

Git

2. Работа с репозиториями

Процесс добавления файла в staging area

```
Last login: Sun Sep 11 19:51:22 on ttys000
akshinguseinov@Akshins-MacBook-Air ~ % ls
Applications  Documents  Library      Music        Pictures
Desktop       Downloads  Movies       My_project   Public
akshinguseinov@Akshins-MacBook-Air ~ % cd /Users/akshinguseinov/My_project/Assets/Scripts
akshinguseinov@Akshins-MacBook-Air Scripts % ls
Asteroid.cs      AsteroidMother.cs.meta  PlayButton.cs      SpaceShip.cs.meta
Asteroid.cs.meta  Bullet.cs               PlayButton.cs.meta
AsteroidMother.cs  Bullet.cs.meta          SpaceShip.cs
akshinguseinov@Akshins-MacBook-Air Scripts % git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /Users/akshinguseinov/My_project/Assets/Scripts/.git/
akshinguseinov@Akshins-MacBook-Air Scripts % git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    Asteroid.cs
    Asteroid.cs.meta
    AsteroidMother.cs
    AsteroidMother.cs.meta
    Bullet.cs
    Bullet.cs.meta
    PlayButton.cs
    PlayButton.cs.meta
    SpaceShip.cs
    SpaceShip.cs.meta

nothing added to commit but untracked files present (use "git add" to track)
akshinguseinov@Akshins-MacBook-Air Scripts % git add PlayButton.cs
akshinguseinov@Akshins-MacBook-Air Scripts % git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   PlayButton.cs

Untracked files:
  (use "git add <file>..." to include in what will be committed)
```



Управление файлами

- ***git add file_name.txt*** - добавление одного файла на загрузку
- ***git add folder_name/*** - добавление папки с файлами
- ***git add .*** - добавление всех файлов в директории на загрузку
- ***git add *.txt*** - добавление всех файлов директории с расширением txt
- ***git add !file_name.txt*** - добавление всех файлов директории кроме file_name.txt
- ***git rm --cached file_name.txt*** - удаление файла из ожидания на загрузку
- ***git commit -m “комментарий”*** - коммит добавленных файлов в репозиторий



Изменение файла

```
akshinguseinov@Akshins-MacBook-Air PAZL % cd Git
akshinguseinov@Akshins-MacBook-Air Git % ls
Git_1.key      Git_1.pages
akshinguseinov@Akshins-MacBook-Air Git % git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /Users/akshinguseinov/Desktop/Work/PAZL/Git/.git/
akshinguseinov@Akshins-MacBook-Air Git % git add .
akshinguseinov@Akshins-MacBook-Air Git % git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Git_1.key
        new file:   Git_1.pages

akshinguseinov@Akshins-MacBook-Air Git % git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Git_1.key
        new file:   Git_1.pages

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   Git_1.pages

akshinguseinov@Akshins-MacBook-Air Git % █
```



Работа с измененными файлами

- После изменения файлов, необходимо их заново добавлять в локальный репозиторий

```
Initialized empty Git repository in /Users/akshinguseinov/Desktop/Work/PAZL/.git/
[akshinguseinov@Akshins-MacBook-Air PAZL % git add text.txt
[akshinguseinov@Akshins-MacBook-Air PAZL % git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   text.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .DS_Store
    Git/
    Python/
    Screen Recording 2022-10-09 at 14.50.48.mov
    "\320\236\321\206\320\265\320\275\320\272\320\270.numbers"

[akshinguseinov@Akshins-MacBook-Air PAZL % git commit -m "added a new text file"
[master (root-commit) 3bb910b] added a new text file
 1 file changed, 1 insertion(+)
 create mode 100644 text.txt
[akshinguseinov@Akshins-MacBook-Air PAZL % git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   text.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .DS_Store
    Git/
    Python/
    Screen Recording 2022-10-09 at 14.50.48.mov
    "\320\236\321\206\320\265\320\275\320\272\320\270.numbers"

no changes added to commit (use "git add" and/or "git commit -a")
```

```
[akshinguseinov@Akshins-MacBook-Air PAZL % git add text.txt
[akshinguseinov@Akshins-MacBook-Air PAZL % git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   text.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .DS_Store
    Git/
    Python/
    Screen Recording 2022-10-09 at 14.50.48.mov
    "\320\236\321\206\320\265\320\275\320\272\320\270.numbers"

[akshinguseinov@Akshins-MacBook-Air PAZL % git commit -m "modified a text file"
[master a8d7aa6] modified a text file
 1 file changed, 1 insertion(+), 1 deletion(-)
akshinguseinov@Akshins-MacBook-Air PAZL % █
```


Отслеживание изменений

- С помощью команды **git log**, можно отследить историю изменений репозитория

```
[akshinguseinov@Akshins-MacBook-Air PAZL % git log
commit a8d7aa6d790bef4c31d8e5d5aa29bbb79ab0c516 (HEAD -> master)
Author: Akshin Guseinov <bboysound@yandex.ru>
Date:   Sun Oct 16 22:09:47 2022 +0400

    modified a text file

commit 3bb910b98f9e7a2d8152e426504a2fd652e09a34
Author: Akshin Guseinov <bboysound@yandex.ru>
Date:   Sun Oct 16 22:07:42 2022 +0400

    added a new text file
akshinguseinov@Akshins-MacBook-Air PAZL %
```



Время практики!

Задание

- Создать 3 файла с расширением `.txt` в одной папке
- Создать файл с расширением `.pdf` (либо можно переместить любой файл с расширением не `txt` в эту папку)
- Добавить и сделать коммит всех **txt** файлов
- Изменить содержимое одного из **txt** файлов
- Посмотреть историю изменений

Git

Отмена действий и возвращение к старым версиям

Отслеживание предыдущих версий

- С помощью команды `git checkout` можно отследить состояние предыдущей версии

```
[akshinguseinov@Akshins-MacBook-Air PAZL % git log
commit a8d7aa6d790bef4c31d8e5d5aa29bbb79ab0c516 (HEAD -> master)
Author: Akshin Guseinov <bboysound@yandex.ru>
Date: Sun Oct 16 22:09:47 2022 +0400

    modified a text file

commit 3bb910b98f9e7a2d8152e426504a2fd652e09a34
Author: Akshin Guseinov <bboysound@yandex.ru>
Date: Sun Oct 16 22:07:42 2022 +0400

    added a new text file
[akshinguseinov@Akshins-MacBook-Air PAZL % touch .gitignore
[akshinguseinov@Akshins-MacBook-Air PAZL % git checkout 3bb910b98f9e7a2d8152e426504a2fd652e09a34
Note: switching to '3bb910b98f9e7a2d8152e426504a2fd652e09a34'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

    git switch -c <new-branch-name>

Or undo this operation with:

    git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at 3bb910b added a new text file
akshinguseinov@Akshins-MacBook-Air PAZL %
```



Время практики!

Задание

- Изменить один из добавленных файлов
- Сделать коммит этого файла
- Отследить историю изменений по ID коммита