

Лабораторная работа №1

Тема: Система контроля версий Git.

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

Выполнил: Барановский Г.В. гр.253502

Задания:

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

```
userD@WIN-BMLNGC0R195 MINGW64 ~  
$ git --version  
git version 2.43.0.windows.1
```

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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop  
$ mkdir 253502_Baranovsky_4  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop  
$ cd 253502_Baranovsky_4/  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4  
$ mkdir IGI STRWEB  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4  
$ cd IGI/  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI  
$ mkdir LR1 LR2 LR3 LR4 LR5  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI  
$ cd ../STRWEB/  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/STRWEB  
$ mkdir LR1 LR2 LR3 LR4  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/STRWEB  
$ cd ../IGI/LR1  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1  
$ mkdir bar  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1  
$ cd bar  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar  
$ mkdir 755 baz  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar  
$ cd baz  
  
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz  
$ mkdir 744 bin example foo
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz
$ touch readme.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz
$ ls
744/ bin/ example/ foo/ readme.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz
$ cd bin && mkdir 177

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/b
in
$ ls
177/

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/b
in
$ cd ..

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz
$ echo "544" > readme.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz
$ cd example && mkdir 555

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/e
xample
$ cd ../foo/

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/f
oo
$ mkdir 711 cp/444
mkdir: cannot create directory 'cp/444': No such file or directory

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/f
oo
$ ls
711/

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/f
oo
$ mkdir cp
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/f
oo
$ echo "777" > test.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/baz/f
oo
$ cd cp && mkdir 444
```

2. 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)

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ cd IGI/LR1

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (main)
$ git clone https://github.com/smartigaorg/geometric_lib
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 | 2.30 MiB/s, done.
Resolving deltas: 100% (6/6), done.
```

3. Выполните следующие действия, каждый раз проверяя состояние файлов в локальном репозитории до и после выполнения операции:

- а. сделайте индексацию нескольких файлов в вашем Git-репозитории (git add ...),

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git add .
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   IGI/LR1/bar/baz/foo/test.txt
    new file:   IGI/LR1/bar/baz/readme.txt
    new file:   IGI/LR1/geometric_lib
```

- б. внесите изменения в файлы,

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar (main)
$ notepad++ baz/readme.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar (main)
$ git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   baz/foo/test.txt
    new file:   baz/readme.txt
    new file:   ../geometric_lib

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:   baz/readme.txt
```

с. выполните коммиты к проиндексированным файлам,

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar (main)
$ git commit -m "Main file structure added"
[main (root-commit) 1194058] Main file structure added
3 files changed, 3 insertions(+)
create mode 100644 IGI/LR1/bar/baz/foo/test.txt
create mode 100644 IGI/LR1/bar/baz/readme.txt
create mode 160000 IGI/LR1/geometric_lib
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar (main)
$ git add .
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar (main)
$ git commit -m "Modified readme.txt"
[main c5ec664] Modified readme.txt
1 file changed, 1 insertion(+)
```

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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (main)
$ cd bar/744/

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ touch nothing.py main.c something.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git add *.py

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git add main.c
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git rm --f *.py
rm 'IGI/LR1/bar/744/nothing.py'
```

е. переименуйте файлы

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ mv main.c ne-main.c

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   main.c

Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    deleted:    main.c

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    ne-main.c
    something.txt
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    something.txt

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

- f. создайте для IGI и STRWEB, а также для каждой ЛР, вложенной в них, отдельные ветки, переместите папки и файлы на соответствующие ветки
Результат выполнения команды `git checkout -b <branch-name>`:

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (s-lr4)
$ git branch
  igi
  lr1
  lr2
  lr3
  lr4
  lr5
  main
  s-lr1
  s-lr2
  s-lr3
* s-lr4
  strweb
```

- г. 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/> ,

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --all
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300
```

significant modifies in igi/lr1 files

```
commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300
```

Modified readme.txt

```
commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300
```

Main file structure added

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log -n 2
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300
```

significant modifies in igi/lr1 files

```
commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300
```

Modified readme.txt

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --author = "who"
```

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --committer="German"
fatal: unrecognized argument: --committer=German

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --committer="German"
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5
, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300

    Modified readme.txt

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --grep "file"
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5
, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added

```

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

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --pretty=full
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5
, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Commit: German <germanbaranovsky0@gmail.com>

    significant modifies in igi/lr1 files

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Commit: German <germanbaranovsky0@gmail.com>

    Modified readme.txt

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Commit: German <germanbaranovsky0@gmail.com>

    Main file structure added

```



```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --pretty=short
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>

    significant modifies in igi/lr1 files

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>

    Modified readme.txt

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>

    Main file structure added

```

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --pretty=oneline
de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi) significant modifies in igi/lr1 files
c5ec66496c5e760f0face2dc32ebd8b8c17de22d Modified readme.txt
1194058cfd3faf55089159745c68fcf5d07f1d37 Main file structure added

```

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log -p
commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

diff --git a/IGI/LR1/bar/744/ne-main.c b/IGI/LR1/bar/744/ne-main.c
new file mode 100644
index 00000000..e69de29

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300

    Modified readme.txt

diff --git a/IGI/LR1/bar/baz/readme.txt b/IGI/LR1/bar/baz/readme.txt
index 4970e69..601bab7 100644
--- a/IGI/LR1/bar/baz/readme.txt
+++ b/IGI/LR1/bar/baz/readme.txt
@@ -1,2 @@
 544
+real read it
\ No newline at end of file

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added

diff --git a/IGI/LR1/bar/baz/foo/test.txt b/IGI/LR1/bar/baz/foo/test.txt
new file mode 100644
index 00000000..6e68a0f
--- /dev/null
+++ b/IGI/LR1/bar/baz/foo/test.txt
@@ -0,0 +1 @@
+777

```

```
diff --git a/IGI/LR1/bar/baz/readme.txt b/IGI/LR1/bar/baz/readme.txt
new file mode 100644
index 0000000..4970e69
--- /dev/null
+++ b/IGI/LR1/bar/baz/readme.txt
@@ -0,0 +1 @@
+544
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
(END)
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --graph --shortstat
* commit de360ed0cbba740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

    1 file changed, 0 insertions(+), 0 deletions(-)

* commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300

    Modified readme.txt

    1 file changed, 1 insertion(+)

* commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added

    3 files changed, 3 insertions(+)
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git log --stat
commit de360ed0cbba740f112298c3ac1b1e57620621b0 (HEAD -> main, strweb, s-lr4, s-lr3, s-lr2, s-lr1, lr5, lr4, lr3, lr2, lr1, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

    IGI/LR1/bar/744/ne-main.c | 0
    1 file changed, 0 insertions(+), 0 deletions(-)

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300

    Modified readme.txt

    IGI/LR1/bar/baz/readme.txt | 1 +
    1 file changed, 1 insertion(+)

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added

    IGI/LR1/bar/baz/foo/test.txt | 1 +
    IGI/LR1/bar/baz/readme.txt | 1 +
    IGI/LR1/geometric_lib | 1 +
    3 files changed, 3 insertions(+)
```


- i. найдите разницу в изменениях для каждого коммита

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git diff HEAD^ HEAD~2
diff --git a/IGI/LR1/bar/baz/readme.txt b/IGI/LR1/bar/baz/readme.txt
index 601bab7..4970e69 100644
--- a/IGI/LR1/bar/baz/readme.txt
+++ b/IGI/LR1/bar/baz/readme.txt
@@ -1,2 +1 @@
 544
-real read it
\ No newline at end of file
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git diff HEAD HEAD^
diff --git a/IGI/LR1/bar/744/ne-main.c b/IGI/LR1/bar/744/ne-main.c
deleted file mode 100644
index e69de29..0000000
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (main)
$ git diff HEAD HEAD~2
diff --git a/IGI/LR1/bar/744/ne-main.c b/IGI/LR1/bar/744/ne-main.c
deleted file mode 100644
index e69de29..0000000
diff --git a/IGI/LR1/bar/baz/readme.txt b/IGI/LR1/bar/baz/readme.txt
index 601bab7..4970e69 100644
--- a/IGI/LR1/bar/baz/readme.txt
+++ b/IGI/LR1/bar/baz/readme.txt
@@ -1,2 +1 @@
 544
-real read it
\ No newline at end of file
```

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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ echo "4 variant" > test.txt
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git commit -m "commit to reset"
[lr1 4d7f160] commit to reset
2 files changed, 1 insertion(+)
create mode 100644 IGI/LR1/bar/744/something.txt
create mode 100644 IGI/LR1/test.txt
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git log
commit 4d7f160706aa18d99c04afd1911c980880490aaf (HEAD -> lr1)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:55:39 2024 +0300
```

commit to reset

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git reset HEAD^
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git status
On branch lr1
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    bar/744/something.txt
    test.txt

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

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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git add .

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git status
On branch lr1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   bar/744/something.txt
    new file:   test.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git restore --staged test.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git status
On branch lr1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   bar/744/something.txt

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

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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (lr1)
$ notepad++ something.txt

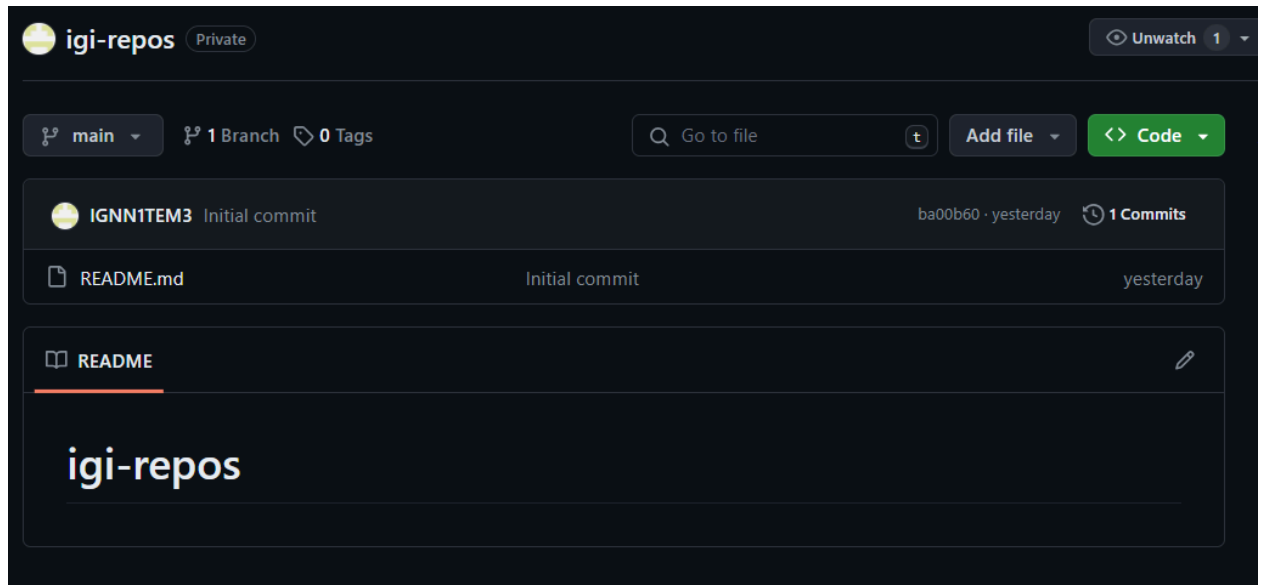
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (lr1)
$ cat something.txt
123 322 321 222
...
d
dfdfd
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (lr1)
$ git add something.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (lr1)
$ git restore --worktree --staged something.txt

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1/bar/744 (lr1)
$ cat something.txt
cat: something.txt: No such file or directory
```

4. Выполните следующие действия с удаленным репозиторием:

a. создайте удаленный репозиторий (на github.com)



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

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git remote add origin https://github.com/IGNN1TEM3/igi-repository.git

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/IGNN1TEM3/igi-repository.git
  Push URL: https://github.com/IGNN1TEM3/igi-repository.git
  HEAD branch: (unknown)
```

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git push --all
Enumerating objects: 23, done.
Counting objects: 100% (23/23), done.
Delta compression using up to 4 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (23/23), 1.44 KiB | 490.00 KiB/s, done.
Total 23 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/IGNN1TEM3/igi-repository.git
 * [new branch]      igi -> igi
 * [new branch]      lr1 -> lr1
 * [new branch]      lr2 -> lr2
 * [new branch]      lr3 -> lr3
 * [new branch]      lr4 -> lr4
 * [new branch]      lr5 -> lr5
 * [new branch]      main -> main
 * [new branch]      s-lr1 -> s-lr1
 * [new branch]      s-lr2 -> s-lr2
 * [new branch]      s-lr3 -> s-lr3
 * [new branch]      s-lr4 -> s-lr4
 * [new branch]      strweb -> strweb
```

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4 (main)
$ git remote show origin
* remote origin
Fetch URL: https://github.com/IGNN1TEM3/igi-repository.git
Push URL: https://github.com/IGNN1TEM3/igi-repository.git
HEAD branch: main
Remote branches:
  igi      tracked
  lr1      tracked
  lr2      tracked
  lr3      tracked
  lr4      tracked
  lr5      tracked
  main     tracked
  s-lr1    tracked
  s-lr2    tracked
  s-lr3    tracked
  s-lr4    tracked
  strweb   tracked
Local refs configured for 'git push':
  igi      pushes to igi      (up to date)
  lr1      pushes to lr1      (up to date)
  lr2      pushes to lr2      (up to date)
  lr3      pushes to lr3      (up to date)
  lr4      pushes to lr4      (up to date)
  lr5      pushes to lr5      (up to date)
  main     pushes to main     (up to date)
  s-lr1    pushes to s-lr1    (up to date)
  s-lr2    pushes to s-lr2    (up to date)
  s-lr3    pushes to s-lr3    (up to date)
  s-lr4    pushes to s-lr4    (up to date)
  strweb   pushes to strweb   (up to date)

```

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

```

userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git push origin lr1
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (5/5), 431 bytes | 431.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/IGNN1TEM3/igi-repository.git
de360ed..bc572db  lr1 -> lr1

```

igi-repository / IGI / LR1 / test.txt



IGNN1TEM3 Change test.txt

Code

Blame

3 lines (3 loc) · 31 Bytes



Code 55% faster with GitHub Copilot

```

1  4 variant
2  -----
3  real 4 var.

```

d. переименуйте свой удаленный репозиторий

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (lr1)
$ git remote rename origin org
Renaming remote references: 100% (12/12), done.
```

e. получите данные из удаленного репозитория

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (main)
$ git fetch
```

f. просмотреть историю изменений

```
userD@WIN-BMLNGC0R195 MINGW64 /c/users/userD/Desktop/253502_Baranovsky_4/IGI/LR1 (main)
$ git log org/main
commit f483430193655100ba6a7e78ce91e87f45de48ce (org/main)
Merge: de360ed bc572db
Author: WDUM <139161840+IGNN1TEM3@users.noreply.github.com>
Date: Wed Feb 14 23:40:30 2024 +0300

    Merge pull request #1 from IGNN1TEM3/lr1

    Change test.txt

commit bc572db43d393cdc21a9feb0f9d27f790d71c6b2 (org/lr1, lr1)
Author: German <germanbaranovsky0@gmail.com>
Date: Wed Feb 14 23:31:37 2024 +0300

    Change test.txt

commit de360ed0cbaa740f112298c3ac1b1e57620621b0 (HEAD -> main, org/strweb, org/s-lr4, org/s-lr3, or
g/s-lr2, org/s-lr1, org/lr5, org/lr4, org/lr3, org/lr2, org/igi, strweb, s-lr4, s-lr3, s-lr2, s-lr1
, lr5, lr4, lr3, lr2, igi)
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 19:12:22 2024 +0300

    significant modifies in igi/lr1 files

commit c5ec66496c5e760f0face2dc32ebd8b8c17de22d
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:47 2024 +0300

    Modified readme.txt

commit 1194058cfd3faf55089159745c68fcf5d07f1d37
Author: German <germanbaranovsky0@gmail.com>
Date: Tue Feb 13 18:35:09 2024 +0300

    Main file structure added
```

Индивидуальное задание:

4.	<pre>/ --bar/755 --baz/744 --bin/177 --readme.txt/544 --example/555 --foo/711 --cp/444 --test.txt/777</pre>
----	---