

## **Git 1.2**

### **1. Подготовка**

#### **Настройка Git**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git config --global user.name "danila.razumnov"**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git config --global user.email "danila.razumnoff@yandex.ru"**

#### **Параметры окончаний строк**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git config --global core.autocrlf true**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git config --global core.autocrlf input**

#### **Поддержка Unicode :**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git config --global core.quotepath off**

### **2. Создание проекта**

#### **Шаг 1: Инициализация репозитория**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ mkdir my\_project**

**mkdir: cannot create directory 'my\_project': File exists**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ cd my\_project**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ echo "Hello, world" > hello.html**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git init**

**Reinitialized existing Git repository in C:/Users/Acer/my\_project/.git/**

**Шаг 2: Добавление файла в репозиторий**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git add hello.html**

**4. Внесение изменений**

**Шаг 1: Редактирование файла**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ cat hello.html**

**Hello, world**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ nano hello.html**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ cat hello.html**

**<!DOCTYPE html>**

**<html>**

**<head>**

**<title>Hello</title>**

**</head>**

**<body>**

**Hello, world!**

**</body>**

**</html>**

**Шаг 2: Индексация изменений**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git add hello.html**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**Шаг 3: Коммит изменений**

**\$ git commit -m "Добавлены HTML-теги"**

**[master 2b2f3f3] Добавлены HTML-теги**

**1 file changed, 9 insertions(+), 1 deletion(-)**

```

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ cat hello.html
Hello, world

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ nano hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ $ cat hello.html
bash: $: command not found

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ cat hello.html
<!DOCTYPE html>
<html>
<head>
  <title>Hello</title>
</head>
<body>
  Hello, world!
</body>
</html>

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git add hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git commit -m "Добавлены HTML-теги"
[master 2b2f3f3] Добавлены HTML-теги
1 file changed, 9 insertions(+), 1 deletion(-)

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$

```

## 5. Просмотр истории коммитов

### Основные команды

#### Полная история

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)

\$ git log

#### Краткая история в одну строку

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)

**\$ git log --pretty=oneline**

**Фильтрация по времени**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git log --since="2 days ago"**

**commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)**

**Author: danila.razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 19:30:48 2025 +0300**

**Добавлены HTML-теги**

**commit 5b426b07ee8616b337712f33deecc7a1bdd412d7**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:55:54 2025 +0300**

**Добавлен тег head**

**commit a898f2c257c8936e745de4321e8530a584c2a15f**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:53:29 2025 +0300**

**Добавлены теги html и body**

**commit 695f46851ee45159602fda7f2d5e1c1e91cb3187**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:46:52 2025 +0300**

**Добавлен тег head**

**commit f66a3531ebdc79a492710bbaa8c09c8df2687936**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:46:32 2025 +0300**

**Добавлены теги html и body**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git log --until="2021-01-31"**

**По автору**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git log --author "danila.razumnov"**

**commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)**

**Author: danila.razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 19:30:48 2025 +0300**

**Добавлены HTML-теги**

**С отображением изменений**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git log --stat**

**commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)**

**Author: danila.razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 19:30:48 2025 +0300**

**Добавлены HTML-теги**

**hello.html | 10 ++++++++--**

**1 file changed, 9 insertions(+), 1 deletion(-)**

**commit 5b426b07ee8616b337712f33deecc7a1bdd412d7**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:55:54 2025 +0300**

**Добавлен тег head**

**hello.html | 2 +-**

**1 file changed, 1 insertion(+), 1 deletion(-)**

**commit a898f2c257c8936e745de4321e8530a584c2a15f**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:53:29 2025 +0300**

**Добавлены теги html и body**

**hello.html | 2 +-**

**1 file changed, 1 insertion(+), 1 deletion(-)**

**commit 695f46851ee45159602fda7f2d5e1c1e91cb3187**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:46:52 2025 +0300**

**Добавлен тег head**

**hello.html | 2 +-**

**1 file changed, 1 insertion(+), 1 deletion(-)**

**commit f66a3531ebdc79a492710bbaa8c09c8df2687936**

**Author: Danila Razumnov <danila.razumnoff@yandex.ru>**

**Date: Thu Jun 5 00:46:32 2025 +0300**

**Добавлены теги html и body**

**hello.html | 1 +**

**1 file changed, 1 insertion(+)**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log
commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 19:30:48 2025 +0300

    Добавлены HTML-теги

commit 5b426b07ee8616b337712f33deecc7a1bdd412d7
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:55:54 2025 +0300

    Добавлен тег head

commit a898f2c257c8936e745de4321e8530a584c2a15f
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:53:29 2025 +0300

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Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:52 2025 +0300

    Добавлен тег head

commit f66a3531ebdc79a492710bbaa8c09c8df2687936
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:32 2025 +0300

    Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log --pretty=oneline
2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master) Добавлены HTML-теги
5b426b07ee8616b337712f33deecc7a1bdd412d7 Добавлен тег head
a898f2c257c8936e745de4321e8530a584c2a15f Добавлены теги html и body
695f46851ee45159602fda7f2d5e1c1e91cb3187 Добавлен тег head
f66a3531ebdc79a492710bbaa8c09c8df2687936 Добавлены теги html и body
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log --since="2 days ago"
commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 19:30:48 2025 +0300
```

Добавлены HTML-теги

```
commit 5b426b07ee8616b337712f33deecc7a1bdd412d7
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:55:54 2025 +0300
```

Добавлен тег head

```
commit a898f2c257c8936e745de4321e8530a584c2a15f
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:53:29 2025 +0300
```

Добавлены теги html и body

```
commit 695f46851ee45159602fda7f2d5e1c1e91cb3187
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:52 2025 +0300
```

Добавлен тег head

```
commit f66a3531ebdc79a492710bbaa8c09c8df2687936
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:32 2025 +0300
```

Добавлены теги html и body

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log --until="2021-01-31"

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log --author "danila.razumnov"
commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 19:30:48 2025 +0300
```

Добавлены HTML-теги

```
MINGW64~/my_project
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git log --stat
commit 2b2f3f3e3dc2227607ad6bb4caa4c526690fd9e7 (HEAD -> master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 19:30:48 2025 +0300

    Добавлены HTML-теги

hello.html | 10 +++++++-
1 file changed, 9 insertions(+), 1 deletion(-)

commit 5b426b07ee8616b337712f33deecc7a1bdd412d7
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:55:54 2025 +0300

    Добавлен тег head

hello.html | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)

commit a898f2c257c8936e745de4321e8530a584c2a15f
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:53:29 2025 +0300

    Добавлены теги html и body

hello.html | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)

commit 695f46851ee45159602fda7f2d5e1c1e91cb3187
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:52 2025 +0300

    Добавлен тег head

hello.html | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)

commit f66a3531ebdc79a492710bbaa8c09c8df2687936
Author: Danila Razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 00:46:32 2025 +0300

    Добавлены теги html и body

hello.html | 1 +
1 file changed, 1 insertion(+)

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$
```

## 6. Работа с тегами

### Создание тега

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)

```
$ git tag ver1
```

### Просмотр всех тегов

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)

```
$ git tag
```

### Переключение на тег

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project (master)**

**\$ git checkout ver1**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git tag ver1

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (master)
$ git tag
ver1

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (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 2b2f3f3 Добавлены HTML-теги
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git tag -d oooops
```

## **7. Отмена изменений**

### **Неиндексированные изменения**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git checkout hello.html**

### **Индексированные изменения**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git reset HEAD hello.html**

### **Отмена последнего коммита**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git revert HEAD**

**#Открывается редактор для подтверждения отката**

### **Полный сброс до предыдущего коммита**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git reset --hard ver1**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git tag -d oooooops
error: tag 'ooooops' not found.

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git tag -d 2b2f3f3
error: tag '2b2f3f3' not found.

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git checkout hello.html
Updated 0 paths from the index

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git reset HEAD hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git checkout hello.html
Updated 0 paths from the index

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git revert HEAD
hint: Waiting for your editor to close the file... Программа Vim. Ошибка считывания из входного потока.
Завершение работы...
Vim: preserving files...
Vim: Finished.

error: there was a problem with the editor 'vi'
Please supply the message using either -m or -F option.

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git reset --hard ver1
HEAD is now at 2b2f3f3 Добавлены HTML-теги

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
```

## **8. Алиасы для упрощения работы**

**короткие псевдонимы для часто используемых команд:**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git config --global alias.co checkout**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git config --global alias.ci commit**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**

**\$ git config --global alias.st status**

**Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))**



```
$ git config --global alias.hist "log --pretty=format:'%h %ad | %s [%an]' --graph --date=short"
```

Теперь вместо `git log --pretty=format...` Используем

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))

```
$ git hist
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git config --global alias.co checkout

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git config --global alias.ci commit

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git config --global alias.st status

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git config --global alias.hist "log --pretty=format:'%h %ad | %s [%an]' --graph --date=short"

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git hist
* 2b2f3f3 2025-06-05 | Добавлены HTML-теги [danila.razumnov]
* 5b426b0 2025-06-05 | Добавлен тег head [Danila Razumnov]
* a898f2c 2025-06-05 | Добавлены теги html и body [Danila Razumnov]
* 695f468 2025-06-05 | Добавлен тег head [Danila Razumnov]
* f66a353 2025-06-05 | Добавлены теги html и body [Danila Razumnov]
```

## 9. Примеры работы с историей

Просмотр изменений

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))

```
$ git hist
```

Поиск коммита по хэшу

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))

```
$ git checkout 2b2f3f3
```

HEAD is now at 2b2f3f3 Добавлены HTML-теги

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))

```
$ cat hello.html
```

```

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git hist
* 2b2f3f3 2025-06-05 | Добавлены HTML-теги [danila.razumnov]
* 5b426b0 2025-06-05 | Добавлен тег head [Danila Razumnov]
* a898f2c 2025-06-05 | Добавлены теги html и body [Danila Razumnov]
* 695f468 2025-06-05 | Добавлен тег head [Danila Razumnov]
* f66a353 2025-06-05 | Добавлены теги html и body [Danila Razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ git checkout 2b2f3f3
HEAD is now at 2b2f3f3 Добавлены HTML-теги

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$ cat hello.html
<!DOCTYPE html>
<html>
<head>
  <title>Hello</title>
</head>
<body>
  Hello, world!
</body>
</html>

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((ver1))
$

```

## 10. Удаление коммитов

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((ver1))

\$ git reset --hard HEAD~1

HEAD is now at 5b426b0 Добавлен тег head

## 11. Восстановление удалённых коммитов.

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((5b426b0...))

\$ git reflog

5b426b0 (HEAD) HEAD@{0}: reset: moving to HEAD~1

2b2f3f3 (tag: ver1, master) HEAD@{1}: checkout: moving from master to ver1

2b2f3f3 (tag: ver1, master) HEAD@{2}: commit: Добавлены HTML-теги

5b426b0 (HEAD) HEAD@{3}: commit: Добавлен тег head

a898f2c HEAD@{4}: commit: Добавлены теги html и body

695f468 HEAD@{5}: commit: Добавлен тег head

f66a353 HEAD@{6}: commit (initial): Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~/my\_project ((5b426b0...))

**\$ git checkout -b восстановленная\_ветка 2b2f3f3**

**Previous HEAD position was 5b426b0 Добавлен тег head**

**Switched to a new branch 'восстановленная\_ветка'**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((5b426b0...))
$ git reflog
5b426b0 (HEAD) HEAD@{0}: reset: moving to HEAD~1
2b2f3f3 (tag: ver1, master) HEAD@{1}: checkout: moving from master to ver1
2b2f3f3 (tag: ver1, master) HEAD@{2}: commit: Добавлены HTML-теги
5b426b0 (HEAD) HEAD@{3}: commit: Добавлен тег head
a898f2c HEAD@{4}: commit: Добавлены теги html и body
695f468 HEAD@{5}: commit: Добавлен тег head
f66a353 HEAD@{6}: commit (initial): Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project ((5b426b0...))
$ git checkout -b восстановленная_ветка 2b2f3f3
Previous HEAD position was 5b426b0 Добавлен тег head
Switched to a new branch 'восстановленная_ветка'

Acer@DESKTOP-8D49N84 MINGW64 ~/my_project (восстановленная_ветка)
$
```

## **Git 1.3**

### **1 Добавление автора и email в комментарии**

**Открываю файл hello.html и добавляю комментарий.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ cat hello.html**

**<html><body>Hello, world</body></html>**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ nano hello.html**

**Проиндексирую изменения и создам коммит.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git commit -m "Add author/email comment"**



```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ cat hello.html
<html><body>Hello, world</body></html>

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ nano hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git commit -m "Add author/email comment"
[master c84ae91] Add author/email comment
1 file changed, 1 insertion(+), 1 deletion(-)

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ _
```

## 2. Перемещение файлов

Создаю новую директорию:

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ mkdir lib
```

Перемещаю файл с помощью Git:

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ git mv hello.html lib/
```

Зафиксирую изменения:

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ git commit -m "Moved hello.html to lib"
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ mkdir lib

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git mv hello.html lib/

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git commit -m "Moved hello.html to lib"
[master 1ee21ef] Moved hello.html to lib
1 file changed, 0 insertions(+), 0 deletions(-)
rename hello.html => lib/hello.html (100%)
```

### 3. Создание файла index.html

Создаю файл index.html с содержимым.

```
<html>
```

```
<body>
```

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

```
</body>
```

```
</html>
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ nano index.html
```

Добавляю файл в репозиторий и создаю коммит.

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ git add index.html
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ git commit -m "Added index.html"
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ nano index.html

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git add index.html

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git commit -m "Added index.html"
[master 388ecfb] Added index.html
1 file changed, 5 insertions(+)
create mode 100644 index.html
```

#### 4. Исследование структуры .git

Просмотр содержимого .git:

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ ls -la .git
```

Просмотр хэшей объектов:

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
```

```
$ ls .git/objects
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ ls -la .git
total 45
drwxr-xr-x 1 Acer 197121  0 июн  5 21:16 ./
drwxr-xr-x 1 Acer 197121  0 июн  5 21:13 ../
-rw-r--r-- 1 Acer 197121 12288 июн  3 18:32 .COMMIT_EDITMSG.swp
-rw-r--r-- 1 Acer 197121   17 июн  5 21:16 COMMIT_EDITMSG
-rw-r--r-- 1 Acer 197121  250 июн  3 17:10 config
-rw-r--r-- 1 Acer 197121   73 апр  9 20:06 description
-rw-r--r-- 1 Acer 197121   23 июн  3 18:21 HEAD
drwxr-xr-x 1 Acer 197121  0 апр  9 20:06 hooks/
-rw-r--r-- 1 Acer 197121  253 июн  5 21:16 index
drwxr-xr-x 1 Acer 197121  0 апр  9 20:06 info/
drwxr-xr-x 1 Acer 197121  0 июн  3 17:50 logs/
drwxr-xr-x 1 Acer 197121  0 июн  5 21:16 objects/
-rw-r--r-- 1 Acer 197121   41 июн  3 18:40 ORIG_HEAD
drwxr-xr-x 1 Acer 197121  0 апр  9 20:06 refs/

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ ls .git/objects
01/  0b/  1f/  3f/  4b/  6f/  8a/  a5/  b4/  bb/  c7/  cc/  e3/  fa/  info/
0a/  1e/  38/  4a/  63/  7d/  99/  b2/  b8/  c3/  c8/  cd/  e6/  fb/  pack/
```

#### 5. Работа с тегами

Создайте тег для текущего коммита:

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git tag ver2**

**Проверьте список тегов:**

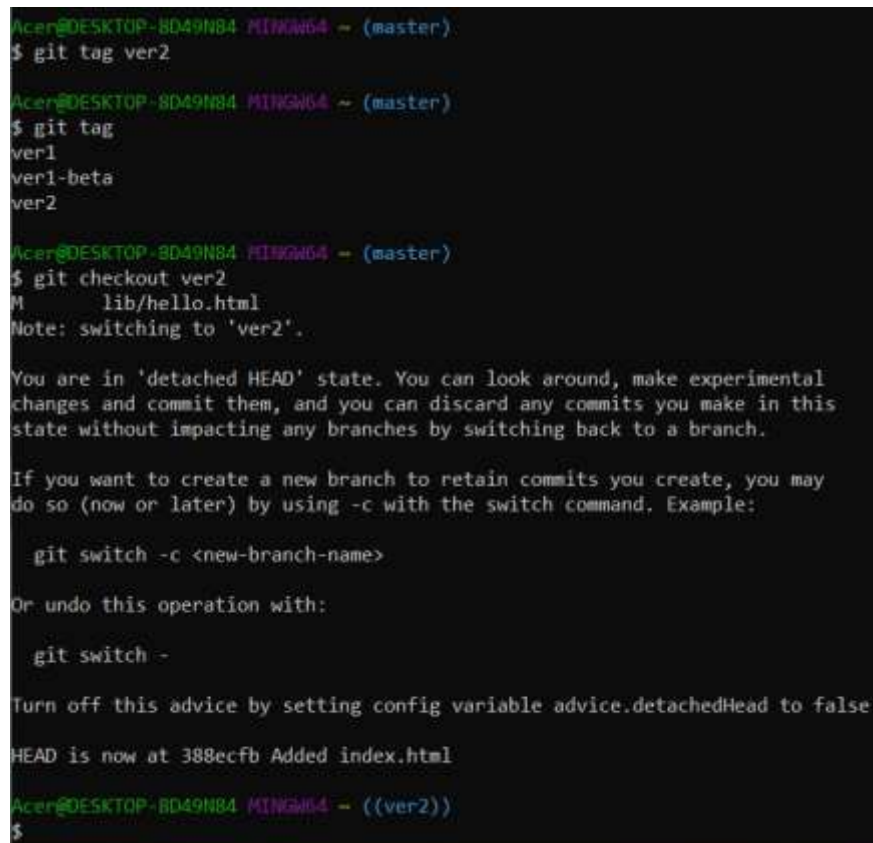
**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git tag**

**Переключитесь на тег:**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ git checkout ver2**



```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git tag ver2

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git tag
ver1
ver1-beta
ver2

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git checkout ver2
M      lib/hello.html
Note: switching to 'ver2'.

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 388ecfb Added index.html
Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$
```

## **7. Просмотр истории коммитов**

**Полная история :**

**Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))**

**\$ git log**

**Краткий формат**

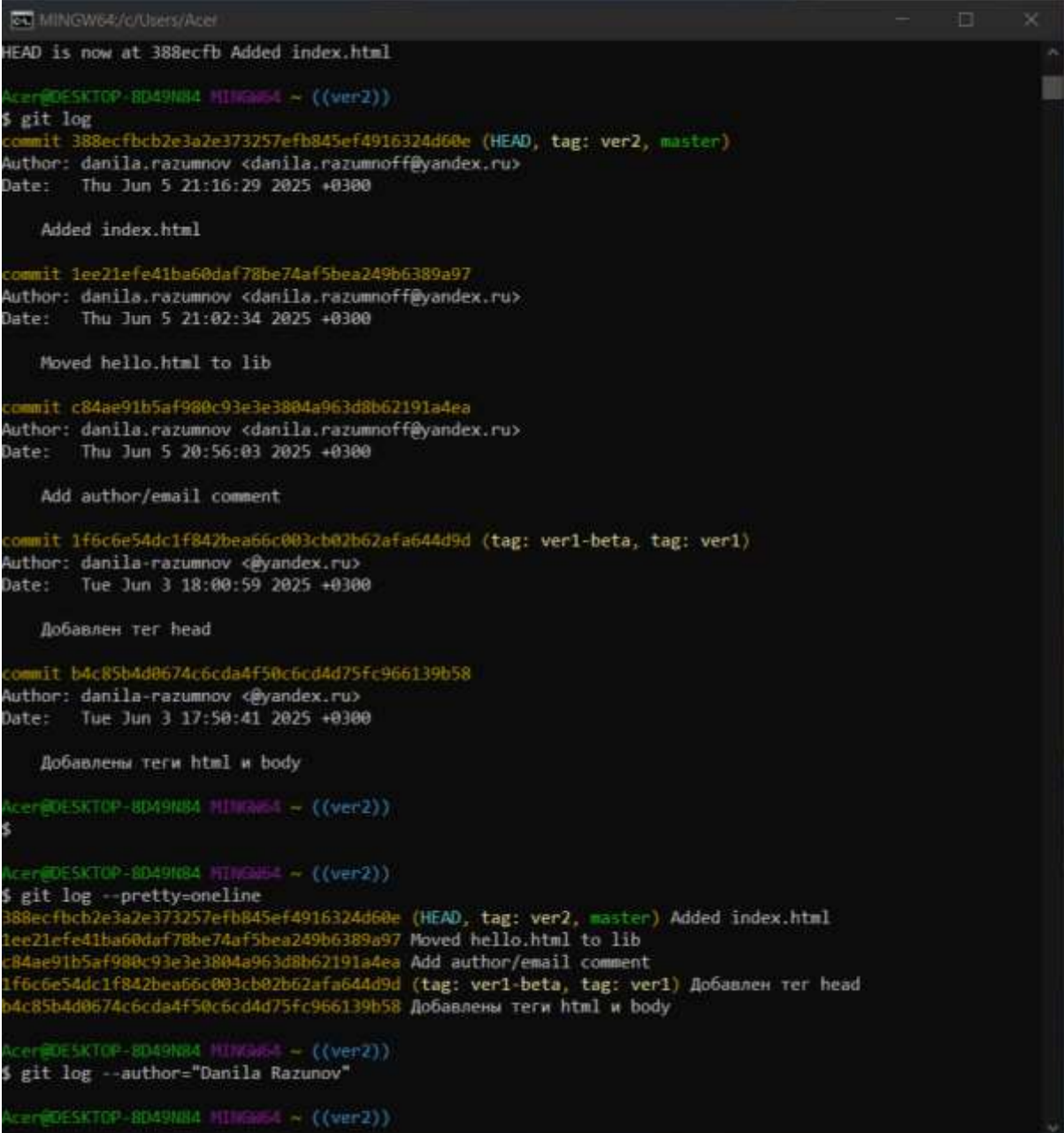
**Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))**

\$ git log --pretty=oneline

С фильтром по автору

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))

\$ git log --author="danila.razumnov"



```
MINGW64/c/Users/Acer
HEAD is now at 388ecfb Added index.html

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$ git log
commit 388ecfbc2e3a2e373257efb845ef4916324d60e (HEAD, tag: ver2, master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 21:16:29 2025 +0300

    Added index.html

commit 1ee21efe41ba60daf78be74af5bea249b6389a97
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 21:02:34 2025 +0300

    Moved hello.html to lib

commit c84ae91b5af980c93e3e3804a963d8b62191a4ea
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 20:56:03 2025 +0300

    Add author/email comment

commit 1f6c6e54dc1f842bea66c003cb02b62afa644d9d (tag: ver1-beta, tag: ver1)
Author: danila-razumnov <@yandex.ru>
Date: Tue Jun 3 18:00:59 2025 +0300

    Добавлен tag head

commit b4c85b4d0674c6cda4f50c6cd4d75fc966139b58
Author: danila-razumnov <@yandex.ru>
Date: Tue Jun 3 17:50:41 2025 +0300

    Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$ git log --pretty=oneline
388ecfbc2e3a2e373257efb845ef4916324d60e (HEAD, tag: ver2, master) Added index.html
1ee21efe41ba60daf78be74af5bea249b6389a97 Moved hello.html to lib
c84ae91b5af980c93e3e3804a963d8b62191a4ea Add author/email comment
1f6c6e54dc1f842bea66c003cb02b62afa644d9d (tag: ver1-beta, tag: ver1) Добавлен tag head
b4c85b4d0674c6cda4f50c6cd4d75fc966139b58 Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$ git log --author="Danila Razunov"

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
```

```

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$ git log --author="danila.razumnov"
commit 388ecfbc7e3a2e373257efb845ef4916324d60e (HEAD, tag: ver2, master)
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 21:16:29 2025 +0300

    Added index.html

commit 1ee21efe41ba60daf78be74af5bea249b6389a97
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 21:02:34 2025 +0300

    Moved hello.html to lib

commit c84ae91b5af980c93e3e3804a963d8b62191a4ea
Author: danila.razumnov <danila.razumnoff@yandex.ru>
Date: Thu Jun 5 20:56:03 2025 +0300

    Add author/email comment

commit 1f6c6e54dc1f842bea66c003cb02b62afa644d9d (tag: ver1-beta, tag: ver1)
Author: danila.razumnov <@yandex.ru>
Date: Tue Jun 3 18:00:59 2025 +0300

    Добавлен ter head

commit b4c85b4d0674c6cda4f50c6cd4d75fc966139b58
Author: danila.razumnov <@yandex.ru>
Date: Tue Jun 3 17:50:41 2025 +0300

    Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ ((ver2))
$

```

## Git 1.4

### Шаг 1: Подготовка

# Создаю папку для проекта.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ mkdir hello

mkdir: cannot create directory 'hello': File exists

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ cd hello

# Инициализирую Git в этой папке.



Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new\_branch\_name)

\$ git init

Reinitialized existing Git repository in C:/Users/Acer/hello/.git/

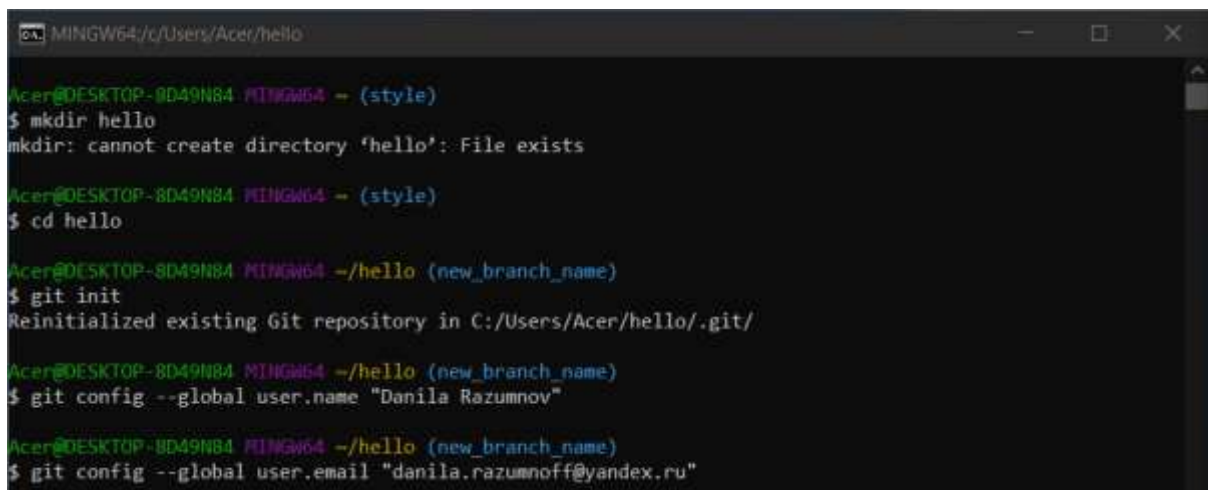
# Настраиваю имя и email.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new\_branch\_name)

\$ git config --global user.name "Danila Razumnov"

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new\_branch\_name)

\$ git config --global user.email "danila.razumnoff@yandex.ru"

A screenshot of a Windows terminal window with a dark background. The title bar shows 'MINGW64/C:/Users/Acer/hello'. The terminal text shows the user 'Acer@DESKTOP-8D49N84' in a 'MINGW64' environment. The commands and their outputs are: '\$ mkdir hello' followed by 'mkdir: cannot create directory 'hello': File exists'; '\$ cd hello'; '\$ git init' followed by 'Reinitialized existing Git repository in C:/Users/Acer/hello/.git/'; '\$ git config --global user.name "Danila Razumnov"'; and '\$ git config --global user.email "danila.razumnoff@yandex.ru"'.

```
Acer@DESKTOP-8D49N84 MINGW64 -- (style)
$ mkdir hello
mkdir: cannot create directory 'hello': File exists

Acer@DESKTOP-8D49N84 MINGW64 -- (style)
$ cd hello

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new_branch_name)
$ git init
Reinitialized existing Git repository in C:/Users/Acer/hello/.git/

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new_branch_name)
$ git config --global user.name "Danila Razumnov"

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new_branch_name)
$ git config --global user.email "danila.razumnoff@yandex.ru"
```

## Шаг 2: Создание ветки style

# Создаю новую ветку и переключаюсь на неё.

A snippet of terminal text showing the command '\$ git checkout -b style' and its output 'Switched to a new branch 'style''.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (new_branch_name)
$ git checkout -b style
Switched to a new branch 'style'
```

## Шаг 3: Добавление CSS-файла

#Создаю директорию lib и файл style.css.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)

\$ mkdir -p lib

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)

\$ echo "body { color: red; }" > lib/style.css

**#Добавляю файл в Git**

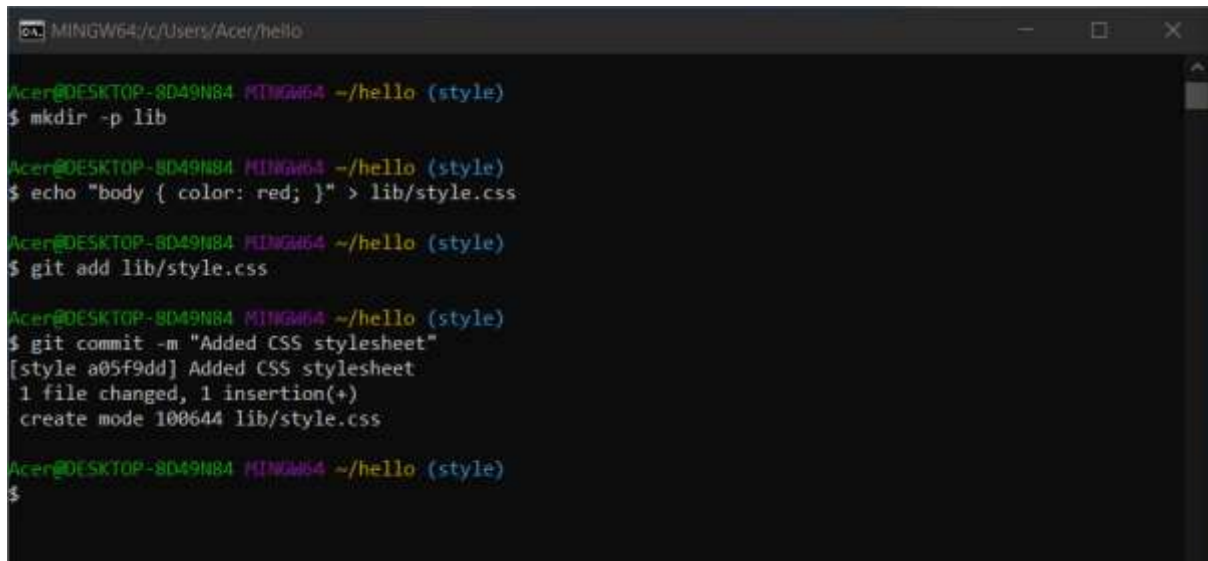
**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git add lib/style.css**

**#делаю коммит.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git commit -m "Added CSS stylesheet"**

A screenshot of a Windows terminal window with a dark background. The title bar shows 'MINGW64/c/Users/Acer/hello'. The terminal displays the following commands and output:  
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)  
\$ mkdir -p lib  
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)  
\$ echo "body { color: red; }" > lib/style.css  
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)  
\$ git add lib/style.css  
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)  
\$ git commit -m "Added CSS stylesheet"  
[style a05f9dd] Added CSS stylesheet  
1 file changed, 1 insertion(+)  
create mode 100644 lib/style.css  
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)  
\$

**Шаг 4: Изменение hello.html**

**#Создаю файл lib/hello.html с базовым HTML.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ mkdir -p lib**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ echo "<!-- Author: Danila Razumnov -->"**

**> <html>**

**> <head>**

**> <link rel=\"stylesheet\" type=\"text/css\" href=\"style.css\">**

**> </head>**

**> <body>**

**> <h1>Hello, world</h1>**



```
> <h2>The cake is a lie.</h2>
```

```
> </body>
```

```
> </html>" > lib/hello.html
```

```
#Добавляю файл в Git.
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
```

```
$ git add lib/hello.html
```

```
#Делаю коммит.
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
```

```
$ git commit -m "Hello.html uses style.css"
```

```
MINGW64/c/Users/Acer/helloo
create mode 100644 lib/style.css

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ mkdir -p lib

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ echo "<!-- Author: Danila Razumnov -->\n<html>\n<head>\n<link rel=\"stylesheet\" type=\"text/css\" href=\"style.css\">\n</head>\n<body>\n<h1>Hello, world</h1>\n<h2>The cake is a lie.</h2>\n</body>\n</html>" > lib/hello.html
bash: !--: event not found

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git add lib/hello.html
fatal: pathspec 'lib/hello.html' did not match any files

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ echo "<\!-- Author: Danila Razumnov -->
> <html>
> <head>
> <link rel=\"stylesheet\" type=\"text/css\" href=\"style.css\">
> </head>
> <body>
> <h1>Hello, world</h1>
> <h2>The cake is a lie.</h2>
> </body>
> </html>" > lib/hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ ^C

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git add lib/hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git commit -m
error: switch '-m' requires a value

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git commit -m "Hello.html uses style.css"
[style 55f0f5d] Hello.html uses style.css
1 file changed, 10 insertions(+)
create mode 100644 lib/hello.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$
```

## Шаг 5: Обновление index.html

#Создаю файл index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)

```
$ echo "<html>\n<body>\n<iframe src=\"lib/hello.html\" width=\"200\" height=\"200\"></iframe>\n</body>\n</html>" > index.html
```

#Добавляю файл в Git

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)

```
$ git add index.html
```

**#Делаю коммит.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ git commit -m "Added index.html"**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ echo "<html>\n<body>\n<iframe src=\"lib/hello.html\" width=\"200\" height=\"200\"></iframe>\n</body>\n</html>" > index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git add index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git commit -m "Added index.html"
[style e71a96c] Added index.html
1 file changed, 1 insertion(+)
create mode 100644 index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$
```

**Шаг 6: Просмотр истории**

**#Устанавливаю алиас для истории**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ git config --global alias.hist "log --pretty=format:'%h %ad | %s [%an]' --graph --date=short"**

**#Проверяю историю.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ git hist --all**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git config --global alias.hist "log --pretty=format:'%h %ad | %s [%an]' --graph --date=short"

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git hist --all
* e71a96c 2025-06-05 | Added index.html [Danila Razumnov]
* 55f0f5d 2025-06-05 | Hello.html uses style.css [Danila Razumnov]
* aee2026 2025-06-05 | Added CSS stylesheet [Danila Razumnov]
```

**Шаг 7: Добавление файла README**

**#Создал файл README.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ echo "This is the Hello World example from the Git tutorial" > README**

**#Добавил его в Git.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ git add README**

**#Сделал коммит.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)**

**\$ git commit -m "Added README"**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ echo "This is the Hello World example from the Git tutorial" > README

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git add README

Acer@DESKTOP-8D49N84 MINGW64 ~/helloo (style)
$ git commit -m "Added README"
[style 62bd763] Added README
1 file changed, 1 insertion(+)
create mode 100644 README
```

## **Git 1.5**

### **1. Сброс ветки style**

**Цель: Вернуть ветку style к определённомому коммиту.**

#### **1. Проверяю историю коммитов.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (style)**

**\$ git hist**

#### **2. Переключаюсь на ветку style.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (style)**

**\$ git checkout style**

#### **3. Сбрасываю ветку до нужного коммита.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (style)**

**\$ git reset --hard b4c85b4**

```
MINGW64/c/Users/Acer
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git hist
* a636c0b 2025-06-05 | Hello.html uses style.css [danila.razumnov]
* d448a5a 2025-06-05 | Added css stylesheet [danila.razumnov]
* 388ecfb 2025-06-05 | Added index.html [danila.razumnov]
* 1ee21ef 2025-06-05 | Moved hello.html to lib [danila.razumnov]
* c84ae91 2025-06-05 | Add author/email comment [danila.razumnov]
* 1f6c6e5 2025-06-03 | Добавлен тер head [danila.razumnov]
* b4c85b4 2025-06-03 | Добавлены теги html и body [danila.razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout style
M      lib/style.css
Already on 'style'

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git reset --hard <b4c85b4>
bash: syntax error near unexpected token `newline'

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git reset --hard b4c85b4
HEAD is now at b4c85b4 Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$
```

## 2. Сброс ветки master

Цель: Вернуть ветку master к определённому коммиту.

1. Переключаюсь на ветку master.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ git checkout master

2. Сбрасываю ветку до нужного коммита.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git reset --hard 388ecfb

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout master
Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git reset --hard b4c85b4
HEAD is now at b4c85b4 Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git reset --hard 388ecfb
HEAD is now at 388ecfb Added index.html

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$
```

### 3. Перебазирование (Rebase)

**Цель:** Обновить ветку style, перенеся её коммиты поверх коммитов ветки master.

1. Переключаюсь на ветку style.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git checkout style

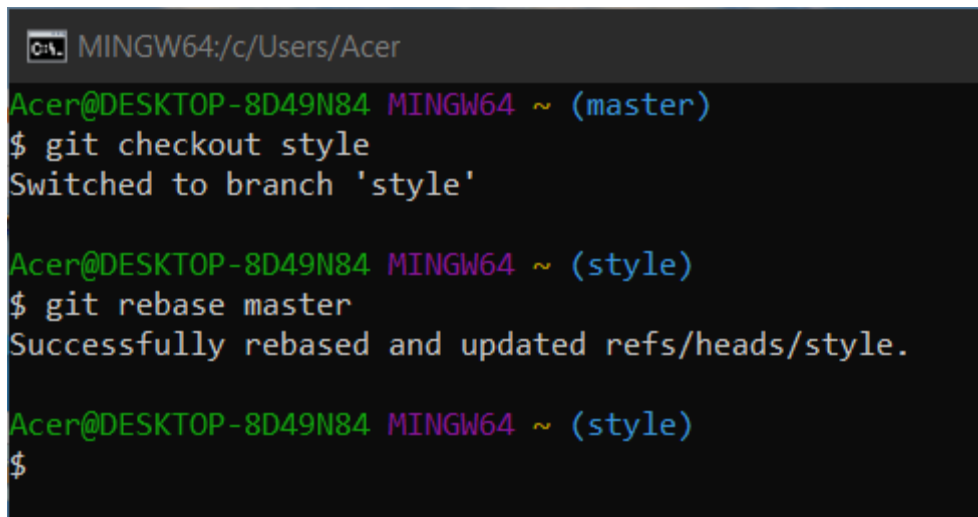
Switched to branch 'style'

2. Выполняю rebase.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ git rebase master

Successfully rebased and updated refs/heads/style.

A screenshot of a Windows terminal window with a dark background. The title bar shows 'MINGW64:/c/Users/Acer'. The terminal text is as follows:  
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)  
\$ git checkout style  
Switched to branch 'style'  
  
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)  
\$ git rebase master  
Successfully rebased and updated refs/heads/style.  
  
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)  
\$

### 4. Слияние веток

**Цель:** Слить изменения из style в master.

1. Слил ветку style.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ git checkout master

Switched to branch 'master'

2. Переключился на ветку master.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

**\$ git merge style**

**Already up to date.**

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout master
Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git merge style
Already up to date.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$
```

## **5. . Просмотр клонированного репозитория**

**Цель: Проверить содержимое и историю клонированного репозитория.**

- 1. Перехожу в папку репозитория.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ cd hello**

- 2. Проверяю историю.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git hist --all**

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ cd hello

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git hist --all
* a05f9dd 2025-06-05 | Added CSS stylesheet [Danila Razumnov]
* 3232ae4 2025-06-03 | Added index.html [Danila Razumnov]
* 27f91d0 2025-06-03 | Moved hello.html to lib [Danila Razumnov]
* cc9c0d7 2025-06-03 | Add an author/email comment [Danila Razumnov]
* c2cd5a0 2025-06-03 | First Commit [Danila Razumnov]
* 67029e0 2025-06-03 | First Commit [danila-razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

## **6 Работа с origin**



**Цель: Просмотр информации об удалённом репозитории (origin).**

**1. Проверяю remote-ссылки.**


**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git remote -v**

**2. Получаю данные о origin.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git remote show origin**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git remote -v

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git remote show origin
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

**7. Работа с удалёнными ветками**

**Цель: Просмотр локальных и удалённых веток.**

**Показать все ветки.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git branch -a**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git branch -a
  master
  new_branch_name
* style

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

## Git 1.5

### 1. Сброс ветки style

**Цель:** Вернуть ветку style к определённому коммиту.

#### 1. Проверяю историю коммитов.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

```
$ git hist
```

#### 2. Переключаюсь на ветку style.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

```
$ git checkout style
```

#### 3. Сбрасываю ветку до нужного коммита.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

```
$ git reset --hard b4c85b4
```

```
MINGW64/c/Users/Acer
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git hist
* a636c0b 2025-06-05 | Hello.html uses style.css [danila.razumnov]
* d448a5a 2025-06-05 | Added css stylesheet [danila.razumnov]
* 388ecfb 2025-06-05 | Added index.html [danila.razumnov]
* 1ee21ef 2025-06-05 | Moved hello.html to lib [danila.razumnov]
* c84ae91 2025-06-05 | Add author/email comment [danila.razumnov]
* 1f6c6e5 2025-06-03 | Добавлен теги head [danila.razumnov]
* b4c85b4 2025-06-03 | Добавлены теги html и body [danila.razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout style
M      lib/style.css
Already on 'style'

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git reset --hard <b4c85b4>
bash: syntax error near unexpected token `newline'

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git reset --hard b4c85b4
HEAD is now at b4c85b4 Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$
```

## 2. Сброс ветки master

Цель: Вернуть ветку master к определённому коммиту.

1. Переключаюсь на ветку master.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

\$ git checkout master

2. Сбрасываю ветку до нужного коммита.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git reset --hard 388ecfb

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout master
Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git reset --hard b4c85b4
HEAD is now at b4c85b4 Добавлены теги html и body

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git reset --hard 388ecfb
HEAD is now at 388ecfb Added index.html

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$
```

### 3. Перебазирование (Rebase)

**Цель:** Обновить ветку style, перенеся её коммиты поверх коммитов ветки master.

1. Переключаюсь на ветку style.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

```
$ git checkout style
```

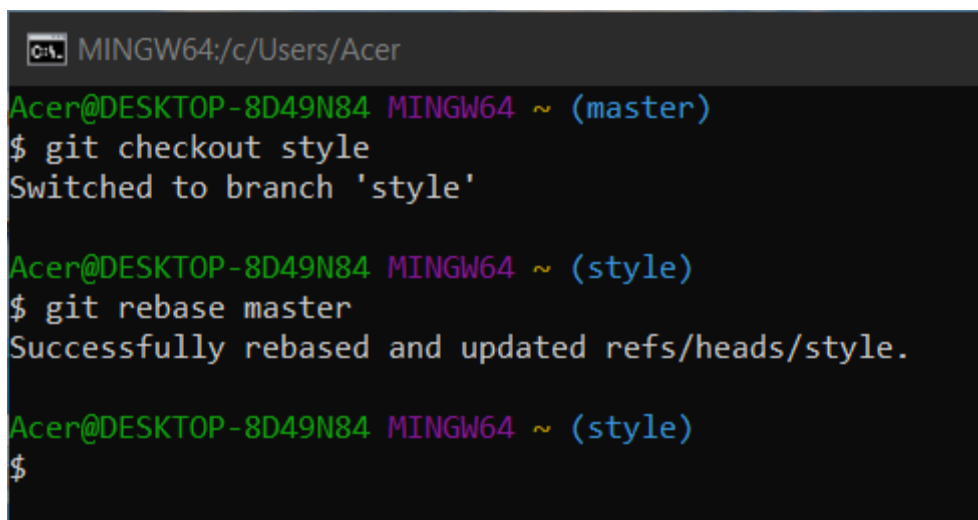
Switched to branch 'style'

2. Выполняю rebase.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

```
$ git rebase master
```

Successfully rebased and updated refs/heads/style.

A screenshot of a Windows terminal window with a dark background. The title bar shows 'MINGW64: c:/Users/Acer'. The terminal text is as follows:  
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)  
\$ git checkout style  
Switched to branch 'style'  
  
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)  
\$ git rebase master  
Successfully rebased and updated refs/heads/style.  
  
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)  
\$

### 4. Слияние веток

**Цель:** Слить изменения из style в master.

1. Слил ветку style.

Acer@DESKTOP-8D49N84 MINGW64 ~ (style)

```
$ git checkout master
```

Switched to branch 'master'

2. Переключился на ветку master.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

**\$ git merge style**

**Already up to date.**

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (style)
$ git checkout master
Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git merge style
Already up to date.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$
```

## **5. . Просмотр клонированного репозитория**

**Цель: Проверить содержимое и историю клонированного репозитория.**

- 1. Перехожу в папку репозитория.**

**Acer@DESKTOP-8D49N84 MINGW64 ~ (master)**

**\$ cd hello**

- 2. Проверяю историю.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git hist --all**

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ cd hello

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git hist --all
* a05f9dd 2025-06-05 | Added CSS stylesheet [Danila Razumnov]
* 3232ae4 2025-06-03 | Added index.html [Danila Razumnov]
* 27f91d0 2025-06-03 | Moved hello.html to lib [Danila Razumnov]
* cc9c0d7 2025-06-03 | Add an author/email comment [Danila Razumnov]
* c2cd5a0 2025-06-03 | First Commit [Danila Razumnov]
* 67029e0 2025-06-03 | First Commit [danila-razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

## **6 Работа с origin**

**Цель: Просмотр информации об удалённом репозитории (origin).**

**1. Проверяю remote-ссылки.**


**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git remote -v**

**2. Получаю данные о origin.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git remote show origin**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git remote -v

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git remote show origin
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

**7. Работа с удалёнными ветками**

**Цель: Просмотр локальных и удалённых веток.**

**Показать все ветки.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git branch -a**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git branch -a
  master
  new_branch_name
* style

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

## Git 1.6

### 1. Настройка удалённого репозитория

**Цель:** Связать локальный репозиторий с удалённым (например, GitHub, GitLab).

Добавляю удалённый репозиторий.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git remote remove origin

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git remote add origin <https://github.com/Whitedwarfai/prak.git>

Проверяю список удалённых репозиторияев.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git remote -v

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git remote remove origin

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git remote add origin https://github.com/Whitedwarfai/prak.git

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git remote -v
origin https://github.com/Whitedwarfai/prak.git (fetch)
origin https://github.com/Whitedwarfai/prak.git (push)
```

## 2. Отправка изменений на удалённый репозиторий

**Цель:** Загрузите локальные коммиты на сервер

Отправляю изменения на ветку master.

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ git push origin master

```
Acer@DESKTOP-8D49N84 MINGW64 ~ (master)
$ git push origin master
info: please complete authentication in your browser...
Enumerating objects: 23, done.
Counting objects: 100% (23/23), done.
Delta compression using up to 8 threads
Compressing objects: 100% (14/14), done.
Writing objects: 100% (23/23), 2.02 KiB | 413.00 KiB/s, done.
Total 23 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Whitedwarfai/prak.git
 * [new branch]      master -> master
```

## 3. Работа с общей директорией (shared repository)

**Цель:** Использовать общий репозиторий для командной работы.

я создал общий репозиторий

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ mkdir ../hello.git

Acer@DESKTOP-8D49N84 MINGW64 ~ (master)

\$ cd ../hello.git

Acer@DESKTOP-8D49N84 MINGW64 /c/Users/hello.git

\$ git init --bare

Я связал локальный репозиторий с shared.



**Acer@DESKTOP-8D49N84 MINGW64 ~/hello.git (BARE:master)**

**\$ cd ../hello**

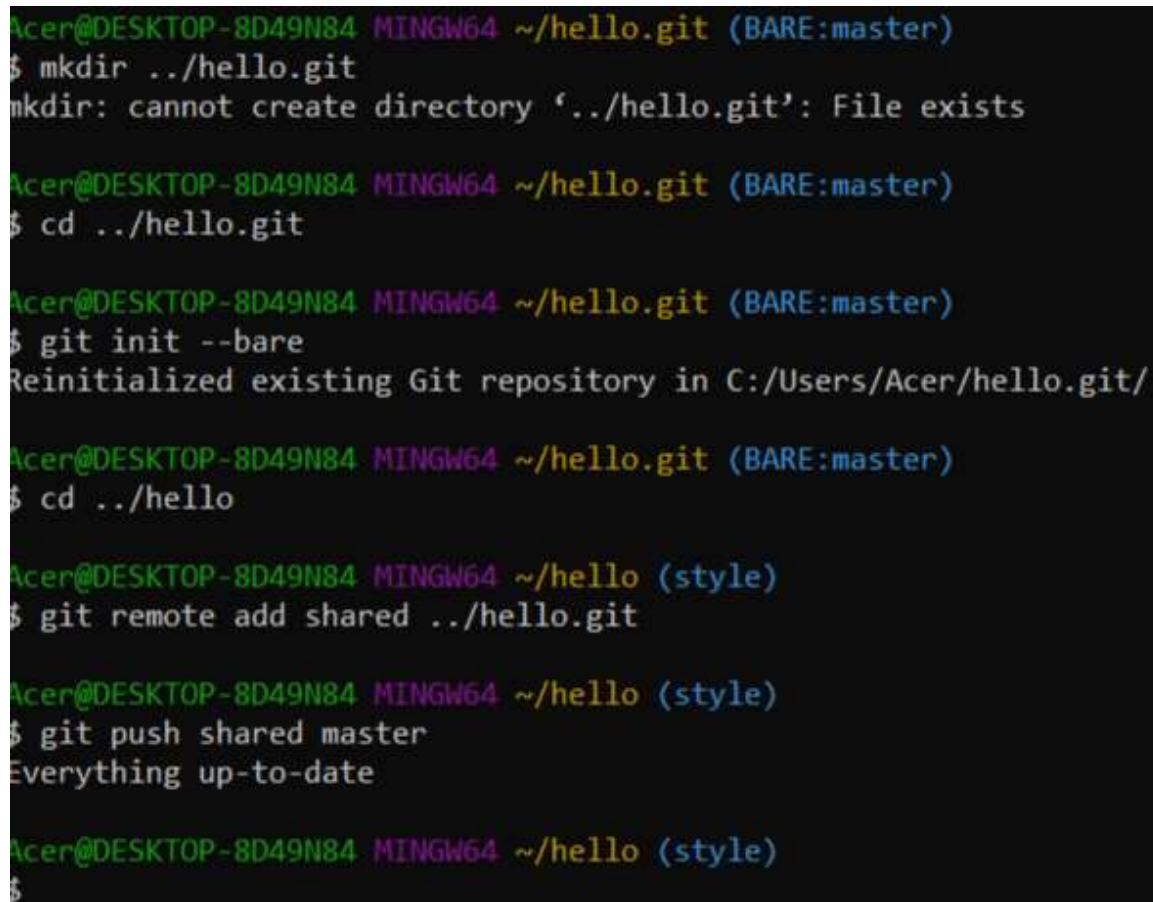
**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git remote add shared ../hello.git**

**Я отправил изменения в shared.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git push shared master**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello.git (BARE:master)
$ mkdir ../hello.git
mkdir: cannot create directory '../hello.git': File exists

Acer@DESKTOP-8D49N84 MINGW64 ~/hello.git (BARE:master)
$ cd ../hello

Acer@DESKTOP-8D49N84 MINGW64 ~/hello.git (BARE:master)
$ git init --bare
Reinitialized existing Git repository in C:/Users/Acer/hello.git/

Acer@DESKTOP-8D49N84 MINGW64 ~/hello.git (BARE:master)
$ cd ../hello

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git remote add shared ../hello.git

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git push shared master
Everything up-to-date

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$
```

#### **4. Обновление локального репозитория**

**Цель: Получаю изменения от других участников.**

**Забираю изменения с удалённого репозитория.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)**

**\$ git pull origin master**



Когда использую shared repository.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)

\$ git pull shared master

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git pull origin master
From ../hello
 * branch          master      -> FETCH_HEAD
Already up to date.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git pull shared master
From ../hello
 * branch          master      -> FETCH_HEAD
Already up to date.
```

## 5. Работа с ветками в команде

Цель: Я создаю ветки для задач и сливаю их в основную ветку.

# Создаю новую ветку для задачи

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)

\$ git checkout -b feature-login

# Вношу изменения, индексирую и делаю коммит

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)

\$ git add .

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)

\$ git commit -m "Add login form"

# Отправляю ветку на удалённый репозиторий.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)

\$ git push origin feature-login

```
MINGW64/c/Users/Acer/hello
Already up to date.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (style)
$ git checkout -b feature-login
Switched to a new branch 'feature-login'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git add .

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git commit -m
error: switch '-m' requires a value

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git commit -m "Add login form"
On branch feature-login
nothing to commit, working tree clean

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git push origin feature-login
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 685 bytes | 685.00 KiB/s, done.
Total 7 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To ../hello.git
 * [new branch]      feature-login -> feature-login
```

## 6. Разрешение конфликтов при совместной работе

**Цель:** Я устраняю конфликты, возникшие при слиянии изменений.

**Попытайтесь слить ветки**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)**

**\$ git merge feature-login**

**Already up to date.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)**

**\$ git commit -m "Merged feature-login, fixed conflict"**

**On branch feature-login**

**nothing to commit, working tree clean**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git merge feature-login
Already up to date.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git commit -m "Merged feature-login, fixed conflict"
On branch feature-login
nothing to commit, working tree clean

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
```

## 7. Просмотр изменений из удалённого репозитория

**Цель:** Я проверяю историю и ветки из удалённого репозитория.

# Показать историю из origin

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)

\$ git hist --all

# Показать ветки из origin

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)

\$ git branch -r

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git hist --all
* 87a04e7 2025-06-06 | Initial commit [danila razumnov]
* a05f9dd 2025-06-05 | Added CSS stylesheet [Danila Razumnov]
* 3232ae4 2025-06-03 | Added index.html [Danila Razumnov]
* 27f91d0 2025-06-03 | Moved hello.html to lib [Danila Razumnov]
* cc9c0d7 2025-06-03 | Add an author/email comment [Danila Razumnov]
* c2cd5a0 2025-06-03 | First Commit [Danila Razumnov]
* 67029e0 2025-06-03 | First Commit [danila-razumnov]

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git branch -r
  origin/feature-login
  origin/master
  shared/master
```

## 8. Работа с ветками других участников

**Цель:** Получить и протестировать чужие ветки.

**Получите данные о всех ветках**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)**

**\$ git fetch origin**

**Для начала я создам локальную ветку из удалённой.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)**

**\$ git checkout -b remote-feature origin/feature-login**

A screenshot of a terminal window with a dark background and light-colored text. The prompt is 'Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)'. The first command is '\$ git fetch origin'. The second command is '\$ git checkout -b remote-feature origin/feature-login', followed by the output: 'branch 'remote-feature' set up to track 'origin/feature-login'. Switched to a new branch 'remote-feature''. The third command is '\$', and the prompt changes to 'Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)'.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git fetch origin

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (feature-login)
$ git checkout -b remote-feature origin/feature-login
branch 'remote-feature' set up to track 'origin/feature-login'.
Switched to a new branch 'remote-feature'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$
```

## **9. Отслеживание изменений в реальном времени**

**Цель: Я слежу за активностью в репозитории.**

**# Проверяю обновления на origin**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)**

**\$ git fetch origin**

**# Я сравниваю локальную ветку с origin/master.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)**

**\$ git diff origin/master**

```

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git fetch origin

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git diff origin/master
diff --git a/hello.txt b/hello.txt
new file mode 100644
index 0000000..a5c1966
--- /dev/null
+++ b/hello.txt
@@ -0,0 +1 @@
+Hello, world
diff --git a/lib/style.css b/lib/style.css
new file mode 100644
index 0000000..991912d
--- /dev/null
+++ b/lib/style.css
@@ -0,0 +1 @@
+body { color: red; }

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ _

```

## Git 1.7

### 1. Добавление удалённого репозитория (remote)

**Цель:** Привяжу локальный репозиторий к удалённому (например, GitHub).

**# Добавляю удалённый репозиторий с именем `origin`**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
```

```
$ git remote remove origin
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
```

```
$ git remote add origin https://github.com/Whitedwarfai/prak.git
```

**# Проверяю список удалённых репозиторияев**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
```

```
$ git remote -v
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git remote remove origin

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git remote add origin https://github.com/Whitedwarfai/prak.git

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git remote -v
origin    https://github.com/Whitedwarfai/prak.git (fetch)
origin    https://github.com/Whitedwarfai/prak.git (push)
shared    ../hello.git (fetch)
shared    ../hello.git (push)
```

## 2. Получение данных из удалённого репозитория (fetch)

**Цель:** Заберу данные из удалённого репозитория без слияния.

**# Получаю данные из `origin`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)**

**\$ git fetch origin**

**# Проверяю историю после fetch**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)**

**\$ git hist --all**



```

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git fetch origin
remote: Enumerating objects: 23, done.
remote: Counting objects: 100% (23/23), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 23 (delta 0), reused 23 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (23/23), 2.00 KiB | 6.00 KiB/s, done.
From https://github.com/Whitedwarfai/prak
* [new branch]      master      -> origin/master

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git hist --all
* 87a04e7 2025-06-06 | Initial commit [danila razumnov]
* a05f9dd 2025-06-05 | Added CSS stylesheet [Danila Razumnov]
* 3232ae4 2025-06-03 | Added index.html [Danila Razumnov]
* 27f91d0 2025-06-03 | Moved hello.html to lib [Danila Razumnov]
* cc9c0d7 2025-06-03 | Add an author/email comment [Danila Razumnov]
* c2cd5a0 2025-06-03 | First Commit [Danila Razumnov]
* 67029e0 2025-06-03 | First Commit [danila-razumnov]
* 2db8c60 2025-06-06 | Added index.html [danila.Razumnov]
* 670a41e 2025-06-06 | Hello.html uses style.css [danila.Razumnov]
* 57ab0b1 2025-06-06 | Added CSS stylesheet [danila.Razumnov]
* 1ee21ef 2025-06-05 | Moved hello.html to lib [danila.razumnov]
* c84ae91 2025-06-05 | Add author/email comment [danila.razumnov]
* 1f6c6e5 2025-06-03 | Добавлен теги head [danila-razumnov]
* b4c85b4 2025-06-03 | Добавлены теги html и body [danila-razumnov]

```

### 3. Отправка изменений на удалённый репозиторий (push)

Цель: Загружу локальные коммиты на сервер.

# Отправляю ветку `master` на `origin`

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)

\$ git push origin master

# Если ветка ещё не существует на сервере, использую:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)

\$ git push -u origin master



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git push origin master
To https://github.com/Whitedwarfai/prak.git
  [31m! [rejected]      [m master -> master (non-fast-forward)
  [31merror: failed to push some refs to 'https://github.com/Whitedwarfai/prak.git'
  [mhint: Updates were rejected because a pushed branch tip is behind its remote
  hint: counterpart. If you want to integrate the remote changes, use 'git pull'
  hint: before pushing again.
  hint: See the 'Note about fast-forwards' in 'git push --help' for details.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git push -u origin master
To https://github.com/Whitedwarfai/prak.git
  [31m! [rejected]      [m master -> master (non-fast-forward)
  [31merror: failed to push some refs to 'https://github.com/Whitedwarfai/prak.git'
  [mhint: Updates were rejected because a pushed branch tip is behind its remote
  hint: counterpart. If you want to integrate the remote changes, use 'git pull'
  hint: before pushing again.
  hint: See the 'Note about fast-forwards' in 'git push --help' for details.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$
```

#### 4. Работа с тегами

**Цель:** Создаю теги, переключаюсь на них и создаю ветки из тегов.

**# Создаю аннотированный тег**

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)

**\$ git tag -a v2.1 -m "Release version 2.1"**

**# Проверяю список тегов**

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)

**\$ git tag**

**# Переключаюсь на коммит по тегу**

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)

**\$ git checkout v2.1**

**# Создаю новую ветку из тега v2.1**

Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))

## \$ git switch -c release-2.1 v2.1

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git tag -a v2.1 -m "Release version 2.1"

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ git tag
v2.1

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (remote-feature)
$ 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 87a04e7 Initial commit

Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))
$ git switch -c release-2.1 v2.1
Switched to a new branch 'release-2.1'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$
```

## 5. Работа с несколькими удалёнными репозиториями

**Цель:** Добавляю второй удалённый репозиторий.

**# Добавляю второй remote**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git remote add pb https://github.com/paulboone/ticgit**

**# Проверяю список remote**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git remote -v**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git remote add pb https://github.com/paulboone/ticgit

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git remote -v
origin  https://github.com/Whitedwarfai/prak.git (fetch)
origin  https://github.com/Whitedwarfai/prak.git (push)
pb      https://github.com/paulboone/ticgit (fetch)
pb      https://github.com/paulboone/ticgit (push)
shared  ../hello.git (fetch)
shared  ../hello.git (push)
```

**Получение данных из второго remote**

**#Забираю изменения из pb.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git fetch pb**

**# Проверяю ветки из `pb`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git branch -r**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git fetch pb
remote: Enumerating objects: 634, done.
remote: Total 634 (delta 0), reused 0 (delta 0), pack-reused 634 (from 1)
Receiving objects: 100% (634/634), 88.93 KiB | 508.00 KiB/s, done.
Resolving deltas: 100% (261/261), done.
From https://github.com/paulboone/ticgit
 * [new branch]      master      -> pb/master
 * [new branch]      ticgit      -> pb/ticgit

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git branch -r
origin/HEAD -> origin/master
origin/master
pb/HEAD -> pb/master
pb/master
pb/ticgit
shared/master
```

## **6. Синхронизация с удалённым репозиторием (pull)**

**Цель:** Получаю изменения из удалённого репозитория и сливаю их с текущей веткой.

**# Синхронизирую текущую ветку с `origin`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git pull origin master**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git pull origin master
From https://github.com/Whitedwarfai/prak
 * branch          master      -> FETCH_HEAD
fatal: refusing to merge unrelated histories
```

## **7. Просмотр информации о remote**

**Цель: Узнаю детали о удалённых репозиториях.**

**# Показываю информацию о `origin`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git remote show origin**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/Whitedwarfai/prak.git
  Push  URL: https://github.com/Whitedwarfai/prak.git
  HEAD branch: master
  Remote branch:
    master tracked
  Local ref configured for 'git push':
    master pushes to master (local out of date)
```

## **8. Удаление тега**

**Цель: Удаляю ненужный тег.**

**# Удаляю локальный тег**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git tag -d oooops**

**# Удаляю тег из удалённого репозитория**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git push origin --delete oooops**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git tag -d oooops
error: tag 'oooops' not found.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ git push origin --delete oooops
error: unable to delete 'oooops': remote ref does not exist
[m]error: failed to push some refs to 'https://github.com/Whitedwarfai/prak.git'
[m]
```

## **9. Работа с detached HEAD**

**Цель: Выход из состояния detached HEAD или создание ветки из тега.**

**# Переключаюсь на тег**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)**

**\$ git checkout v2.1**

**# Создаю новую ветку**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))**

**\$ git switch -c release-2.1**

**Выход из detached HEAD**

**# Возвращаюсь к ветке `master`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))**

**\$ git checkout master**



```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (release-2.1)
$ 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 87a04e7 Initial commit
Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))
$ git switch -c release-2.1
fatal: a branch named 'release-2.1' already exists
Acer@DESKTOP-8D49N84 MINGW64 ~/hello ((v2.1))
$ git checkout master
Previous HEAD position was 87a04e7 Initial commit
Switched to branch 'master'
```

## 10. Отправка тегов на удалённый репозиторий

**Цель:** Загружаю теги на сервер.

**# Отправляю все теги на `origin`**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)**

**\$ git push origin --tags**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
$ git push origin --tags
Enumerating objects: 22, done.
Counting objects: 100% (22/22), done.
Delta compression using up to 8 threads
Compressing objects: 100% (16/16), done.
Writing objects: 100% (22/22), 2.04 KiB | 521.00 KiB/s, done.
Total 22 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/Whitedwarfai/prak.git
 * [new tag]          v2.1 -> v2.1

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
$
```



Чтобы начать поиск, введите здесь запрос



## Git 1,8

### 1. Создание проекта

#### Шаг 1: Инициализация репозитория

Я инициализирую репозиторий.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
```

```
$ mkdir hello_two
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
```

```
$ cd hello_two
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
```

```
$ git init
```



## **Шаг 2: Добавление файлов**

**Я создаю файлы README, test.rb, LICENSE и добавляю их в Git.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ echo "This is the Hello World example from the Git tutorial" > README**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ echo "# Test file" > test.rb**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ echo "MIT License" > LICENSE**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ git add README test.rb LICENSE**

## **Шаг 3: Коммит изменений**

**Я фиксирую начальные файлы.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ git commit -m "Initial commit of my project"**

```
MINGW64/c/Users/Acer/hello/hello_two
* [new tag] v2.1 -> v2.1

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
$ mkdir hello_two

Acer@DESKTOP-8D49N84 MINGW64 ~/hello (master)
$ cd hello_two

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git init
Initialized empty Git repository in C:/Users/Acer/hello/hello_two/.git/

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ echo "This is the Hello World example from the Git tutorial" > README

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ echo "# Test file" > test.rb

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ echo "MIT License" > LICENSE

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git add README test.rb LICENSE

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git commit -m "Initial commit of my project"
[master (root-commit) c1ab877] Initial commit of my project
3 files changed, 3 insertions(+)
create mode 100644 LICENSE
create mode 100644 README
create mode 100644 test.rb
```

## 2. Создание ветки для задачи

Цель: Создать ветку iss53 для работы над конкретной задачей.

# Я создаю и переключаюсь на ветку iss53.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
```

```
$ git checkout -b iss53
```

Пример работы с веткой iss53:

Я добавляю файл index.html.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
```

```
$ echo "<html><body><h1>Hello, world</h1></body></html>" > index.html
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
```

```
$ git add index.html
```

Я фиксирую изменения.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (iss53)

\$ git commit -m "Added html file"

```
Citrus MINGW64:/c/Users/Acer/hello/hello_two

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git checkout -b iss53
Switched to a new branch 'iss53'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$ echo "<html><body><h1>Hello, world</h1></body></html>" > index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$ git add index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$ git commit -m "Added html file"
[iss53 67fa801] Added html file
1 file changed, 1 insertion(+)
create mode 100644 index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$
```

### 3. Просмотр истории коммитов

Команда git hist

Я проверяю историю коммитов через алиас hist.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (iss53)

\$ git hist --max-count=2

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$ git hist --max-count=2
* 67fa801 2025-06-06 | Added html file [danila razumnov]
* c1ab877 2025-06-06 | Initial commit of my project [danila razumnov]
```

### 4. Переключение между ветками

Вернитесь к ветке master:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (iss53)

\$ git checkout master

**Создайте ветку из удалённой ветки**

**# Я связываю локальную ветку с удалённой.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ git branch --track style origin/style**

**# Я переключаюсь на ветку.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)**

**\$ git checkout style**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git branch --track style origin/style
fatal: a branch named 'style' already exists
```

```
$ git checkout style
Switched to branch 'style'
```

## **5. Работа с удалёнными репозиториями**

**Добавление удалённого репозитория (shared)**

**# Я связываю локальный репозиторий с shared.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)**

**\$ git remote add shared ../hello.git**

**error: remote shared already exists.**

**# Я отправляю изменения в shared.**

**Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)**

**\$ git push shared iss53**

**Everything up-to-date**

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git remote add shared ../hello.git
error: remote shared already exists.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git push shared iss53
Everything up-to-date
```

## 6. Обновление локального репозитория

Получение данных из удалённого репозитория

# Я забираю изменения из shared.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
```

```
$ git fetch shared
```

# Я сливаю ветку shared/iss53 с текущей.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
```

```
$ git merge shared/iss53
```

Синхронизация с удалённым репозиторием

# Я обновляю локальный репозиторий.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
```

```
$ git pull origin master
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git fetch shared

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git merge shared/iss53
Updating c1ab877..67fa801
Fast-forward
 index.html | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 index.html

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git pull origin master
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$
```

## Git 1,9

### 1 Просмотр списка веток

Проверяю, какие ветки существуют в моём репозитории.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
```

```
$ git branch
```

\* Показываю ветки, которые были слиты в master или ещё не слиты.

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git branch
  iss53
  master
* style
```

## 2 Фильтрация веток по истории коммитов

- Показать ветки, слитые в master:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

```
$ git branch --merged master
```

- Показать ветки, не слитые в master:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

```
$ git branch --no-merged mster
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git branch --merged master
  master

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git branch --no-merged master
  iss53
* style
```

## 3 Переключение между ветками

Перехожу на нужную ветку для работы.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

```
$ git checkout iss53
```

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git checkout iss53
Switched to branch 'iss53'
```

## 4 Перебазирование (rebase)



Обновляю ветку, перенося её изменения поверх другой ветки (например, master).

Перебазировать style на master:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (iss53)

\$ git checkout style

Switched to branch 'style'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

\$ git rebase master

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (iss53)
$ git checkout style
Switched to branch 'style'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git rebase master
Current branch style is up to date.
```

Перебазирование с параметром --onto (для конкретных коммитов):

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

\$ git rebase --onto master se cl

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git rebase --onto master se cl
fatal: invalid upstream 'se'
```

Описание:

- se — стартовая точка.
- cl — конечная точка.
- master — целевая ветка.

## 5 Слияние веток (merge)

Объединяю изменения из одной ветки в другую.

Слить cl в master:

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (style)

\$ git checkout master

Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)

\$ git merge cl

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (style)
$ git checkout master
Switched to branch 'master'

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git merge cl
merge: cl - not something we can merge

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$
```

## 6 Удаление веток

Удаляю ветку после успешного слияния.

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello\_two (master)

\$ git branch -d iss53

```
Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$ git branch -d iss53
error: the branch 'iss53' is not fully merged
hint: If you are sure you want to delete it, run 'git branch -D iss53'
hint: Disable this message with "git config set advice.forceDeleteBranch false"

Acer@DESKTOP-8D49N84 MINGW64 ~/hello/hello_two (master)
$
```