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(puc. fig. 3.1).

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

$ git init
Initialized empty Git repository in D:/RUDN/matmod/hello/.git/

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

$ git add hello.html
warning: in the working copy of 'hello.html', LF will be replaced by CRLF the ne
xt time Git touches it

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

$ git config --global core.autocrlf true

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

$ git config --global core.safecrlf true

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

$ git config --global core.quotepath off

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

$ git config --global core.quotepath off
```

Рис. 3.1: Настройка git

Далее создаю директорию, в которой будет проходить вся работа

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

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod

cd hello

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

touch hello.html

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

echo"Hello, World!" > hello.html

ash: echoHello, World!: command not found

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

echo "Hello, World!" > hello.html

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

echo "Hello, World!" > hello.html
```

Рис. 3.2: Настройка git

Делаю первый коммит и просматриваю статус

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

$ git commit -m "Initial Commit"

[master (root-commit) b6af233] Initial Commit

1 file changed, 1 insertion(+)
create mode 100644 hello.html

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 (master)

* | * |
```

Рис. 3.3: Настройка git

Вношу изменения в hello.html и просматриваю статус

```
MINGW64:/d/RUDN/matmod/hello — X

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)

$ |
```

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]
6baf233 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)

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

Рис. 3.5: Настройка git

Переклчаюсь на коммит по его номеру хэша

```
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

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((b6af233...))

$ git checkout master
Previous HEAD position was b6af233 Initial Commit
Switched to branch 'master'

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)
```

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

```
@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git checkout v1^
Note: switching to 'v1^'.
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 checkout v1
                                                                                                                                                     Previous HEAD position was 007da8e Added standard HTM
HEAD is now at 110e0d8 Added HTML header
   git switch -c <new-branch-name>
Or undo this operation with:
                                                                                                                                                       aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
                                                                                                                                                     $ git checkout v1-beta
                                                                                                                                                     Previous HEAD position was 110e0d8 Added HTML header
HEAD is now at 007da8e Added standard HTML page tags
 Turn off this advice by setting config variable advice.detachedHead to false
 HEAD is now at 007da8e Added standard HTML page tags
                                                                                                                                                       aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
                                                                                                                                                     $ git tag
 $ cat hello.html
<html>
                                                                                                                                                    v1
v1-beta
 <br/>cbody>
<h1>Hello, World!</h1>
                                                                                                                                                      Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
                                                                                                                                                    Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (

$ git log master --all

110e0d8 2025-02-13 | Added HTML header (tag: v1, mast

007da8e 2025-02-13 | Added standard HTML page tags (H

23c6913 2025-02-13 | Added h1 tag [Maksim]

b6af233 2025-02-13 | Initial Commit [Maksim]
     sim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((007da8e...))
```

```
-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
 git status
n 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")
 aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master) git checkout hello.html
Jpdated 1 path from the index
 aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
git status
)n branch master
nothing to commit, working tree clean
 aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
cat hello.html
<html>
<head>
</head>
<body>
<h1>Hello, World!</h1>
</body>
 /html>
 aksim@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:
        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
 aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
```

```
$ git add hello.html
                                                                                                                                                                                                       Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mas
$ git commit -m "Add an author comment"
[master db189dd] Add an author comment
1 file changed, 2 insertions(+), 1 deletion(-)
                                                                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mas
                                                                                                                                                                                                        $ git add hello.html
                                                                                                                                                                                                       Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (ma:
$ 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(+)
                                     BDDRDD MINGW64 /d/RUDN/matmod/hello (master)
 $ git tag -d oops
Deleted tag 'oops' (was 28e5b7a)
                                                                                                                                                                                                           aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (ma
                                                                                                                                                                                                       MaksimeDESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (mai

5 git log

79F9f11 2025-02-13 | Add an author/email comment (HEAD

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]
Marsimobeskinopenbooked yterror (marter)

§ 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]
                                                                                                    mod/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(-)
                                                                                                                                                                                                                    m@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (n
                                                                                                                                                                                                        $ mkdir lib
                                                                                                                                                                                                        Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (m
$ git mv hello.html lib
                        KTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
 $ git add hello.html
                                                                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (m
 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(+)
                                                                                                                                                                                                       $ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    renamed: hello.html -> lib/hello.html
                                                                                                                                                                                                        $ git status
                  DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
MaksimButeskine Habbroom MindWod 7d/kobk/matmod/herro (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 (n
$ 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%)
                                                                                                                                                                                                         ils - C. git
ils - C. git
OMMIT_EDITMSG HEAD ORIG_HEAD config description hooks/ index i
                                                                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
ls -C .git/objects/<dir>
ash: syntax error near unexpected token `newline'
                                                                                                                                                                                                         $ ls -C .git/objects/
06 | 11/ 23/ 28/ 3e/ 52/ 66/ 6e/ 8a/ a4/ c3/ cb/ db/ eb/
06/ 15/ 27/ 2d/ 50/ 5e/ 68/ 79/ 8c/ b6/ c8/ d7/ e4/ f0/
                                                                                                                                                                                                          cat .git/config
core]
                                                                                                                                                                                                                     repositoryformatversion = 0
filemode = false
bare = false
logallrefupdates = true
symlinks = false
ignorecase = true
                                                                                                                                                                                                          ls .git/refs
eads/ tags/
                                                                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master) ls .git/refs/heads
                                                                                                                                                                                                           ksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
                         SKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
                                                                                                                                                                                                              s .git/refs/tags
v1-beta
 $ 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
                                                                                                                                                                                                          aksimeDESKIOP-HBDDKDD MINGW64 /d/KUDN/ma
5 cat .git/refs/tags/v1
10e0d8faa1493168427ed217e6a22dcd9dc1708
                                                                                                                                                                                                         Maksim@DESKTOP-HBDORDD MINGW64 /d/RUDN/matmod/hello (master)
$ cat .git/HEAD
ref: refs/heads/master
```

```
aksim@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
                                                                                                                                                           aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
                                        D MINGW64 /d/RUDN/matmod/hello (master)
                                                                                                                                                         $ git add lib/hello.html
 $ git cat-file -t ^C
                                                                                                                                                        Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git commit -m "Hello uses style.css"
[style 49c6b73] Hello uses style.css
  aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -t 3e0d09c
                                                                                                                                                          1 file changed, 1 insertion(+)
  laksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
                                                                                                                                                         Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
$ git cat-file -p 3e0d09c
tree 270624384e7053658c99130a1f5e2d4b2d8d0a4d
                                                                                                                                                        $ git add index.html
parent 6ee4cb8602cb4eaf071e42689a75ad4485eff6dd
                                                                                                                                                           aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello
author Maksim <uzhas76064@gmail.com> 1739455149 +0300
committer Maksim <uzhas76064@gmail.com> 1739455149 +0300
                                                                                                                                                        $ git commit -m "Updated index.html"
[style 4c8db49] Updated index.html
1 file changed, 4 insertions(+)
Added index.html.
                               DDRDD MINGW64 /d/RUDN/matmod/hello (style)
$ git log --all
4c8db49 2025-02-13 |
49c6b73 2025-02-13 |
                                    Updated index.html (HEAD -> style) [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. (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]
                                                                                                                                                         S git checkout master
                                                                                                                                                                                         master'
                                                                                                                                                           vitched to branch
              DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
                                                                                                                                                        Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
$ echo "This is the Hello World example from the git tutori
$ git checkout master
 Switched to branch 'master'
                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
                 SKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
                                                                                                                                                        $ git add README.md
fatal: LF would be replaced by CRLF in README.md
 $ cat lib/hello.html
   !-- Author: Dmitry S. Kulyabov (kulyabov-ds@rudn.ru) -->
 <html>
                                                                                                                                                                                  HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
 <head>
                                                                                                                                                        $ git add README.md
 </head>
 chodys
                                                                                                                                                        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
 <h1>Hello, World!</h1>
 c/html>
              DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
 $ git checkout style
Switched to branch 'style'
                                                                                                                                                                    DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
                                                                                                                                                          aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master
git log --graph --all
df69878 2025-02-13 | Added README (HEAD -> master) [Maksin
* 4c8db49 2025-02-13 | Updated index.html (style) [Maksin
* 49c6b73 2025-02-13 | Hello uses style.css [Maksim]
* 53e7929 2025-02-13 | Added css stylesheet [Maksim]
                            HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
 cat lib/hello.html
  !-- Author: Dmitry S. Kulyabov (kulyabov-ds@rudn.ru) -->
 <html>
                                                                                                                                                          / 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]
 <head>
 <link type="text/css" rel="stylesheet" media="all" href="style.css" />
 </head>
 <h1>Hello, World!</h1>
 </body>
 </html>
```

DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

laksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello

\$ git checkout -b style Switched to a new branch 'style'

nothing to commit, working tree clean

\$ git status On branch style

\$ touch lib/style.css

```
Maksim@DESKTOP-HBDDRDD MINGW64 <mark>/d/RUDN/matmod/hello (</mark>
$ git commit -m 'Life is great'
[master fe591e0] Life is great
1 file changed, 4 insertions(+), 3 deletions(-)
                                                                                                                                                                                                                                             aksim@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]
git checkout style
witched to branch 'style'
(agit merge master
lerge made by the 'ort' strategy.
README.md | 1 +
1 file changed, 1 insertion(+)
create mode 100644 README.md
                                                                                                                                                                                                                                              aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
                                                                                                                                                                                                                                          git checkout style
Switched to branch 'style'
  aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
git log --graph --all
47f9eb0 2025-02-13 | Merge branch 'master' into style (HEAD -> style) [Maksim]
                                                                                                                                                                                                                                           aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
     d769878 2025-02-13 | Added README (master) [Maksim]
468db49 2025-02-13 | Updated index.html [Maksim]
49c6b73 2025-02-13 | Hello uses style.css [Maksim]
53e7929 2025-02-13 | Added css stylesheet [Maksim]
                                                                                                                                                                                                                                          $ git merge master
                                                                                                                                                                                                                                         Auto-merging lib/hello.html
CONFLICT (content): Merge conflict in lib/hello.html
Automatic merge failed; fix conflicts and then commit
 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]
                                                                                                                                                                                                                                                          @DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
                                                                                                                                                                                                                                         $ git add lib/hello.html
                                                                                                                                                                                                                                            aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (
git commit -m "Merged master fixed conflict."
style 13696ee] Merged master fixed conflict.
```

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (

aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (

git checkout master witched to branch 'master'

git add lib/hello.html

```
$ git checkout style
Already on 'style'
                             @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]
                                                                                                                                                                                                                                                                                                                                                                                                                                         $ git checkout master
Switched to branch 'master'
      | Seod09c 2025-02-13 | Added index.html. [Maksim] | Gee4cb8 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] | 6af233 2025-02-13 | Initial Commit [Maksim]
                                                                                                                                                                                                                                                                                                                                                                                                                                            aksimDESKTOP-HEDDRDD MINGW64 /d/RUDN/matmodynello (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]
6e4cb8 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]
  $ git reset --hard 4c8db49
HEAD is now at 4c8db49 Updated index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                          Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git reset --hard d769878
HEAD is now at d769878 Added README
                                          SKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
      aksim@deSkitOp=HBDRDRD M_NGMG4 7d7kDDR/HBCLRDd/HBCLRD M_NGMG4 7d7kDDR/HBCLRDd/HBCLRD M_NGMG4 7d7kDDR/HBCLRDd/HBCLRD M_NGMG4 7d7kDDR/HBCLRD M_NGMG4 7d7kDDR/HBCLR
                                                                                                                                                                                                                                                                                                                                                                                                                                             aksim@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-beta) [Maksim]
23c6913 2025-02-13 | Added h1 tag [Maksim]
b6af233 2025-02-13 | Initial Commit [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]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                v1-bet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORDD MINGW64 /d/RUDN/matmod/hello (style)
                                                                                                                                                                                                                                                                                                                                                                                                                                       $ git checkout master
                                                                                                                                                                                                                                                                                                                                                                                                                                               vitched to branch 'master'
                                                                                                                                                                                                                                                                                                                                                                                                                                         $ git merge style
Jpdating d769878..9266a6d
-ast-forward
        git checkout style
vitched to branch 'style'
                                                                                                                                                                                                                                                                                                                                                                                                                                          rast-forward
index.html | 4 ++++
lib/hello.html | 1 +
lib/style.css | 3 +++
3 files changed, 8 insertions(+)
create mode 100644 lib/style.css
                              DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
      git rebase master
           ccessfully rebased and updated refs/heads/style.
   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmodynerro (32)
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]
6e04cb8 2025-02-13 | Moved hello.html to lib [Maksim]
79f9f11 2025-02-13 | Added HINL header (tag: v1) [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]
                                 DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (style)
                                                                                                                                                                                                                                                                                                                                                                                                                                      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]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Updated index.html (HEAD -> master, setello uses style.css [Maksim]
Added css stylesheet [Maksim]
Added README [Maksim]
Added index.html. [Maksim]
Moved hello.html to lib [Maksim]
Add an author/email comment [Maksim]
Added HTML header (tag: v1) [Maksim]
Added tandard HTML nage tags (tag)
                                                                                                                                                                                                                                                                                                                                                                                                                                       d769878 2025-02-13
3e0d09c 2025-02-13
6ee4cb8 2025-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                      79f9f11 2025-02-13 |
110e0d8 2025-02-13 |
007da8e 2025-02-13 |
23c6913 2025-02-13 |
                                                                                                                                                                                                                                                                                                                                                                                                                                           107da8e 2025-02-13 | Added standard HTML page tags (tag: v1-
13c6913 2025-02-13 | Added h1 tag [Maksim]
16af233 2025-02-13 | Initial Commit [Maksim]
```

```
IEAD -> origin/master
   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
  pwd
d/RUDN/matmod
                                                                                                                                                                                                                                                                                                                  HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
                                                                                                                                                                                                                                                                                   git add README
atal: pathspec 'README' did not match any files
        sim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
                                                                                                                                                                                                                                                                                   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod
git clone hello cloned_hello
loning into 'cloned_hello'...
                                                                                                                                                                                                                                                                                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
   ls
loned_hello/ hello/
                                                                                                                                                                                                                                                                                  Maksim3DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
5 git commit -m "Changed README in original repo"
no branch master
nothing to commit, working tree clean
   aksim@DESKTOP-HBDDRDD MINGW64 /<mark>d/RUDN/matmod</mark>
cd cloned_hello/
                                                                                                                                                                                                                                                                                Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master) $ cd ../cloned_hello
    uksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
   ls
EADME.md index.html lib/
                                                                                                                                                                                                                                                                                   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
              @DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)

      aksimaDESKTOP-HBDDRDD MINGW64
      /d/RUDN/matmod/cloned_hello (master)

      git log --all
      pit log --all

      266a6d 2025-02-13
      Updated index.html (HEAD -> master, origin/style, origin/master, origin/HEAD) [Maksim]

      075c97 2025-02-13
      Hello uses style.scs [Waksim]

      40764b 2025-02-13
      Added README [Maksim]

      80d09c 2025-02-13
      Added index.html. [Maksim]

      8ed09c 2025-02-13
      Moded hello.html to lib [Maksim]

      979f11 2025-02-13
      Add an author/email comment [Maksim]

      10e0d8 2025-02-13
      Added HTML header (tag: v1) [Maksim]

      97dBa8 2025-02-13
      Added standard HTML page tags (tag: v1-beta) [Maksim]

      13c6913 2025-02-13
      Added h1 tag [Maksim]

      16a6233 2025-02-13
      Initial Commit [Maksim]

                                                                                                                                                                                                                                                                               Maksim@DESKTOP-HBDDRDD MINGM64 /d/RUDN/matmod/cloned_merio (masce)
$ git log --all
g266a6d 2025-02-13 | Updated index.html (HEAD -> master, origin/style, origin/m
5075c9f 2025-02-13 | Hello uses style.css [Maksim]
carfcf4b 2025-02-13 | Added css stylesheet [Maksim]
d769878 2025-02-13 | Added README [Maksim]
3e0d09c 2025-02-13 | Added README [Maksim]
6eetcb8 2025-02-13 | Added index.html (to lib [Maksim])
79f9f11 2025-02-13 | Add an author/email comment [Maksim]
110e0d8 2025-02-13 | Added HTML header (tags: v1) [Maksim]
007da8e 2025-02-13 | Added thander (tags: v1) [Maksim]
007da8e 2025-02-13 | Added thander (tags: v1) [Maksim]
23c6913 2025-02-13 | Added thander (tags: v1) [Maksim]
                             SKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
 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.
  ides time DESKTOP-HBDDRDD MINGWG4 /d/RUDN/matmod/cloned_Hello (master) is cat README.md

This is the Hello World example from the git tutorial.

Haksim@DESKTOP-HBDDRDD MINGWG4 /d/RUDN/matmod/cloned_hello (master)
                                                                                                                                                                                                                                                                                 Maksim@DESKIOP-HBDDRDD MINGW64 /d/RUDN/matmod/
$ git branch --track style origin/style
branch 'style' set up to track 'origin/style'.
$ git pull
Already up to date.
                                                                                                                                                                                                                                                                                   aksimBDESKTDP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
git branch -a
   aksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
                                                                                                                                                                                                                                                                                     master
style
remotes/grigin/HEAD -> origin/master
  git fetch
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master) $ git merge origin/master Already up to date.
                                                                                                                                                                                                                                                                                   aksimBDESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
git log --max-count=2
2656664 2025-02-13 | Updated index.html (HEAD -> master, origin/style, origin/mas
075c9f 2025-02-13 | Hello uses style.css [Maksim]
```

AlksimDDESKTOP-HBDDRDD MINGW64 /d/RUDN/mat git remote show origin remote origin remote origin Fetch URL: D:/RUDN/matmod/hello Push URL: D:/RUDN/matmod/hello HEAD branch: master Remote branches: master tracked style tracked style tracked local branch configured for 'git pull': master merges with remote master Local reach configured for 'git push: master pushes to master (up to date)

TOP-HBDDRDD MINGW64 /d/RUDN

w64 /d/RUDN/matmod/cloned hello (master)

/matmod/cloned hello (master)

4 Выводы

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