

Учреждение образования
«БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ
ИНФОРМАТИКИ И РАДИОЭЛЕКТРОНИКИ»
Кафедра информатики

Отчет по лабораторной работе №1
По дисциплине "Избранные главы информатики"
Система контроля версий Git

Выполнил:
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Минск 2024

Задание 2

Создать структуру папок

```
PS C:\Users\mihai> D:
PS D:\> mkdir 253503_KUPREICHYK_14

Katanor: D:\

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:52 PM                253503_KUPREICHYK_14

PS D:\> cd 253503_KUPREICHYK_14
PS D:\253503_KUPREICHYK_14> mkdir IGI

Katanor: D:\253503_KUPREICHYK_14

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:53 PM                IGI

PS D:\253503_KUPREICHYK_14> mkdir STRWEB

Katanor: D:\253503_KUPREICHYK_14

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:53 PM                STRWEB

PS D:\253503_KUPREICHYK_14> cd IGI
PS D:\253503_KUPREICHYK_14\IGI> mkdir LR1

Katanor: D:\253503_KUPREICHYK_14\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR1

PS D:\253503_KUPREICHYK_14\IGI> mkdir LR2

Katanor: D:\253503_KUPREICHYK_14\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR2

PS D:\253503_KUPREICHYK_14\IGI> mkdir LR3

Katanor: D:\253503_KUPREICHYK_14\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR3

PS D:\253503_KUPREICHYK_14\IGI> mkdir LR4

Katanor: D:\253503_KUPREICHYK_14\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR4

PS D:\253503_KUPREICHYK_14\IGI> mkdir LR5

Katanor: D:\253503_KUPREICHYK_14\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR5

PS D:\253503_KUPREICHYK_14\IGI> cd ..
PS D:\253503_KUPREICHYK_14> cd STRWEB
PS D:\253503_KUPREICHYK_14\STRWEB> mkdir LR1

Katanor: D:\253503_KUPREICHYK_14\STRWEB

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR1

PS D:\253503_KUPREICHYK_14\STRWEB> mkdir LR2

Katanor: D:\253503_KUPREICHYK_14\STRWEB

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   8:54 PM                LR2
```

```
PS D:\253503_KUPREICHYK_14\STRWEB> mkdir LR3

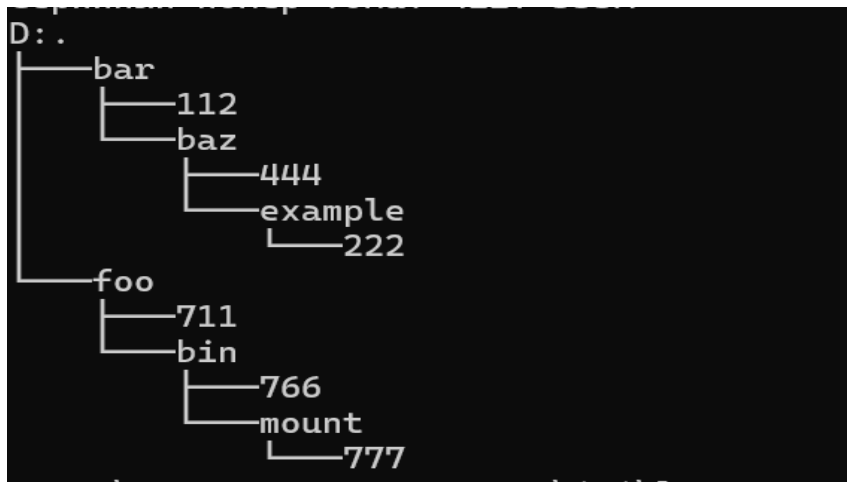
Karator: D:\253503_KUPREICHYK_14\STRWEB

Mode                LastWriteTime         Length Name
----                -
d-----            2/28/2024   8:54 PM             LR3

PS D:\253503_KUPREICHYK_14\STRWEB> mkdir LR4

Karator: D:\253503_KUPREICHYK_14\STRWEB

Mode                LastWriteTime         Length Name
----                -
d-----            2/28/2024   8:54 PM             LR4
```



> 253503_KUPREICHYK_14 > igi > lr1 > bar > baz > example > 222

Задание 3

Создать репозиторий внутри папки LR1 с помощью клонирования

```
PS D:\253503_KUPREICHYK_14> cd IGI/LR1
PS D:\253503_KUPREICHYK_14\IGI\LR1> git clone https://github.com/smartaorg/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.
```

Задание 4

Выполнить следующие действия

a:

Сделать индексацию нескольких файлов

```
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git add -A
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> 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:   circle.py
        modified:   docs/README.md
        modified:   square.py
```

b:

Внести изменения в файлы

```
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git status
On branch main
Your branch is up to date with 'origin/main'.

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:   circle.py
        modified:   docs/README.md
        modified:   square.py

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

c:

Выполнить коммиты к проиндексированным файлам

```
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git commit -m "changed version"
[main cf45eb9] changed version
3 files changed, 5 insertions(+), 5 deletions(-)
```

d:

Добавить и удалить файлы (один и группу файлов с определенным расширением)

```
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   1.txt
        new file:   2.txt
        new file:   3.cpp
        new file:   4.cpp

PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git rm 3.cpp
error: the following file has changes staged in the index:
3.cpp
(use --cached to keep the file, or -f to force removal)
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git commit -m "delete"
[main df91b68] delete
4 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 1.txt
create mode 100644 2.txt
create mode 100644 3.cpp
create mode 100644 4.cpp
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git status
On branch main
Your branch is ahead of 'origin/main' by 2 commits.

PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git rm 1.txt
rm '1.txt'
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git rm 2.txt
rm '2.txt'
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git rm *.cpp
rm '3.cpp'
rm '4.cpp'
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git commit -m "reverse"
[main 6175e58] reverse
4 files changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 1.txt
delete mode 100644 2.txt
delete mode 100644 3.cpp
delete mode 100644 4.cpp
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git mv circle.py circle_rem.py
```

e:

Переименовать файлы

```
PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git mv circle.py circle_rem.py

PS D:\253503_KUPREICHYK_14\IGI\LR1\geometric_lib> git status
On branch main
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:   circle.py -> circle_rem.py
```

f:

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

```
PS D:\253503_KUPREICHYK_14> git init
Initialized empty Git repository in D:/253503_KUPREICHYK_14/.git/
PS D:\253503_KUPREICHYK_14> git status
On branch main
```

No commits yet

nothing to commit (create/copy files and use "git add" to track)

```
PS D:\253503_KUPREICHYK_14> git add -A
PS D:\253503_KUPREICHYK_14> git status
On branch main
```

No commits yet

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

```
new file:   STRWEB/LR1/11.txt
new file:   STRWEB/LR2/22.txt
new file:   STRWEB/LR3/33.txt
new file:   STRWEB/LR4/44.txt
new file:   igi/LR2/2.txt
new file:   igi/LR3/3.txt
new file:   igi/LR4/4.txt
new file:   igi/LR5/5.txt
new file:   igi/LR1/1.txt
```

```
PS D:\253503_KUPREICHYK_14> git commit -m "main folder"
```

```
[main (root-commit) bf6119d] main folder
 9 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 STRWEB/LR1/11.txt
create mode 100644 STRWEB/LR2/22.txt
create mode 100644 STRWEB/LR3/33.txt
create mode 100644 STRWEB/LR4/44.txt
create mode 100644 igi/LR2/2.txt
create mode 100644 igi/LR3/3.txt
create mode 100644 igi/LR4/4.txt
create mode 100644 igi/LR5/5.txt
create mode 100644 igi/LR1/1.txt
```

```
PS D:\253503_KUPREICHYK_14> git branch igi_bt
```

```
PS D:\253503_KUPREICHYK_14> git status
```

On branch main

nothing to commit, working tree clean

```
PS D:\253503_KUPREICHYK_14> git checkout igi_bt
```

Switched to branch 'igi_bt'

```
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR1/11.txt
```

```
rm 'STRWEB/LR1/11.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR2/22.txt
```

```
rm 'STRWEB/LR2/22.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR3/33.txt
```

```
rm 'STRWEB/LR3/33.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR4/44.txt
```

```
rm 'STRWEB/LR4/44.txt'
```

```
PS D:\253503_KUPREICHYK_14> git status
```

On branch igi_bt

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

```
deleted:    STRWEB/LR1/11.txt
deleted:    STRWEB/LR2/22.txt
deleted:    STRWEB/LR3/33.txt
deleted:    STRWEB/LR4/44.txt
```

```
PS D:\253503_KUPREICHYK_14> git commit -m "igi folder"
```

```
[igi_bt 9ca9701] igi folder
 4 files changed, 0 insertions(+), 0 deletions(-)
```

```
delete mode 100644 STRWEB/LR1/11.txt
```

```
delete mode 100644 STRWEB/LR2/22.txt
```

```
delete mode 100644 STRWEB/LR3/33.txt
```

```
delete mode 100644 STRWEB/LR4/44.txt
```

```
PS D:\253503_KUPREICHYK_14> git branch lr1
```

```
PS D:\253503_KUPREICHYK_14> git checkout lr1
```

Switched to branch 'lr1'

```
PS D:\253503_KUPREICHYK_14> git status
```

On branch lr1

nothing to commit, working tree clean

```
PS D:\253503_KUPREICHYK_14> git rm igi/LR2/2.txt
```

```
fatal: pathspec 'igi/LR2/2.txt' did not match any files
```

```
PS D:\253503_KUPREICHYK_14> git rm IGI/LR2/2.txt
```

```
fatal: pathspec 'IGI/LR2/2.txt' did not match any files
```

```
PS D:\253503_KUPREICHYK_14> git rm igi/LR2/2.txt
```

```
rm 'igi/LR2/2.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm igi/LR3/3.txt
```

```
rm 'igi/LR3/3.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm igi/LR4/4.txt
```

```
rm 'igi/LR4/4.txt'
```

```
PS D:\253503_KUPREICHYK_14> git rm igi/LR5/5.txt
```

```
rm 'igi/LR5/5.txt'
```

```
PS D:\253503_KUPREICHYK_14> git status
```

On branch lr1

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

```
deleted:    igi/LR2/2.txt
deleted:    igi/LR3/3.txt
deleted:    igi/LR4/4.txt
deleted:    igi/LR5/5.txt
```

```
PS D:\253503_KUPREICHYK_14> git commit -m "lr1"
```

```
[lr1 610e3ad] lr1
```

```
 4 files changed, 0 insertions(+), 0 deletions(-)
```

```
delete mode 100644 igi/LR2/2.txt
```

```
delete mode 100644 igi/LR3/3.txt
```

```
delete mode 100644 igi/LR4/4.txt
```

```
delete mode 100644 igi/LR5/5.txt
```

```

PS D:\253503_KUPREICHYK_14> git checkout main
Switched to branch 'main'
PS D:\253503_KUPREICHYK_14> git checkout -b strweb_bt
Switched to a new branch 'strweb_bt'
PS D:\253503_KUPREICHYK_14> git rm igi/Lr1/1.txt
rm 'igi/Lr1/1.txt'
PS D:\253503_KUPREICHYK_14> git rm igi/LR2/2.txt
rm 'igi/LR2/2.txt'
PS D:\253503_KUPREICHYK_14> git rm igi/LR3/3.txt
rm 'igi/LR3/3.txt'
PS D:\253503_KUPREICHYK_14> git rm igi/LR4/4.txt
rm 'igi/LR4/4.txt'
PS D:\253503_KUPREICHYK_14> git rm igi/LR5/5.txt
rm 'igi/LR5/5.txt'
PS D:\253503_KUPREICHYK_14> git commit -m "strweb folder"
[strweb_bt 96476f4] strweb folder
5 files changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 igi/LR2/2.txt
delete mode 100644 igi/LR3/3.txt
delete mode 100644 igi/LR4/4.txt
delete mode 100644 igi/LR5/5.txt
delete mode 100644 igi/Lr1/1.txt

```

```

PS D:\253503_KUPREICHYK_14> git checkout -b lr1_strweb
Switched to a new branch 'lr1_strweb'
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR2/22.txt
rm 'STRWEB/LR2/22.txt'
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR3/33.txt
rm 'STRWEB/LR3/33.txt'
PS D:\253503_KUPREICHYK_14> git rm STRWEB/LR4/44.txt
rm 'STRWEB/LR4/44.txt'
PS D:\253503_KUPREICHYK_14> git commit -m "lr1_strweb"
[lr1_strweb 3c42277] lr1_strweb
3 files changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 STRWEB/LR2/22.txt
delete mode 100644 STRWEB/LR3/33.txt
delete mode 100644 STRWEB/LR4/44.txt

```

```

PS D:\253503_KUPREICHYK_14> git checkout main
Switched to branch 'main'

```

 .git	29.02.2024
 STRWEB	29.02.2024
 igi	29.02.2024



```

PS D:\253503_KUPREICHYK_14> git checkout igi_bt
Switched to branch 'igi_bt'

```

 .git	29.02.2024
 igi	29.02.2024

В папке igi:

 lr1	29.02.2024 15:49
 LR2	29.02.2024 15:51
 LR3	29.02.2024 15:51
 LR4	29.02.2024 15:51
 LR5	29.02.2024 15:51

```

PS D:\253503_KUPREICHYK_14> git checkout lr1
Switched to branch 'lr1'

```

 lr1	29.02.2024 15:49
---	------------------

```
PS D:\253503_KUPREICHYK_14> git checkout lr2
Switched to branch 'lr2'
```

📁 LR2

29.02.2024 15:53

```
PS D:\253503_KUPREICHYK_14> git checkout strweb_bt
Switched to branch 'strweb_bt'
```

📁 .git

29.02.2024 15:53

📁 STRWEB

29.02.2024 15:53

В папке STRWEB:

📁 LR1

29.02.2024 15:53

📁 LR2

29.02.2024 15:53

📁 LR3

29.02.2024 15:53

📁 LR4

29.02.2024 15:53

```
PS D:\253503_KUPREICHYK_14> git checkout lr1_strweb
Switched to branch 'lr1_strweb'
```

📁 LR1

29.02.2024 15:53

```
PS D:\253503_KUPREICHYK_14> git checkout lr2_strweb
Switched to branch 'lr2_strweb'
```

📁 LR2

29.02.2024 15:55

g:

Выведите историю коммитов (флаги n, since, after, until, before, author, committer, graph)

```

PS D:\253503_KUPREICHYK_14> git log --all --graph --decorate
* commit 981a51e531e6d06f89e1efa2c4b960977ef23254 (lr4_strweb)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:24:38 2024 +0300

    lr4_strweb

* commit e02ba7a4b0254ea47caf68b30ce28a9078f588f5 (lr3_strweb)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:22:46 2024 +0300

    lr3_strweb

* commit 4cdedc07e91728b8e773f560af44884f47931f1e (lr2_strweb)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:21:03 2024 +0300

    lr2_strweb

* commit 3c42277bfc02be20b7b3142914072f954575a942 (lr1_strweb)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:19:12 2024 +0300

    lr1_strweb

* commit 96476f436650ed1d2ea199825152323281359854 (strweb_bt)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:16:53 2024 +0300

    strweb folder

* commit 3940b1b3e3b85f8a222f49e5204e58f3a259d467 (lr5)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:12:56 2024 +0300

    lr5

* commit 81ee0a3c7be6ff0d34d8c316f3ed956e4c8e284c (lr4)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:09:54 2024 +0300

    lr4

* commit 6eb55abbef61586a1e82af95c6ff0bcb0b5f59dd (lr3)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:07:25 2024 +0300

    lr3

* commit 3da5e6d79d6decc711b52dadd8b11cflaef40e (lr2)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:24:52 2024 +0300

    lr2

* commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (lr1)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

    lr1

* commit 9ca970158895953231913de07f62032c3fc643ac (HEAD -> igi_bt)
/ Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

    igi folder

* commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

```

```

PS D:\253503_KUPREICHYK_14> git checkout lr1
Switched to branch 'lr1'
PS D:\253503_KUPREICHYK_14> git log --author="Misha"
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

    lr1

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

    igi folder

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihaill.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder

```



```

PS D:\253503_KUPREICHYK_14> git log -1
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

lr1

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

igi folder

commit bf6119d7ed45ce40aa502f9220f3f7bdff8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

PS D:\253503_KUPREICHYK_14> git checkout lr1_strweb
Switched to branch 'lr1_strweb'
PS D:\253503_KUPREICHYK_14> git log --grep "strweb"
commit 3c42277bfc02be20b7b3142914072f954575a942 (HEAD -> lr1_strweb)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:19:12 2024 +0300

lr1_strweb

commit 96476f436650ed1d2ea199825152323281359854 (strweb_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:16:53 2024 +0300

strweb folder

PS D:\253503_KUPREICHYK_14> git log --since="Feb 28 2024" --until="Feb 29 2024"
commit 3c42277bfc02be20b7b3142914072f954575a942 (HEAD -> lr1_strweb)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:19:12 2024 +0300

lr1_strweb

commit 96476f436650ed1d2ea199825152323281359854 (strweb_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 15:16:53 2024 +0300

strweb folder

commit bf6119d7ed45ce40aa502f9220f3f7bdff8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

main folder

```

h:

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

```
PS D:\253503_KUPREICHYK_14> git log --stat
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300
```

lr1

```
igi/LR2/2.txt | 0
igi/LR3/3.txt | 0
igi/LR4/4.txt | 0
igi/LR5/5.txt | 0
4 files changed, 0 insertions(+), 0 deletions(-)
```

```
commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300
```

igi folder

```
STRWEB/LR1/11.txt | 0
STRWEB/LR2/22.txt | 0
STRWEB/LR3/33.txt | 0
STRWEB/LR4/44.txt | 0
4 files changed, 0 insertions(+), 0 deletions(-)
```

```
commit bf6119d7ed45ce40aa502f9220f3f7bdff8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300
```

main folder

```
STRWEB/LR1/11.txt | 0
STRWEB/LR2/22.txt | 0
STRWEB/LR3/33.txt | 0
STRWEB/LR4/44.txt | 0
igi/LR2/2.txt | 0
igi/LR3/3.txt | 0
igi/LR4/4.txt | 0
igi/LR5/5.txt | 0
igi/lr1/1.txt | 0
9 files changed, 0 insertions(+), 0 deletions(-)
```

```
PS D:\253503_KUPREICHYK_14> git log -p
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300
```

lr1

```
diff --git a/igi/LR2/2.txt b/igi/LR2/2.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR3/3.txt b/igi/LR3/3.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR4/4.txt b/igi/LR4/4.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR5/5.txt b/igi/LR5/5.txt
deleted file mode 100644
index e69de29..0000000
```

```
commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300
```

igi folder

```
diff --git a/STRWEB/LR1/11.txt b/STRWEB/LR1/11.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR2/22.txt b/STRWEB/LR2/22.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR3/33.txt b/STRWEB/LR3/33.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR4/44.txt b/STRWEB/LR4/44.txt
deleted file mode 100644
index e69de29..0000000
```

```
commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300
```

main folder

```
diff --git a/STRWEB/LR1/11.txt b/STRWEB/LR1/11.txt
new file mode 100644
index 0000000..e69de29
diff --git a/STRWEB/LR2/22.txt b/STRWEB/LR2/22.txt
new file mode 100644
index 0000000..e69de29
diff --git a/STRWEB/LR3/33.txt b/STRWEB/LR3/33.txt
new file mode 100644
index 0000000..e69de29
diff --git a/STRWEB/LR4/44.txt b/STRWEB/LR4/44.txt
new file mode 100644
index 0000000..e69de29
diff --git a/igi/LR2/2.txt b/igi/LR2/2.txt
new file mode 100644
index 0000000..e69de29
diff --git a/igi/LR3/3.txt b/igi/LR3/3.txt
new file mode 100644
index 0000000..e69de29
diff --git a/igi/LR4/4.txt b/igi/LR4/4.txt
new file mode 100644
index 0000000..e69de29
diff --git a/igi/LR5/5.txt b/igi/LR5/5.txt
new file mode 100644
index 0000000..e69de29
diff --git a/igi/Lr1/1.txt b/igi/Lr1/1.txt
new file mode 100644
index 0000000..e69de29
```

```
PS D:\253503_KUPREICHYK_14> git log --shortstat
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300
```

lr1

4 files changed, 0 insertions(+), 0 deletions(-)

```
commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300
```

igi folder

4 files changed, 0 insertions(+), 0 deletions(-)

```
commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300
```

main folder

9 files changed, 0 insertions(+), 0 deletions(-)

```
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

    lr1

D      igi/LR2/2.txt
D      igi/LR3/3.txt
D      igi/LR4/4.txt
D      igi/LR5/5.txt

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

    igi folder

D      STRWEB/LR1/11.txt
D      STRWEB/LR2/22.txt
D      STRWEB/LR3/33.txt
D      STRWEB/LR4/44.txt

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder

A      STRWEB/LR1/11.txt
A      STRWEB/LR2/22.txt
A      STRWEB/LR3/33.txt
A      STRWEB/LR4/44.txt
A      igi/LR2/2.txt
A      igi/LR3/3.txt
A      igi/LR4/4.txt
A      igi/LR5/5.txt
A      igi/lr1/1.txt

PS D:\253503_KUPREICHYK_14> git log --relative-date
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: 4 hours ago

    lr1

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: 4 hours ago

    igi folder

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: 5 hours ago

    main folder
```

```

PS D:\253503_KUPREICHYK_14> git log --name-only
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihaail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

    lr1

igi/LR2/2.txt
igi/LR3/3.txt
igi/LR4/4.txt
igi/LR5/5.txt

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihaail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

    igi folder

STRWEB/LR1/11.txt
STRWEB/LR2/22.txt
STRWEB/LR3/33.txt
STRWEB/LR4/44.txt

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihaail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder

STRWEB/LR1/11.txt
STRWEB/LR2/22.txt
STRWEB/LR3/33.txt
STRWEB/LR4/44.txt
igi/LR2/2.txt
igi/LR3/3.txt
igi/LR4/4.txt
igi/LR5/5.txt
igi/Lr1/1.txt

```

```

PS D:\253503_KUPREICHYK_14> git log --pretty="full" --graph
* commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
| Author: Misha <mihaail.kupreichyk18@gmail.com>
| Commit: Misha <mihaail.kupreichyk18@gmail.com>
|
|     lr1
|
| * commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
| | Author: Misha <mihaail.kupreichyk18@gmail.com>
| | Commit: Misha <mihaail.kupreichyk18@gmail.com>
| |
| |     igi folder
| |
| * commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
| | Author: Misha <mihaail.kupreichyk18@gmail.com>
| | Commit: Misha <mihaail.kupreichyk18@gmail.com>
| |
| |     main folder

```

i:

Найдите разницу в изменениях для каждого коммита

```

PS D:\253503_KUPREICHYK_14> git checkout lr1
Switched to branch 'lr1'
PS D:\253503_KUPREICHYK_14> git log -p
commit 610e3ad631276845d0ab532f15c5a8bd4d94d7c9 (HEAD -> lr1)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:12:22 2024 +0300

    lr1

diff --git a/igi/LR2/2.txt b/igi/LR2/2.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR3/3.txt b/igi/LR3/3.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR4/4.txt b/igi/LR4/4.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/igi/LR5/5.txt b/igi/LR5/5.txt
deleted file mode 100644
index e69de29..0000000

commit 9ca970158895953231913de07f62032c3fc643ac (igi_bt)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 14:08:06 2024 +0300

    igi folder

diff --git a/STRWEB/LR1/11.txt b/STRWEB/LR1/11.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR2/22.txt b/STRWEB/LR2/22.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR3/33.txt b/STRWEB/LR3/33.txt
deleted file mode 100644
index e69de29..0000000
diff --git a/STRWEB/LR4/44.txt b/STRWEB/LR4/44.txt
deleted file mode 100644
index e69de29..0000000

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491 (main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder

diff --git a/STRWEB/LR1/11.txt b/STRWEB/LR1/11.txt
new file mode 100644
index 0000000..e69de29
diff --git a/STRWEB/LR2/22.txt b/STRWEB/LR2/22.txt
new file mode 100644
index 0000000..e69de29
diff --git a/STRWEB/LR3/33.txt b/STRWEB/LR3/33.txt
new file mode 100644
index 0000000..e69de29
: ... skipping ...

```

j:

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

```

PS D:\253503_KUPREICHYK_14> git checkout main
Switched to branch 'main'
PS D:\253503_KUPREICHYK_14> git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    test.txt

nothing added to commit but untracked files present (use "git add" to track)
PS D:\253503_KUPREICHYK_14> git add test.txt
PS D:\253503_KUPREICHYK_14> git commit -m "new_main"
[main 0c2e225] new_main
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
PS D:\253503_KUPREICHYK_14> git status
On branch main
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

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\253503_KUPREICHYK_14> git add test.txt
PS D:\253503_KUPREICHYK_14> git commit -m "deleted"
[main fe970e8] deleted
 1 file changed, 1 insertion(+)
PS D:\253503_KUPREICHYK_14> git status
On branch main
nothing to commit, working tree clean
PS D:\253503_KUPREICHYK_14> git log -4
commit fe970e8788655115248649b79c45aaa460e29e75 (HEAD -> main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 19:13:30 2024 +0300

    deleted

commit 0c2e225f5642d971771c6259d983d64f1457ba17
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 19:12:47 2024 +0300

    new_main

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder
PS D:\253503_KUPREICHYK_14> git reset --soft HEAD~1
PS D:\253503_KUPREICHYK_14> git log -2
commit 0c2e225f5642d971771c6259d983d64f1457ba17 (HEAD -> main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 19:12:47 2024 +0300

    new_main

commit bf6119d7ed45ce40aa502f9220f3f7bdf8fc491
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder

```

k:

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

```

PS D:\253503_KUPREICHYK_14> git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        tt.txt

nothing added to commit but untracked files present (use "git add" to track)
PS D:\253503_KUPREICHYK_14> git add tt.txt
PS D:\253503_KUPREICHYK_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   tt.txt

PS D:\253503_KUPREICHYK_14> git reset tt.txt
PS D:\253503_KUPREICHYK_14> git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        tt.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

```

PS D:\253503_KUPREICHYK_14> git add tt.txt
PS D:\253503_KUPREICHYK_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   tt.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:   tt.txt

PS D:\253503_KUPREICHYK_14> git restore tt.txt
PS D:\253503_KUPREICHYK_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   tt.txt

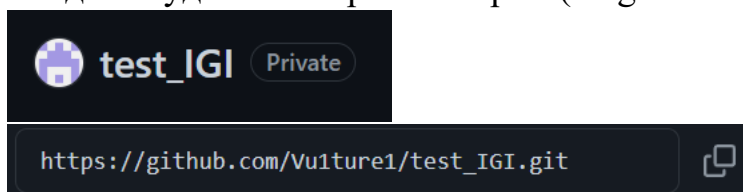
```

Задание 5

Выполните следующие действия с удаленным репозиторием

а:

Создайте удаленный репозиторий (на github.com)




```

PS D:\253503_KUPREICHYK_14> git status
On branch main
nothing to commit, working tree clean
PS D:\253503_KUPREICHYK_14> git push --all https://github.com/Vulture1/test_IGI.git
info: please complete authentication in your browser...
Enumerating objects: 47, done.
Counting objects: 100% (47/47), done.
Delta compression using up to 16 threads
Compressing objects: 100% (17/17), done.
Writing objects: 100% (47/47), 3.04 KiB | 1.52 MiB/s, done.
Total 47 (delta 8), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (8/8), done.
To https://github.com/Vulture1/test_IGI.git
* [new branch]      igi_bt -> igi_bt
* [new branch]      lr1 -> lr1
* [new branch]      lr1_strweb -> lr1_strweb
* [new branch]      lr2 -> lr2
* [new branch]      lr2_strweb -> lr2_strweb
* [new branch]      lr3 -> lr3
* [new branch]      lr3_strweb -> lr3_strweb
* [new branch]      lr4 -> lr4
* [new branch]      lr4_strweb -> lr4_strweb
* [new branch]      lr5 -> lr5
* [new branch]      main -> main
* [new branch]      strweb_bt -> strweb_bt

```

b:

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

```

PS D:\253503_KUPREICHYK_14> git remote show test_IGI
* remote test_IGI
Fetch URL: https://github.com/Vulture1/test_IGI.git
Push URL: https://github.com/Vulture1/test_IGI.git
HEAD branch: main
Remote branches:
  igi_bt      tracked
  lr1         tracked
  lr1_strweb  tracked
  lr2         tracked
  lr2_strweb  tracked
  lr3         tracked
  lr3_strweb  tracked
  lr4         tracked
  lr4_strweb  tracked
  lr5         tracked
  main        tracked
  strweb_bt   tracked
Local refs configured for 'git push':
  igi_bt      pushes to igi_bt      (up to date)
  lr1         pushes to lr1        (up to date)
  lr1_strweb  pushes to lr1_strweb (up to date)
  lr2         pushes to lr2        (up to date)
  lr2_strweb  pushes to lr2_strweb (up to date)
  lr3         pushes to lr3        (up to date)
  lr3_strweb  pushes to lr3_strweb (up to date)
  lr4         pushes to lr4        (up to date)
  lr4_strweb  pushes to lr4_strweb (up to date)
  lr5         pushes to lr5        (up to date)
  main        pushes to main       (up to date)
  strweb_bt   pushes to strweb_bt  (up to date)

```

```

PS D:\253503_KUPREICHYK_14> git remote show test_IGI
* remote test_IGI
Fetch URL: https://github.com/Vulture1/test_IGI.git
Push URL: https://github.com/Vulture1/test_IGI.git
HEAD branch: main
Remote branches:
  igi_bt      tracked
  lr1         tracked
  lr1_strweb  tracked
  lr2         tracked
  lr2_strweb  tracked
  lr3         tracked
  lr3_strweb  tracked
  lr4         tracked
  lr4_strweb  tracked
  lr5         tracked
  main        tracked
  strweb_bt   tracked
Local refs configured for 'git push':
  igi_bt      pushes to igi_bt      (up to date)
  lr1         pushes to lr1         (up to date)
  lr1_strweb  pushes to lr1_strweb  (up to date)
  lr2         pushes to lr2         (up to date)
  lr2_strweb  pushes to lr2_strweb  (up to date)
  lr3         pushes to lr3         (up to date)
  lr3_strweb  pushes to lr3_strweb  (up to date)
  lr4         pushes to lr4         (up to date)
  lr4_strweb  pushes to lr4_strweb  (up to date)
  lr5         pushes to lr5         (up to date)
  main        pushes to main        (local out of date)
  strweb_bt   pushes to strweb_bt   (up to date)
PS D:\253503_KUPREICHYK_14> git fetch test_IGI
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 5 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), 1.00 KiB | 205.00 KiB/s, done.
From https://github.com/Vulture1/test_IGI
 c6da311..af353a6  main      -> test_IGI/main

```

c:

Получите данные из удаленного репозитория

```

PS D:\253503_KUPREICHYK_14> git fetch test_IGI
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 5 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), 1.00 KiB | 205.00 KiB/s, done.
From https://github.com/Vulture1/test_IGI
 c6da311..af353a6  main      -> test_IGI/main
PS D:\253503_KUPREICHYK_14> git merge test_IGI/main
Updating c6da311..af353a6
Fast-forward
 igi/LR2/2.txt | 1 +
1 file changed, 1 insertion(+)

```

d:

Измените несколько файлов в вашем проекте и перенесите их в удаленный репозиторий

```

PS D:\253503_KUPREICHYK_14> git status
On branch main
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:   STRWEB/LR1/11.txt
        modified:   STRWEB/LR2/22.txt

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

PS D:\253503_KUPREICHYK_14> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   STRWEB/LR1/11.txt
        modified:   STRWEB/LR2/22.txt

PS D:\253503_KUPREICHYK_14> git commit -m "up_to_date"
[main 335525d] up_to_date
 2 files changed, 2 insertions(+)
PS D:\253503_KUPREICHYK_14> git push test_IGI main
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (6/6), 478 bytes | 478.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Vulture1/test_IGI.git
af353a6..335525d  main -> main

```

e:

Переименуйте свой удаленный репозиторий

```

PS D:\253503_KUPREICHYK_14> git remote rename test_IGI test_IGI_rename
Renaming remote references: 100% (12/12), done.
PS D:\253503_KUPREICHYK_14> git remote show
test_IGI_rename

```

f:

Просмотреть историю изменений

```
PS D:\253503_KUPREICHYK_14> git log
commit 335525d51be9384b4a0596eef45e663e9e2c42ae (HEAD -> main, test_IGI_rename/main)
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 21:01:43 2024 +0300

    up_to_date

commit af353a644a632f1fe7d0eeca1722171dd436238a
Author: Vulture1 <112645386+Vulture1@users.noreply.github.com>
Date: Thu Feb 29 20:52:56 2024 +0300

    Update 2.txt

commit c6da311e619914ae6fac0023ccb612c8851d7634
Author: Vulture1 <112645386+Vulture1@users.noreply.github.com>
Date: Thu Feb 29 20:40:34 2024 +0300

    Update 1.txt

commit d5d88bd0ef701d1fba220a88c7a4c29ec89417a6
Author: Vulture1 <112645386+Vulture1@users.noreply.github.com>
Date: Thu Feb 29 20:40:01 2024 +0300

    Delete lol.txt

commit 9388885bf47982020acee2b6879b76bcbf01c688
Author: Vulture1 <112645386+Vulture1@users.noreply.github.com>
Date: Thu Feb 29 20:35:22 2024 +0300

    Create lol.txt

commit bf6119d7ed45ce40aa502f9220f3f7bdff8fc491
Author: Misha <mihail.kupreichyk18@gmail.com>
Date: Thu Feb 29 13:28:48 2024 +0300

    main folder
: ...skipping...
```