

Работа с Git

1.1

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git config --global user.name "Boris Osovitsky"

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git config --global user.email "007boris05@gmail.com"
```

Рисунок 1 - Установка имени и электронной почты

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git config --global core.autocrlf true

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git config --global core.safecrlf true
```

Рисунок 2 - Параметры окончаний строк

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git config --global core.quotepath off
```

Рисунок 3 - Установка отображения unicode

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ mkdir hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ cd hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello
$ touch hello.html
```

Рисунок 4 - Создание каталога и файла

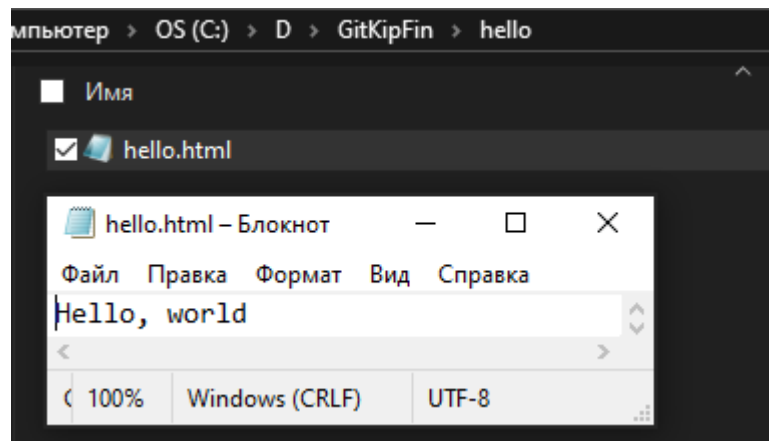


Рисунок 5 - Содержание файла

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello
$ git init
Initialized empty Git repository in c:/D/GitkipFin/hello/.git/
```

Рисунок 6 - Создание репозитория

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git commit -m "First Commit"
[master (root-commit) b44c776] First Commit
1 file changed, 1 insertion(+)
create mode 100644 hello.html
```

Рисунок 7 - Добавление в репозиторий

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git status
On branch master
nothing to commit, working tree clean
```

Рисунок 8 - Проверка состояния репозитория

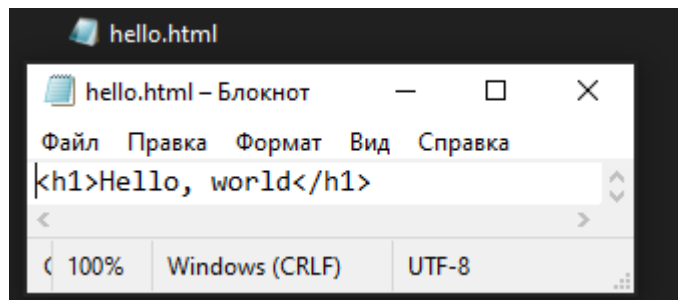


Рисунок 9 - Внесение изменений в файл

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git status
On branch master
changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   hello.html

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

Рисунок 10 - Сообщение о незафиксированных изменениях

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html
```

Рисунок 11 - Команды для индексации изменений

a.html	04.06.202
b.html	04.06.202
hello.html	04.06.202
v.html	04.06.202

Рис Рисунок 12 - Создано 3 файла

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add a.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add b.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Changes for a and b"
[master 3839ded] Changes for a and b
3 files changed, 3 insertions(+), 1 deletion(-)
create mode 100644 a.html
create mode 100644 b.html

```

Рисунок 13 - Индексация и коммит для 2 файлов

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add v.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Unrelated change for v"
[master 1b80f9a] Unrelated change for v
1 file changed, 1 insertion(+)
create mode 100644 v.html

```

Рисунок 14 - Индексация и коммит для третьего файла

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ cd hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add .

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit --m "Hello"
[master 3242edf] Hello
1 file changed, 1 insertion(+), 1 deletion(-)

```

Рисунок 15 - Коммит изменений

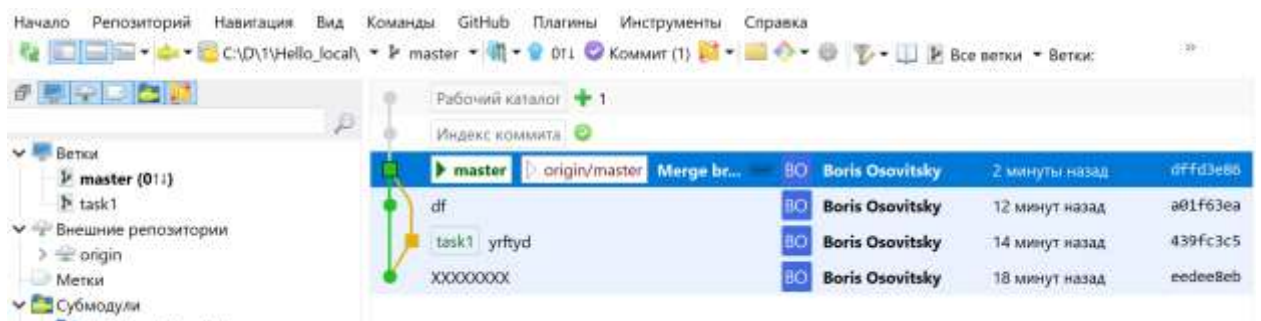


Рисунок 8-24 – Полученный результат

1.2

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git log
commit 3242edf165ded8b5799f517b832b4ffd530c134b (HEAD -> master)
Author: Boris Osovitsky <007boris05@gmail.com>
Date:   Wed Jun 4 16:53:45 2025 +0300

    Hello

commit 1b80f9a49d99fb441107dea349702ecf484816b3
Author: Boris Osovitsky <007boris05@gmail.com>
Date:   Wed Jun 4 16:35:10 2025 +0300

    Unrelated change for v

commit 3839ded3c127bb642191c4db709981dc8441f1c5
Author: Boris Osovitsky <007boris05@gmail.com>
Date:   Wed Jun 4 16:32:44 2025 +0300

    Changes for a and b

commit b44c77610a42e6a7fbbb2770365917deb3210603
Author: Boris Osovitsky <007boris05@gmail.com>
Date:   Wed Jun 4 16:22:22 2025 +0300

    First Commit
```

Рисунок 16 - Просмотр истории изменений

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git log --pretty=oneline --all
3242edf165ded8b5799f517b832b4ffd530c134b (HEAD -> master) Hello
1b80f9a49d99fb441107dea349702ecf484816b3 Unrelated change for v
3839ded3c127bb642191c4db709981dc8441f1c5 Changes for a and b
b44c77610a42e6a7fbbb2770365917deb3210603 First Commit
```

Рисунок 17 - Однострочный формат вывода

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git log --pretty=oneline --until='5 minutes ago'
3242edf165ded8b5799f517b832b4ffd530c134b (HEAD -> master) Hello
1b80f9a49d99fb441107dea349702ecf484816b3 Unrelated change for v
3839ded3c127bb642191c4db709981dc8441f1c5 Changes for a and b
b44c77610a42e6a7fbbb2770365917deb3210603 First Commit
```

Рисунок 18 - Вывод изменений до определенного времени

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git log --all --pretty=format:"%h %cd %s (%an)" --since='12 days ago'
3242edf Wed Jun 4 16:53:45 2025 +0300 Hello (Boris Osovitsky)
1b80f9a Wed Jun 4 16:35:10 2025 +0300 Unrelated change for v (Boris Osovitsky)
3839ded Wed Jun 4 16:32:44 2025 +0300 Changes for a and b (Boris Osovitsky)
b44c776 Wed Jun 4 16:22:22 2025 +0300 First Commit (Boris Osovitsky)
```

Рисунок 4 - Использование нескольких параметров

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.co checkout

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.ci commit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.st status

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.br branch

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.hist "log --pretty=format:'%h %ad | %s%d [%an]' --graph --date=short"

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.type 'cat-file -t'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.dump 'cat-file -p'
```

Рисунок 5 - Настройка алиасов для некоторых команд

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git config --global alias.hist "log --pretty=format:'%h %ad | %s%d [%an]' --graph --date=short"

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* 3242edf 2025-06-04 | Hello (HEAD -> master) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 6 - Выполнение алиаса hist

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ gs
On branch master
nothing to commit, working tree clean
```

Рисунок 7 - Установка и выполнение алиаса gs

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* 3242edf 2025-06-04 | Hello (HEAD -> master) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 8 - Просмотр хэшей предыдущих версий

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cat hello.html
<h1>Hello, world</h1>11
```

Рисунок 9 - Возвращение к последней версии в ветке master

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag ver1
```

Рисунок 10 - Задание тега

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout ver1^
Note: switching to 'ver1^'.

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

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

    git switch -c <new-branch-name>

Or undo this operation with:

    git switch -

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

HEAD is now at 1b80f9a Unrelated change for v
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello ((1b80f9a...))
$ cat hello.html
<h1>Hello, world</h1>
```

Рисунок 11 – Переход к предыдущей версии с помощью тега

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag ver1-beta
```

Рисунок 12 - Задание тега предыдущей версии

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello ((ver1))
$ git tag
ver1
ver1-beta
```

Рисунок 13 - Просмотр тегов


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello ((ver1))
$ git hist master --all
* 3242edf 2025-06-04 | Hello (HEAD, tag: ver1-beta, tag: ver1, master) [Boris O
sovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 14 - Просмотр тегов в логе

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello ((ver1))
$ git checkout master
Switched to branch 'master'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ !

```

Рисунок 15 - Переключение на последний коммит

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git st
on branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   hello.html

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

```

Рисунок 16 - Не проиндексированное изменение

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout hello.html
Updated 1 path from the index

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git st
On branch master
nothing to commit, working tree clean

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cat hello.html
<h1>Hello, world</h1>11

```

Рисунок 17 - Возвращение к версии


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git st
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

```

Рисунок 18 - Индексация изменения

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git st
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   hello.html

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

```

Рисунок 19 - Очистка буферной зоны

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git checkout hello.html
Updated 1 path from the index

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git st
On branch master
nothing to commit, working tree clean

```

Рисунок 20 - Удаление ненужных изменений

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git commit -m "Oops, this is bad commit"
[master 9bb271b] Oops, this is bad commit
1 file changed, 3 insertions(+), 1 deletion(-)

```

Рисунок 21 - Индексация и коммит

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* c0ae429 2025-06-05 | Oops, this is bad commit (HEAD -> master) [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 22 - Все коммиты при просмотре лога

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag oooops

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* c0ae429 2025-06-05 | Oops, this is bad commit (HEAD -> master, tag: oooops) [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 23 - Отметка тегом коммита

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --all
* c0ae429 2025-06-05 | Oops, this is bad commit (HEAD -> master, tag: oooops) [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 24 - Сброшенные коммиты находятся по-прежнему в репозитории

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag -d oooops
Deleted tag 'oooops' (was c0ae429)

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --all
* c0ae429 2025-06-05 | Oops, this is bad commit (HEAD -> master) [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 25 - Удаление тега

1.3

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Add an author comment"
[master a3e99ee] Add an author comment
1 file changed, 3 insertions(+), 2 deletions(-)
```

Рисунок 1 - Индексация и коммит

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit --amend -m "Add an author/email comment"
[master ca18956] Add an author/email comment
Date: Thu Jun 5 16:08:40 2025 +0300
1 file changed, 3 insertions(+), 2 deletions(-)
```

Рисунок 2 - Индексация и изменение коммита

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* ca18956 2025-06-05 | Add an author/email comment (HEAD -> master) [Boris Osov
itsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 3 - Последний коммит изменен

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ mkdir lib

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git mv hello.html lib

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    hello.html -> lib/hello.html
```

Рисунок 4 - Перемещение файла


```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Moved hello.html to lib"
[master cf99705] Moved hello.html to lib
1 file changed, 0 insertions(+), 0 deletions(-)
rename hello.html => lib/hello.html (100%)
```

Рисунок 5 – Коммит перемещения

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Added index.html"
[master e003ca7] Added index.html
1 file changed, 2 insertions(+)
create mode 100644 index.html
```

Рисунок 6 - Индексация и коммит

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls -C .git
COMMIT_EDITMSG  config          hooks/  info/  objects/
HEAD           description     index   logs/  refs/
```

Рисунок 7 - Содержание каталога. git

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls -C .git/objects
16/  32/  5c/  7b/  9b/  b4/  ca/  db/  e7/  fa/
1b/  38/  6e/  7f/  a3/  b7/  cf/  df/  f4/  info/
25/  3d/  74/  96/  a6/  c0/  d8/  e0/  f6/  pack/

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls -C .git/objects/7f
3a6487d0a3511d50f6f271ead489707e6513c4
```

Рисунок 8 - Содержание каталога objects


```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cat .git/config
[core]
    repositoryformatversion = 0
    filemode = false
    bare = false
    logallrefupdates = true
    symlinks = false
    ignorecase = true
```

Рисунок 9 - Просмотр файла конфигурации

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls .git/refs
heads/  tags/

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls .git/refs/heads
master

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ ls .git/refs/tags
ver1  ver1-beta

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cat .git/refs/tags/ver1
3242edf165ded8b5799f517b832b4ffd530c134b
```

Рисунок 10 - Просмотр файлов и веток

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cat .git/HEAD
ref: refs/heads/master
```

Рисунок 11 - Содержимое файла HEAD

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --max-count=1
* e003ca7 2025-06-05 | Added index.html (HEAD -> master) [Boris Osovitsky]
```

Рисунок 12 - Последний коммит

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git cat-file -t e003ca7
commit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git cat-file -p e003ca7
tree 1b9b958f8dfb160196bef3172d9c887df173fd67
parent cf9970567594482bbc1cb9180d538996400f3422
author Boris Osovitsky <007boris05@gmail.com> 1749129924 +0300
committer Boris Osovitsky <007boris05@gmail.com> 1749129924 +0300

Added index.html

```

Рисунок 13 - Просмотр объекта коммита

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git type e003ca7
commit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git dump e003ca7
tree 1b9b958f8dfb160196bef3172d9c887df173fd67
parent cf9970567594482bbc1cb9180d538996400f3422
author Boris Osovitsky <007boris05@gmail.com> 1749129924 +0300
committer Boris Osovitsky <007boris05@gmail.com> 1749129924 +0300

Added index.html

```

Рисунок 14 - Использование алиасов

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git cat-file -p 1b9b958
100644 blob dbe9dba55ea8fd4d5be3868b015e044be0848ec5      a.html
100644 blob dbe9dba55ea8fd4d5be3868b015e044be0848ec5      b.html
100644 blob 74a8f074d937dec3a1896d13c2fe6598618ac8fd      index.html
040000 tree 38752053426274674e4bcf2f634847a307bfb402      lib
100644 blob dbe9dba55ea8fd4d5be3868b015e044be0848ec5      v.html

```

Рисунок 15 - Просмотр дерева каталогов

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git cat-file -p 387520534
100644 blob 96efa4d8b77b20f6a7219c03c32afd142eb82a8b      hello.html

```

Рисунок 16 - Просмотр каталога lib

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git cat-file -p 96efa4d8
<h1>Hello, world</h1>11
hjgh
cfg
hhjgv 007boris052gmail.com

```

Рисунок 17 - Вывод содержимого файла hello.html

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* e003ca7 2025-06-05 | Added index.html (HEAD -> master) [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git cat-file -p b44c776
tree d8a800db068656c3aafc962f7a438c987b49dd60
author Boris Osovitsky <007boris05@gmail.com> 1749043342 +0300
committer Boris Osovitsky <007boris05@gmail.com> 1749043342 +0300

First Commit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git cat-file -p d8a800d
100644 blob dbe9dba55ea8fd4d5be3868b015e044be0848ec5    hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git cat-file -p dbe9dba
Hello, world

```

Рисунок 18 - Просмотр содержимого файла при первом коммите

1.4

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout -b style
Switched to a new branch 'style'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git status
On branch style
nothing to commit, working tree clean

```

Рисунок 19 - Создание новой ветки style


```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ touch lib/style.css
```

Рисунок 20 - Создание файла стилей

```
1  h1 {
2      color: aqua;
3  }
```

Рисунок 21 - Код style.css

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git add lib/style.css

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git commit -m "Added css stylesheet"
[style e46bde3] Added css stylesheet
1 file changed, 3 insertions(+)
create mode 100644 lib/style.css
```

Рисунок 22 - Индексация и коммит нового файла

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git add lib/hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git commit -m "Hello.html uses style.css"
[style 0f3f10a] Hello.html uses style.css
1 file changed, 10 insertions(+), 4 deletions(-)
```

Рисунок 5 - Индексация и коммит

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git commit -m "Update index.html"
[style 3d21450] Update index.html
1 file changed, 8 insertions(+), 2 deletions(-)
```

Рисунок 6 - Индексация и коммит


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (style)
$ git hist --all
* 3d21450 2025-06-05 | Update index.html (HEAD -> style) [Boris Osovitsky]
* 0f3f10a 2025-06-05 | Hello.html uses style.css [Boris Osovitsky]
* e46bde3 2025-06-05 | Added css stylesheet [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html (master) [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 7 - Просмотр истории

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ cat lib/hello.html
<!-- Author: Osovitsky Boris (007boris05@gmail.com) -->
<html>
  <head>

  </head>
  <body>
    <h1>Hello, world</h1>
    <h2>The cake is a lie.</h2>
  </body>
</html>

```

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ cat lib/hello.html
<!-- Author: Osovitsky Boris (007boris05@gmail.com) -->
<html>
  <head>
    <link rel="stylesheet" type="text/css" media="all" href="style.css">
  </head>
  <body>
    <h1>Hello, world</h1>
    <h2>The cake is a lie.</h2>
  </body>
</html>

```

Рисунок 8 – Разница в видах

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git add README

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git commit -m "Added README"
[master 8177b81] Added README
1 file changed, 1 insertion(+)
create mode 100644 README

```

Рисунок 9 - Индексация и коммит

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --all
* 8177b81 2025-06-05 | Added README (HEAD -> master) [Boris Osovitsky]
* 4b5bed3 2025-06-05 | Hello.html uses style.css (style) [Boris Osovitsky]
* 1184a72 2025-06-05 | Added css stylesheet [Boris Osovitsky]
/
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 10 - Дерево коммитов

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout style
Switched to branch 'style'

elena@LAPTOP-I3I3QM5I MINGW64 /c/D/GitKipFin/hello (style)
$ git merge master

```

```

elena@LAPTOP-I3I3QM5I MINGW64 /c/D/GitKipFin/hello (style)
$ git merge master
hint: Waiting for your editor to close the file...
(electron) Sending uncompressed crash reports is deprecated and will be removed
in a future version of Electron. Set { compress: true } to opt-in to the new beh
avior. Crash reports will be uploaded gzipped, which most crash reporting server
s support.
[main 2021-02-24T11:53:30.275Z] update#setState idle
(node:45768) electron: The default of contextIsolation is deprecated and will be
changing from false to true in a future release of Electron. See https://githu
b.com/electron/electron/issues/23506 for more information
(node:45768) electron: The default of contextIsolation is deprecated and will be
changing from false to true in a future release of Electron. See https://githu
b.com/electron/electron/issues/23506 for more information
[main 2021-02-24T11:54:00.303Z] update#setState checking for updates
[main 2021-02-24T11:54:00.790Z] update#setState idle
Merge made by the 'recursive' strategy.
 README | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README

```

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add lib/hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m 'Life is great!'
[master c61dd9f] Life is great!
 1 file changed, 10 insertions(+), 4 deletions(-)

```



```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --all
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* 4b5bed3 2025-06-05 | Hello.html uses style.css (style) [Boris Osovitsky]
* 1184a72 2025-06-05 | Added css stylesheet [Boris Osovitsky]
/
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout style
Switched to branch 'style'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git merge master
Auto-merging lib/hello.html
CONFLICT (content): Merge conflict in lib/hello.html
Automatic merge failed; fix conflicts and then commit the result.

```

```

hello.html X
C: > D > GitKipFin > hello > lib > hello.html > ...
1 | |!-- Author: Osovitsky Boris (007boris05@gmail.com) -->
2 | <html>
3 |   <head>
4 |     <link rel="stylesheet" type="text/css" media="all" href="style.css">
5 |   </head>
6 |   <body>
7 |     <<<<<< HEAD (текущее изменение)
8 |       <h1>Hello, world</h1>
9 |     =====
10 |       <h1>Hello, world. Life is great</h1>
11 |     >>>>>> master (входящее изменение)
12 |       <h2>The cake is a lie.</h2>
13 |     </body>
14 |   </html>

```

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style|MERGING)
$ git add lib/hello.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style|MERGING)
$ git commit -m "Merged master fixed conflict."
[style 3813bd7] Merged master fixed conflict.

```

1.5

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git reset --hard e003ca7
HEAD is now at e003ca7 Added index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git hist --all
* c61dd9f 2025-06-05 | Life is great! (master) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html (HEAD -> style) [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 1 - Сброс ветки style

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git checkout master
Switched to branch 'master'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html (style) [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 2 - Переключение на master и просмотр истории


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git reset --hard c61dd9f
HEAD is now at c61dd9f Life is great!

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist --all
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html (style) [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 3 - Сброс ветки master

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout style
Switched to branch 'style'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git rebase master
Successfully rebased and updated refs/heads/style.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git hist
* c61dd9f 2025-06-05 | Life is great! (HEAD -> style, master) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 4 - Перебазирование веток

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (style)
$ git checkout master
Switched to branch 'master'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git merge style
Already up to date.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git hist
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master, style) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 5 - Слияние веток

```

Home@LAPTOP-TH4RMAU5 MINGW64 ~
$ cd C:\D

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D
$ cd GitKipFin

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git clone hello cloned_hello
Cloning into 'cloned_hello'...
done.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ ls
Practice1_1/ Practice1_1_local/ cloned_hello/ git-bash.exe.lnk* hello/

```

Рисунок 6 - Переход в рабочий каталог и его клонирование

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ cd cloned_hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ ls
README a.html b.html index.html lib/ v.html

```

Рисунок 7 - Просмотр содержимого клонированного репозитория

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git hist --all
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master, origin/style, origin/master, origin/HEAD) [Boris Osovitsky]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]

```

Рисунок 8 - Просмотр логов клонированного каталога

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git remote
origin

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git remote show origin
* remote origin
  Fetch URL: C:/D/GitKipFin/hello
  Push URL: C:/D/GitKipFin/hello
  HEAD branch: master
  Remote branches:
    master tracked
    style tracked
  Local branch configured for 'git pull':
    master merges with remote master
  Local ref configured for 'git push':
    master pushes to master (up to date)

```

Рисунок 9 - Просмотр данных об origin

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git branch
* master

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style

```

Рисунок 10 - Просмотр удаленных веток

1.6

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ cd ../hello
```

Рисунок 23 - Переход в оригинальный репозиторий

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add README

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Changed README in original repo"
[master 1a0c6ef] Changed README in original repo
1 file changed, 2 insertions(+), 1 deletion(-)
```

Рисунок 2 - Индексация и коммит новых изменений

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cd ../cloned_hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git fetch
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 349 bytes | 21.00 KiB/s, done.
From C:/D/GitKipFin/hello
   c61dd9f..1a0c6ef master    -> origin/master
```

Рисунок 3 - Извлечение изменений

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git hist --all
* 1a0c6ef 2025-06-05 | Changed README in original repo (origin/master, origin/HEAD)
Boris Osovitsky]
* c61dd9f 2025-06-05 | Life is great! (HEAD -> master, origin/style) [Boris Osovitsky]
]
* 8177b81 2025-06-05 | Added README [Boris Osovitsky]
* e003ca7 2025-06-05 | Added index.html [Boris Osovitsky]
* cf99705 2025-06-05 | Moved hello.html to lib [Boris Osovitsky]
* ca18956 2025-06-05 | Add an author/email comment [Boris Osovitsky]
* c0ae429 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* fa86a00 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 9bb271b 2025-06-05 | Oops, this is bad commit [Boris Osovitsky]
* 3242edf 2025-06-04 | Hello (tag: ver1-beta, tag: ver1) [Boris Osovitsky]
* 1b80f9a 2025-06-04 | Unrelated change for v [Boris Osovitsky]
* 3839ded 2025-06-04 | Changes for a and b [Boris Osovitsky]
* b44c776 2025-06-04 | First Commit [Boris Osovitsky]
```

Рисунок 4 - Просмотр истории


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ cat README
This is the Hello world example frim the Git tutorial
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ git merge origin/master
Updating c61dd9f..1a0c6ef
Fast-forward
 README | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)

```

Рисунок 5 - Вывод содержимого файла README, Слияние изменений

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ cat README
This is the Hello world example frim the Git tutorial
(changed in original)
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ git pull
Already up to date.

```

Рисунок 6 - Вывод содержимого файла README, Команда git pull

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ git branch --track style origin/style
branch 'style' set up to track 'origin/style'.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ git branch -a
* master
  style
remotes/origin/HEAD -> origin/master
remotes/origin/master
remotes/origin/style

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ git hist --max-count=2
* 1a0c6ef 2025-06-05 | Changed README in original repo (HEAD -> master, origin/master,
  origin/HEAD) [Boris Osovitsky]
* c61dd9f 2025-06-05 | Life is great! (origin/style, style) [Boris Osovitsky]

```

Рисунок 7 - Добавление локальной ветки

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/cloned_hello (master)
$ cd ..

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin
$ git clone --bare hello hello.git
Cloning into bare repository 'hello.git'...
done.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin
$ ls hello.git
HEAD  config  description  hooks/  info/  objects/  packed-refs  refs/

```

Рисунок 8 - Создание чистого репозитория

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ cd hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git remote add shared ../hello.git
```

Рисунок 9 - Добавление удаленного репозитория

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout master
M      README
Already on 'master'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git add README

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git commit -m "Added shared commit to README"
[master 0c9e360] Added shared commit to README
1 file changed, 1 insertion(+), 1 deletion(-)
```

Рисунок 10 - Индексация и коммит

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git push shared master
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 381 bytes | 381.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
To ../hello.git
1a0c6ef..0c9e360  master -> master
```

Рисунок 11 - Отправка изменений в общий репозиторий

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cd ../cloned_hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git remote add shared ../hello.git

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git branch --track shared master
branch 'shared' set up to track 'master'.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git pull shared master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 361 bytes | 27.00 KiB/s, done.
From ../hello
 * branch          master      -> FETCH_HEAD
 * [new branch]    master      -> shared/master
Updating 1a0c6ef..0c9e360
Fast-forward
 README | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ cat README
This is the Hello world example frim the Git tutorial
(Changed in the original and pushed to shared)

```

Рисунок 12 - Команды, извлекающие общие изменения

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/cloned_hello (master)
$ git daemon --verbose --export-all --base-path=.
[12864] Ready to rumble

```

Рисунок 13 - Настройка сервера

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ cd network_hello

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello/network_hello (master)
$ ls
README  a.html  b.html  index.html  lib/  v.html

```

Рисунок 14 - Клонирование проекта

1.7

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ git clone https://github.com/schacon/ticgit
Cloning into 'ticgit'...
remote: Enumerating objects: 1857, done.
remote: Total 1857 (delta 0), reused 0 (delta 0), pack-reused 1857 (from 1)
Receiving objects: 100% (1857/1857), 334.06 KiB | 1.26 MiB/s, done.
Resolving deltas: 100% (837/837), done.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin
$ cd ticgit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote
origin
```

Рисунок 24 – Клонирование репозитория и просмотр удаленных репозитория

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote -v
origin https://github.com/schacon/ticgit (fetch)
origin https://github.com/schacon/ticgit (push)
```

Рисунок 25 - Просмотр удаленных репозитория с ключом -v

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote add pb https://github.com/paulboone/ticgit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote -v
origin https://github.com/schacon/ticgit (fetch)
origin https://github.com/schacon/ticgit (push)
pb https://github.com/paulboone/ticgit (fetch)
pb https://github.com/paulboone/ticgit (push)
```

Рисунок 26 - Добавление удаленного репозитория

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git fetch pb
remote: Enumerating objects: 43, done.
remote: Counting objects: 100% (22/22), done.
remote: Total 43 (delta 22), reused 22 (delta 22), pack-reused 21 (from 1)
Unpacking objects: 100% (43/43), 5.99 KiB | 31.00 KiB/s, done.
From https://github.com/paulboone/ticgit
 * [new branch]      master      -> pb/master
 * [new branch]      ticgit      -> pb/ticgit
```

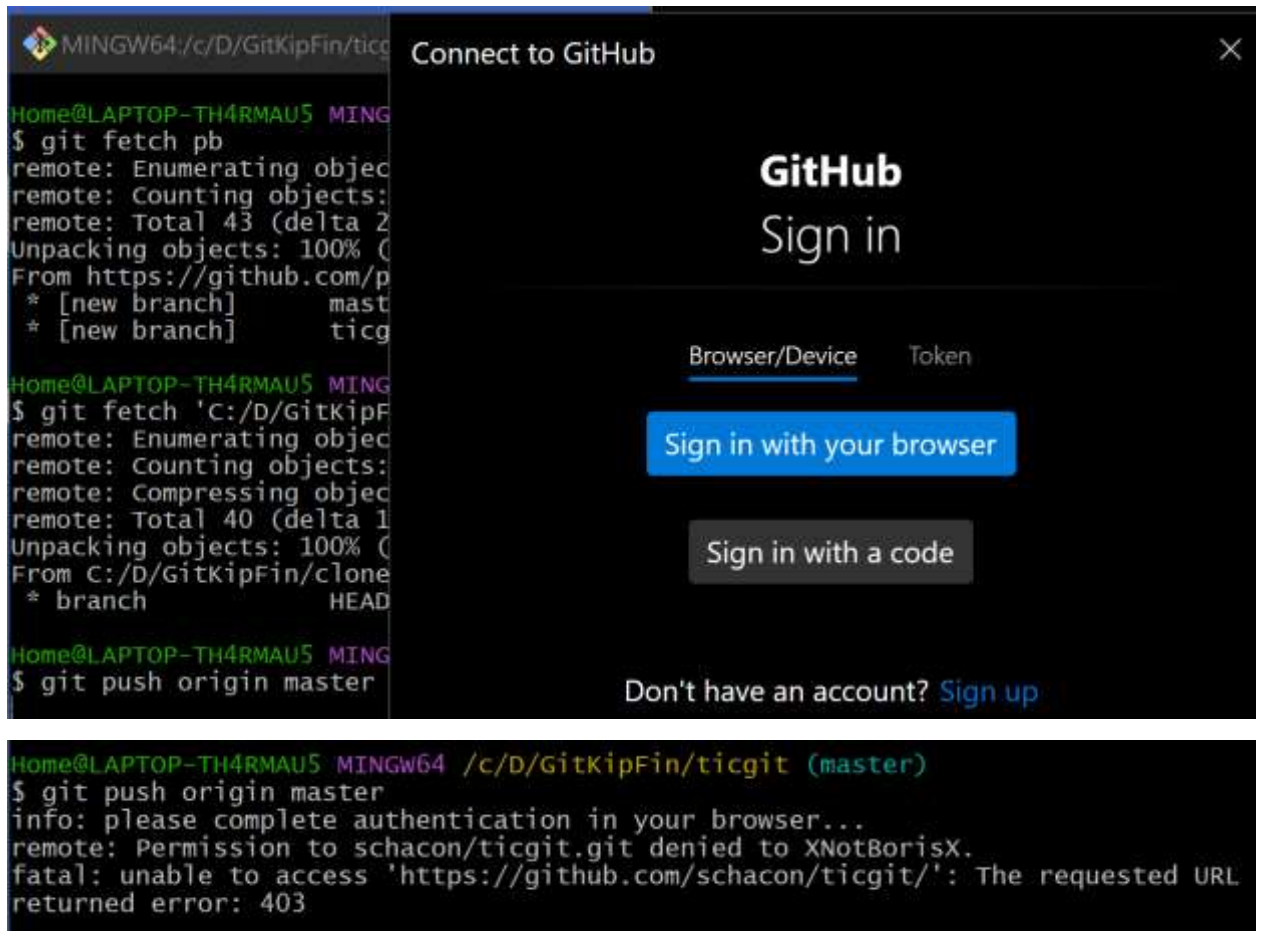
Рисунок 27 - Использование имени вместо пути

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git fetch 'C:/D/GitKipFin/cloned_hello'
remote: Enumerating objects: 40, done.
remote: Counting objects: 100% (40/40), done.
remote: Compressing objects: 100% (31/31), done.
remote: Total 40 (delta 12), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (40/40), 3.58 KiB | 19.00 KiB/s, done.
From C:/D/GitKipFin/cloned_hello
 * branch                HEAD                -> FETCH_HEAD

```

Рисунок 28 - Получение данных из удаленных проектов



The image shows a terminal window on the left and a GitHub sign-in dialog on the right. The terminal output shows a successful fetch operation followed by a push operation that triggers a browser-based authentication flow. The GitHub dialog has two tabs: 'Browser/Device' (selected) and 'Token'. It contains two buttons: 'Sign in with your browser' and 'Sign in with a code'. At the bottom, it says 'Don't have an account? [Sign up](#)'.

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git fetch pb
remote: Enumerating objects: 43, done.
remote: Counting objects: 100% (43/43), done.
remote: Total 43 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (43/43), 3.58 KiB | 19.00 KiB/s, done.
From https://github.com/paulschacon/ticgit
 * [new branch]      master -> pb
 * [new branch]      ticgit -> pb

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git fetch 'C:/D/GitKipFin/cloned_hello'
remote: Enumerating objects: 40, done.
remote: Counting objects: 100% (40/40), done.
remote: Compressing objects: 100% (31/31), done.
remote: Total 40 (delta 12), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (40/40), 3.58 KiB | 19.00 KiB/s, done.
From C:/D/GitKipFin/cloned_hello
 * branch                HEAD                -> FETCH_HEAD

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git push origin master
info: please complete authentication in your browser...
remote: Permission to schacon/ticgit.git denied to XNotBorisX.
fatal: unable to access 'https://github.com/schacon/ticgit/': The requested URL
returned error: 403

```

Рисунок 29 - Отправка изменений в удаленный репозиторий

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote show origin
fatal: unable to access 'https://github.com/schacon/ticgit/': Recv failure: Conn
ection was reset

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote rename pb paul
Renaming remote references: 100% (4/4), done.

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/ticgit (master)
$ git remote
origin
paul

```

Рисунок 30 - Информация об удаленном репозитории

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/ticgit (master)
$ git remote remove paul

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/ticgit (master)
$ git remote
origin

```

Рисунок 31 - Переименование удаленного репозитория

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitkipFin/hello (master)
$ git tag
ver1
ver1-beta

tag v2.1
Tagger: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 23:04:22 2025 +0300

My version 2.1

commit 0c9e3604ebafde4d7ae0fe417c772d313c1d7210 (HEAD -> master, tag: v2.1, shared/master)
Author: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 20:42:36 2025 +0300

    Added shared commit to README

diff --git a/README b/README
index 5e9ef08..dd26ddb 100644
--- a/README
+++ b/README
@@ -1,2 +1,2 @@
 This is the Hello world example frim the Git tutorial
-(changed in ariginal)
 \ No newline at end of file
+(Changed in the original and pushed to shared)
 \ No newline at end of file
:...skipping...
tag v2.1
Tagger: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 23:04:22 2025 +0300

My version 2.1

commit 0c9e3604ebafde4d7ae0fe417c772d313c1d7210 (HEAD -> master, tag: v2.1, shared/master)
Author: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 20:42:36 2025 +0300

    Added shared commit to README

diff --git a/README b/README
index 5e9ef08..dd26ddb 100644
--- a/README
+++ b/README
@@ -1,2 +1,2 @@
 This is the Hello world example frim the Git tutorial
-(changed in ariginal)
 \ No newline at end of file
+(Changed in the original and pushed to shared)
 \ No newline at end of file

```

Рисунок 9-12 - Просмотр тегов, Создание аннотированной метки, Просмотр данных тега


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag v2.1-lw

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag
v2.1
v2.1-lw
ver1
ver1-beta

```

Рисунок 32 - Создание легковесной метки

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git show v2.1-lw
commit 0c9e3604ebafde4d7ae0fe417c772d313c1d7210 (HEAD -> master, tag: v2.1-lw, tag: v2.1, shared/master)
Author: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 20:42:36 2025 +0300

    Added shared commit to README

diff --git a/README b/README
index 5e9ef08..dd26ddb 100644
--- a/README
+++ b/README
@@ -1,2 +1,2 @@
- This is the Hello World example frim the Git tutorial
- (changed in ariginal)
\ No newline at end of file
+ (Changed in the original and pushed to shared)
+ No newline at end of file

```

Рисунок 33 - Просмотр данных тега

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git log --pretty=oneline
0c9e3604ebafde4d7ae0fe417c772d313c1d7210 (HEAD -> master, tag: v2.1-lw, tag: v2.1, shared/master) Added shared commit to README
1a0c6efd22604f6567c18eba005ea58bd2dd98f0 Changed README in original repo
c61dd9f4e0083eb23bab5ae6cf67f06a67cc3536 (style) Life is great!
8177b810b8990d38aa98e7a3855aae27ed0a9477 Added README
e003ca730c88df78ec89edaccdeac9dd1bc0d964 Added index.html
cf9970567594482bbc1cb9180d538996400f3422 Moved hello.html to lib
ca18956434ce259ed73cd015e23350605498bfd7 Add an author/email comment
c0ae429999a81fecaed088ba6938b4e707eeb604 Oops, this is bad commit
fa86a009dfed4ec29ab9c2c8ee222decfd9693c2 Oops, this is bad commit
9bb271bc0f6bb1d1f545bb25036e7283aa089bc5 Oops, this is bad commit
3242edf165ded8b5799f517b832b4ffd530c134b (tag: ver1-beta, tag: ver1) Hello
1b80f9a49d99fb441107dea349702ecf484816b3 Unrelated change for v
3839ded3c127bb642191c4db709981dc8441f1c5 Changes for a and b
b44c77610a42e6a7fbbb2770365917deb3210603 First Commit

```

Рисунок 34 - Просмотр истории

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git show ver3
tag ver3
Tagger: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 23:19:22 2025 +0300

Tag message1

commit 1a0c6efd22604f6567c18eba005ea58bd2dd98f0 (tag: ver3)
Author: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 20:30:48 2025 +0300

    Changed README in original repo

diff --git a/README b/README
index 93fad1b..5e9ef08 100644
--- a/README
+++ b/README
@@ -1,2 @@
-This is the Hello World example frim the Git tutorial
\ No newline at end of file
+This is the Hello World example frim the Git tutorial
+(changed in ariginal)
\ No newline at end of file

```

Рисунок 16 - Просмотр данных тега

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git push shared v2.1
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 168 bytes | 168.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To ../hello.git
 * [new tag]          v2.1 -> v2.1

```

Рисунок 17 - Отправка тега на удаленный сервер

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git push shared --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 168 bytes | 168.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To ../hello.git
 * [new tag]          v2.1-lw -> v2.1-lw
 * [new tag]          ver3 -> ver3

```

Рисунок 18 - Отправка всех тегов на сервер

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git tag -d v2.1-lw
Deleted tag 'v2.1-lw' (was 0c9e360)
```

Рисунок 19 - Удаление тега

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git push shared :refs/tags/v2.1-lw
To ../hello.git
- [deleted]          v2.1-lw
```

Рисунок 20 - Удаление тегов с сервера

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (master)
$ git checkout v2.1
Note: switching to 'v2.1'.

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

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

    git switch -c <new-branch-name>

or undo this operation with:

    git switch -

Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at 0c9e360 Added shared commit to README
```

Рисунок 21 - Переключение на метку

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello ((v2.1))
$ git checkout -b version2 v2.1
Switched to a new branch 'version2'
```

Рисунок 22 - Создание новой ветки


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.co checkout

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.br branch

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.ci commit

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.st status

```

Рисунок 23 - Задание алиасов

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.unstage 'reset HEAD --'

```

Рисунок 24 - Создание псевдонима исключения файла из индекса

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git unstage fileA

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git reset HEAD -- fileA

```

Рисунок 25 - Использование созданного псевдонима

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.last 'log -1 HEAD'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git last
commit 0c9e3604ebafde4d7ae0fe417c772d313c1d7210 (HEAD -> version2, tag: v2.1, shared/master, master)
Author: Boris Osovitsky <007boris05@gmail.com>
Date: Thu Jun 5 20:42:36 2025 +0300

    Added shared commit to README

```

Рисунок 26-29 - Создание алиаса для просмотра последнего коммита, Результат работы созданного алиаса

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello (version2)
$ git config --global alias.visual '!gitk'

```

Рисунок 35 - Создание псевдонима внешней команды

1.8

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git add README test.rb LICENSE

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git commit -m 'Initial commit of my project'
[master 26a67d2] Initial commit of my project
3 files changed, 3 insertions(+), 2 deletions(-)
create mode 100644 LICENSE
create mode 100644 test.rb
```

Рисунок 1 - Индексация и коммит 3 файлов

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch testing
```

Рисунок 2 - Создание ветки testing

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git checkout testing
Switched to branch 'testing'
```

Рисунок 3 - Переключение на ветку testing

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (testing)
$ git add test.rb

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (testing)
$ git commit -m 'New changes'
[testing fd191e1] New changes
1 file changed, 1 insertion(+), 1 deletion(-)
```

Рисунок 4 - Индексация и коммит файла test.rb

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (testing)
$ git checkout master
Switched to branch 'master'
```

Рисунок 5 - Переключение на ветку master

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git add test.rb

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git commit -a -m 'Another changes'
[master a717afc] Another changes
1 file changed, 1 insertion(+), 1 deletion(-)
```

Рисунок 6 - Еще индексация и коммит test.rb

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git checkout -b iss53
Switched to a new branch 'iss53'
```

Рисунок 7 - Создание и переключение на ветку iss53

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (iss53)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (iss53)
$ git commit -m 'Added html'
[iss53 c1db16e] Added html
1 file changed, 3 insertions(+), 2 deletions(-)
```

Рисунок 8 - Индексация и коммит файла index.html

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch hotfix

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git checkout hotfix
Switched to branch 'hotfix'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (hotfix)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (hotfix)
$ git commit -a -m 'Fixed the brofen email address'
[hotfix f85b128] Fixed the brofen email address
1 file changed, 2 insertions(+), 1 deletion(-)
```

Рисунок 9-10 - Переключение на ветку master, Индексация и коммит index.html на ветке hotfix


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (hotfix)
$ git checkout master
Switched to branch 'master'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git merge hotfix
Updating a717afc..f85b128
Fast-forward
 index.html | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)

```

Рисунок 11 - Переключение на ветку master и объединение с веткой hotfix

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -d hotfix
Deleted branch hotfix (was f85b128).

```

Рисунок 12 - Удаление ветки hotfix

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git checkout iss53
Switched to branch 'iss53'

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (iss53)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (iss53)
$ git commit -a -m 'Finished the new footer'
[iss53 7af44ad] Finished the new footer
1 file changed, 1 insertion(+), 1 deletion(-)

```

Рисунок 13 - Индексация и коммит index.html на ветке iss53

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master|MERGING)
$ git add index.html

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master|MERGING)
$ git commit -m "Merged master fixed conflict/"
[master 9600930] Merged master fixed conflict/

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git merge iss53
Already up to date.

```

Рисунок 14 - Слияние веток

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -d iss53
Deleted branch iss53 (was c7b8fcf).
```

Рисунок 15 - Удаление ветки iss53

1.9

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch
* master
  style
  testing
  version2
```

Рисунок 36 - Список существующих веток

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -v
* master      9600930 Merged master fixed conflict/
  style       c61dd9f Life is great!
  testing     fd191e1 New changes
  version2    0c9e360 Added shared commit to README
```

Рисунок 37 - Список веток с последними коммитами

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch --merged
* master
  style
  version2
```

Рисунок 38 - Список веток слитых с текущей

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch --no-merged
```

Рисунок 39 - Список веток не слитых с текущей

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -D testing
Deleted branch testing (was fd191e1).
```

Рисунок 40 - Удаление ветки

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (main)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/Eternity-blip/repo1
  Push URL: https://github.com/Eternity-blip/repo1
  HEAD branch: main
  Remote branch:
    main tracked
  Local branches configured for 'git pull':
    main merges with remote main
    serv merges with remote main
  Local ref configured for 'git push':
    main pushes to main (local out of date)

```

Рисунок 41 - Просмотр удаленных веток

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 285 bytes | 95.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Eternity-blip/repo1
  6cdd680..f6b94bc  main -> main

```

Рисунок 42 - Отправка изменений

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (main)
$ git fetch origin
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 693 bytes | 18.00 KiB/s, done.
From https://github.com/Eternity-blip/repo1
  f6b94bc..68cbf5f  main      -> origin/main

```

Рисунок 43 - Выполнение команды git fetch

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (main)
$ git checkout -b serv origin/main
Switched to a new branch 'serv'
Branch 'serv' set up to track remote branch 'main' from 'origin'.

```

Рисунок 44 - Создание ветки на основе удаленной ветки

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (serv)
$ git push origin :serv
To https://github.com/Eternity-blip/repo1
- [deleted]          serv

```

Рисунок 45 - Удаление ветки на сервере


```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git checkout exp
Switched to branch 'exp'
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (exp)
$ git rebase master
Successfully rebased and updated refs/heads/exp.

```

Рисунок 46 - Перемещение изменений

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two/repo1 (master)
$ git rebase --onto master se c1
Successfully rebased and updated refs/heads/c1.

```

Рисунок 47 - Перемещение изменений с параметром onto

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (c1)
$ git checkout master
Switched to branch 'master'
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git merge c1
Updating fafe213..08d256f
Fast-forward
 w.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 w.txt

```

Рисунок 48 - Слияние веток master и c1

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git rebase master se
Successfully rebased and updated refs/heads/se.

```

Рисунок 49 - Перемещение изменений

```

Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (se)
$ git checkout master
Switched to branch 'master'
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git merge se
Updating 08d256f..4a98db2
Fast-forward
 e.txt | 0
 q.txt | 0
 repo1 | 1 +
 3 files changed, 1 insertion(+)
 create mode 100644 e.txt
 create mode 100644 q.txt
 create mode 160000 repo1

```

Рисунок 50 - Слияние веток master и se

```
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -d cl
Deleted branch cl (was 08d256f).
Home@LAPTOP-TH4RMAU5 MINGW64 /c/D/GitKipFin/hello_two (master)
$ git branch -d se
Deleted branch se (was 4a98db2).
```

Рисунок 51 - Удаление веток cl и se