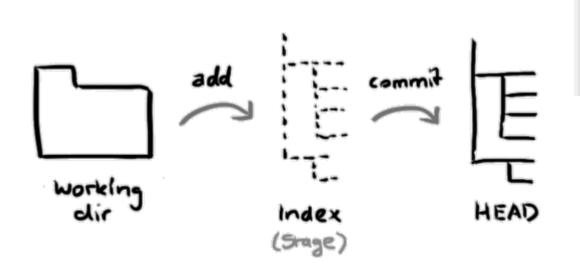


# Trzy stany plików

- Zmodyfikowany Mindex.html style.css
- **Śledzony** dodany do "indeksu" (przechowalni)

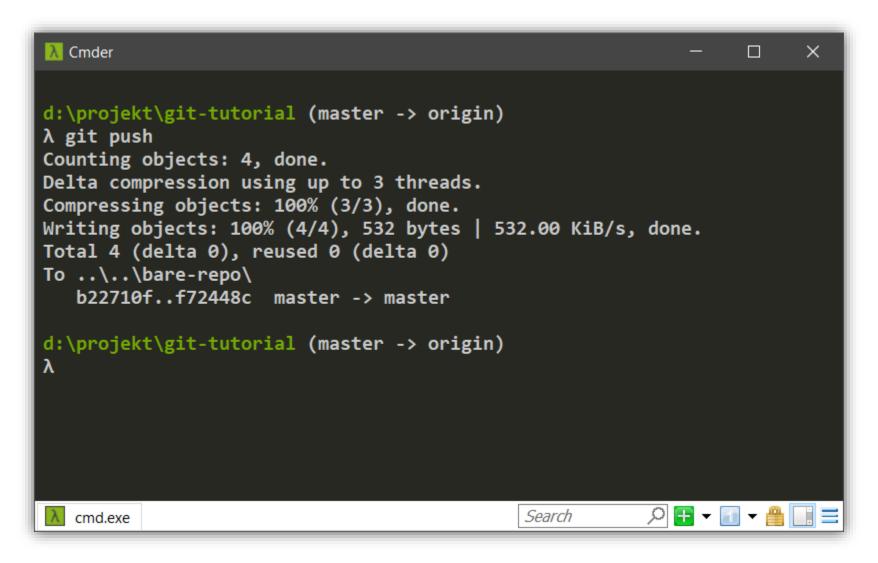
M index.html
A style.css

• **Zatwierdzony** – w repozytorium jako commit



```
λ git log
commit f72448cf42827fdc3d3f2630cd0be694dede585b (HEAD -> master)
Author: Krzysztof Komar <krzysztof.komar@gazeta.pl>
Date: Sat Mar 17 13:59:39 2018 +0100
Fajne kolorki na stronie
```

# git push



## git add -A

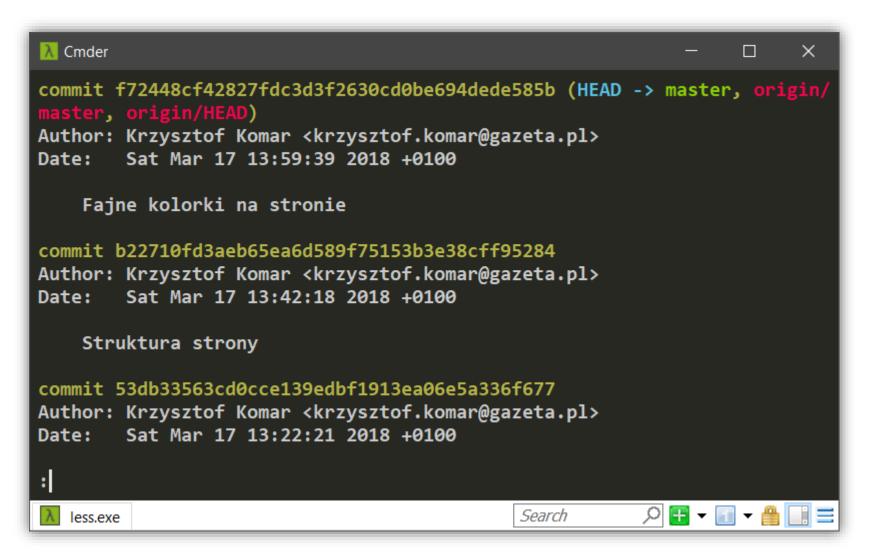
```
M index.html
?? style.css

M index.html
A style.css
```

git commit -m "wiadomość"

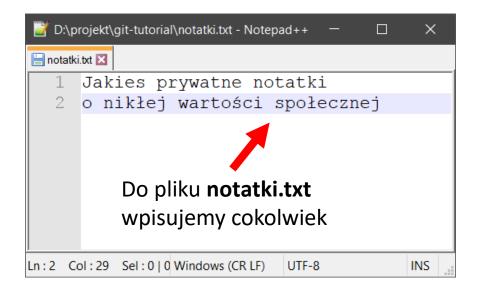
git push

# git log



- git status
- git log
- git add -A
- git commit -m "wiadomość"
- git push

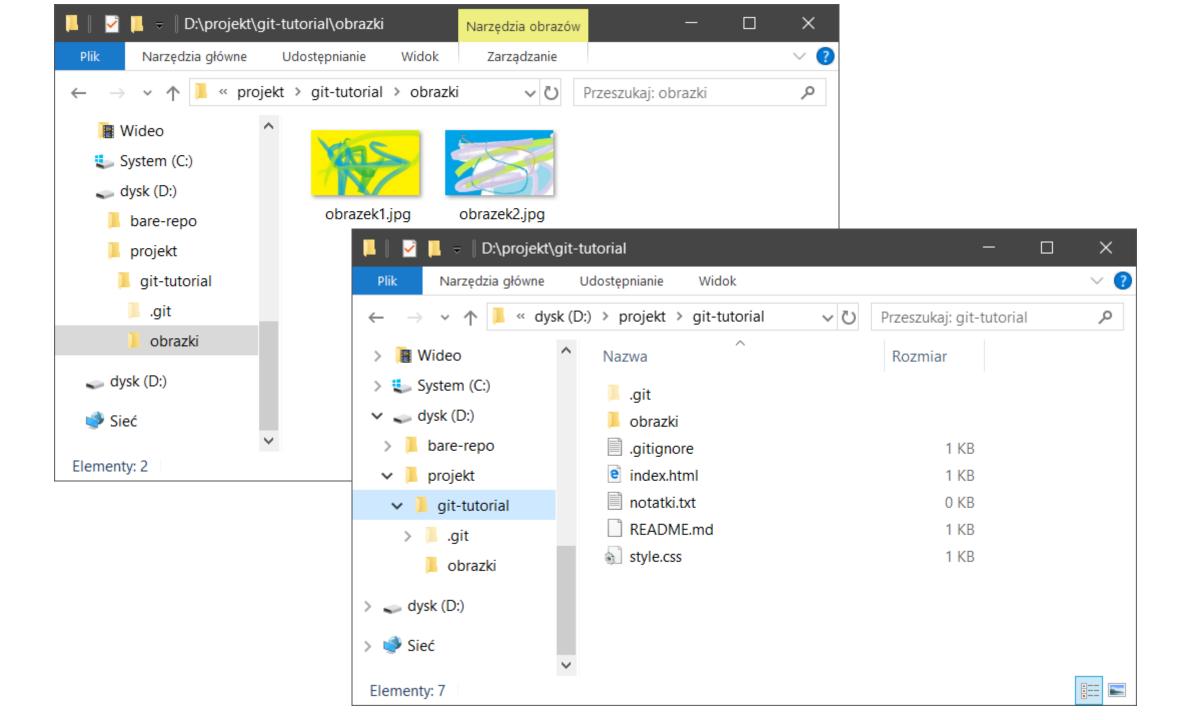
- Tworzymy folder obrazki
- Do folderu **obrazki** wklejamy 2 pliki jpg
- Tworzymy plik **notatki.txt**



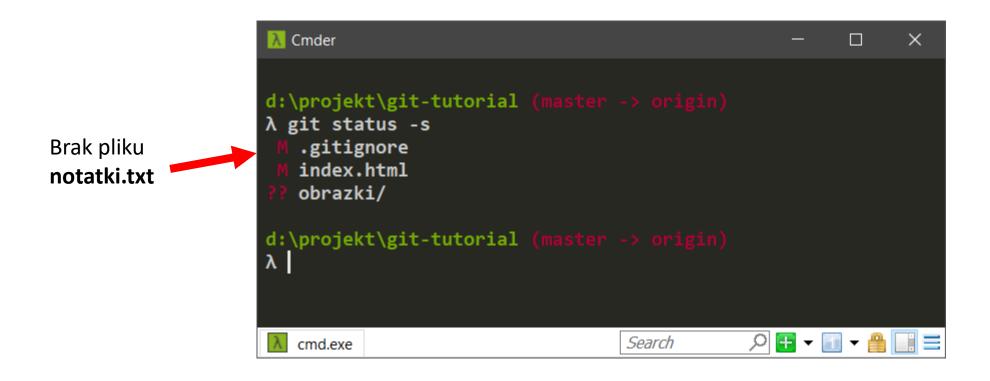
Do pliku **index.html** dopisujemy 3 linijki

14

```
🧪 D:\projekt\git-tutorial\.gitignore - Notepad++
       🔚 style.css 🗵 📙 index.html 🗵 📙 .gitignore 🗵
             # Plik .gitignore
             notatki.txt
                           Dodajemy linijkę do pliku .gitignore
D:\projekt\git-tutorial\index.html - Notepad++
                                                                     X
 🖶 style.css 🗵 📙 index.html 🗵 📙 .gitignore 🗵
         <!DOCTYPE html>
      ⊟<html>
      d<head>
             <meta charset="UTF-8">
            <title>Tytuł</title>
             <link rel="stylesheet" href="style.css">
       -</head>
      Zawartość
  10
             <hr />
            <imq src="obrazki/obrazek1.jpg" />
  12
            <img src="obrazki/obrazek2.jpg" />
       </body>
       L</html>
                                                                   INS
length: 25 Ln: 12 Col: 39 Sel: 0 | 0
                                       Windows (CR LF)
                                                    UTF-8
```

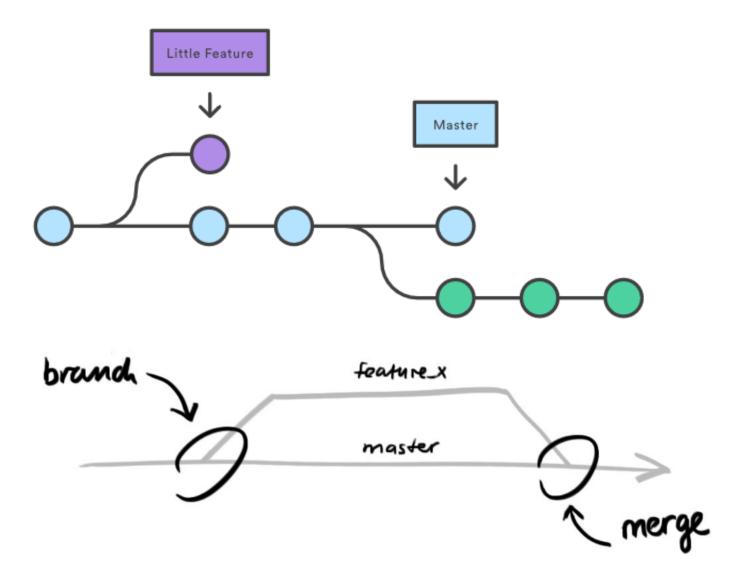


## git status -s



### commit & push

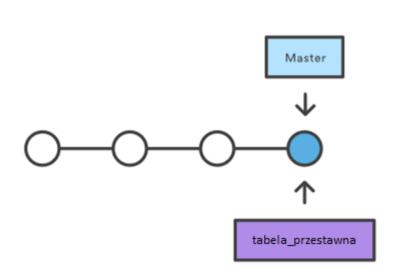
# Branche (gałęzie)



# git branch

```
D:\projekt\git-tutorial (master -> origin)
λ git branch
* master
D:\projekt\git-tutorial (master -> origin)
λ
```

### git checkout -b nazwa\_brancha



```
Cmder
D:\projekt\git-tutorial (master -> origin)
λ git checkout -b tabela_przestawna
Switched to a new branch 'tabela_przestawna'
D:\projekt\git-tutorial (tabela_przestawna -> origin)
λ git branch
  master
* tabela_przestawna
D:\projekt\git-tutorial (tabela_przestawna -> origin)
```

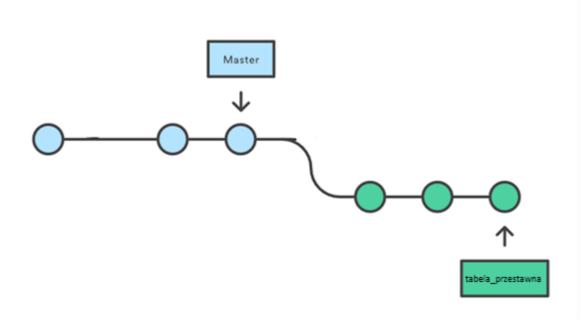
```
D:\projekt\git-tutorial\index.html - Notepad++
                                                                                                                                                                                                                                                                                                                                                                         ×
 index.html 

inde
                                               <!DOCTYPE html>
                                □<html>
                                d<head>
                                                                  <meta charset="UTF-8">
                                                                  <title>Tytuł</title>
                                                                  <link rel="stylesheet" href="style.css">
                                    -</head>
                                Tabelka
          10
                                                                  ImieNazwisko
                                                                  PulchnyNiedźwiedź
          13
                                                                  14
                                      -</body>
          16
                                   </html>
length: 285 lines: Ln:15 Col:8 Sel:0 | 0
                                                                                                                                                                                                                                            Windows (CR LF) UTF-8
                                                                                                                                                                                                                                                                                                                                                                                               INS
```

#### commit & push

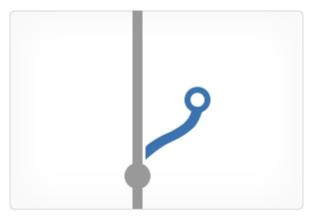
```
№ Cmder
D:\projekt\git-tutorial (tabela_przestawna -> origin)
λ git branch
  master
* tabela przestawna
D:\projekt\git-tutorial (tabela_przestawna -> origin)
λ git add -A
D:\projekt\git-tutorial (tabela prz
λ git commit -m "Zamiana glownej strony na tabelke"
[tabela_przestawna cf6577d] Zamiana glownej strony na tabelke
 2 files changed, 10 insertions(+), 3 deletions(-)
D:\projekt\git-tutorial (tabela przestawna -> origin)
λ git push
fatal: The current branch tabela przestawna has no upstream branch.
To push the current branch and set the remote as upstream, use
    git push --set-upstream origin tabela przestawna
D:\projekt\git-tutorial (tabela przestawna -> origin)
```

## git checkout master

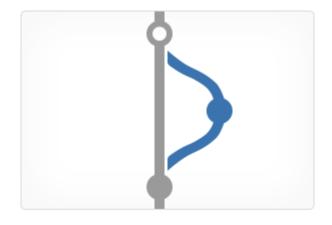


```
№ Cmder
D:\projekt\git-tutorial (tabela_przestawna -> origin)
λ git branch
  master
* tabela przestawna
D:\projekt\git-tutorial (tabela_przestawna -> origin)
λ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
D:\projekt\git-tutorial (master -> origin)
λ git branch
* master
  tabela_przestawna
D:\projekt\git-tutorial (master -> origin)
```

# Pull Requests







#### Branch

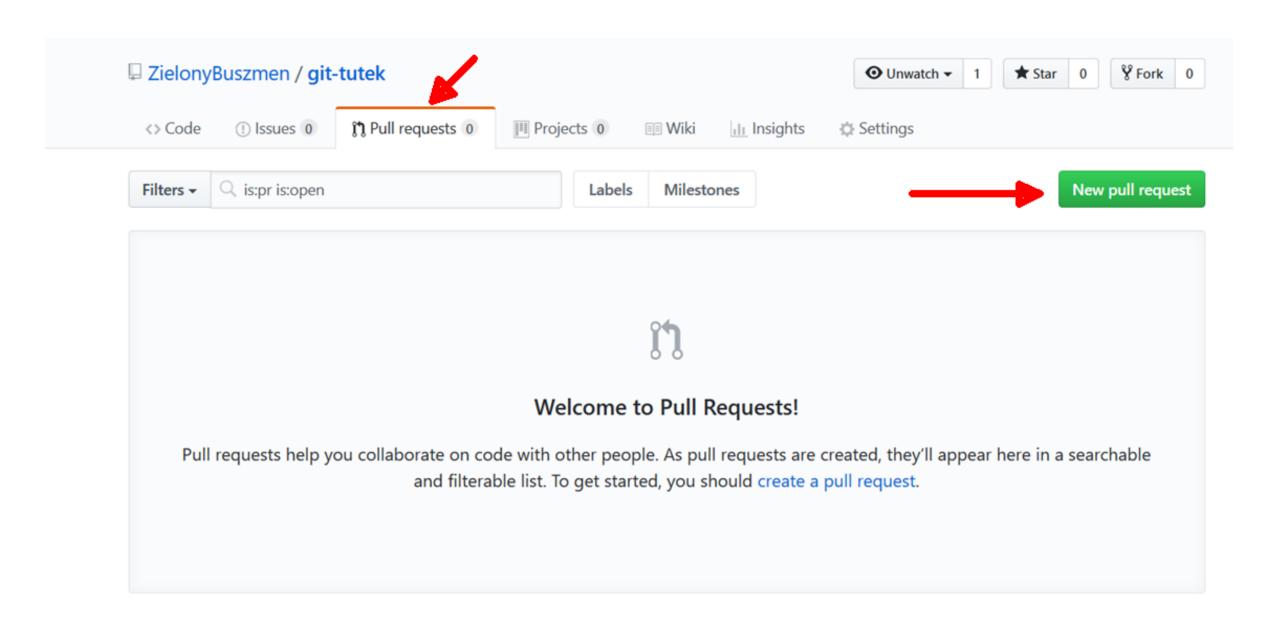
Develop features on a branch and create a pull request to get changes reviewed.

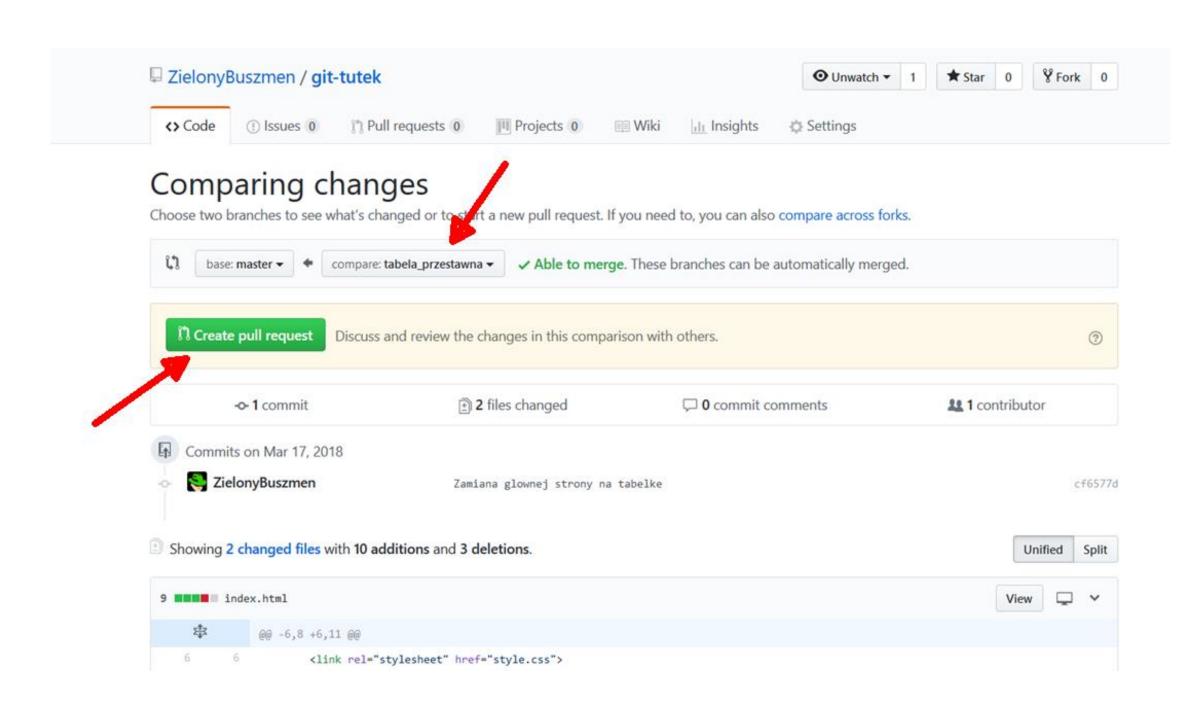
#### Discuss

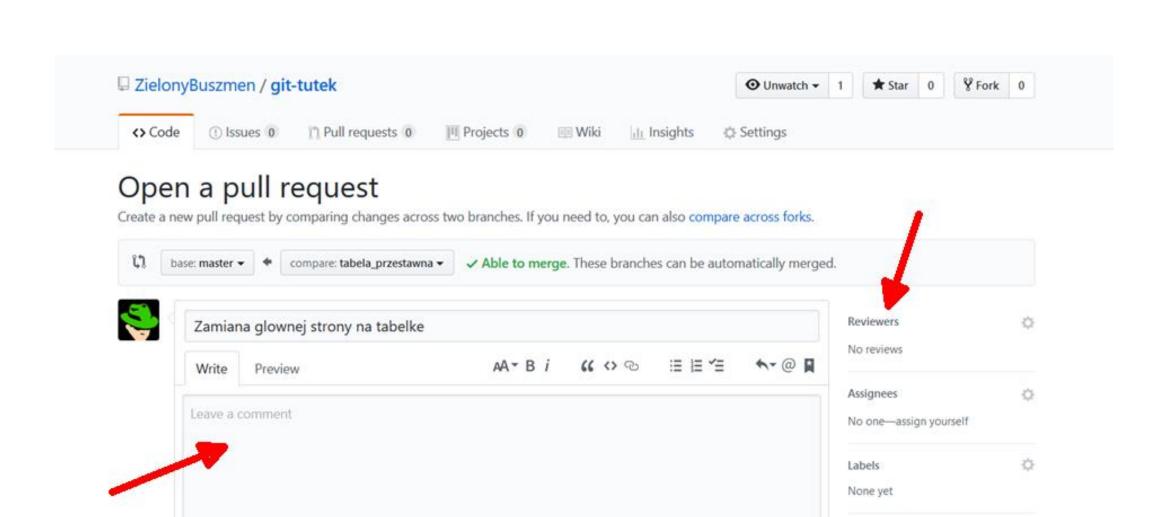
Discuss and approve code changes related to the pull request.

#### Merge

Merge the branch with the click of a button.







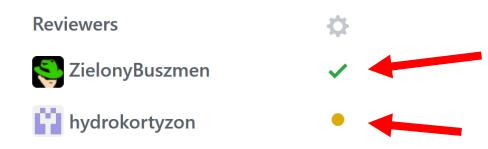
Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

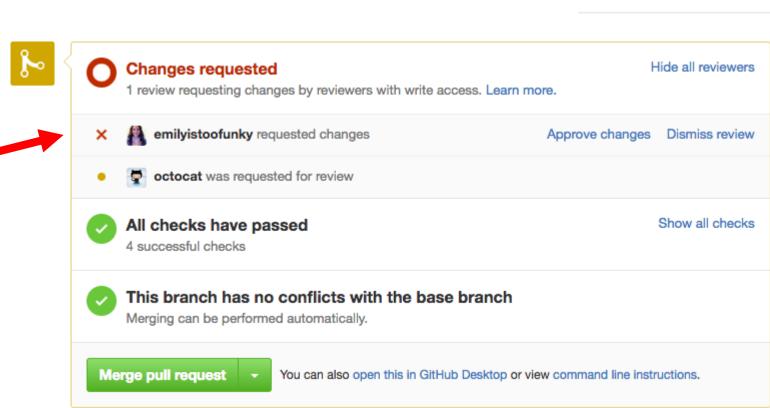
♦

23

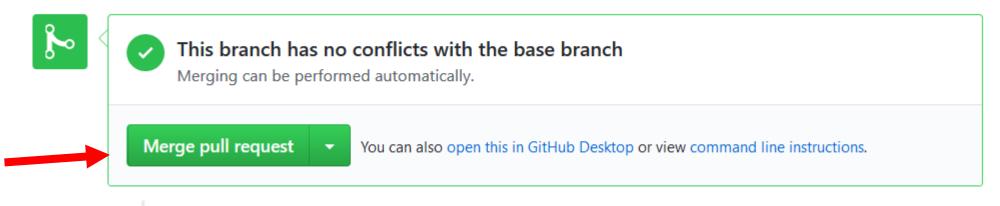
Projects None yet

Milestone

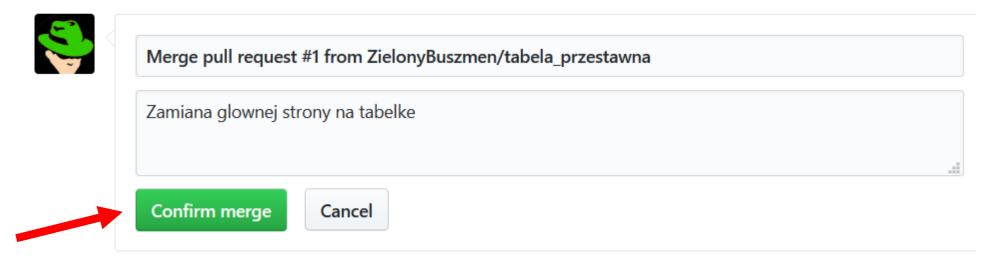


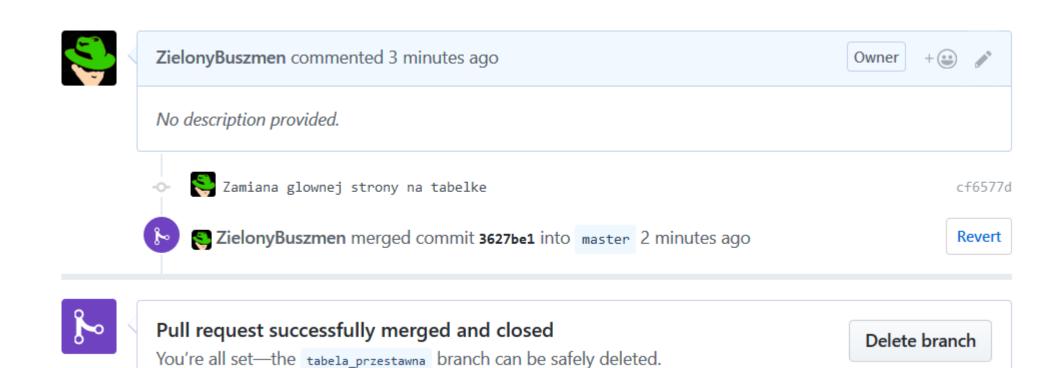


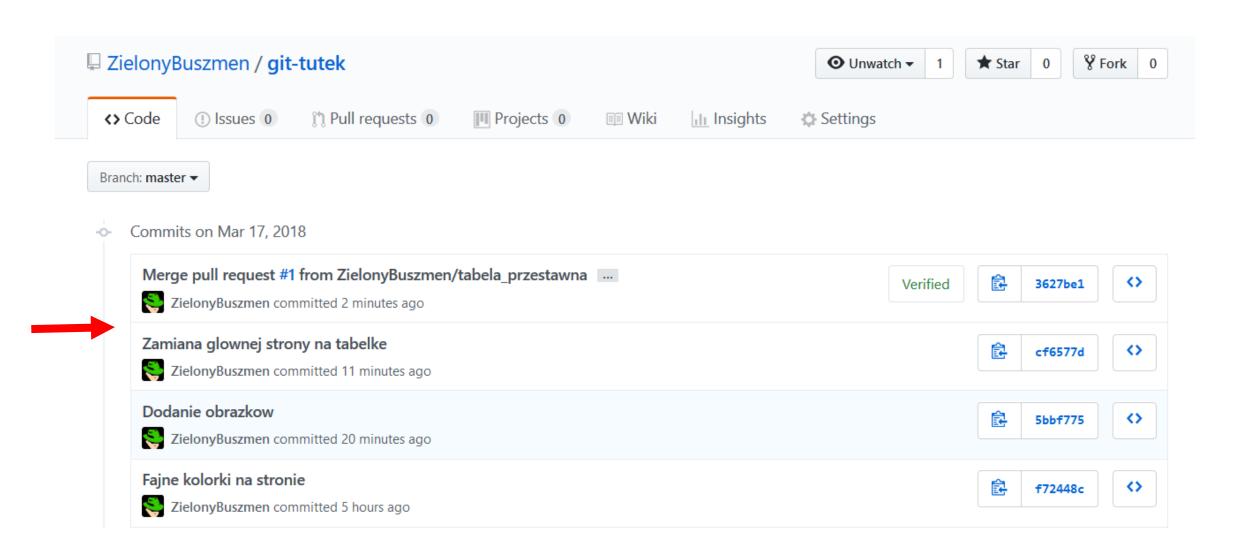
Add more commits by pushing to the tabela\_przestawna branch on ZielonyBuszmen/git-tutek.



Add more commits by pushing to the tabela\_przestawna branch on ZielonyBuszmen/git-tutek.

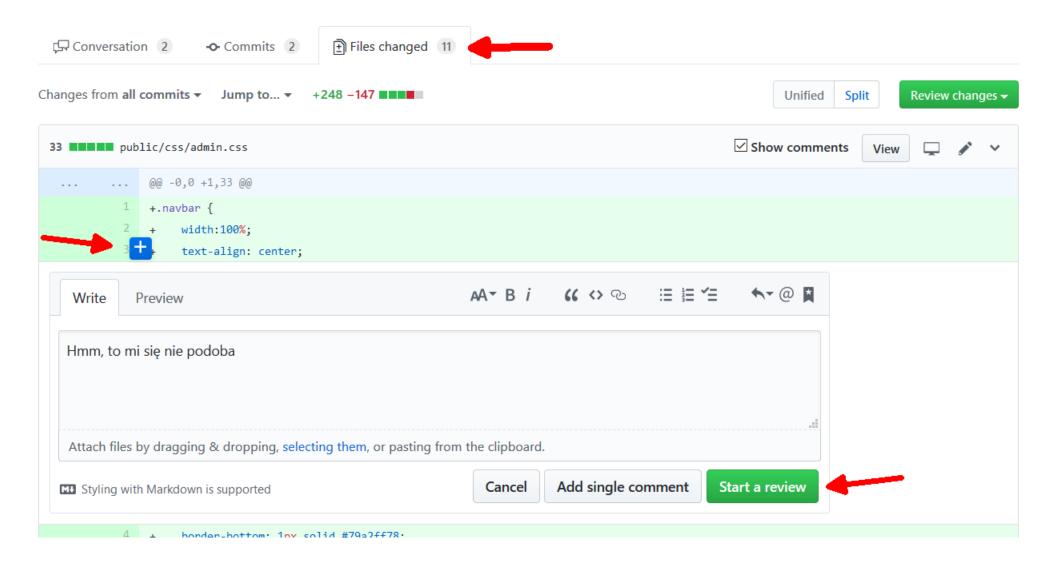




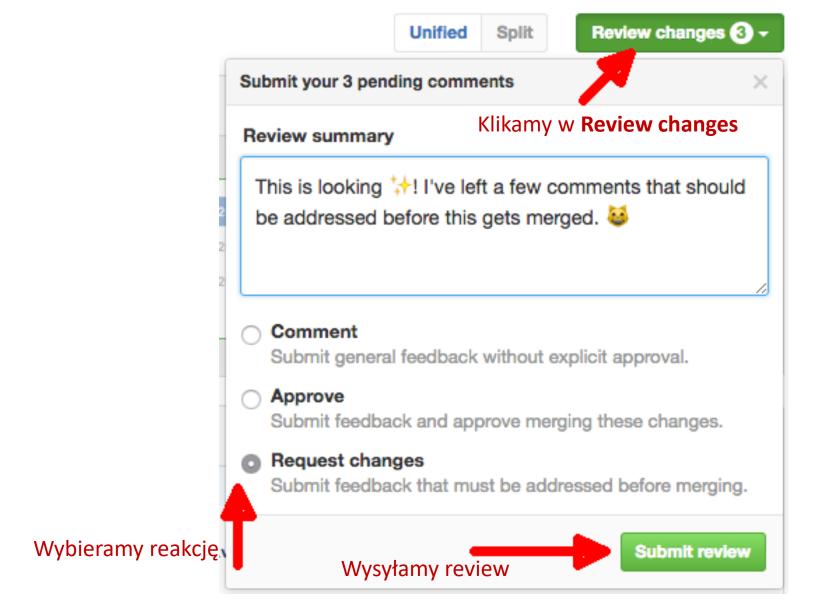


## Code Review

### Zaczynamy robić Code Review



#### Po zakończeniu komentowania kodu

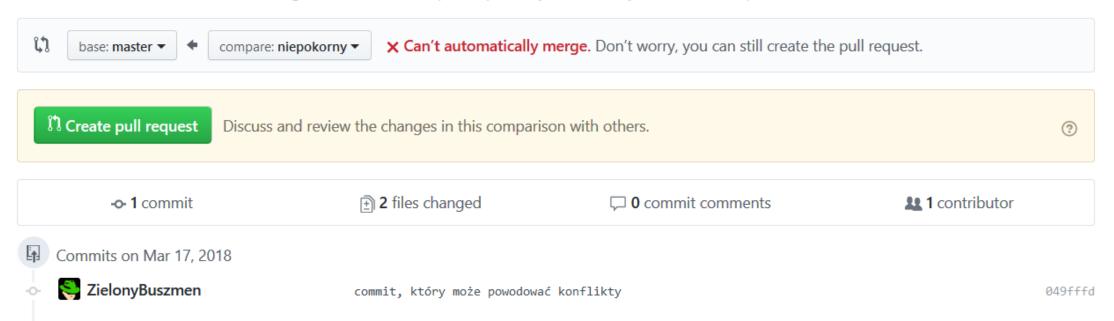


# Konflikty przy mergach

#### Pull reqest master <- niepokorny

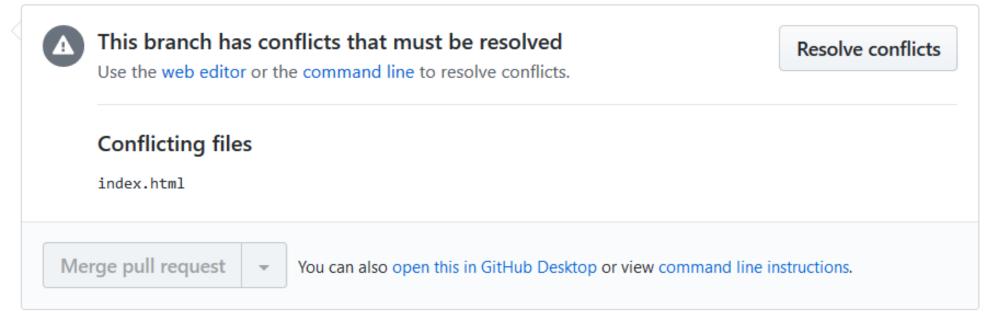
#### Comparing changes

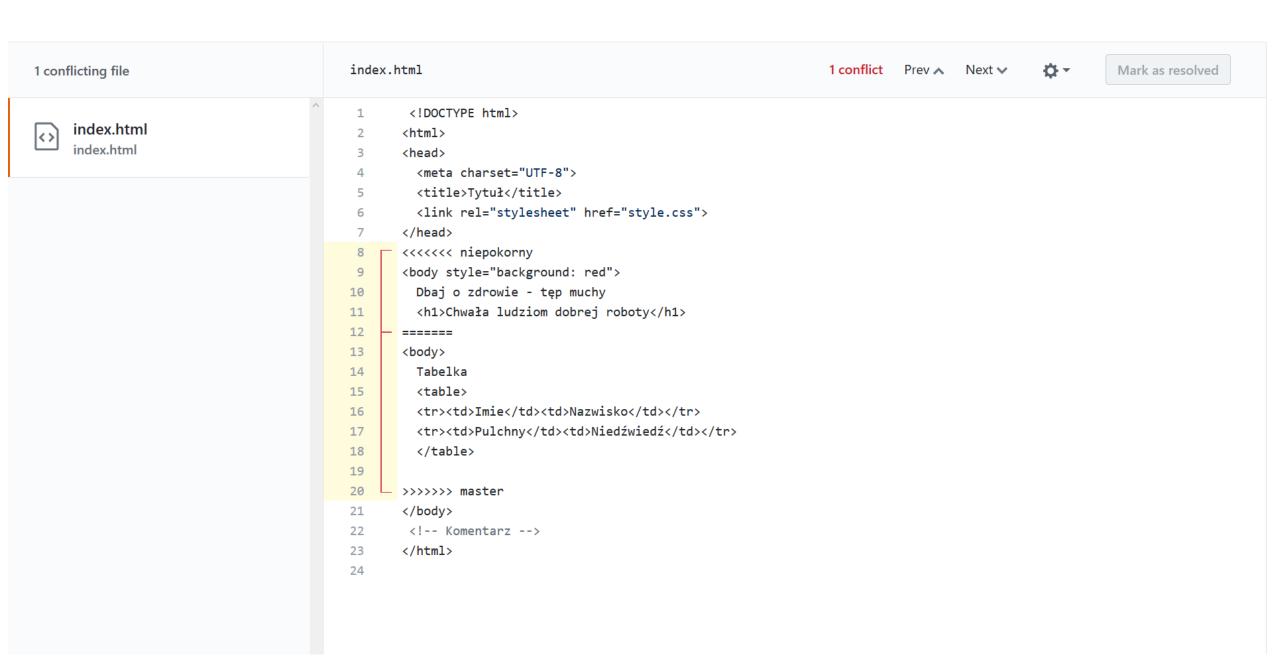
Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.



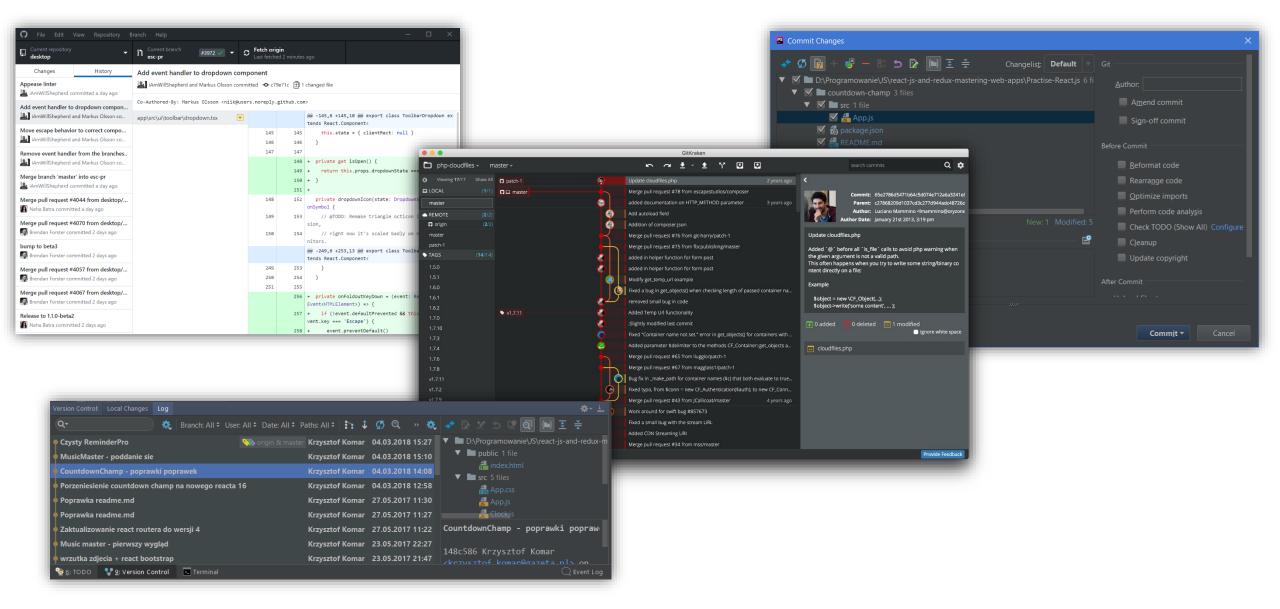
Add more commits by pushing to the niepokorny branch on ZielonyBuszmen/git-tutek.



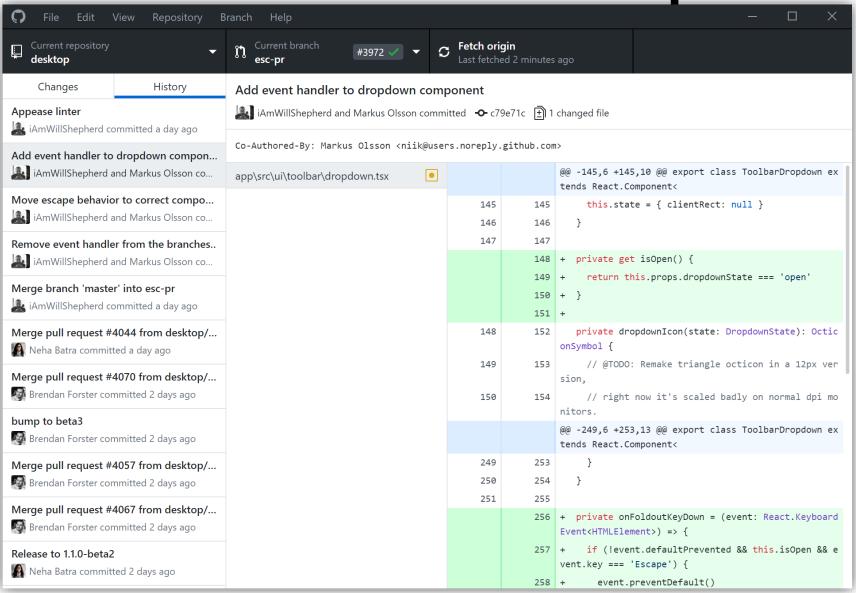




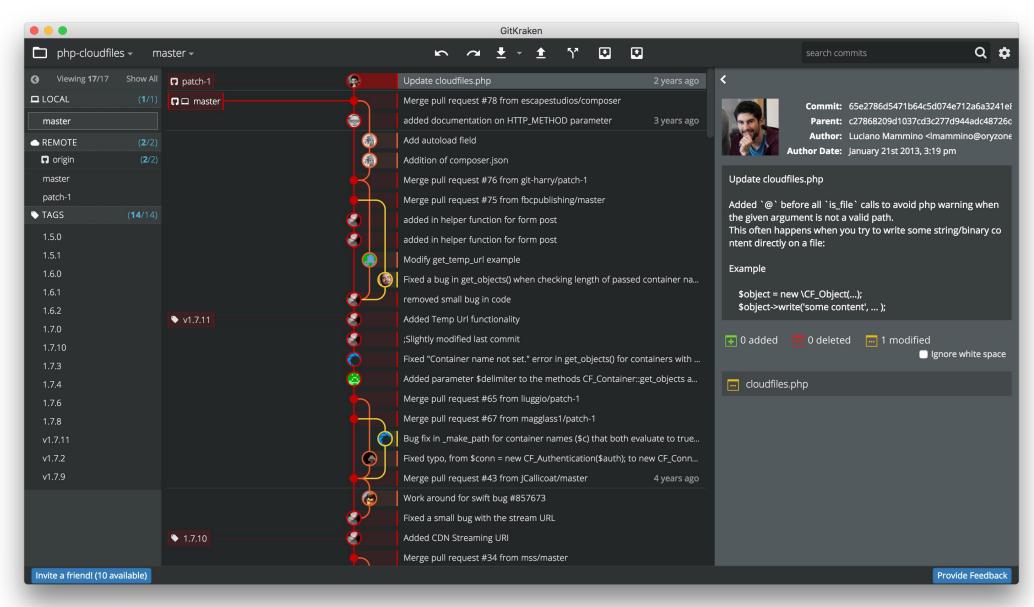
### Co zamiast konsoli?



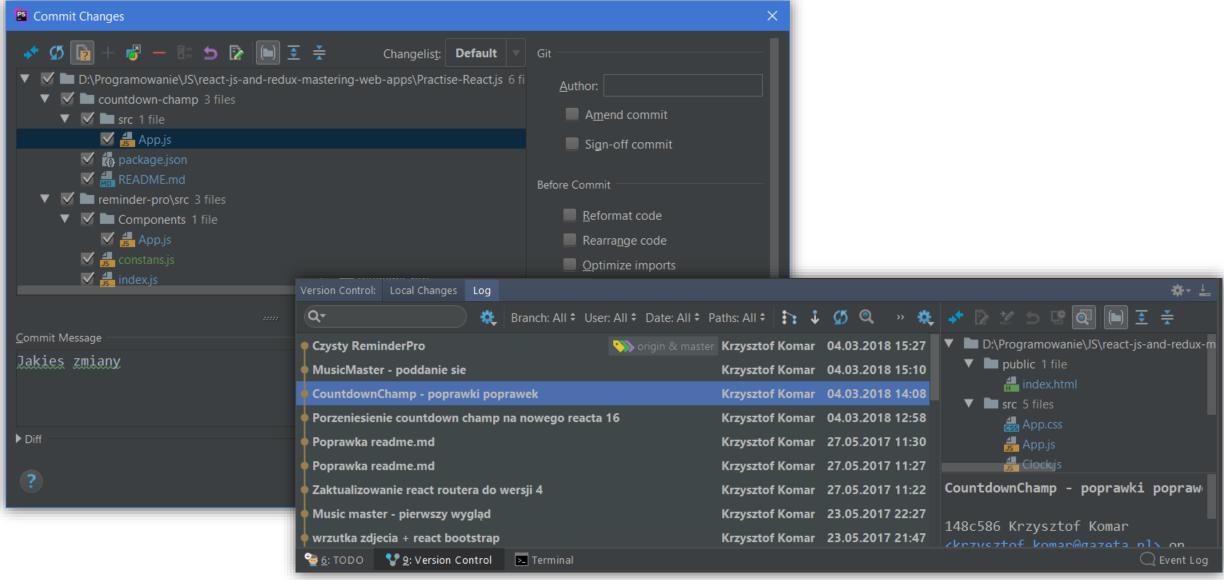
# GitHub Desktop



### Git Kraken



## JetBrians (PhpStorm, WebStorm, Android Studio, IntelliJ IDEA)



#### Koniec

### Co dalej?

• rogerdudler.github.io/git-guide/ (poradnik dostępny po polsku)

book.git-scm.com/book/pl/

help.github.com