

## Лабораторная работа №1

**Выполнил:** Лапунов Иван 453501. Вариант 14.

**Тема:** Система контроля версий Git.

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

**Задание:**

### *1. Подготовка рабочего окружения*

```
C:\Users\Admin>git --version  
git version 2.51.0.windows.1
```

*2. Создание структуры папок (использовать командную строку) и поместить в репозиторий Git на своем локальном компьютере*

Создание структуры папок:

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ> mkdir 453501_Lapunov_14  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ> cd .\453501_Lapunov_14\  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> mkdir IGI  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> mkdir STRWEB  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> cd .\IGI\  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> mkdir LR1  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> mkdir LR2  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> mkdir LR3  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> mkdir LR4  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> mkdir LR5  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> cd ..  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> cd .\STRWEB\  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> mkdir LR1  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> mkdir LR2  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> mkdir LR3  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> mkdir LR4  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> mkdir bin  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> cd .\bin\  
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\bin> mkdir 700
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\bin> mkdir cut
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\bin> cd .\cut\
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\bin\cut> mkdir 700
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> mkdir foo
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> cd foo
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> mkdir 441
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> mkdir bar
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> cd bar
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo\bar> mkdir 664
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> echo 000 > test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> mkdir example
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> cd .\example\
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo\example> mkdir 200
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> mkdir baz
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo> cd baz
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo\baz> mkdir 244
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1\foo\baz> echo 411 > readme.txt
```

Результат в виде дерева:

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> tree /f
Структура папок тома Windows
Серийный номер тома: FE42-A078
C:..
├── IGI
│   ├── LR1
│   │   ├── LR1Test.txt
│   │   ├── bin
│   │   │   ├── 700
│   │   │   └── cut
│   │   │       └── 700
│   │   ├── foo
│   │   │   ├── test.txt
│   │   │   ├── 441
│   │   │   ├── bar
│   │   │   │   └── 664
│   │   │   ├── baz
│   │   │   │   ├── readme.txt.txt
│   │   │   │   ├── 244
│   │   │   └── example
│   │   │       └── 200
│   │   ├── geometric_lib
│   │   │   ├── circle.py
│   │   │   ├── square.py
│   │   └── docs
│   │       └── README.md
│   ├── LR2
│   │   └── LR2Test.txt
│   ├── LR3
│   │   └── LR3Test.txt
│   ├── LR4
│   │   └── LR4Test.txt
│   └── LR5
│       └── LR5Test.txt
└── STRWEB
    ├── LR1
    │   └── LR1Test.txt
    ├── LR2
    │   └── LR2Test.txt
    ├── LR3
    │   └── LR3Test.txt
    └── LR4
        └── LR4Test.txt
```

*3 Создайте репозиторий внутри папки LR1 с помощью клонирования проекта с сайта github.com*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git init
Initialized empty Git repository in C:/vanya/учеба/453501(2 КУРС)/4 семестр/ИГИ/453501_Lapunov_14/IGI/LR1/.git/
```

Клонирование geometric lib:

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git clone https://github.com/smartaorg/geometric_lib
Cloning into 'geometric_lib'...
remote: Enumerating objects: 35, done.
remote: Total 35 (delta 0), reused 0 (delta 0), pack-reused 35 (from 1)
Receiving objects: 100% (35/35), 4.69 KiB | 961.00 KiB/s, done.
Resolving deltas: 100% (5/5), done.
```

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

*а. сделать индексацию нескольких файлов в вашем Git-репозитории (git add ...)*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo 1 > file1.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo 2 > file2.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file1.txt
    file2.txt
    foo/
    geometric_lib/

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git add .\file1.txt .\file2.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   file1.txt
    new file:   file2.txt

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

*б. внесите изменения в файлы*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo 67 >> file1.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo 2599 >> file2.txt
```

*с. выполните коммиты к проиндексированным файлам*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
```

```
No commits yet
```

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

```
new file:   file1.txt
new file:   file2.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:   file1.txt
modified:   file2.txt
```

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

```
foo/
geometric_lib/
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git add .\file1.txt .\file2.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git commit -m "added file1.txt and file2.txt"
[main (root-commit) 667ae71] added file1.txt and file2.txt
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1.txt
create mode 100644 file2.txt
```

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

```
Каталог: C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1
```

Mode	LastWriteTime	Length	Name
d-----	12.02.2026 21:07		bin
d-----	12.02.2026 21:16		foo
d-----	12.02.2026 21:27		geometric_lib
-a----	12.02.2026 22:08	16	file1.txt
-a----	12.02.2026 22:08	20	file2.txt
-a----	12.02.2026 22:18	132528	gog1.jpg
-a----	12.02.2026 22:18	132528	gog2.jpg
-a----	12.02.2026 22:18	132528	gog3.jpg
-a----	12.02.2026 22:18	132528	gog4.jpg

Было добавлено 4 изображения:

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   gog1.jpg
    new file:   gog2.jpg
    new file:   gog3.jpg
    new file:   gog4.jpg

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git rm -f .\gog1.jpg
rm 'gog1.jpg'
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git rm -f *.jpg
rm 'gog2.jpg'
rm 'gog3.jpg'
rm 'gog4.jpg'
```

#### *е. Переименуйте файлы*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git mv file1.txt file1_newname.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    renamed:   file1.txt -> file1_newname.txt

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout -b IGI
Switched to a new branch 'IGI'
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git rm -r STRWEB
rm 'STRWEB/LR1/LR1Test.txt'
rm 'STRWEB/LR2/LR2Test.txt'
rm 'STRWEB/LR3/LR3Test.txt'
rm 'STRWEB/LR4/LR4Test.txt'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> dir
```

Каталог: C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501\_Lapunov\_14

Mode	LastWriteTime	Length	Name
----	-----	-----	----
d-----	12.02.2026	23:49	IGI

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git add -A
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git commit -m "removed STRWEB folder"
```

Аналогично делаю для ветки STRWEB.

Теперь поэтапно создаю ветки для каждой папки в папке STRWEB(на примере LR2):

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout STRWEB
Switched to branch 'STRWEB'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> cd .\STRWEB\
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> git checkout -b LR2STRWEB
Switched to a new branch 'LR2STRWEB'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> git rm -r LR1 LR3 LR4
rm 'STRWEB/LR1/LR1Test.txt'
rm 'STRWEB/LR3/LR3Test.txt'
rm 'STRWEB/LR4/LR4Test.txt'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> git add -A
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> git commit -m "Branch LR1(STRWEB): removed LR1 LR3 LR4"
[LR2STRWEB a4741d6] Branch LR1(STRWEB): removed LR1 LR3 LR4
3 files changed, 3 deletions(-)
delete mode 100644 STRWEB/LR1/LR1Test.txt
delete mode 100644 STRWEB/LR3/LR3Test.txt
delete mode 100644 STRWEB/LR4/LR4Test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\STRWEB> git status
On branch LR2STRWEB
nothing to commit, working tree clean
```

Аналогично делаю для папки IGI на ветке IGI

Результат демонстрирует следующий граф:

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --all --graph --oneline --decorate
* f686777 (LR5IGI) Branch LR5(IGI): removed LR1 LR2 LR3 LR4
* edc0c20 (LR4IGI) Branch LR4(IGI): removed LR1 LR2 LR3 LR5
//
* 850bcd1 (LR3IGI) Branch LR3(IGI): removed LR1 LR2 LR4 LR5
//
* b2e3fb6 (LR2IGI) Branch LR2(IGI): removed LR1 LR3 LR4 LR5
//
* f059667 (LR1IGI) Branch LR1(IGI): removed LR2 LR3 LR4 LR5
//
* 32f7f5f (IGI) removed STRWEB folder
* 75ebdce (LR4STRWEB) Branch LR4(STRWEB): removed LR1 LR2 LR3
| * 3e8cffa (LR3STRWEB) Branch LR3(STRWEB): removed LR1 LR2 LR4
|//
| * a4741d6 (LR2STRWEB) Branch LR1(STRWEB): removed LR1 LR3 LR4
|//
| * c74ed40 (LR1STRWEB) Branch LR1(STRWEB): removed LR2 LR3 LR4
|//
* 1dcd132 (STRWEB) removed file 1.txt from IGI folder
* 27540aa removed all files from IGI folder
//
* ef28b2f (HEAD -> main) Added geometric lib
* 23166bb Added file in every directory
* 2caac3f added files that I lost
* 20c2a0b initial commit
```

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/>



-n

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log -n
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--since

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --since="2026-02-12"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--after

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --after="2026-02-12"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--until

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --until="2026-02-13"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```



--before

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --before="2026-02-13"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--author

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --author="lapivan"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--committer

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --committer="lapivan"
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--grep

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --grep "initial"
commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

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

-p

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log -p
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

diff --git a/IGI/LR1 b/IGI/LR1
deleted file mode 160000
index 667ae71..0000000
--- a/IGI/LR1
+++ /dev/null
@@ -1,0 @@
-Subproject commit 667ae716a7c746c4f8c3b0a46174d560dd5e406a
diff --git a/IGI/LR1/foo/baz/readme.txt.txt b/IGI/LR1/foo/baz/readme.txt.txt
new file mode 100644
index 0000000..8e9088e
--- /dev/null
+++ b/IGI/LR1/foo/baz/readme.txt.txt
@@ -0,0 +1 @@
+411
\ 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 @@
+000
\ No newline at end of file

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit

diff --git a/IGI/LR1 b/IGI/LR1
new file mode 160000
index 0000000..667ae71
--- /dev/null
+++ b/IGI/LR1
@@ -0,0 +1 @@
+Subproject commit 667ae716a7c746c4f8c3b0a46174d560dd5e406a
diff --git a/STRWEB/LR1/.gitkeep b/STRWEB/LR1/.gitkeep
new file mode 100644
index 0000000..11470d5
Binary files /dev/null and b/STRWEB/LR1/.gitkeep differ
```

--stat

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --stat
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

IGI/LR1 | 1 -
IGI/LR1/foo/baz/readme.txt.txt | 1 +
IGI/LR1/foo/test.txt | 1 +
3 files changed, 2 insertions(+), 1 deletion(-)

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit

IGI/LR1 | 1 +
STRWEB/LR1/.gitkeep | Bin 0 -> 44 bytes
2 files changed, 1 insertion(+)
```

--shortstat

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --shortstat
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

    3 files changed, 2 insertions(+), 1 deletion(-)

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit

    2 files changed, 1 insertion(+)
```

--name-only

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --name-only
commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194 (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

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

commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit

IGI/LR1
STRWEB/LR1/.gitkeep
```

--name-status

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log -1 --name-status
commit ef28b2fbd47aaa41892c781c19481929c2acf00b (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 14:53:50 2026 +0300

    Added geometric lib

A       IGI/LR1/geometric_lib/circle.py
A       IGI/LR1/geometric_lib/docs/README.md
A       IGI/LR1/geometric_lib/square.py
```

--relative-date

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log -1 --relative-date
commit ef28b2fbd47aaa41892c781c19481929c2acf00b (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   8 hours ago

    Added geometric lib
```

--pretty

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --pretty
commit ef28b2fbd47aaa41892c781c19481929c2acf00b (HEAD -> main)
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 14:53:50 2026 +0300

    Added geometric lib

commit 23166bbc36ad7292f10f6535941287a4c1bcd76a
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 14:46:47 2026 +0300

    Added file in every directory

commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date:   Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

--graph --all --decorate --oneline

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --graph --all --decorate --oneline
* f686777 (LR5IGI) Branch LR5(IGI): removed LR1 LR2 LR3 LR4
| * edc0c20 (LR4IGI) Branch LR4(IGI): removed LR1 LR2 LR3 LR5
|/
| * 850bcd1 (LR3IGI) Branch LR3(IGI): removed LR1 LR2 LR4 LR5
|/
| * b2e3fb6 (LR2IGI) Branch LR2(IGI): removed LR1 LR3 LR4 LR5
|/
| * f059667 (LR1IGI) Branch LR1(IGI): removed LR2 LR3 LR4 LR5
|/
* 32f7f5f (IGI) removed STRWEB folder
| * 75ebdce (LR4STRWEB) Branch LR4(STRWEB): removed LR1 LR2 LR3
| | * 3e8cffa (LR3STRWEB) Branch LR3(STRWEB): removed LR1 LR2 LR4
| |/
| | * a4741d6 (LR2STRWEB) Branch LR1(STRWEB): removed LR1 LR3 LR4
| |/
| | * c74ed40 (LR1STRWEB) Branch LR1(STRWEB): removed LR2 LR3 LR4
| |/
| * 1dcd132 (STRWEB) removed file 1.txt from IGI folder
| * 27540aa removed all files from IGI folder
|/
* ef28b2f (HEAD -> main) Added geometric lib
* 23166bb Added file in every directory
* 2caac3f added files that I lost
* 20c2a0b initial commit
```

*i. Найдите разницу в изменениях для каждого коммита*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git show 23166bb
commit 23166bbc36ad7292f10f6535941287a4c1bcd76a
Author: lapivan <lapunoujohn@gmail.com>
Date:   Fri Feb 13 14:46:47 2026 +0300

    Added file in every directory

diff --git a/IGI/LR1/LR1Test.txt b/IGI/LR1/LR1Test.txt
new file mode 100644
index 00000000..b57b784
--- /dev/null
+++ b/IGI/LR1/LR1Test.txt
@@ -0,0 +1 @@
+tesst
\ No newline at end of file
diff --git a/IGI/LR2/LR2Test.txt b/IGI/LR2/LR2Test.txt
new file mode 100644
index 00000000..b57b784
--- /dev/null
+++ b/IGI/LR2/LR2Test.txt
@@ -0,0 +1 @@
+tesst
\ No newline at end of file
diff --git a/IGI/LR3/LR3Test.txt b/IGI/LR3/LR3Test.txt
new file mode 100644
index 00000000..b57b784
--- /dev/null
+++ b/IGI/LR3/LR3Test.txt
@@ -0,0 +1 @@
+tesst
\ No newline at end of file
diff --git a/IGI/LR4/LR4Test.txt b/IGI/LR4/LR4Test.txt
new file mode 100644
index 00000000..b57b784
--- /dev/null
+++ b/IGI/LR4/LR4Test.txt
@@ -0,0 +1 @@
+tesst
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git diff ef28b2f 23166bb
```

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> echo "14" > test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git commit -m "added file test.txt with text '14' "
[main 23e7131] added file test.txt with text '14'
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 test.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --oneline
23e7131 (HEAD -> main) added file test.txt with text '14'
ef28b2f Added geometric lib
23166bb Added file in every directory
2caac3f added files that I lost
20c2a0b initial commit
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git reset --hard HEAD~1
HEAD is now at ef28b2f Added geometric lib
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git log --oneline
ef28b2f (HEAD -> main) Added geometric lib
23166bb Added file in every directory
2caac3f added files that I lost
20c2a0b initial commit
```

(Можно было использовать `git reset --soft HEAD~1`, что отменило бы коммит, но не удалило бы файл из рабочей копии и индекса, а или же флаг `--mixed`, чтобы убрать файл еще и из индекса).

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> echo "14" > test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   test.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git restore --staged test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
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.*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   test.txt

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> echo "some changes" >> test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   test.txt

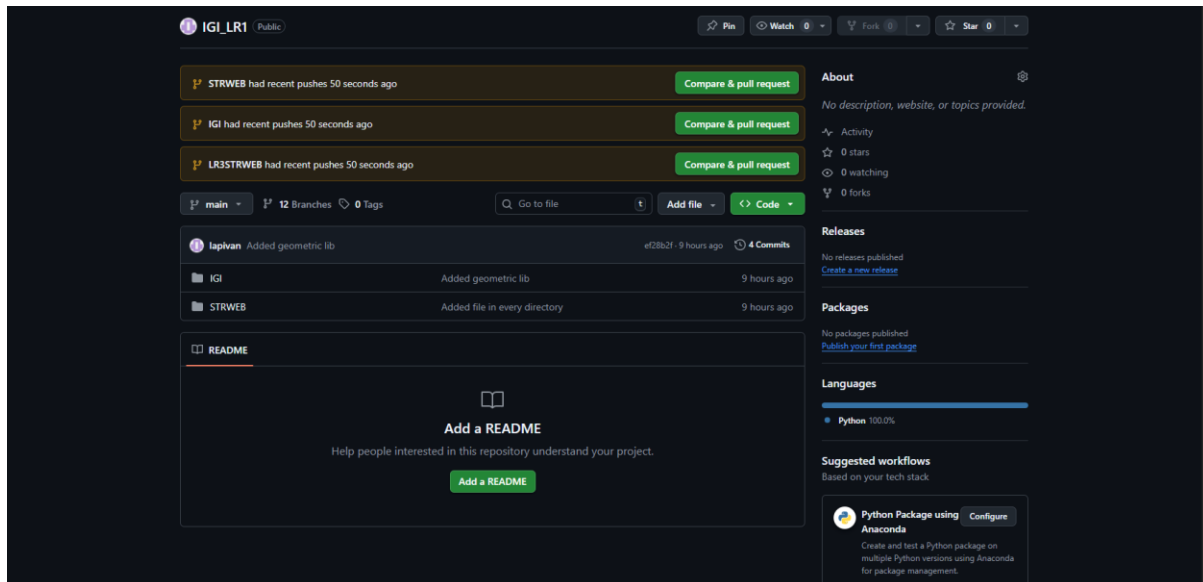
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   test.txt

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git restore
fatal: you must specify path(s) to restore
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git restore .\test.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   test.txt
```



## 5 Выполните следующие действия с удаленным репозиторием:

### а. Создайте удаленный репозиторий (на github.com)



```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git remote add origin https://github.com/lapivan/IGI_LR1.git
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git push -u origin main
Enumerating objects: 34, done.
Counting objects: 100% (34/34), done.
Delta compression using up to 20 threads
Compressing objects: 100% (18/18), done.
Writing objects: 100% (34/34), 2.33 KiB | 477.00 KiB/s, done.
Total 34 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/lapivan/IGI_LR1.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git push --all origin
Enumerating objects: 35, done.
Counting objects: 100% (35/35), done.
Delta compression using up to 20 threads
Compressing objects: 100% (13/13), done.
Writing objects: 100% (32/32), 2.49 KiB | 638.00 KiB/s, done.
Total 32 (delta 5), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (5/5), done.
To https://github.com/lapivan/IGI_LR1.git
 * [new branch]      IGI -> IGI
 * [new branch]      LR1IGI -> LR1IGI
 * [new branch]      LR1STRWEB -> LR1STRWEB
 * [new branch]      LR2IGI -> LR2IGI
 * [new branch]      LR2STRWEB -> LR2STRWEB
 * [new branch]      LR3IGI -> LR3IGI
 * [new branch]      LR3STRWEB -> LR3STRWEB
 * [new branch]      LR4IGI -> LR4IGI
 * [new branch]      LR4STRWEB -> LR4STRWEB
 * [new branch]      LR5IGI -> LR5IGI
 * [new branch]      STRWEB -> STRWEB
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> |
```

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git remote -v
origin https://github.com/lapivan/IGI_LR1.git (fetch)
origin https://github.com/lapivan/IGI_LR1.git (push)
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git remote set-url origin https://github.com/lapivan/another-repo.git
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git remote -v
origin https://github.com/lapivan/another-repo.git (fetch)
origin https://github.com/lapivan/another-repo.git (push)
```

*с. Измените несколько файлов в вашем проекте и перенесите их в удаленный репозиторий*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo "new txt file" > newtestfile.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo "some changes" >> LR1Test.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   LR1Test.txt
        new file:   newtestfile.txt

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git commit -m "added file newtestfile.txt in IGI/LR1, modified file LR1Test.txt in IGI/LR1"
[main 2326707] added file newtestfile.txt in IGI/LR1, modified file LR1Test.txt in IGI/LR1
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 IGI/LR1/newtestfile.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git push origin main
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 20 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 594 bytes | 118.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Lapivan/IGI_LR1.git
ef20b2f..2326707  main -> main
```

*д. Переименуйте свой удаленный репозиторий*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git remote rename origin originlap
Renaming remote references: 100% (12/12), done.
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git remote -v
originlap      https://github.com/Lapivan/IGI_LR1.git (fetch)
originlap      https://github.com/Lapivan/IGI_LR1.git (push)
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git remote rename originlap origin
Renaming remote references: 100% (12/12), done.
```

(Затем переименовал репозиторий обратно (origin))

*е. Получите данные из удаленного репозитория*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git fetch origin
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
```

*f. Просмотреть историю изменений*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git log origin/main
commit 23267079d23ab36a2bf094c2bee79e5a10290798 (HEAD -> main, origin/main, origin/HEAD)
Author: lapivan <lapunoujohn@gmail.com>
Date: Sat Feb 14 00:47:06 2026 +0300

    added file newtestfile.txt in IGI/LR1, modified file LR1Test.txt in IGI/LR1

commit ef28b2fbd47aaa41892c781c19481929c2acf00b
Author: lapivan <lapunoujohn@gmail.com>
Date: Fri Feb 13 14:53:50 2026 +0300

    Added geometric lib

commit 23166bbc36ad7292f10f6535941287a4c1bcd76a
Author: lapivan <lapunoujohn@gmail.com>
Date: Fri Feb 13 14:46:47 2026 +0300

    Added file in every directory

commit 2caac3f29d9f4c7dedc68dc396ec1671e629a194
Author: lapivan <lapunoujohn@gmail.com>
Date: Fri Feb 13 00:13:22 2026 +0300

    added files that I lost

commit 20c2a0b05ab3e73fa0a12e41cafdbd8080d0e649
Author: lapivan <lapunoujohn@gmail.com>
Date: Thu Feb 12 23:18:59 2026 +0300

    initial commit
```

*g. Создайте дополнительную ветку 1 в удаленном репозитории, перенесите в нее два файла из другой ветки, удалите один из файлов*

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout -b additional_branch_1
Switched to a new branch 'additional_branch_1'
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout main -- IGI/LR1/newtestfile.txt IGI/LR1/LR1Test.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch additional_branch_1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   LR1Test.txt
        new file:   newtestfile.txt
```

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git rm --cached newtestfile.txt
rm 'IGI/LR1/newtestfile.txt'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch additional_branch_1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   LR1Test.txt

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

```
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> rm newtestfile.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git status
On branch additional_branch_1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   LR1Test.txt
```

```

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git commit -m "2 files copied from main, removed newtestfile.txt"
[additional_branch_1 8425841] 2 files copied from main, removed newtestfile.txt
1 file changed, 0 insertions(+), 0 deletions(-)
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git push origin additional_branch_1
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 20 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 473 bytes | 118.00 KiB/s, done.
Total 5 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'additional_branch_1' on GitHub by visiting:
remote:   https://github.com/Lapivan/IGI_LR1/pull/new/additional_branch_1
remote:
To https://github.com/Lapivan/IGI_LR1.git
 * [new branch]      additional_branch_1 -> additional_branch_1

```

*h. Создайте дополнительную ветку 2 в удаленном репозитории, перенесите в нее два файла из вашего проекта, слить изменения в основную ветку, удалить дополнительную ветку 2*

```

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout IGI
Switched to branch 'IGI'
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> cd .\IGI\
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI> cd .\LR1\
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo "newfile1" > file1.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> echo "newfile2" > file2.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git commit -m "added 2 files to IGI\LR1"
[IGI 9a3cc18] added 2 files to IGI\LR1
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR1/file1.txt
create mode 100644 IGI/LR1/file2.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git push origin IGI
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 20 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (6/6), 538 bytes | 538.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Lapivan/IGI_LR1.git
 32f7f5f..9a3cc18  IGI -> IGI
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git checkout -b additional_branch_2
Switched to a new branch 'additional_branch_2'

```

```

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> git checkout IGI -- IGI/LR1/file1.txt IGI/LR1/file2.txt
error: pathspec 'IGI/LR1/file1.txt' did not match any file(s) known to git
error: pathspec 'IGI/LR1/file2.txt' did not match any file(s) known to git
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14\IGI\LR1> cd ../../
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout IGI -- IGI/LR1/file1.txt IGI/LR1/file2.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git add .
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git commit -m "copied 2 files from branch IGI (IGI/LR1)"
[additional_branch_2 0088445] copied 2 files from branch IGI (IGI/LR1)
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 IGI/LR1/file1.txt
 create mode 100644 IGI/LR1/file2.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git push origin additional_branch_2
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 20 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 617 bytes | 617.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'additional_branch_2' on GitHub by visiting:
remote:   https://github.com/lapivan/IGI_LR1/pull/new/additional_branch_2
remote:
To https://github.com/lapivan/IGI_LR1.git
 * [new branch]      additional_branch_2 -> additional_branch_2
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git merge additional_branch_2
Updating 2326707..0088445
Fast-forward
 IGI/LR1/file1.txt | Bin 0 -> 22 bytes
 IGI/LR1/file2.txt | Bin 0 -> 22 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 IGI/LR1/file1.txt
 create mode 100644 IGI/LR1/file2.txt
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

```

```

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git push origin main
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/lapivan/IGI_LR1.git
 2326707..0088445  main -> main
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git branch -d additional_branch_2
Deleted branch additional_branch_2 (was 0088445).

```

```

PS C:\vanya\учеба\453501(2 КУРС)\4 семестр\ИГИ\453501_Lapunov_14> git push origin --delete additional_branch_2
To https://github.com/lapivan/IGI_LR1.git
- [deleted]      additional_branch_2

```

6. Сгенерируйте в DeepSeek файл html и файл css для сайта визитки компании или человека с областью занятости на выбор. Создайте публичный репозиторий на github и загрузите туда оба сгенерированных файла. Разместить сайт в публичном репозитории на github.

Ссылка: <https://lapivan.github.io/AlWebsite.github.io/>