Лабораторная работа №1

Работа с Git

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Информация

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Цель работы

Приобрести практические навыки работы с системой управления версиями Git.

Задания

1. Создать репозиторий
2. Изменить его содержимое, изучить работу с коммитами, версиями и тегами
3. Поработать с объектами Git
4. Создать дополнительную ветку, провести слияние, разрешение конфликтов
5. Создать клон репозитория и слить его с оригинальным
6. Залить и извлечь изменения

Выполнение лабораторной работы

Подготовка

Выполнение лабораторной работы

Выполнение лабораторной работы

```
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)
$
```

Рис. 1: git

Выполнение лабораторной работы

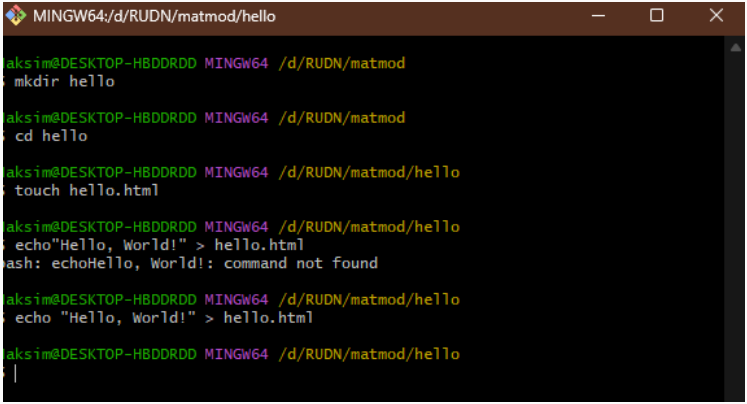

Рис. 2: git

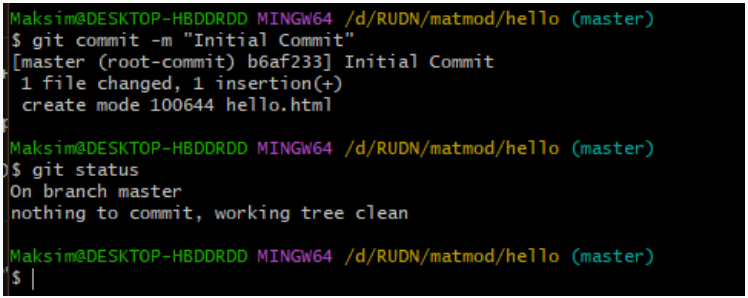
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit -m "Initial Commit"
[master (root-commit) b6af233] Initial Commit
1 file changed, 1 insertion(+)
create mode 100644 hello.html
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
nothing to commit, working tree clean
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$

Рис. 3: git

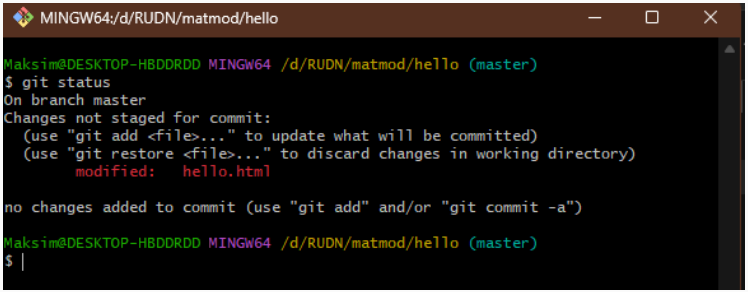
MINGW64:/d/RUDN/matmod/hello
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified: 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. 4: git

```
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
```

Рис. 5: git

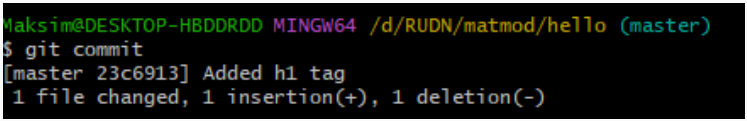
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git commit
[master 23c6913] Added h1 tag
1 file changed, 1 insertion(+), 1 deletion(-)

Рис. 6: git

Выполнение лабораторной работы

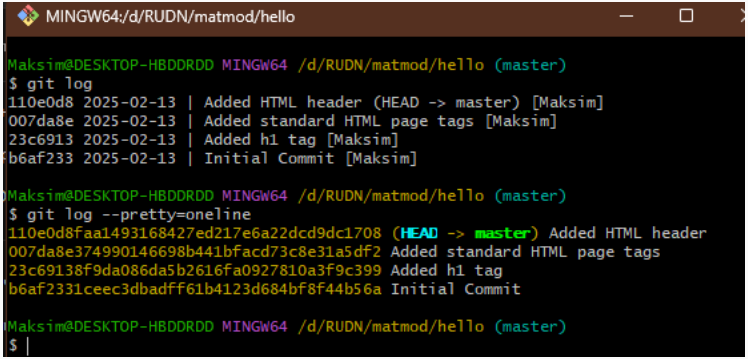

Рис. 7: git

$ 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. 8: git

Выполнение лабораторной работы

```
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. 9: git

Выполнение лабораторной работы

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git tag v1

Maksim@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 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 007da8e Added standard HTML page tags

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((007da8e...))
$ cat hello.html
<html>
<body>
<h1>Hello, World!</h1>
</body>
</html>
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((007da8e...))
$
```

Выполнение лабораторной работы

```
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((v1-beta))
$ git checkout v1
Previous HEAD position was 007da8e Added standard HTML page tags
HEAD is now at 110e0d8 Added HTML header

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((v1))
$ git checkout v1-beta
Previous HEAD position was 110e0d8 Added HTML header
HEAD is now at 007da8e Added standard HTML page tags

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello ((v1-beta))
$ git tag
v1
v1-beta

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

Рис. 11: git

Выполнение лабораторной работы

```
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)
```

Выполнение лабораторной работы

```
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)
$
```

Выполнение лабораторной работы

```
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 "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 (master)
$ 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 (master)
$ ^[[200~git log
bash: $'\E[200~git': command not found

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git log
28e5b7a 2025-02-13 | Revert "Oops, we didn't want this commit" (HEAD -> master) [Maksim]
c8a8cb4 2025-02-13 | Oops, we didn't want this commit [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]
```

Рис. 14: git

```
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]
```

Рис. 15: git

Выполнение лабораторной работы

```
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]
```

Рис. 16: git

Выполнение лабораторной работы

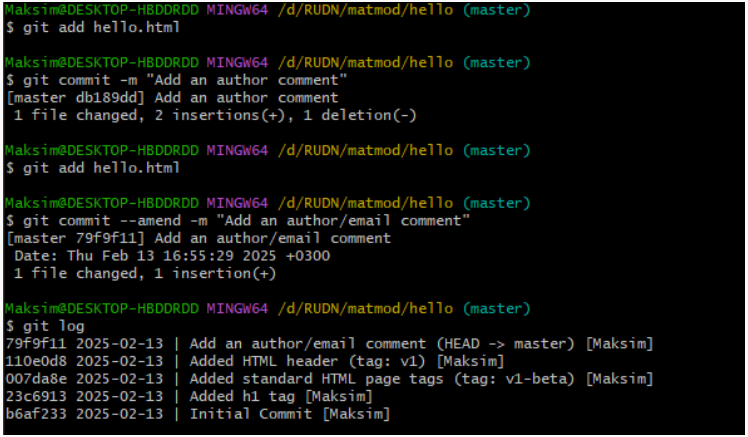

Рис. 17: git

Выполнение лабораторной работы

```
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%)
```

Рис. 18: git

Выполнение лабораторной работы

```
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
```

Рис. 19: git

Выполнение лабораторной работы

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

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/  info/
0d/  15/  27/  2d/  50/  5e/  68/  79/  8c/  b6/  c8/  d7/  e4/  f0/  pack/

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
```

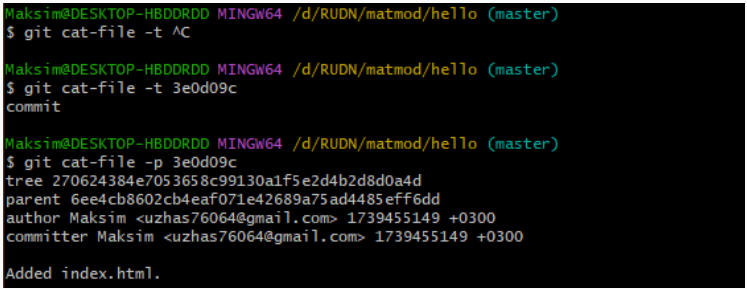
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -t ^C
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -t 3e0d09c
commit
Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git cat-file -p 3e0d09c
tree 270624384e7053658c99130a1f5e2d4b2d8d0a4d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

Рис. 21: git

Выполнение лабораторной работы

Выполнение лабораторной работы

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

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

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

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

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

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

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

Выполнение лабораторной работы

```
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>
```

Выполнение лабораторной работы

```
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 tutorial." > README.md

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) [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]
```

Выполнение лабораторной работы

```
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]
```

Рис. 25: git

Выполнение лабораторной работы

```
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 add lib/hello.html

Maksim@DESKTOP-HBDDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ 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 (master)
$ git log --graph --all
* fe591e0 2025-02-13 | Life is great (HEAD -> master) [Maksim]
| *   47f9eb0 2025-02-13 | Merge branch 'master' into style (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 (master)
$ git checkout style
Switched to branch 'style'

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

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

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

Выполнение лабораторной работы

```
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]
```

Выполнение лабораторной работы

```
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-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 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-beta) [Maksim]
* 23c6913 2025-02-13 | Added h1 tag [Maksim]
* b6af233 2025-02-13 | Initial Commit [Maksim]
```

Рис. 28: git

Выполнение лабораторной работы

```
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]
```

Рис. 29: H git

Выполнение лабораторной работы

```
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, 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 [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]
```

Рис. 30: git

Выполнение лабораторной работы

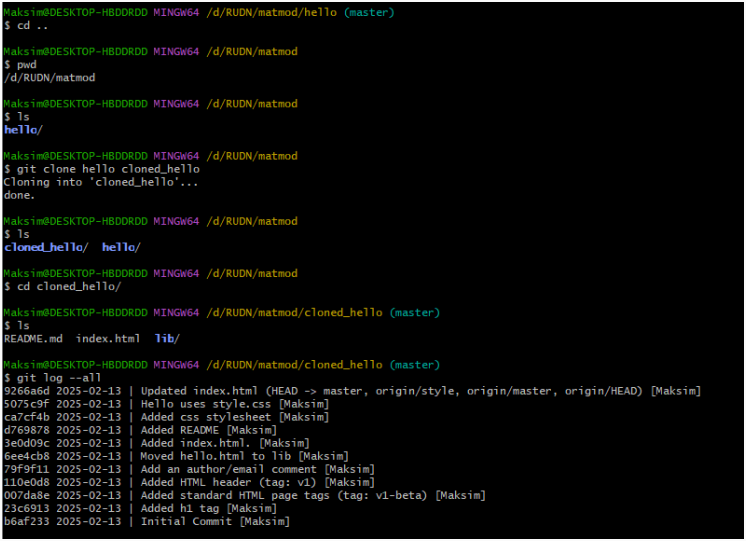

Рис. 31: git

Выполнение лабораторной работы

```
Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git remote
origin

Maksim@DESKTOP-H8DDRDD 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-H8DDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch
* master

Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style

Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ cd ../hello

Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README
fatal: pathspec 'README' did not match any files

Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README.md

Maksim@DESKTOP-H8DDRDD 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-H8DDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ git add README.md

Maksim@DESKTOP-H8DDRDD 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-H8DDRDD MINGW64 /d/RUDN/matmod/hello (master)
$ cd ../cloned_hello

Maksim@DESKTOP-H8DDRDD MINGW64 /d/RUDN/matmod/cloned_hello (master)
$ git fetch

Maksim@DESKTOP-H8DDRDD 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]
6ee61cb 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]
```

Выполнение лабораторной работы

```
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.
```

Рис. 33: git

Выполнение лабораторной работы

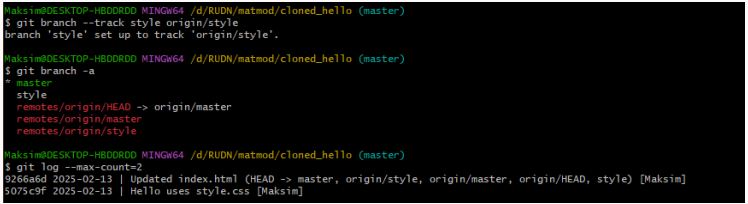

Рис. 34: git

Выводы

Выводы

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