1.1

Если git никогда ранее не использовался пользователем, то необходимо установить имя и электронную почту.

```
salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global --list
user.name=rorokushiza
user.email=bertie_ring@mail.ru
```

Затем нужно указать параметры установки окончаний строк

```
salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global core.autocrlf true

salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global core.safecrlf true
```

И последним пунктом идет установка отображения Unicode.

```
salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global core.autocrlf true

salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global core.safecrlf true

salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ git config --global core.quotepath off
```

Для создания репозитория используется команда git init

```
salin@DESKTOP-0Q6DMLT MINGW64 ~
$ git init
Initialized empty Git repository in C:/Users/salin/.git/
```

Для добавления страницы в репозиторий необходима команда git add

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (master)
$ git commit -m "First Commit"
[master (root-commit) beb3cd5] First Commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 shop.html
```

Для того, чтобы проиндексировать изменения, нужно осуществить действия, показанные на рисунке 11

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ 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:   shop.html
```

Можно зафиксировать изменения отдельными коммитами

	client	03.06.2025 15:47	Файл "HTML"
	management	03.06.2025 15:45	Файл "HTML"
	orders	03.06.2025 15:48	Файл "HTML"
	shop	03.06.2025 17:56	Файл "HTML"
	storage	03.06.2025 15:47	Файл "HTML"


```
MINGW64:/c/Users/salin/Desktop/shop

commit 8df69acfcade57560e1816b3e2b92c3a9ed98336 (HEAD -> master)
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:13:05 2025 +0300

    Create orders processing system

commit 612668c16aff04e0b666236c1ce62fe8d616b262
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:04:20 2025 +0300

    Add client interface

commit 882d871903378537bf7c124631cdc0c04bf9bf54
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:00:56 2025 +0300

    Add managemet module

commit beb3cd546eff45396bc7df8ba9943307f793e9d7
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Mon Jun 2 22:48:43 2025 +0300

    First Commit
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git log -p
commit 481fb8e2fa300cb113f64e1d43eb98debcea1ee2 (HEAD -> main, origin/main)
Author: rorokushiza <bertie_ring@mail.ru>
Date:   Tue Jun 3 17:27:59 2025 +0300

    Added h2 tag

diff --git a/shop.html b/shop.html
index a5c1966..a5c375a 100644
--- a/shop.html
+++ b/shop.html
@@ -1 +1 @@
-Hello, world
+<h1>Hello, world</h1>

commit 8df69acfcade57560e1816b3e2b92c3a9ed98336
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:13:05 2025 +0300

    Create orders processing system

diff --git a/shop.html b/shop.html
```

```
diff --git a/shop.html b/shop.html
index e69de29..a5c1966 100644
--- a/shop.html
+++ b/shop.html
@@ -0,0 +1 @@
+Hello, world

commit 612668c16aff04e0b666236c1ce62fe8d616b262
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:04:20 2025 +0300

    Add client interface

diff --git a/orders.html b/orders.html
new file mode 100644
index 0000000..e69de29

commit 882d871903378537bf7c124631cdc0c04bf9bf54
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:00:56 2025 +0300

    Add managemet module

diff --git a/client.html b/client.html
```

```
    Add managemet module

diff --git a/client.html b/client.html
new file mode 100644
index 0000000..e69de29
diff --git a/management.html b/management.html
new file mode 100644
index 0000000..e69de29
diff --git a/storage.html b/storage.html
new file mode 100644
index 0000000..e69de29

commit beb3cd546eff45396bc7df8ba9943307f793e9d7
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Mon Jun 2 22:48:43 2025 +0300

    First Commit

diff --git a/shop.html b/shop.html
new file mode 100644
index 0000000..e69de29
(END)
```

1.2

Для того, чтобы просмотреть список произведенных изменений в проекте, используется команда git log


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git log
commit 481fb8e2fa300cb113f64e1d43eb98debcea1ee2 (HEAD -> main, origin/main)
Author: rorokushiza <bertie_ring@mail.ru>
Date:   Tue Jun 3 17:27:59 2025 +0300

    Added h2 tag

commit 8df69acfcade57560e1816b3e2b92c3a9ed98336
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:13:05 2025 +0300

    Create orders processing system

commit 612668c16aff04e0b666236c1ce62fe8d616b262
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:04:20 2025 +0300

    Add client interface

commit 882d871903378537bf7c124631cdc0c04bf9bf54
Author: Shitik Alina <bertie_ring@mail.ru>
Date:   Tue Jun 3 16:00:56 2025 +0300
```

На рисунке 1 была выведена полная история. Для того, чтобы увидеть однострочный формат используется команда git log –pretty=oneline

Далее показано несколько вариантов вывода истории изменений.

Вывод последних 2 изменений

Вывод изменений начиная с определенного времени

Вывод изменений начиная с определенного времени

Вывод изменений, внесенных определенным автором

Вывод всех изменений

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git log --pretty=oneline --all
481fb8e2fa300cb113f64e1d43eb98debcea1ee2 (HEAD -> main, origin/main) Added h2 ta
g
8df69acfcade57560e1816b3e2b92c3a9ed98336 Create orders processing system
612668c16aff04e0b666236c1ce62fe8d616b262 Add client interface
882d871903378537bf7c124631cdc0c04bf9bf54 Add managemet module
beb3cd546eff45396bc7df8ba9943307f793e9d7 First Commit
```

Настройка алиасов для некоторых команд


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.co chekout

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.co commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.co status

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.ci commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.co chekout

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.ci commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.st status

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.br branch

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.hist "log -pretty=format: '%h %ad | %s%d [%an]' --
aph --date=short"

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.type 'cat-file -t'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git config --global alias.dump 'cat-file -p'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
```

При выполнении алиаса будет выполнена определенная команда и выведены нужные данные


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git log --pretty=format:"%h %ad | %s (%an)" --date=format:"%Y-%m-%H:%M:%S"
481fb8e 2025-06-17:27:59 | Added h2 tag (rorokushiza)
8df69ac 2025-06-16:13:05 | Create orders processing system (Shitik Alina)
612668c 2025-06-16:04:20 | Add client interface (Shitik Alina)
882d871 2025-06-16:00:56 | Add managemet module (Shitik Alina)
beb3cd5 2025-06-22:48:43 | First Commit (Shitik Alina)
```

Далее нужно выполнить команду git checkout с номером нужного хэша


```
$ git checkout 481fb8e
M       shop.html
Note: switching to '481fb8e'.

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 481fb8e Added h2 tag
```

После этого можно просмотреть содержимое файла с помощью команды cat

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((481fb8e...))
$ cat shop.html
efeffs
Hello, world
```

Возвращение к последней версии в ветке master

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((481fb8e...))
$ git checkout main
M       shop.html
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cat shop.html
efeffs
Hello, world
```

Задание тега

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git tag ver1
```

Чтобы перейти к предыдущей версии, можно использовать символ «^», который означает «родитель».

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ 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 8df69ac Create orders processing system
```

Задание тега предыдущей версии

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((8df69ac...))
$ git tag ver1-beta
```

Теперь с помощью тегов можно переключаться между версиями

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((ver1-beta))
$ git checkout ver1
Previous HEAD position was 8df69ac Create orders processing system
HEAD is now at 481fb8e Added h2 tag

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((ver1))
$ git checkout ver1-beta
Previous HEAD position was 481fb8e Added h2 tag
HEAD is now at 8df69ac Create orders processing system
```

Просмотр тегов

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((ver1-beta))
$ git tag
ver1
ver1-beta
```

Просмотр тегов в логе

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((ver1-beta))
$ git hist main --all
* db6361b (main) meow
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (HEAD, tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Переключение на последний коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop ((ver1-beta))
$ git checkout main
Previous HEAD position was 8df69ac Create orders processing system
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

Не проиндексированное изменение

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

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:   shop.html
```

Возвращение к версии

Внесение ненужного изменения

Индексация изменения

Очистка буферной зоны

Удаление ненужных изменений


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout shop.html
Updated 1 path from the index

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git st
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

Внесение изменения в файл

Индексация и коммит


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git add shop.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit -m "Oops, this is bad commit"
[main 3a57bfc] Oops, this is bad commit
 1 file changed, 1 insertion(+)
```

Выполнение команды git revert


```
E325: ATTENTION
Found a swap file by the name "~/Desktop/shop/.git/.COMMIT_EDITMSG.swp"
          owned by: salin   dated: Tue Jun 03 17:24:10 2025
         file name: ~salin/Desktop/shop/.git/COMMIT_EDITMSG
          modified: YES
         user name: salin   host name: DESKTOP-0Q6DMLT
        process ID: 1478
While opening file "/c/Users/salin/Desktop/shop/.git/COMMIT_EDITMSG"
             dated: Thu Jun 05 23:58:46 2025
      NEWER than swap file!

(1) Another program may be editing the same file.  If this is the case,
    be careful not to end up with two different instances of the same
    file when making changes.  Quit, or continue with caution.
(2) An edit session for this file crashed.
    If this is the case, use ":recover" or "vim -r /c/Users/salin/Desktop/shop/.
git/COMMIT_EDITMSG"
    to recover the changes (see ":help recovery").
    If you did this already, delete the swap file "/c/Users/salin/Desktop/shop/.
git/.COMMIT_EDITMSG.swp"
    to avoid this message.
```

Коммит сообщение в редакторе

Редактор закрыт

Все коммиты при просмотре лога

Отметка тегом коммита

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git tag oooops

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist
* ecbc258 (HEAD -> main, tag: oooops) Reapply "Oops, this is bad commit"
* d5d6d38 Revert "Oops, this is bad commit"
* 3a57bfc Oops, this is bad commit
* db6361b meow
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Сброс коммита

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git reset --hard ver1
HEAD is now at 481fb8e Added h2 tag

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist
* ecbc258 (tag: oooops) Reapply "Oops, this is bad commit"
* d5d6d38 Revert "Oops, this is bad commit"
* 3a57bfc Oops, this is bad commit
* db6361b meow
* 481fb8e (HEAD -> main, tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Сброшенные коммиты находятся по-прежнему в репозитории

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --all
* ecbc258 (tag: oooops) Reapply "Oops, this is bad commit"
* d5d6d38 Revert "Oops, this is bad commit"
* 3a57bfc Oops, this is bad commit
* db6361b meow
* 481fb8e (HEAD -> main, tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Удаление тега

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git tag -d oooops
Deleted tag 'oooops' (was ecbc258)

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --all
* 481fb8e (HEAD -> main, tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

1.3

Добавление комментария в файл

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git add shop.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit -m "mao"
[main ef0f8bb] mao
 1 file changed, 1 insertion(+), 1 deletion(-)
```

Индексация и изменение коммита

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git add shop.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit --amend -m "Add an author/email comment"
[main 2f1a74e] Add an author/email comment
 Date: Fri Jun 6 01:33:46 2025 +0300
 1 file changed, 1 insertion(+), 1 deletion(-)
```

Последний коммит изменен

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist
* 2f1a74e (HEAD -> main) Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Перемещение файла

Коммит перемещения

Содержимое файла index.html

```html
<html>
  <body>
      <iframe src="lib/shop.html" width="200" height="200"></iframe>
  <body>
<html>
```

Индексация и коммит

Файл index.html, открытый в браузере

Hello, world
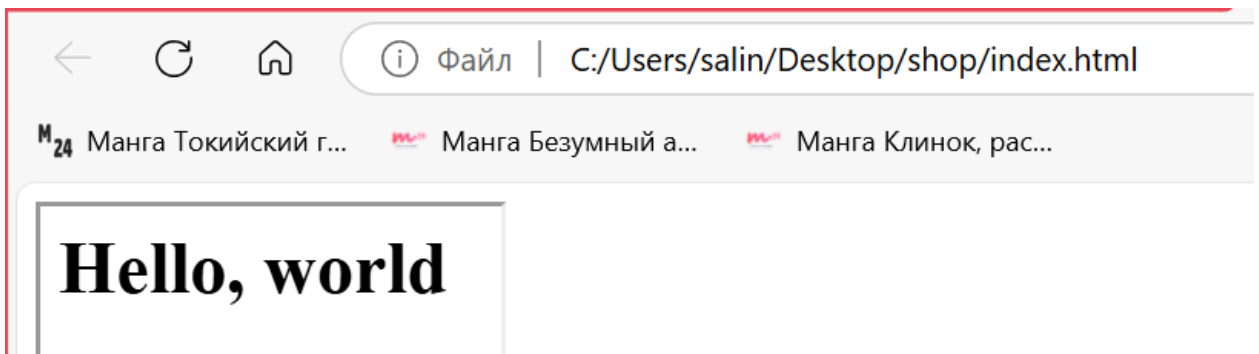
Содержание каталога .git

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls -C .git
COMMIT_EDITMSG   ORIG_HEAD   description   index   logs/      refs/
HEAD             config      hooks/        info/   objects/
```

Содержание каталога objects

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls -C .git/objects
07/   1d/   25/   48/   5b/   87/   9e/   b0/   be/   d2/   dd/   ee/   ff/
0f/   21/   2f/   49/   61/   88/   a2/   ba/   cb/   d5/   e6/   ef/   info/
1b/   24/   3a/   53/   71/   8d/   a5/   bc/   d0/   db/   ec/   f0/   pack/
```

Просмотр каталога 8d

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls -C .git/objects/8d
f69acfcade57560e1816b3e2b92c3a9ed98336

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$
```

Просмотр файла конфигурации

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cat .git/config
[core]
        repositoryformatversion = 0
        filemode = false
        bare = false
        logallrefupdates = true
        symlinks = false
        ignorecase = true
[remote "origin"]
        url = https://github.com/rorokushiza/meow.git
        fetch = +refs/heads/*:refs/remotes/origin/*
[branch "main"]
        remote = origin
        merge = refs/heads/main
```

Просмотр файлов и веток


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls .git/refs
heads/   remotes/   tags/

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls .git/refs/heads
main

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls .git/refs/tags
ver1   ver1-beta

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ ls .git/refs/tags/ver1
.git/refs/tags/ver1
```

Содержимое файла HEAD

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cat .git/HEAD
ref: refs/heads/main
```

Последний коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --max-count=1
* 0fb01be (HEAD -> main) Added index.html
```

Просмотр объекта коммита

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git cat-file -t 0fb01be
commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git cat-file -p 0fb01be
tree d2e3a64ac73a95208764b8b452131c5e66ccf446
parent 070afe42e669d5f96c8a15051eb0b188ec44cf48
author rorokushiza <bertie_ring@mail.ru> 1749163612 +0300
committer rorokushiza <bertie_ring@mail.ru> 1749163612 +0300

Added index.html
```

Использование алиасов

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git type 0fb01be
commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git dump 0fb01be
tree d2e3a64ac73a95208764b8b452131c5e66ccf446
parent 070afe42e669d5f96c8a15051eb0b188ec44cf48
author rorokushiza <bertie_ring@mail.ru> 1749163612 +0300
committer rorokushiza <bertie_ring@mail.ru> 1749163612 +0300

Added index.html
```

Просмотр дерева каталогов

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git cat-file -p d2e3a64
100644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391    client.html
100644 blob bca5620e5feb0e829b5a01b3e51902eb61cc7c40    index.html
040000 tree 53bd6b1b6f68d80329541b5f060694c3a2d089db    lib
100644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391    management.html
100644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391    orders.html
100644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391    storage.html
```

Просмотр каталога lib

```
100644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391    storage.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git cat-file -p 53bd6b1
100644 blob f04361a7391f1c2c871e9a0337501448d47c1649    shop.html
```

Вывод содержимого файла hello.html

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git cat-file -p f04361a
<!--Author: Alina Shitik (bertie_ring@mail.ru) -->
<h1>Hello, world</h1>
```

Просмотр содержимого файла при первом коммите

```
MINGW64:/c/Users/salin/Desktop/shop

alin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
 git hist
 0fb01be (HEAD -> main) Added index.html
 070afe4 Moved shop.html to lib
 2f1a74e Add an author/email comment
 497e6c9 mao
 481fb8e (tag: ver1, origin/main) Added h2 tag
 8df69ac (tag: ver1-beta) Create orders processing system
 612668c Add client interface
 882d871 Add managemet module
 beb3cd5 First Commit

alin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
 git cat-file -p beb3cd5
ree cb6fa0a24e1bfa1ea1baf59dda81565402fb4fa3
uthor Shitik Alina <bertie_ring@mail.ru> 1748893723 +0300
ommitter Shitik Alina <bertie_ring@mail.ru> 1748893723 +0300

irst Commit

alin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
 git cat-file -p cb6fa0a
00644 blob e69de29bb2d1d6434b8b29ae775ad8c2e48c5391      shop.html

alin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
 git cat-file -p e69de29
```

1.4

Создание новой ветки style


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout -b style
Switched to a new branch 'style'
```



```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git status
On branch style
nothing to commit, working tree clean
```

Создание файла стилей


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ touch lib/style.css
```

Код style.css

Индексация и коммит нового файла

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git add lib/style.css

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git commit -m "Added css stylesheet"

[style 95782fd] Added css stylesheet
 1 file changed, 3 insertions(+)
 create mode 100644 lib/style.css
```

Изменения в файле shop.html

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git add lib/shop.html
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git commit -m "Shop.html uses style.css"
[style 2675237] Shop.html uses style.css
 1 file changed, 10 insertions(+), 1 deletion(-)
```

Изменения в файле index.html

```
<> index.html ×

C: > Users > salin > Desktop > shop > <> index.html
   1    <html>
   2      <head>
   3        <link rel="stylesheet" type="text/css" media="all" href="lib/style.css">
   4      </head>
   5      <body>
   6          <iframe src="lib/shop.html" width="200" height="200"></iframe>
   7      <body>
   8    <html>
   9
```

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git add index.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git commit -m "Update index.html"
[style f106e70] Update index.html
 1 file changed, 3 insertions(+)
```

Просмотр истории

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git hist --all
* f106e70 (HEAD -> style) Update index.html
* 2675237 Shop.html uses style.css
* 95782fd Added css stylesheet
* 0fb01be (main) Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Переключение на ветку master

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 4 commits.
  (use "git push" to publish your local commits)
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cat lib/shop.html
<!--Author: Alina Shitik (bertie_ring@mail.ru) -->
<html>
    <head>

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

Переключение на ветку style

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout style
Switched to branch 'style'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ catlib/shop.html
bash: catlib/shop.html: No such file or directory

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ cat lib/shop.html
<!--Author: Alina Shitik (bertie_ring@mail.ru) -->
<html>
    <head>
        <link rel="stylesheet" type="text/css" media="all" href="style.css"
    </head>
    <body>
        <h1>Hello, world</h1>
        <h2>The cake is lie</h2>
    </body>
</html>
```

Переключение на ветку master

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 4 commits.
  (use "git push" to publish your local commits)
```

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git add README.md

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit -m "Added README"
[main 13ee485] Added README
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

Дерево коммитов

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --all
* 13ee485 (HEAD -> main) Added README
| * f106e70 (style) Update index.html
| * 2675237 Shop.html uses style.css
| * 95782fd Added css stylesheet
|/
* 0fb01be Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Переключение на ветку style

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout style
Switched to branch 'style'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git merge master
```

Слияние с веткой main

```
Merge made by the 'ort' strategy.
 README.md | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

Просмотр истории

Переход в ветку master

Внесение изменений

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git add lib/shop.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit -m 'Life is great!'
[main 55c3757] Life is great!
 1 file changed, 10 insertions(+), 1 deletion(-)
```

Конфликт изменений

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --all
* 55c3757 (HEAD -> main) Life is great!
| *   d230825 (style) Merge branch 'main' into style
| |\
| |/
|/|
* | 13ee485 Added README
| * f106e70 Update index.html
| * 2675237 Shop.html uses style.css
| * 95782fd Added css stylesheet
|/
* 0fb01be Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Ошибка при слиянии

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout style
Switched to branch 'style'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git merge main
Auto-merging lib/shop.html
CONFLICT (content): Merge conflict in lib/shop.html
Automatic merge failed; fix conflicts and then commit the result.
```

Просмотр файла hello.html при наличии конфликта

Решение конфликта вручную

Индексация и коммит

1.5

Просмотр истории

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git hist
*   3e60551 (HEAD -> style) Merged master fixed conflict
|\
| * 55c3757 (main) Life is great!
* | d230825 Merge branch 'main' into style
|\|
| * 13ee485 Added README
* | f106e70 Update index.html
* | 2675237 Shop.html uses style.css
* | 95782fd Added css stylesheet
|/
* 0fb01be Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Сброс ветки style


```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git reset --hard 0fb01be
HEAD is now at 0fb01be Added index.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git hist
* 55c3757 (main) Life is great!
* 13ee485 Added README
* 0fb01be (HEAD -> style) Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Переключение на master и просмотр истории

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 6 commits.
  (use "git push" to publish your local commits)

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist
* 55c3757 (HEAD -> main) Life is great!
* 13ee485 Added README
* 0fb01be (style) Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Сброс ветки master

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git reset --hard 55c3757
HEAD is now at 55c3757 Life is great!

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist --all
* 55c3757 (HEAD -> main) Life is great!
* 13ee485 Added README
* 0fb01be (style) Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Перебазирование веток

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git checkout style
Switched to branch 'style'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git rebase main
Successfully rebased and updated refs/heads/style.

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git hist
* 55c3757 (HEAD -> style, main) Life is great!
* 13ee485 Added README
* 0fb01be Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Слияние веток

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (style)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 6 commits.
  (use "git push" to publish your local commits)

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git merge style
Already up to date.
```

Просмотр истории

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git hist
* 55c3757 (HEAD -> main, style) Life is great!
* 13ee485 Added README
* 0fb01be Added index.html
* 070afe4 Moved shop.html to lib
* 2f1a74e Add an author/email comment
* 497e6c9 mao
* 481fb8e (tag: ver1, origin/main) Added h2 tag
* 8df69ac (tag: ver1-beta) Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Переход в рабочий каталог и его клонирование

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cd

salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ pwd
/c/Users/salin

salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ cd Documents
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ git clone https://github.com/rorokushiza/meow cloned_shop
Cloning into 'cloned_shop'...
remote: Enumerating objects: 13, done.
remote: Counting objects: 100% (13/13), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 13 (delta 3), reused 13 (delta 3), pack-reused 0 (from 0)
Receiving objects: 100% (13/13), done.
Resolving deltas: 100% (3/3), done.
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ ls
 IISExpress/  'My Web Sites'/   cloned_shop/   'Мои видеозаписи'@   'Моя музыка'@   'мои рисунки'@
```

Просмотр содержимого клонированного репозитория

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ cd cloned_shop

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ ls
client.html   management.html   orders.html   shop.html   storage.html
```

Просмотр логов клонированного каталога

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git hist --all
* 481fb8e (HEAD -> main, origin/main, origin/HEAD) Added h2 tag
* 8df69ac Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Просмотр данных об origin

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git remote
origin

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/rorokushiza/meow
  Push  URL: https://github.com/rorokushiza/meow
  HEAD branch: main
  Remote branch:
    main tracked
  Local branch configured for 'git pull':
    main merges with remote main
  Local ref configured for 'git push':
    main pushes to main (up to date)
```

Просмотр удаленных веток

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git branch
* main

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git branch -a
* main
  remotes/origin/HEAD -> origin/main
  remotes/origin/main
```

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Переход в оригинальный репозиторий

```
salin@DESKTOP-0Q6DMLT MINGW64 ~ (master)
$ cd ~/Desktop/shop

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$
```

Изменения в файле README

```
(i) README.md ●

C: > Users > salin > Desktop > shop > (i) README.md
   1    This is the Hello World example from the Git tutorial
   2    (changed in original)
```

Индексация и коммит новых изменений

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Desktop/shop (main)
$ git add README.md

salin@DESKTOP-OQ6DMLT MINGW64 ~/Desktop/shop (main)
$ git commit -m "Changed README in original repo"
[main 6c8873a] Changed README in original repo
 1 file changed, 1 insertion(+)
```

Извлечение изменений

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git fetch
```

Просмотр истории

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git hist --all
* bd5c204 (HEAD -> main) Added README
* 481fb8e (origin/main, origin/HEAD) Added h2 tag
* 8df69ac Create orders processing system
* 612668c Add client interface
* 882d871 Add managemet module
* beb3cd5 First Commit
```

Вывод содержимого файла README

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ cat README
This is the Hello World example from the Git tutorial
```

Слияние изменений

Вывод содержимого файла README

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ cat README
This is the Hello World example from the Git tutorial
(chanded in original) d
```

Команда git pull

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git pull
Already up to date.
```

Добавление локальной ветки

Создание чистого репозитория

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ git clone --bare shop shop.git
fatal: repository 'shop' does not exist

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ git clone --bare ~/Documents/shop shop.git
Cloning into bare repository 'shop.git'...
warning: You appear to have cloned an empty repository.
done.

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ ls shop.git
HEAD  config  description  hooks/  info/  objects/  refs/
```
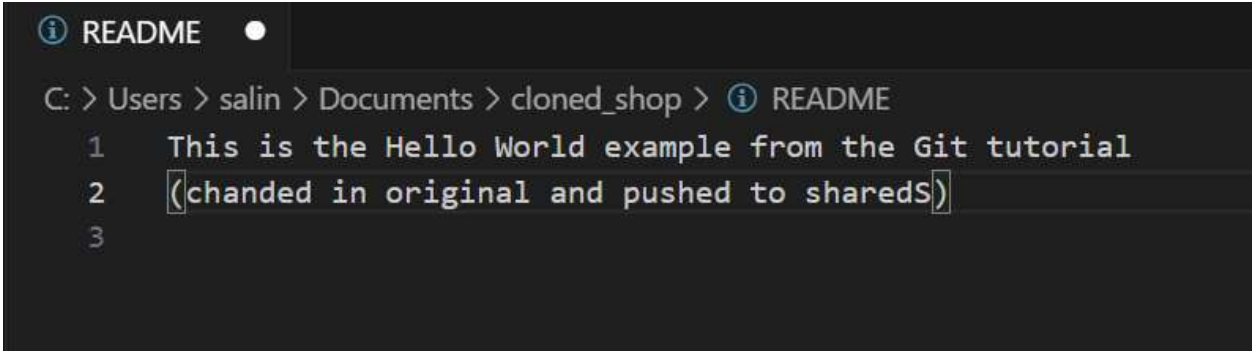
Добавление удаленного репозитория

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop.git (BARE:master)
$ cd ~/Documents/cloned_shop

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git remote add shared ../hello.git
```

Внесение изменений в файл

```
ⓘ README ●

C: > Users > salin > Documents > cloned_shop > ⓘ README
    1    This is the Hello World example from the Git tutorial
    2    (chanded in original and pushed to sharedS)
    3
```

Индексация и коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git checkout main
M       README
Already on 'main'
Your branch is up to date with 'origin/main'.

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git add README
```

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git commit -m "Added shared comment to README"
[main 3ca6da2] Added shared comment to README
 1 file changed, 2 insertions(+)
```

Отправка изменений в общий репозиторий

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git push shared main
Enumerating objects: 18, done.
Counting objects: 100% (18/18), done.
Delta compression using up to 16 threads
Compressing objects: 100% (11/11), done.
Writing objects: 100% (18/18), 1.63 KiB | 1.63 MiB/s, done.
Total 18 (delta 5), reused 12 (delta 3), pack-reused 0 (from 0)
To ../shop.git
 * [new branch]      main -> main
```

Переход в клонированный репозиторий

Настройка сервера

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git daemon --verbose --export-all --base-path=.
[15732] Ready to rumble
```

Клонирование проекта

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ git clone ~/Documents/shop.git network_shop
Cloning into 'network_shop'...
done.
warning: remote HEAD refers to nonexistent ref, unable to checkout

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop (main)
$ cd network_shop

salin@DESKTOP-0Q6DMLT MINGW64 ~/Desktop/shop/network_shop (master)
$ ls
```

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Клонирование репозитория и просмотр удаленных репозиториев

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ 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 | 2.11 MiB/s, done.
Resolving deltas: 100% (837/837), done.

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents (master)
$ cd ticgit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/ticgit (master)
$ git remote
origin

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/ticgit (master)
```

Просмотр удаленных репозиториев с ключом -v

Добавление удаленного репозитория

Использование имени вместо пути

Получение данных из удаленных проектов

Отправка изменений в удаленный репозиторий

Информация об удаленном репозитории

Переименование удаленного репозитория

Удаление удаленного репозитория

Просмотр тегов

Создание аннотированной метки

Просмотр данных тега

Создание легковесной метки

Просмотр данных тега

```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/shop (main)
$ git show v2.1-1w
commit 26450bc28305bf9e1ec7c40a45da2fad0601ae43 (HEAD -> main, tag: v2.1-1w, tag: v2.1, shared)
Author: rorokushiza <bertie_ring@mail.ru>
Date:    Fri Jun 6 16:29:54 2025 +0300

    Changed README in original repo

diff --git a/README b/README
new file mode 100644
index 0000000..f66cede
--- /dev/null
+++ b/README
@@ -0,0 +1,3 @@
+This is the Hello World example from the Git tutorial
+(changed in original)
+
```

Просмотр истории


```
salin@DESKTOP-OQ6DMLT MINGW64 ~/Documents/shop (main)
$ git log --pretty=oneline
26450bc28305bf9e1ec7c40a45da2fad0601ae43 (HEAD -> main, tag: v2.1-1w, tag: v2.1, shared) Changed README in origin
al repo
9e13f62872592cd501fa373425a0ef67df23ef5b Changed README in original repo
6c8873acf11126ff46369f805b4c157f46da9545 Changed README in original repo
55c3757eb06bb617d9e37bf91c2db003869879e2 (style) Life is great!
13ee485c7cd84e8977dda048a37b762664460213 Added README
0fb01be028bfc85ce689a130231f50ec994f0f0b Added index.html
070afe42e669d5f96c8a15051eb0b188ec44cf48 Moved shop.html to lib
2f1a74ea7a41eabe57b14abe9e834e6cdc2f03f8 Add an author/email comment
497e6c9500adf78e8d0ac8c44a2aafe7c792e996 mao
481fb8e2fa300cb113f64e1d43eb98debcea1ee2 (tag: ver1, origin/main) Added h2 tag
8df69acfcade57560e1816b3e2b92c3a9ed98336 (tag: ver1-beta) Create orders processing system
612668c16aff04e0b666236c1ce62fe8d616b262 Add client interface
882d871903378537bf7c124631cdc0c04bf9bf54 Add managemet module
beb3cd546eff45396bc7df8ba9943307f793e9d7 First Commit
```

Создание тега определенному коммиту

Ввод сообщения в текстовом редакторе


```
MINGW64:/c/Users/salin/Documents/shop

Tag message1
#
# Write a message for tag:
#    ver3
# Lines starting with '#' will be ignored.
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
.git/TAG_EDITMSG[+] [unix] (17:54 06/06/2025)
-- INSERT --
```

Просмотр данных тега

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git show ver3
tag ver3
Tagger: rorokushiza <bertie_ring@mail.ru>
Date:    Fri Jun 6 18:08:30 2025 +0300

Tag message1

commit 9e13f62872592cd501fa373425a0ef67df23ef5b (tag: ver3)
Author: rorokushiza <bertie_ring@mail.ru>
Date:    Fri Jun 6 16:10:19 2025 +0300

    Changed README in original repo

diff --git a/README.md b/README.md
index f06bb8a..c42ab7c 100644
--- a/README.md
+++ b/README.md
@@ -1,2 +1,2 @@
 This is the Hello World example from the Git tutorial
-(changed in original)
\ No newline at end of file
+(changed in original) d
\ No newline at end of file
```

Отправка тега на удаленный сервер

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git push shared v2.1
Enumerating objects: 42, done.
Counting objects: 100% (42/42), done.
Delta compression using up to 16 threads
Compressing objects: 100% (35/35), done.
Writing objects: 100% (42/42), 3.75 KiB | 959.00 KiB/s, done.
Total 42 (delta 14), reused 0 (delta 0), pack-reused 0 (from 0)
To ../shop.git
 * [new tag]         v2.1 -> v2.1
```

Отправка всех тегов на сервер

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git push shared --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 164 bytes | 164.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To ../shop.git
 * [new tag]         v2.1-1w -> v2.1-1w
 * [new tag]         ver1 -> ver1
 * [new tag]         ver1-beta -> ver1-beta
 * [new tag]         ver3 -> ver3
```

Удаление тега

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git tag -d v2.1-1w
Deleted tag 'v2.1-1w' (was 26450bc)
```

Удаление тегов с сервера

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git push shared :refs/tags/v2.1-1w
To ../shop.git
 - [deleted]         v2.1-1w
```

Переключение на метку

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (main)
$ git checkout v2.1
D       README.md
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 26450bc Changed README in original repo
```

Создание новой ветки

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop ((v2.1))
$ git checkout -b version2 v2.1
D       README.md
Switched to a new branch 'version2'
```

Задание алиасов

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop ((v2.1))
$ git checkout -b version2 v2.1
D        README.md
Switched to a new branch 'version2'

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.co checkout

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.br branch

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.ci commit

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.st status
```

Создание псевдонима исключения файла из индекса

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.unstage 'reset HEAD --'
```

Использование созданного псевдонима

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git unstage fileA
Unstaged changes after reset:
D        README.md

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git reset HEAD -- fileA
Unstaged changes after reset:
D        README.md
```

Создание алиаса для просмотра последнего коммита

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git log -1
commit 26450bc28305bf9e1ec7c40a45da2fad0601ae43 (HEAD -> version2, tag: v2.1, shared, main)
Author: rorokushiza <bertie_ring@mail.ru>
Date:   Fri Jun 6 16:29:54 2025 +0300

    Changed README in original repo
```

Создание псевдонима внешней команды

```
README   client.html   index.html   lib/   management.html   netwo
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/shop (version2)
$ git config --global alias.visual '!gitk'
```

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Для начала следует создать репозиторий, создать 3 файла и добавить их в коммит

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$  touch test.rb

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$  touch LICENSE

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git add README test.rb LICENSE

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git commit -m 'Initial commit of me project'
[main 3013d65] Initial commit of me project
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 LICENSE
 create mode 100644 test.rb
```

Создание ветки testing

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git branch testing
```

Переключение на ветку testingS

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git checkout testing
Switched to branch 'testing'
```

Индексация и коммит файла test.rb

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (testing)
$ git add test.rb

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (testing)
$ git commit -m 'New changes'
[testing 3d1264c] New changes
 1 file changed, 1 insertion(+)
```

Переключение на ветку master

```
error: pathspec 'master' did not match any file(s) known to git
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (testing)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

Еще индексация и коммит test.rb

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git add test.rb

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git commit -a -m 'Another changes'
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git commit -a -m 'Another changes'
[main 9758405] Another changes
 1 file changed, 1 insertion(+)
```

Создание и переключение на ветку iss53

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git checkout -b iss53
Switched to a new branch 'iss53'
```

Индексация и коммит файла index.html

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git add index.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git commit -a -m 'Added html'
[iss53 dd2a878] Added html
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
```

Переключение на ветку master

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)
```

Индексация и коммит index.html на ветке hotfix

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git add index.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git commit -a -m 'Fixed the broken email address'
[main cead366] Fixed the broken email address
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
```

Переключение на ветку master и объединение с веткой hotfix

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (hotfix)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git merge hotfix
Updating cead366..b39d8da
Fast-forward
 index.html | 2 ++
 1 file changed, 2 insertions(+)
```

Удаление ветки hotfix

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main)
$ git branch -d hotfix
Deleted branch hotfix (was b39d8da).
```

Индексация и коммит index.html на ветке iss53

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git add index.html

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git commit -a -m 'Finished the new footer'
On branch iss53
nothing to commit, working tree clean

salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (iss53)
$ git commit -a -m 'Finished the new footer'
[iss53 f70b6f3] Finished the new footer
 1 file changed, 1 insertion(+)
```

Слияние веток

Удаление ветки iss53

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git branch -D iss53
Deleted branch iss53 (was f70b6f3).
```

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Список существующих веток

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git branch
* main
  testing
```

Список веток с последними коммитами

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git branch -v
* main      b39d8da Fixed the broken email address
  testing 3d1264c New changes
```

Список веток слитых с текущей

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git branch --merged
* main
```

Список веток не слитых с текущей

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git branch --no-merged
  testing
```

Просмотр удаленных веток

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/rorokushiza/meow
  Push  URL: https://github.com/rorokushiza/meow
  HEAD branch: main
  Remote branch:
    main tracked
  Local branch configured for 'git pull':
    main merges with remote main
  Local ref configured for 'git push':
    main pushes to main (up to date)
```

Отправка изменений

```
salin@DESKTOP-0Q6DMLT MINGW64 ~/Documents/cloned_shop (main|MERGING)
$ git push origin main
Everything up-to-date
```

Выполнение команды git fetch

Создание ветки на основе удаленной ветки