Лабораторная работа №1

Работа с git

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1 Цель работы

Приобрести практические навыки работы с системой управления версиями Git.

2 Теоретическое введение

Git — распределённая система управления версиями. Проект был создан Линусом Торвальдсом для управления разработкой ядра Linux, первая версия выпущена 7 апреля 2005 года; координатор — Дзюн Хамано [**wiki:bash**].

3 Выполнение лабораторной работы

3.1 Подготовка

Сначала настроим core.autocrlf с параметрами true и input, чтобы сделать все переводы строк текстовых файлов в главном репозитории одинаковыми, а затем настроим отображение unicode(рис. fig. 3.1).

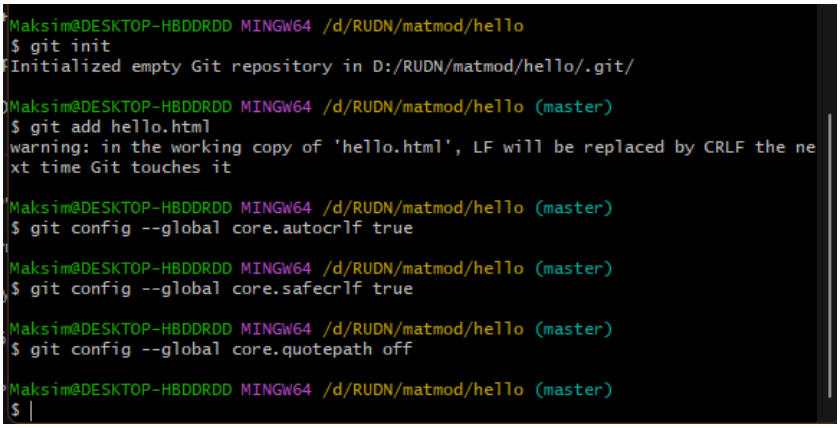


Рис. 3.1: Настройка git

Далее создаю директорию, в которой будет проходить вся работа

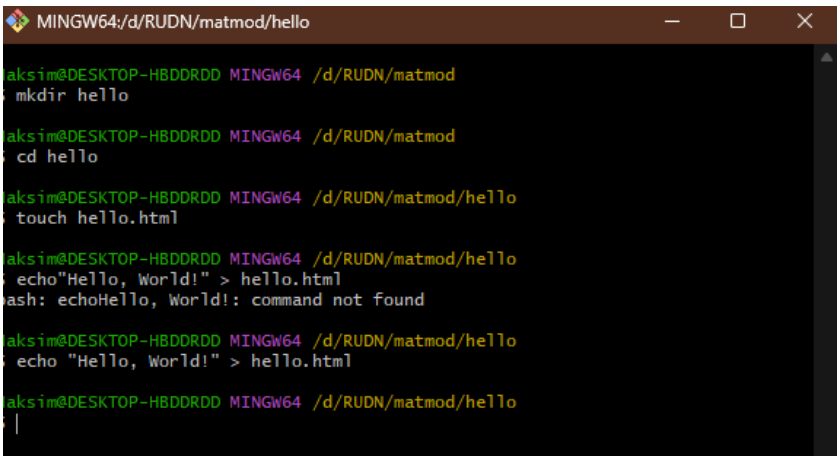


Рис. 3.2: Настройка git

Делаю первый коммит и просматриваю статус

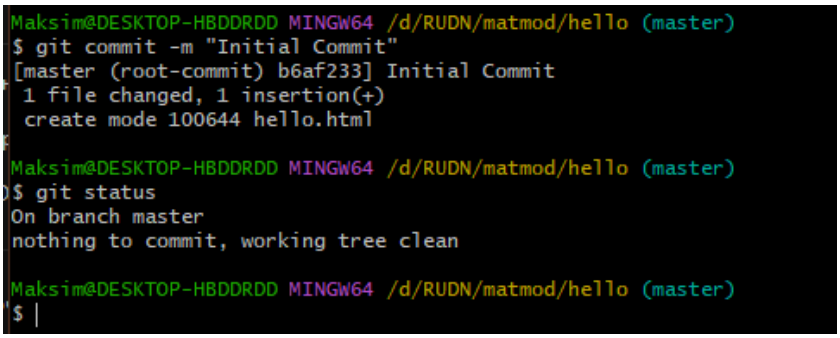


Рис. 3.3: Настройка git

Вношу изменения в hello.html и просматриваю статус

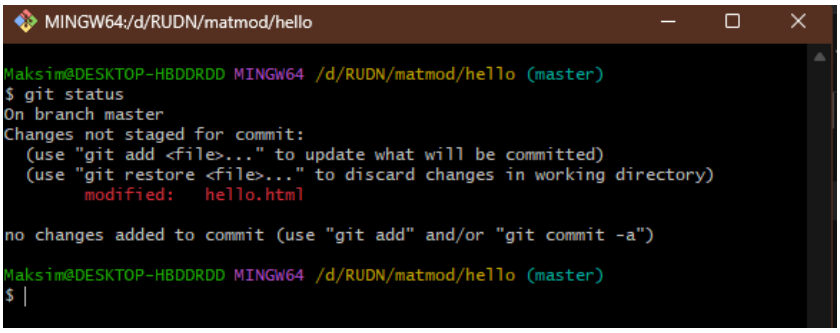


Рис. 3.4: Настройка git

Добавляю измененный файл в индексацию

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/
$ git commit
[master 23c6913] Added h1 tag
 1 file changed, 1 insertion(+), 1 dele
```

Вношу другие изменения в файл hello.html и снова просматриваю его статус через команду gitt status

Просматриваю историю коммитов с помощью git log

```
MINGW64:/d/RUDN/matmod/hello

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log
110e0d8 2025-02-13 | Added HTML header (HEAD -> master) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log --pretty=oneline
110e0d8faa1493168427ed217e6a22dcd9dc1708 (HEAD -> master) Added HTML header
007da8e374990146698b441bfacd73c8e31a5df2 Added standard HTML page tags
23c69138f9da086da5b2616fa0927810a3f9c399 Added h1 tag
b6af2331ceec3dbadff61b4123d684bf8f44b56a Initial Commit

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$
```

Рис. 3.5: Настройка git

Переклчаюсь на коммит по его номеру хэша

```
$ git checkout b6af233
Note: switching to 'b6af233'.

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 b6af233 Initial Commit
```

Рис. 3.6: Настройка git

Переключаюсьна ветку мастер и просматриваю содержимое файла

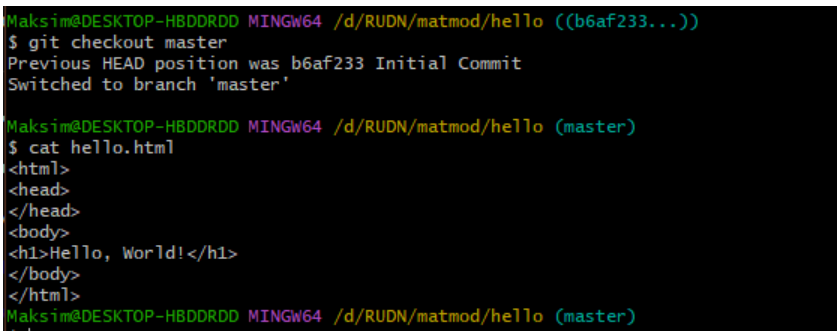
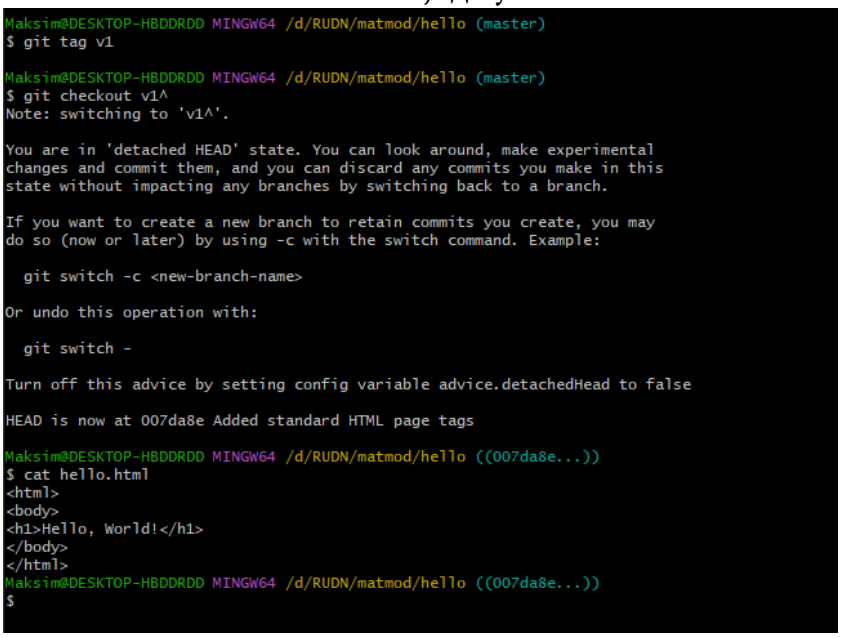
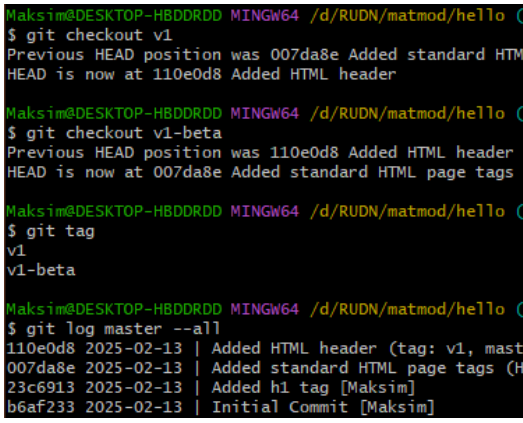


Рис. 3.7: Настройка git

Создаю тэг v1 и v1-beta и переключаюсь между ними. Также просматриваю список тегов и логи коммитов, где указаны также тэги





```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   hello.html

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

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout hello.html
Updated 1 path from the index

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
nothing to commit, working tree clean

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat hello.html
<html>
<head>
</head>
<body>
<h1>Hello, World!</h1>
</body>
</html>
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
```

Сделал Сброс к коммиту с помощью reset и revert

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout hello.html
Updated 1 path from the index

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
nothing to commit, working tree clean

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mast
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mast
$ git commit -m "Oops, we didn't want this commit"
[master c8a8cb4] Oops, we didn't want this commit
 1 file changed, 1 insertion(+)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mast
$ git revert HEAD
[master 28e5b7a] Revert "Oops, we didn't want this commit
 1 file changed, 1 deletion(-)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mast
$ ^[[200~git log
bash: $'\E[200~git': command not found

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mast
$ git log
28e5b7a 2025-02-13 | Revert "Oops, we didn't want this co
c8a8cb4 2025-02-13 | Oops, we didn't want this commit [Ma
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag:
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git tag -d oops
Deleted tag 'oops' (was 28e5b7a)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log --all
110e0d8 2025-02-13 | Added HTML header (HEAD -> master, tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Add an author comment"
[master db189dd] Add an author comment
 1 file changed, 2 insertions(+), 1 deletion(-)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit --amend -m "Add an author/email comment"
[master 79f9f11] Add an author/email comment
 Date: Thu Feb 13 16:55:29 2025 +0300
 1 file changed, 1 insertion(+)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log
79f9f11 2025-02-13 | Add an author/email comment (HEAD -> master) [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Add an author comment"
[master db189dd] Add an author comment
 1 file changed, 2 insertions(+), 1 deletion(-)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit --amend -m "Add an author/email comment"
[master 79f9f11] Add an author/email comment
 Date: Thu Feb 13 16:55:29 2025 +0300
 1 file changed, 1 insertion(+)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log
79f9f11 2025-02-13 | Add an author/email comment (HEAD -> master) [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ mkdir lib

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git mv hello.html lib

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    hello.html -> lib/hello.html


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Moved hello.html to lib"
[master 6ee4cb8] Moved hello.html to lib
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename hello.html => lib/hello.html (100%)
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add index.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Added index.html."
[master 3e0d09c] Added index.html.
 1 file changed, 5 insertions(+)
 create mode 100644 index.html
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls -C .git
COMMIT_EDITMSG  HEAD  ORIG_HEAD  config  description  hooks/  index  i

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls -C .git/objects/<dir>
bash: syntax error near unexpected token `newline'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls -C .git/objects/
00/  11/  23/  28/  3e/  52/  66/  6e/  8a/  a4/  c3/  cb/  db/  eb/
0d/  15/  27/  2d/  50/  5e/  68/  79/  8c/  b6/  c8/  d7/  e4/  f0/

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat .git/config
[core]
        repositoryformatversion = 0
        filemode = false
        bare = false
        logallrefupdates = true
        symlinks = false
        ignorecase = true

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls .git/refs
heads/  tags/

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls .git/refs/heads
master

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ ls .git/refs/tags
v1  v1-beta

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat .git/refs/tags/v1
110e0d8faa1493168427ed217e6a22dcd9dc1708

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat .git/HEAD
ref: refs/heads/master
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -t ^C

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -t 3e0d09c
commit

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -p 3e0d09c
tree 270624384e7053658c99130a1f5e2d4b2d8d0a4d
parent 6ee4cb8602cb4eaf071e42689a75ad4485eff6dd
author Maksim <uzhas76064@gmail.com> 1739455149 +0300
committer Maksim <uzhas76064@gmail.com> 1739455149 +0300

Added index.html.
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --all
4c8db49 2025-02-13 | Updated index.html (HEAD -> style) [Maksim]
49c6b73 2025-02-13 | Hello uses style.css [Maksim]
53e7929 2025-02-13 | Added css stylesheet [Maksim]
3e0d09c 2025-02-13 | Added index.html. (master) [Maksim]
6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
79f9f11 2025-02-13 | Add an author/email comment [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git checkout master
Switched to branch 'master'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat lib/hello.html
<!-- Author: Dmitry S. Kulyabov (kulyabov-ds@rudn.ru) -->
<html>
<head>
</head>
<body>
<h1>Hello, World!</h1>
</body>
</html>
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout style
Switched to branch 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ cat lib/hello.html
<!-- Author: Dmitry S. Kulyabov (kulyabov-ds@rudn.ru) -->
<html>
<head>
<link type="text/css" rel="stylesheet" media="all" href="style.css" />
</head>
<body>
<h1>Hello, World!</h1>
</body>
</html>
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git checkout -b style
Switched to a new branch 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git status
On branch style
nothing to commit, working tree clean

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ touch lib/style.css

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git add lib/style.css

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git commit -m "Added css stylesheet"
[style 53e7929] Added css stylesheet
 1 file changed, 3 insertions(+)
 create mode 100644 lib/style.css

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git add lib/hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git commit -m "Hello uses style.css"
[style 49c6b73] Hello uses style.css
 1 file changed, 1 insertion(+)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git add index.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git commit -m "Updated index.html"
[style 4c8db49] Updated index.html
 1 file changed, 4 insertions(+)
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git checkout master
Switched to branch 'master'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ echo "This is the Hello World example from the git tutori

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ git add README.md
fatal: LF would be replaced by CRLF in README.md

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ git add README.md

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ git commit -m "Added README"
[master d769878] Added README
 1 file changed, 1 insertion(+)
 create mode 100644 README.md

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ git log --graph --all
* d769878 2025-02-13 | Added README (HEAD -> master) [Maksi
| * 4c8db49 2025-02-13 | Updated index.html (style) [Maksim
| * 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
| * 53e7929 2025-02-13 | Added css stylesheet [Maksim]
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag:
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout style
Switched to branch 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git merge master
Merge made by the 'ort' strategy.
 README.md | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README.md

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --graph --all
*   47f9eb0 2025-02-13 | Merge branch 'master' into style (HEAD -> style) [Maksim]
|\
| * d769878 2025-02-13 | Added README (master) [Maksim]
* | 4c8db49 2025-02-13 | Updated index.html [Maksim]
* | 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
* | 53e7929 2025-02-13 | Added css stylesheet [Maksim]
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

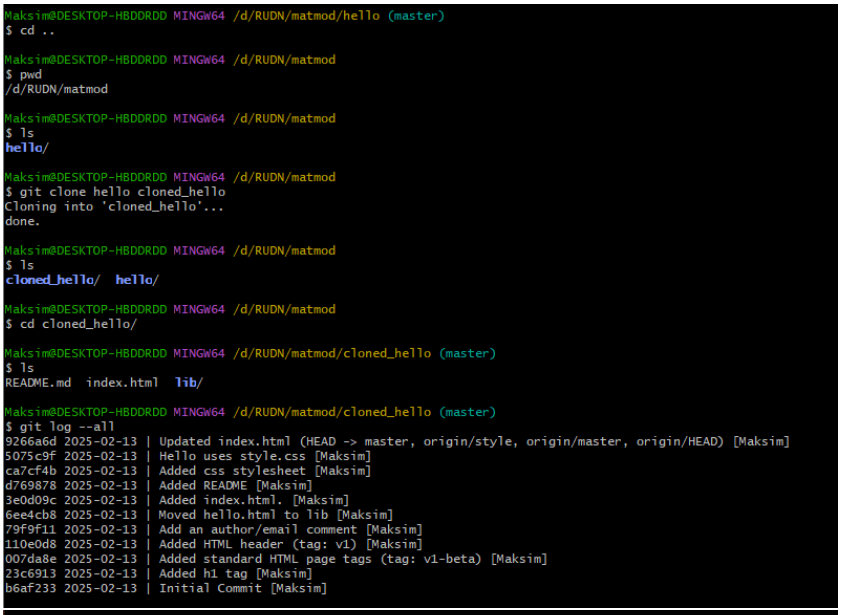
```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git checkout master
Switched to branch 'master'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git add lib/hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git commit -m 'Life is great'
[master fe591e0] Life is great
 1 file changed, 4 insertions(+), 3 deletions(-)

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git log --graph --all
* fe591e0 2025-02-13 | Life is great (HEAD -> master)
| *   47f9eb0 2025-02-13 | Merge branch 'master' into
| |\
| |/
|/|
* | d769878 2025-02-13 | Added README [Maksim]
| * 4c8db49 2025-02-13 | Updated index.html [Maksim]
| * 49c6b73 2025-02-13 | Hello uses style.css [Maksim
| * 53e7929 2025-02-13 | Added css stylesheet [Maksim
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksi
* 79f9f11 2025-02-13 | Add an author/email comment [M
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [M
* 007da8e 2025-02-13 | Added standard HTML page tags
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git checkout style
Switched to branch 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git merge master
Auto-merging lib/hello.html
CONFLICT (content): Merge conflict in lib/hello.html
Automatic merge failed; fix conflicts and then commit

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git add lib/hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
$ git commit -m "Merged master fixed conflict."
[style 13696ee] Merged master fixed conflict.
```

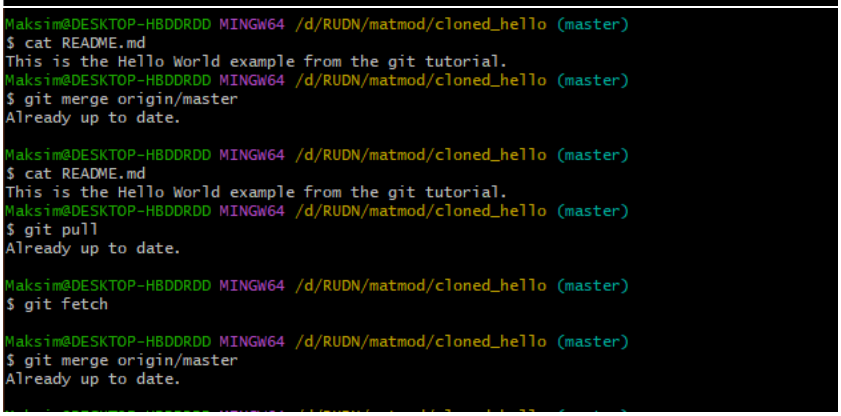
```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git checkout style
Already on 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --graph
*   13696ee 2025-02-13 | Merged master fixed conflict. (HEAD -> style) [Maksim]
|\
| * fe591e0 2025-02-13 | Life is great (master) [Maksim]
* | 47f9eb0 2025-02-13 | Merge branch 'master' into style [Maksim]
|\|
| * d769878 2025-02-13 | Added README [Maksim]
* | 4c8db49 2025-02-13 | Updated index.html [Maksim]
* | 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
* | 53e7929 2025-02-13 | Added css stylesheet [Maksim]
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git reset --hard 4c8db49
HEAD is now at 4c8db49 Updated index.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --graph --all
* fe591e0 2025-02-13 | Life is great (master) [Maksim]
* d769878 2025-02-13 | Added README [Maksim]
| * 4c8db49 2025-02-13 | Updated index.html (HEAD -> style) [Maksim]
| * 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
| * 53e7929 2025-02-13 | Added css stylesheet [Maksim]
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

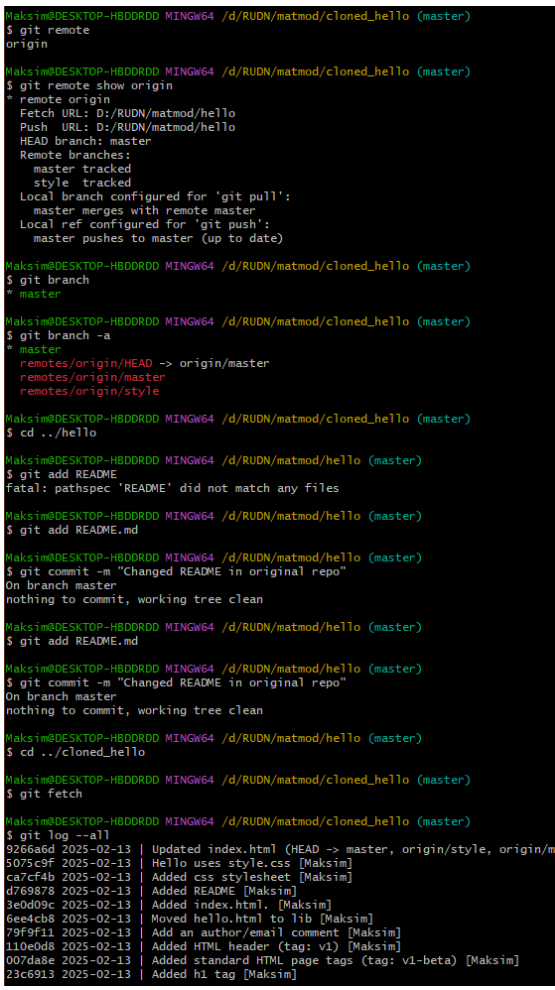
```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout style
Switched to branch 'style'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git rebase master
Successfully rebased and updated refs/heads/style.

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --graph
* 9266a6d 2025-02-13 | Updated index.html (HEAD -> style) [Maksim]
* 5075c9f 2025-02-13 | Hello uses style.css [Maksim]
* ca7cf4b 2025-02-13 | Added css stylesheet [Maksim]
* d769878 2025-02-13 | Added README (master) [Maksim]
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

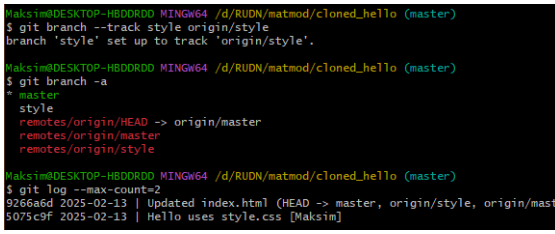
```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git checkout master
Switched to branch 'master'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log --graph
* fe591e0 2025-02-13 | Life is great (HEAD -> master) [Maksim]
* d769878 2025-02-13 | Added README [Maksim]
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-bet
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git reset --hard d769878
HEAD is now at d769878 Added README

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log --graph --all
* d769878 2025-02-13 | Added README (HEAD -> master) [Maksim]
| * 4c8db49 2025-02-13 | Updated index.html (style) [Maksim]
| * 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
| * 53e7929 2025-02-13 | Added css stylesheet [Maksim]
|/
* 3e0d09c 2025-02-13 | Added index.html. [Maksim]
* 6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
* 79f9f11 2025-02-13 | Add an author/email comment [Maksim]
* 110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
* 007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-bet
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git checkout master
Switched to branch 'master'

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git merge style
Updating d769878..9266a6d
Fast-forward
 index.html     | 4 ++++
 lib/hello.html | 1 +
 lib/style.css  | 3 +++
 3 files changed, 8 insertions(+)
 create mode 100644 lib/style.css

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log
9266a6d 2025-02-13 | Updated index.html (HEAD -> master, sty
5075c9f 2025-02-13 | Hello uses style.css [Maksim]
ca7cf4b 2025-02-13 | Added css stylesheet [Maksim]
d769878 2025-02-13 | Added README [Maksim]
3e0d09c 2025-02-13 | Added index.html. [Maksim]
6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
79f9f11 2025-02-13 | Add an author/email comment [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]
```


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cd ..
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
$ pwd
/d/RUDN/matmod
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
$ ls
hello/
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
$ git clone hello cloned_hello
Cloning into 'cloned_hello'...
done.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
$ ls
cloned_hello/ hello/
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
$ cd cloned_hello/
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ ls
README.md index.html lib/
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git log --all
9266a6d 2025-02-13 | Updated index.html (HEAD -> master, origin/style, origin/master, origin/HEAD) [Maksim]
5075c9f 2025-02-13 | Hello uses style.css [Maksim]
ca7cf4b 2025-02-13 | Added css stylesheet [Maksim]
d769878 2025-02-13 | Added README [Maksim]
3e0d09c 2025-02-13 | Added index.html. [Maksim]
6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
79f9f11 2025-02-13 | Add an author/email comment [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [Maksim]


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ cat README.md
This is the Hello World example from the git tutorial.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git merge origin/master
Already up to date.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ cat README.md
This is the Hello World example from the git tutorial.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git pull
Already up to date.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git fetch
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git merge origin/master
Already up to date.


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git remote
origin
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git remote show origin
* remote origin
Fetch URL: D:/RUDN/matmod/hello
Push URL: D:/RUDN/matmod/hello
HEAD branch: master
Remote branches:
master tracked
style tracked
Local branch configured for 'git pull':
master merges with remote master
Local ref configured for 'git push':
master pushes to master (up to date)
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch
* master
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch -a
* master
remotes/origin/HEAD -> origin/master
remotes/origin/master
remotes/origin/style
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ cd ../hello
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README
fatal: pathspec 'README' did not match any files
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README.md
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Changed README in original repo"
On branch master
nothing to commit, working tree clean
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README.md
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Changed README in original repo"
On branch master
nothing to commit, working tree clean
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cd ../cloned_hello
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git fetch
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git log --all
9266a6d 2025-02-13 | Updated index.html (HEAD -> master, origin/style, origin/m
5075c9f 2025-02-13 | Hello uses style.css [Maksim]
ca7cf4b 2025-02-13 | Added css stylesheet [Maksim]
d769878 2025-02-13 | Added README [Maksim]
3e0d09c 2025-02-13 | Added index.html. [Maksim]
6ee4cb8 2025-02-13 | Moved hello.html to lib [Maksim]
79f9f11 2025-02-13 | Add an author/email comment [Maksim]
110e0d8 2025-02-13 | Added HTML header (tag: v1) [Maksim]
007da8e 2025-02-13 | Added standard HTML page tags (tag: v1-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]


Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch --track style origin/style
branch 'style' set up to track 'origin/style'.
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch -a
* master
style
remotes/origin/HEAD -> origin/master
remotes/origin/master
remotes/origin/style
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git log --max-count=2
9266a6d 2025-02-13 | Updated index.html (HEAD -> master, origin/style, origin/mast
5075c9f 2025-02-13 | Hello uses style.css [Maksim]

4 Выводы

В процессе выполнения данной лабораторной работы я приобрел практические навыки работы с Git.