

# Лабораторная работа №1

Гр. 253502 Николайчик Анастасия

Тема: Система контроля версий Git.

Цель: Познакомиться с возможностями и получить практические навыки работы с системой контроля версий Git.

Задание:

1. Подготовьте рабочее окружение в соответствии с типом вашей операционной системы(<https://smartiga.ru/courses/git/lesson-1>):
  - a. Установите Git
  - b. Выполните базовую настройку

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~  
$ cat .gitconfig  
[user]  
    name = Anastasia Nikolaychik  
    email = anastasianikolaichik@gmail.com
```

2. Создайте структуру папок (использовать командную строку) и поместите в репозиторий Git на своем локальном компьютере:

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source  
$ mkdir -p 253502_Nikolaychik_16/IGI/LR1  
  
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source  
$ cd 253502_Nikolaychik_16/IGI/LR1
```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1  
$ cd ..  
  
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI  
$ mkdir LR2 && mkdir LR3 && mkdir LR4 && mkdir LR5
```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI  
$ cd ..
```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16  
$ mkdir -p STRWEB/LR1  
  
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16  
$ cd STRWEB  
  
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/STRWEB  
$ mkdir LR2 && mkdir LR3 && mkdir LR4 && mkdir LR5
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/STRWEB
$ cd ..

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16
$ cd IGI/LR1

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1
$ mkdir -p bar/000

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1
$ cd bar

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar
$ touch readme.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar
$ echo "555" >> readme.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar
$ mkdir -p baz/444

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar
$ cd baz
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar/baz
$ mkdir -p example/222

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar/baz
$ cd ..

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/bar
$ cd ..

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1
$ mkdir -p foo/711

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1
$ cd foo
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/foo
$ touch test.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/foo
$ echo "000" >> test.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/foo
$ mkdir -p bin/766

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/foo
$ cd bin

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1/foo/bin
$ mkdir -p touch/777
```

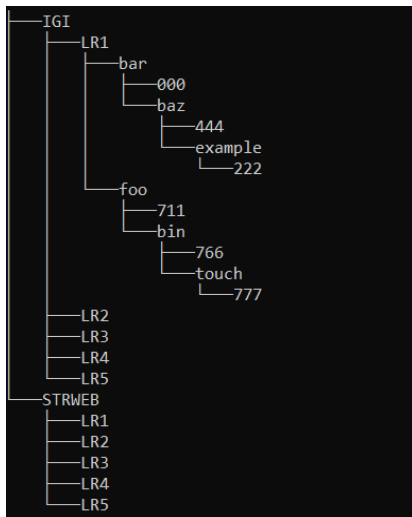
```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16
$ git init
Initialized empty Git repository in C:/Users/naaan/source/253502_Nikolaychik_16/.git/

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (main)
$ git status
On branch main

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
```



3. *Создайте репозиторий внутри папки LR1 с помощью клонирования проекта с сайта [github.com](https://github.com/smartigaorg/geometric_lib)*

([https://github.com/smartigaorg/geometric\\_lib](https://github.com/smartigaorg/geometric_lib))

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (main)
$ cd IGI/LR1

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git clone git@github.com:smartigaorg/geometric_lib.git
Cloning into 'geometric_lib'...
remote: Enumerating objects: 35, done.
remote: Total 35 (delta 0), reused 0 (delta 0), pack-reused 35
Receiving objects: 100% (35/35), 4.60 KiB | 1.53 MiB/s, done.
Resolving deltas: 100% (6/6), done.
```

4. *Выполните следующие действия, каждый раз проверяя состояние файлов в локальном репозитории до и после выполнения операции:*
  - a. *сделайте индексацию нескольких файлов в вашем Git-репозитории (git add ...),*

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ touch fileA.txt fileB.txt

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git add fileA.txt fileB.txt

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git status
On branch main

No commits yet

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

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

б. внесите изменения в файлы,

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ echo "I LOVE IGI!" >> fileA.txt && echo "Hello, Baby!" >> fileB.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git status
On branch main

No commits yet

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

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:   fileA.txt
        modified:   fileB.txt

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

с. выполните коммиты к проиндексированным файлам,

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git commit -am "Added two txt files"
warning: in the working copy of 'IGI/LR1/fileA.txt', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'IGI/LR1/fileB.txt', LF will be replaced by CRLF the next time Git touches it
[main (root-commit) 2d2561e] Added two txt files
 2 files changed, 2 insertions(+)
 create mode 100644 IGI/LR1/fileA.txt
 create mode 100644 IGI/LR1/fileB.txt
```

д. добавьте и удалите файлы (один и группу файлов с определенным расширением)

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ touch README.md index.html style.html

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git add README.md index.html style.html

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git status
On branch main

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   README.md
        new file:   index.html
        new file:   style.html

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

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git rm -f README.md
rm 'IGI/LR1/README.md'

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git rm -f *.html
rm 'IGI/LR1/index.html'
rm 'IGI/LR1/style.html'

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git status
On branch main

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

nothing added to commit but untracked files present (use "git add" to track)
```

е. переименуйте файлы

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git mv fileA.txt file1.txt && git mv fileB.txt file2.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    fileA.txt -> file1.txt
        renamed:    fileB.txt -> file2.txt

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

ф. создайте для IGI и STRWEB, а также для каждой ЛР, вложенной в них, отдельные ветки, переместите папки и файлы на соответствующие ветки

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (main)
$ git checkout -b IGI
Switched to a new branch 'IGI'

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (IGI)
$ git branch LR1 && git branch LR2 && git branch LR3 && git branch LR4 && git branch LR5
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (main)
$ git checkout -b STRWEB
Switched to a new branch 'STRWEB'

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (STRWEB)
$ git branch LR1_STRWEB && git branch LR2_STRWEB && git branch LR3_STRWEB && git branch LR4_STRWEB

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (STRWEB)
$ git checkout main
Switched to branch 'main'
A       IGI/LR1/file1.txt
A       IGI/LR1/file2.txt
D       IGI/LR1/fileA.txt
D       IGI/LR1/fileB.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (main)
$ git branch
  IGI
  LR1
  LR1_STRWEB
  LR2
  LR2_STRWEB
  LR3
  LR3_STRWEB
  LR4
  LR4_STRWEB
  LR5
  STRWEB
* main
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (IGI)
$ git status
On branch IGI
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    IGI/LR1/fileA.txt -> IGI/LR1/file1.txt
        renamed:    IGI/LR1/fileB.txt -> IGI/LR1/file2.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/bar/
        IGI/LR1/foo/
        IGI/LR1/geometric_lib/
```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (IGI)
$ git add IGI/
warning: in the working copy of 'IGI/LR1/bar/readme.txt', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'IGI/LR1/foo/test.txt', LF will be replaced by CRLF the next time Git touches it
warning: adding embedded git repository: IGI/LR1/geometric_lib
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint:   git submodule add <url> IGI/LR1/geometric_lib
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
hint:
hint:   git rm --cached IGI/LR1/geometric_lib
hint:
hint: See "git help submodule" for more information.

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16 (IGI)
$ git status
On branch IGI
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR1/bar/readme.txt
    renamed:   IGI/LR1/fileA.txt -> IGI/LR1/file1.txt
    renamed:   IGI/LR1/fileB.txt -> IGI/LR1/file2.txt
    new file:   IGI/LR1/foo/test.txt
    new file:   IGI/LR1/geometric_lib

```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   geometric_lib

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git commit -m "Added LR1 in branch LR1"
[LR1 001b3ad] Added LR1 in branch LR1
1 file changed, 1 insertion(+)
create mode 160000 IGI/LR1/geometric_lib

```

- g. выведите историю коммитов: полностью и с ограничением вывода – отобразить только последние, до и после указанной даты, по автору файлов, коммитов (флаги n, since, after, until, before, author, committer, grep) <https://code.mu/ru/tool/git/basis/limit-output-commit-history-flags/> ,

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date:   Sun Feb 18 17:37:44 2024 +0300

    Added folders

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date:   Sun Feb 18 17:33:04 2024 +0300

    Added question

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date:   Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date:   Sat Feb 17 19:44:24 2024 +0300

    Added LR1 in branch LR1

commit 2d2561e9624596f1c8a70ee72993631628a1f929 (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date:   Sat Feb 17 17:21:27 2024 +0300

    Added two txt files

```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --oneline
c91d363 (HEAD -> LR1) Added folders
4677019 Added question
e5fc64c Added info about weather
001b3ad Added LR1 in branch LR1
2d2561e (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI) Added two txt files
```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log -2
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300
```

Added folders

```
commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300
```

Added question

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --since="2024-02-17"
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300
```

Added folders

```
commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300
```

Added question

```
commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300
```

Added info about weather

```
commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 19:44:24 2024 +0300
```

Added LR1 in branch LR1

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --until="16-02-2024"
```

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --after="17-02-2024"
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300
```

Added folders

```
commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300
```

Added question

```
commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300
```

Added info about weather

```
commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 19:44:24 2024 +0300
```

Added LR1 in branch LR1

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --before="10-02-2024"
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --author="Anastasia Nikolaychik"
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 19:44:24 2024 +0300

    Added LR1 in branch LR1

commit 2d2561e9624596f1c8a70ee72993631628a1f929 (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 17:21:27 2024 +0300

    Added two txt files
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --committer="Vasya"
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --grep "folders"
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders
```

- h. исследуйте флаги для git log: p, stat, shortstat, name-only, name-status, relative-date, pretty, graph,

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log -p
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

diff --git a/IGI/LR1/bar/readme.txt b/IGI/LR1/bar/readme.txt
new file mode 100644
index 0000000..8853508
--- /dev/null
+++ b/IGI/LR1/bar/readme.txt
@@ -0,0 +1 @@
+555
\ No newline at end of file
diff --git a/IGI/LR1/foo/test.txt b/IGI/LR1/foo/test.txt
new file mode 100644
index 0000000..fd594a5
--- /dev/null
+++ b/IGI/LR1/foo/test.txt
@@ -0,0 +1 @@
+0000
\ No newline at end of file

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

diff --git a/IGI/LR1/fileB.txt b/IGI/LR1/fileB.txt
index afa31a..ed5bdb6 100644
--- a/IGI/LR1/fileB.txt
+++ b/IGI/LR1/fileB.txt
@@ -1,1.2 @@
+Hello, Baby!
+How are you?

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

diff --git a/IGI/LR1/fileA.txt b/IGI/LR1/fileA.txt
index fd93ff1..8cbbd55 100644
--- a/IGI/LR1/fileA.txt
+++ b/IGI/LR1/fileA.txt
@@ -1,1.2 @@
+I LOVE IGI!
+Very important information

commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 19:44:24 2024 +0300

    Added LR1 in branch LR1
```



```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --stat
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

    IGI/LR1/bar/readme.txt | 1 +
    IGI/LR1/foo/test.txt   | 1 +
    2 files changed, 2 insertions(+)

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

    IGI/LR1/fileB.txt | 1 +
    1 file changed, 1 insertion(+)
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --shortstat
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

    2 files changed, 2 insertions(+)

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

    1 file changed, 1 insertion(+)

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

    1 file changed, 1 insertion(+)
```

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --name-only
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

    IGI/LR1/bar/readme.txt
    IGI/LR1/foo/test.txt

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

    IGI/LR1/fileB.txt

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

    IGI/LR1/fileA.txt

commit 001b3ad3e43ec99879d8a72deb219f657b234f25
```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --name-status
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders
A       IGI/LR1/bar/readme.txt
A       IGI/LR1/foo/test.txt

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:33:04 2024 +0300

    Added question
M       IGI/LR1/fileB.txt

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather
M       IGI/LR1/fileA.txt

commit 001b3ad3e43ec99879d8a72deb219f657b234f25
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 19:44:24 2024 +0300

    Added LR1 in branch LR1
A       IGI/LR1/geometric_lib

commit 2d2561e9624596f1c8a70ee72993631628a1f929 (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: Sat Feb 17 17:21:27 2024 +0300

    Added two txt files
A       IGI/LR1/fileA.txt
A       IGI/LR1/fileB.txt

```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --relative-date
commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: 40 minutes ago

    Added folders

commit 46770193584267dfdfd465720c6af01bd2b64e07
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: 45 minutes ago

    Added question

commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
Date: 46 minutes ago

    Added info about weather

commit 001b3ad3e43ec99879d8a72deb219f657b234f25

```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --pretty=format:"%h-%an, %ar : %s"
c91d363-Anastasia Nikolaychik, 45 minutes ago : Added folders
4677019-Anastasia Nikolaychik, 50 minutes ago : Added question
e5fc64c-Anastasia Nikolaychik, 51 minutes ago : Added info about weather
001b3ad-Anastasia Nikolaychik, 23 hours ago : Added LR1 in branch LR1
2d2561e-Anastasia Nikolaychik, 25 hours ago : Added two txt files

```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --graph
* commit c91d363ec82ce6b980dd4b316b40f8f85c4d03ae (HEAD -> LR1)
  Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
  Date: Sun Feb 18 17:37:44 2024 +0300

    Added folders

* commit 46770193584267dfdfd465720c6af01bd2b64e07
  Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
  Date: Sun Feb 18 17:33:04 2024 +0300

    Added question

* commit e5fc64c53e5325a56f805d5c9c6c3a38d2bd24cc
  Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
  Date: Sun Feb 18 17:31:34 2024 +0300

    Added info about weather

* commit 001b3ad3e43ec99879d8a72deb219f657b234f25
  Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
  Date: Sat Feb 17 19:44:24 2024 +0300

    Added LR1 in branch LR1

* commit 2d2561e9624596f1c8a70ee72993631628a1f929 (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI)
  Author: Anastasia Nikolaychik <anastasianikolaichik@gmail.com>
  Date: Sat Feb 17 17:21:27 2024 +0300

    Added two txt files

```

- i. найдите разницу в изменениях для каждого коммита

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git diff 2d2561e 001b3ad
diff --git a/IGI/LR1/geometric_lib b/IGI/LR1/geometric_lib
new file mode 160000
index 0000000..d078c8d
--- /dev/null
+++ b/IGI/LR1/geometric_lib
@@ -0,0 +1 @@
+Subproject commit d078c8d9ee6155f3cb0e577d28d337b791de28e2

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git diff e5fc64c 4677019
diff --git a/IGI/LR1/fileB.txt b/IGI/LR1/fileB.txt
index afaf31a..ed5bdb6 100644
--- a/IGI/LR1/fileB.txt
+++ b/IGI/LR1/fileB.txt
@@ -1,2 @@
 Hello, Baby!
+How are you?
```

- j. создайте новый файл test.txt и вставьте в него строчку 'номер варианта'. затем сделайте коммит и отмените его

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ touch test.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ echo "My variant 16!" >> test.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git add test.txt
warning: in the working copy of 'IGI/LR1/test.txt', LF will be replaced by CRLF the next time Git touches it

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git commit -m "Added file with number of variant"
[LR1 7837622] Added file with number of variant
1 file changed, 1 insertion(+)
create mode 100644 IGI/LR1/test.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --oneline
7837622 (HEAD -> LR1) Added file with number of variant
c91d363 Added folders
4677019 Added question
e5fc64c Added info about weather
001b3ad Added LR1 in branch LR1
2d2561e (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI) Added two txt files

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git reset --hard HEAD~1
HEAD is now at c91d363 Added folders

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --oneline
c91d363 (HEAD -> LR1) Added folders
4677019 Added question
e5fc64c Added info about weather
001b3ad Added LR1 in branch LR1
2d2561e (main, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI) Added two txt files
```

- k. проиндексируйте файл в вашем Git-репозитории, затем отмените его индексацию

```
naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ touch try.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git add try.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   try.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git restore --staged try.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    try.txt

nothing added to commit but untracked files present (use "git add" to track)
```

1. внесите изменения в файл в вашем Git-репозитории и затем верните его в исходное состояние.

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ echo "Hello" >> try.txt

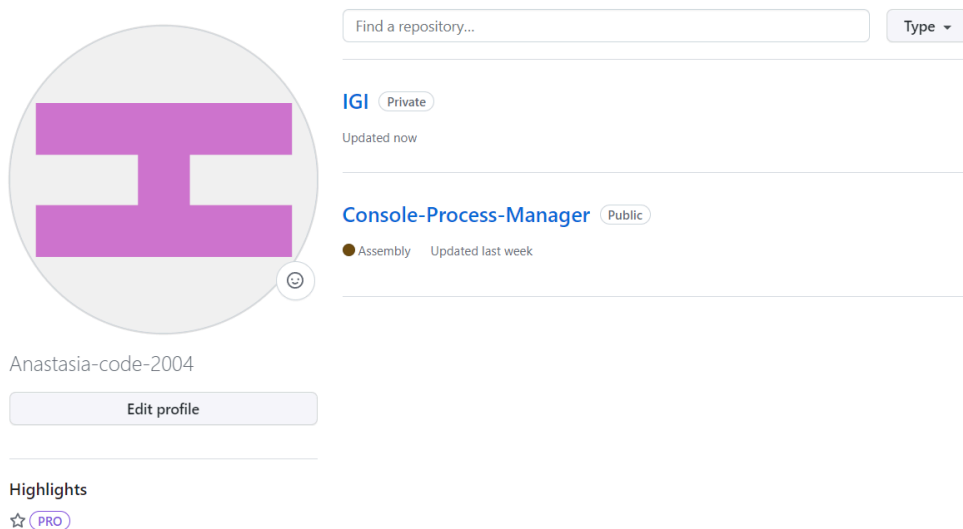
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   try.txt

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:   try.txt

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git restore try.txt

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   try.txt
```

5. Выполните следующие действия с удаленным репозиторием:
  - а. создайте удаленный репозиторий (на github.com)



- б. просмотрите информацию о нем, внесите изменения и опять просмотрите (remote, fetch).

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (IGI)
$ git remote -v
origin  git@github.com:Anastasia-code-2004/IGI.git (fetch)
origin  git@github.com:Anastasia-code-2004/IGI.git (push)

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git push -u origin IGI
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'IGI' on GitHub by visiting:
remote:   https://github.com/Anastasia-code-2004/IGI/pull/new/IGI
remote:
To github.com:Anastasia-code-2004/IGI.git
 * [new branch]      IGI -> IGI
branch 'IGI' set up to track 'origin/IGI'.
```

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git fetch origin
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (1/1), 899 bytes | 20.00 KiB/s, done.
From github.com:Anastasia-code-2004/IGI
 2d2561e..ee7ad2b  main      -> origin/main

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git log --oneline
2d2561e (HEAD -> main, origin/IGI, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI) Added two txt files

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git log --oneline --all
ee7ad2b (origin/main) Merge pull request #1 from Anastasia-code-2004/LR1
c91d363 (origin/LR1, LR1) Added folders
4677019 Added question
e5fc64c Added info about weather
001b3ad Added LR1 in branch LR1
2d2561e (HEAD -> main, origin/IGI, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI) Added two txt files

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (main)
$ git merge remotes/origin/main
Updating 2d2561e..ee7ad2b
Fast-forward
 IGI/LR1/bar/readme.txt | 1 +
 IGI/LR1/fileA.txt      | 1 +
 IGI/LR1/fileB.txt      | 1 +
 IGI/LR1/foo/test.txt   | 1 +
 IGI/LR1/geometric.lib  | 1 +
 5 files changed, 5 insertions(+)
 create mode 100644 IGI/LR1/bar/readme.txt
 create mode 100644 IGI/LR1/foo/test.txt
 create mode 160000 IGI/LR1/geometric.lib

```

с. измените несколько файлов в вашем проекте и перенесите их в удаленный репозиторий,

```

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ echo "One more" >> fileA.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ echo "Zero one" >> fileB.txt

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git status
On branch LR1
Your branch is up to date with 'origin/LR1'.

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:   fileA.txt
        modified:   fileB.txt

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

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git add fileA.txt
warning: in the working copy of 'IGI/LR1/fileA.txt', LF will be replaced by CRLF the next time Git touches it


naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git add fileB.txt
warning: in the working copy of 'IGI/LR1/fileB.txt', LF will be replaced by CRLF the next time Git touches it

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git commit -m "Modified two txt files"
[LR1 03d5db4] Modified two txt files
 2 files changed, 2 insertions(+)

naaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git push
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (6/6), 558 bytes | 558.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:Anastasia-code-2004/IGI.git
 c91d363..03d5db4  LR1 -> LR1

```


## Commits

 LR1 ▾

All users ▾ All time ▾

Commits on Feb 18, 2024

Modified two txt files

Anastasia-code-2004 committed 2 minutes ago 03d5db4  <>

d. переименуйте свой удаленный репозиторий

## General

### Repository name

IGI\_labs 

Rename

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git remote set-url origin git@github.com:Anastasia-code-2004/IGI_labs.git

nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git remote -v
origin  git@github.com:Anastasia-code-2004/IGI_labs.git (fetch)
origin  git@github.com:Anastasia-code-2004/IGI_labs.git (push)
```

e. получите данные из удаленного репозитория

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git fetch origin
```

f. просмотреть историю изменений

```
nasaan@LAPTOP-ELBM9100 MINGW64 ~/source/253502_Nikolaychik_16/IGI/LR1 (LR1)
$ git log --oneline --all
03d5db4 (HEAD -> LR1, origin/LR1) Modified two txt files
ee7ad2b (origin/main, main) Merge pull request #1 from Anastasia-code-2004/LR1
c91d363 Added folders
4677019 Added question
e5fc64c Added info about weather
001b3ad Added LR1 in branch LR1
2d2561e (origin/IGI, STRWEB, LR5, LR4_STRWEB, LR4, LR3_STRWEB, LR3, LR2_STRWEB, LR2, LR1_STRWEB, IGI)
Added two txt files
```