

Лабораторная работа №1

Настройка рабочего пространства. Система контроля версий Git

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НПИбд-02-21

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2024

RUDN

Цель работы

Настроить рабочее пространство для лабораторной работы. Изучить систему контроля версий Git.

Задание

Создать репозиторий курса, настроить каталог курса и выполнить задания из файла по работе с Git.

Git — это система управления версиями, которая используется для отслеживания изменений в файлах кода или любых других текстовых файлах в проекте. Он позволяет разработчикам работать вместе над проектами, фиксировать изменения, откатываться к предыдущим версиям кода и управлять конфликтами при слиянии изменений.

Ход работы

Создала репозиторий курса и настроила каталог курса (рис.1 - рис. 2).

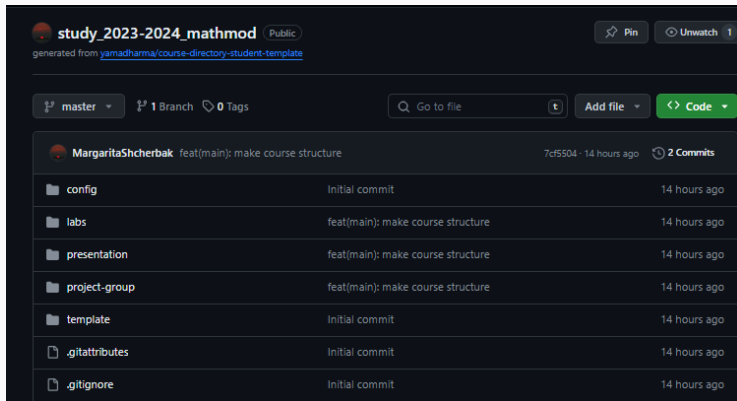


Рис. 1: Репозиторий курса

Выполнение

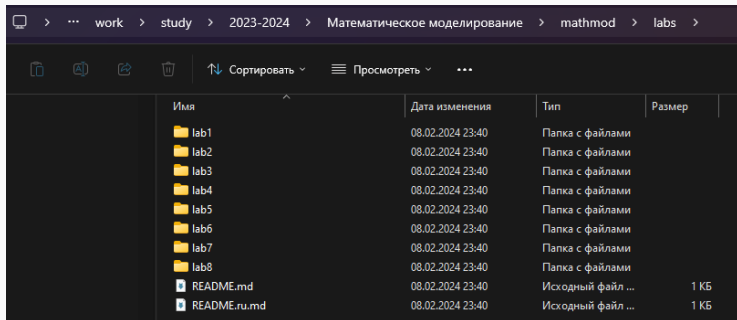
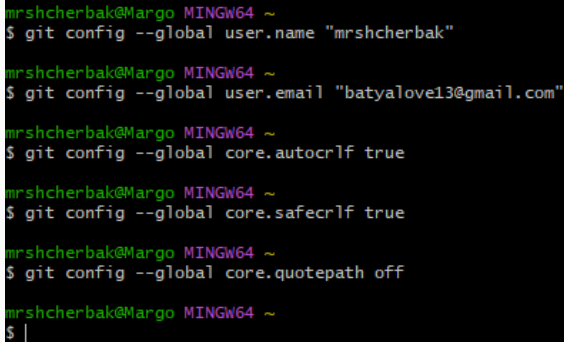


Рис. 2: Рабочий каталог курса

Работа с Git

Установила имя, эл. почту, параметры установки окончаний строк и отображения unicode, создала страницу «Hello, World» и репозиторий (рис.3 - рис.4).

A screenshot of a terminal window with a black background and white text. The prompt is 'mrshcherbak@Margo MINGW64 ~'. The user enters five commands to configure Git globally: setting the user name to 'mrshcherbak', the user email to 'batyalove13@gmail.com', enabling 'core.autocrlf' to 'true', enabling 'core.safecrlf' to 'true', and setting 'core.quotepath' to 'off'. The terminal shows the prompt '\$' followed by the command, and then the prompt 'mrshcherbak@Margo MINGW64 ~' followed by the command's output, which is the same prompt again. The final line shows the prompt '\$' followed by a vertical bar '|'.

```
mrshcherbak@Margo MINGW64 ~  
$ git config --global user.name "mrshcherbak"  
  
mrshcherbak@Margo MINGW64 ~  
$ git config --global user.email "batyalove13@gmail.com"  
  
mrshcherbak@Margo MINGW64 ~  
$ git config --global core.autocrlf true  
  
mrshcherbak@Margo MINGW64 ~  
$ git config --global core.safecrlf true  
  
mrshcherbak@Margo MINGW64 ~  
$ git config --global core.quotepath off  
  
mrshcherbak@Margo MINGW64 ~  
$ |
```

Рис. 3: Выполнение команд

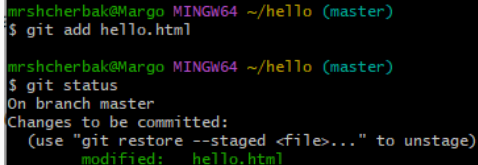
Выполнение

```
mrshcherbak@Margo MINGW64 ~  
$ cd hello  
  
mrshcherbak@Margo MINGW64 ~/hello  
$ touch hello.html  
  
mrshcherbak@Margo MINGW64 ~/hello  
$ echo "Hello, World!" > hello.html  
  
mrshcherbak@Margo MINGW64 ~/hello  
$ git init  
Initialized empty Git repository in C:/Users/Acer/hello/.git/
```

Рис. 4: Выполнение команд

Работа с Git

Перешла к индексации изменений (рис.5). Изменения файла `hello.html` были проиндексированы. Это означает, что `git` теперь знает об изменении, но изменение пока не записано в репозиторий. Следующий коммит будет включать в себя проиндексированные изменения.

A terminal window with a black background and green text. The prompt is 'mrshcherbak@Margo MINGW64 ~/hello (master)'. The first command is '\$ git add hello.html'. The second command is '\$ git status', which outputs 'On branch master' and 'Changes to be committed: (use "git restore --staged <file>..." to unstage) modified: hello.html'.

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ git add hello.html

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
       modified:   hello.html
```

Рис. 5: Индексация изменений

Работа с Git

Добавила стандартные теги страницы (Рис.6). hello.html указан дважды в состоянии. Первое изменение проиндексировано и готово к коммиту. Второе изменение является непроиндексированным.

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ git add hello.html

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   hello.html

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
```

Рис. 6: Выполнение команд

Произвела коммит проиндексированного изменения (рис.7).

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ git commit -m "Added standard HTML page tags"
[master d877cf0] Added standard HTML page tags
1 file changed, 5 insertions(+), 1 deletion(-)

mrshcherbak@Margo MINGW64 ~/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")

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git add .

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git commit -m "Added HTML header"
[master 0569f9f] Added HTML header
1 file changed, 2 insertions(+)

mrshcherbak@Margo MINGW64 ~/hello (master)
$
```

Рис. 7: Выполнение команд

Получила список произведенных изменений (рис.8).

```
mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log
commit 05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master)
Author: mrshcherbak <stys@tonelabs.net>
Date: Fri Feb 9 00:14:02 2024 +0300

    Added HTML header

commit 0b7c7f0b6a00242660860a3530f0e2a7
Author: mrshcherbak <stys@tonelabs.net>
Date: Fri Feb 9 00:12:44 2024 +0300

    Added standard HTML page tags

commit ee40e0c3c80bf1c08a0a5a3a31f0e2a7
Author: mrshcherbak <stys@tonelabs.net>
Date: Fri Feb 9 00:14:27 2024 +0300

    Added h1 tag

commit fac29e43c750afdb0e203a0b7c4770a303974
Author: mrshcherbak <stys@tonelabs.net>
Date: Fri Feb 9 00:12:13 2024 +0300

    Initial commit

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline
05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master) Added HTML header
0b7c7f0b6a00242660860a3530f0e2a7 Added standard HTML page tags
ee40e0c3c80bf1c08a0a5a3a31f0e2a7 Added h1 tag
fac29e43c750afdb0e203a0b7c4770a303974 Initial commit

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline --max-count=2
05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master) Added HTML header
0b7c7f0b6a00242660860a3530f0e2a7 Added standard HTML page tags

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline --since=5 minutes ago
05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master) Added HTML header
0b7c7f0b6a00242660860a3530f0e2a7 Added standard HTML page tags

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline --until=5 minutes ago
ee40e0c3c80bf1c08a0a5a3a31f0e2a7 Added h1 tag
fac29e43c750afdb0e203a0b7c4770a303974 Initial commit

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline --author=mrshcherbak
05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master) Added HTML header
0b7c7f0b6a00242660860a3530f0e2a7 Added standard HTML page tags
ee40e0c3c80bf1c08a0a5a3a31f0e2a7 Added h1 tag
fac29e43c750afdb0e203a0b7c4770a303974 Initial commit

mrshcherbak@Merge: K2NDG64 ~/hello (master)
$ git log --pretty=oneline --all
05a5ff0e41a03697b24c3a0d27f5a6c1 (HEAD -> master) Added HTML header
0b7c7f0b6a00242660860a3530f0e2a7 Added standard HTML page tags
ee40e0c3c80bf1c08a0a5a3a31f0e2a7 Added h1 tag
fac29e43c750afdb0e203a0b7c4770a303974 Initial commit
```

Рис. 8: Выполнение команд

Перешла к созданию тегов версий (рис.9).

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ git tag v1

mrshcherbak@Margo MINGW64 ~/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 d877cf0 Added standard HTML page tags

mrshcherbak@Margo MINGW64 ~/hello ((d877cf0...))
$ cat hello.html
<html>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>

mrshcherbak@Margo MINGW64 ~/hello ((d877cf0...))
$ git tag v1-beta

mrshcherbak@Margo MINGW64 ~/hello ((v1-beta))
$ git checkout v1
Previous HEAD position was d877cf0 Added standard HTML page tags
HEAD is now at 0569f9f Added HTML header

mrshcherbak@Margo MINGW64 ~/hello ((v1))
$ git checkout v1-beta
Previous HEAD position was 0569f9f Added HTML header
HEAD is now at d877cf0 Added standard HTML page tags

mrshcherbak@Margo MINGW64 ~/hello ((v1-beta))
$ git tag
v1
v1-beta
```

Рис. 9: Выполнение команд

Внесение изменений в коммиты.

Оригинальный коммит «автор» заменен коммитом «автор/email» (рис.10).

```
mrshcherbak@margo: ~$ git add hello.html
$ git commit --amend -m "Add an author/email comment"
[master fbb670b] Add an author/email comment
Date: Fri Feb 9 01:30:44 2024 +0300
1 file changed, 1 insertion(+)

mrshcherbak@margo: ~$ git log
commit fbb670b48bbec39e22199842d4daed8592f698c4 (HEAD -> master)
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 01:30:44 2024 +0300

    Add an author/email comment

commit 0569f9f08e1d4e41603697e24ca0ad827bf5a6c1 (tag: v1)
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 00:54:02 2024 +0300

    Added HTML header

commit d877cf0b9e0592426609660ea38ec9cb1dc5daab (tag: v1-beta)
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 00:52:44 2024 +0300

    Added standard HTML page tags

commit ea40e9c2cc80d84f1c08a688a5c5635fb82e47
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 00:42:37 2024 +0300

    Added h1 tag

commit fac29e43c75bafdd0b6203aa67c4770a3b383974
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 00:23:13 2024 +0300

    Initial Commit

mrshcherbak@margo: ~$
```

Рис. 10: Выполнение команд

Git внутри: каталог .git (рис.11).

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls -C .git
COMMIT_EDITMSG  ORIG_HEAD  description  index  logs/  packed-refs
HEAD           config     hooks/       info/  objects/  refs/

mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls -C .git/objects
05/  0f/  15/  1d/  2a/  41/  4e/  60/  69/  83/  94/  d8/  ee/  fa/  info/
0a/  13/  17/  26/  39/  4b/  52/  62/  6c/  8a/  aa/  e4/  f7/  fb/  pack/

mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls -C .git/objects/2a
52bec1a8c07385972a24647d21dbb9e66350cc

mrshcherbak@Margo MINGW64 ~/hello (master)
$ cat .git/config
[core]
    repositoryformatversion = 0
    filemode = false
    bare = false
    logallrefupdates = true
    symlinks = false
    ignorecase = true

mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls .git/refs
heads/  tags/

mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls .git/refs/heads
master

mrshcherbak@Margo MINGW64 ~/hello (master)
$ ls .git/refs/tags
v1  v1-beta

mrshcherbak@Margo MINGW64 ~/hello (master)
$ cat .git/refs/tags/v1
0569f9f08e1d4e41603697e24ca0ad827bf5a6c1

mrshcherbak@Margo MINGW64 ~/hello (master)
$ |
```

Рис. 11: Выполнение команд

Работа непосредственно с объектами git (рис.12).

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ cat .git/HEAD
ref: refs/heads/master

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git log --max-count=1
commit 6058df2d4003446e9c203d19332cbb6bac25538a (HEAD -> master)
Author: mrshcherbak <batyalove13@gmail.com>
Date: Fri Feb 9 01:39:18 2024 +0300

    Added index.html.

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git cat-file -t 6058df2d4003446e9c203d19332cbb6bac25538a
commit

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git cat-file -p 6058df2d4003446e9c203d19332cbb6bac25538a
tree 175eaadd05d5f1c41f8980743c54eb81fcf94d88
parent 0a18f7a9ad1b01dce6d4148f8db4c1930de58948
author mrshcherbak <batyalove13@gmail.com> 1707431958 +0300
committer mrshcherbak <batyalove13@gmail.com> 1707431958 +0300

Added index.html.

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git cat-file -p 175eaadd05d5f1c41f8980743c54eb81fcf94d88
100644 blob aa2d5ac2363aadb622c63e548fe1c339aa958ad2 index.html
040000 tree 152f1174cec8de878e78fb740d4e998939587d78 11b

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git cat-file -p 152f1174cec8de878e78fb740d4e998939587d78
100644 blob 2a52bec1a8c07385972a24647d21dbb9e66350cc hello.html

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git cat-file -p 2a52bec1a8c07385972a24647d21dbb9e66350cc
<!-- Author: Margarita R. Shcherbak (batyalove13@gmail.com) -->
<html>
  <head>
  </head>
  <body>
    <h1>Hello, world!</h1>
  </body>
</html>
mrshcherbak@Margo MINGW64 ~/hello (master)
$ |
```

Рис. 12: Выполнение команд

Создание конфликта и разрешение конфликтов (рис.13 - рис.15).

```
mrshcherbak@margo: ~/hello (style)
$ git checkout master
Switched to branch 'master'
W
  hello.html

mrshcherbak@margo: ~/hello (master)
$ git add 11b/hello.html

mrshcherbak@margo: ~/hello (master)
$ git commit -m 'Life is great'
[master f873ad0] Life is great
1 file changed, 2 insertions(+), 1 deletion(-)

mrshcherbak@margo: ~/hello (master)
$ git log --graph --all
* commit f873ad0d94dd077cbb374ef231a6b972c1123d4a (HEAD -> master)
  Author: mrshcherbak <batyaLove13@gmail.com>
  Date:   Fri Feb 9 12:05:46 2024 +0300

    Life is great

* commit 6b9b99afe67f840b994f3ce0f1891dicesafb6a (style)
  \ Merge: 3ad50ac 912da16
  / Author: mrshcherbak <batyaLove13@gmail.com>
  / Date:   Fri Feb 9 12:00:58 2024 +0300

    Merge branch 'master' into style

* commit 912da16fd68f56c62eaf3bee4397f74390da2e
  Author: mrshcherbak <batyaLove13@gmail.com>
  Date:   Fri Feb 9 11:57:02 2024 +0300

    Added README

* commit 3ad50ac64a844e5f6563dd3b490652de900347f6
  Author: mrshcherbak <batyaLove13@gmail.com>
  Date:   Fri Feb 9 11:50:12 2024 +0300

    Hello uses style.css

* commit 5540862ebc408a254e096c86530e21cf6f81ebaf
  Author: mrshcherbak <batyaLove13@gmail.com>
  Date:   Fri Feb 9 11:44:20 2024 +0300

    Updated index.html

* commit af8cf2191b2460c1f7df3b68575c7b331a06d5d2
  Author: mrshcherbak <batyaLove13@gmail.com>
  Date:   Fri Feb 9 11:28:11 2024 +0300

    Updated index.html
```

Рис. 13: Выполнение команд

Работа с Git

```
mrshcherbak@Margo: MINGW64 ~/hello (style)
$ git reset --hard 5540862ebc408a254e096c86530e21cf6f81ebaf
HEAD is now at 5540862 Updated index.html

mrshcherbak@Margo: MINGW64 ~/hello (style)
$ git log --graph --all
* commit f873ad0d94dd077cbb374ef231a6b972c1123d4a (master)
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 12:05:46 2024 +0300

    Life is great

* commit 912da16fd58fc56c62ea3fbee4397f74390da2e
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 11:57:02 2024 +0300

    Added README

* commit 5540862ebc408a254e096c86530e21cf6f81ebaf (HEAD -> style)
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 11:44:20 2024 +0300

    Updated index.html

* commit af8cf2191b2460c1f7df3b68575c7b331a06d5d2
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 11:28:11 2024 +0300

    Updated index.html

* commit 86ab831458011f04a5a8fc52159e13d42e88a884
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 11:23:52 2024 +0300

    Added css stylesheet

* commit 093b6e34c0cad736955de3cae92fdad5bc607dc5
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 11:17:10 2024 +0300

    Initial Commit

* commit 6058df2d400344669c203d19332cbb6bac25538a
  Author: mrshcherbak <batyalovel3@gmail.com>
  Date:   Fri Feb 9 01:39:18 2024 +0300
```

Рис. 14: Выполнение команд

Работа с Git

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ git checkout style
Switched to branch 'style'

mrshcherbak@Margo MINGW64 ~/hello (style)
$ git rebase master
Successfully rebased and updated refs/heads/style.

mrshcherbak@Margo MINGW64 ~/hello (style)
$ git log --graph
* commit cb6d1970884778330fc915bedec1444e2a86be (HEAD -> style)
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 11:44:20 2024 +0300

    Updated index.html

* commit 6ef76caa37705be42f9542f198605ceec798a21f
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 11:28:11 2024 +0300

    Updated index.html

* commit 33267c9911579c83cc22311e56005902f63f231
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 11:23:52 2024 +0300

    Added css stylesheet

* commit 912da16fd58fc56c62ea3fbee4397f74390da2e (master)
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 11:57:02 2024 +0300

    Added README

* commit 093b6e34c0cad736955de3cae92fdad5bc607dc5
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 11:17:10 2024 +0300

    Initial Commit

* commit 6058df2d400344669c203d19132cbb6bac25538a
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 01:39:18 2024 +0300

    Added index.html.

* commit 0a18f7a9ad1b01dce5d4148dfb4c1930de58948
  Author: mrshcherbak <batyalove13@gmail.com>
  Date:   Fri Feb 9 01:35:11 2024 +0300
```

Рис. 15: Выполнение команд

Клонирование репозиторий (рис.16).

```
mrshcherbak@Margo MINGW64 ~/hello (master)
$ cd ..

mrshcherbak@Margo MINGW64 ~
$ pwd
/c:/Users/Acer

mrshcherbak@Margo MINGW64 ~
$ ls
'3D Objects/'      'Local Settings'@
AppData/           MicrosoftEdgeBackups/
'Application Data'@ Music/
Contacts/          NTUSER.DAT
Cookies@           NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.0.regtrans-ms
Documents/         NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.1.regtrans-ms
Downloads/         NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.2.regtrans-ms
Dropbox/           NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.b1f
Favorites/         NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TM.b1f
IdeaProjects/      NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TMCContainer00000000000000000001.regtrans-ms
IntelGraphicsProfiles/ NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TMCContainer00000000000000000002.regtrans-ms
Links/            NetHood@

mrshcherbak@Margo MINGW64 ~
$ git clone hello cloned_hello
Cloning into 'cloned_hello'...
done.

mrshcherbak@Margo MINGW64 ~
$ ls
'3D Objects/'      'Local Settings'@
AppData/           MicrosoftEdgeBackups/
'Application Data'@ Music/
Contacts/          NTUSER.DAT
Cookies@           NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.0.regtrans-ms
Documents/         NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.1.regtrans-ms
Downloads/         NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.2.regtrans-ms
Dropbox/           NTUSER.DAT[a2332f17-cdbf-11ec-8680-002248483d79].TxR.b1f
Favorites/         NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TM.b1f
IdeaProjects/      NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TMCContainer00000000000000000001.regtrans-ms
IntelGraphicsProfiles/ NTUSER.DAT[a2332f18-cdbf-11ec-8680-002248483d79].TMCContainer00000000000000000002.regtrans-ms
Links/            NetHood@

mrshcherbak@Margo MINGW64 ~
$
```

OneDrive/
Pictures/
PrintHood@
PycharmProjects/
Recent@
'Saved Games'/
Searches/
SendTo/
Videos/
'VirtualBox VMs'/
YandexDisk/
anaconda3/

ansel/
desktop.ini ✓
hello/
ntuser.dat.LOG1
ntuser.dat.LOG2
ntuser.ini
observation.png
source/
'Мои документы'@
Шаблоны@
'главное меню'@

OneDrive/
Pictures/
PrintHood@
PycharmProjects/
Recent@
'Saved Games'/
Searches/
SendTo/
Videos/
'VirtualBox VMs'/
YandexDisk/
anaconda3/

ansel/
cloned_hello/ ✓
desktop.ini
hello/
ntuser.dat.LOG1
ntuser.dat.LOG2
ntuser.ini
observation.png
source/
'Мои документы'@
Шаблоны@
'главное меню'@

Рис. 16: Выполнение команд

Изменение оригинального репозитория (рис.17 - рис.20).

```
mrshcherbak@margo MINGW64 ~/hello (master)
$ ls
README.md hello.html index.html lib/
mrshcherbak@margo MINGW64 ~/hello (master)
$ git add README.md
mrshcherbak@margo MINGW64 ~/hello (master)
$ git commit -m "Changed README in original repo"
[master e11aed4] Changed README in original repo
1 file changed, 1 insertion(+), 1 deletion(-)
mrshcherbak@margo MINGW64 ~/hello (master)
$ cd ../cloned_hello
mrshcherbak@margo MINGW64 ~/cloned_hello (master)
$ git fetch
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 395 bytes | 79.00 KiB/s, done.
From C:/Users/Acer/hello
   cb6c195..e11aed4  master       -> origin/master
mrshcherbak@margo MINGW64 ~/cloned_hello (master)
$ git log --all
commit e11aed4bab4eccf26918175e47a7146b803956b2 (origin/master, origin/HEAD)
Author: mrshcherbak <batyalove13@gmail.com>
Date:   Fri Feb 9 12:54:21 2024 +0300

    Changed README in original repo

commit cb6c195708847783330fc915bedec1444e2a86be (HEAD -> master, origin/style)
Author: mrshcherbak <batyalove13@gmail.com>
Date:   Fri Feb 9 11:44:20 2024 +0300

    Updated index.html

commit 6ef76caa37705be42f9542f198605ceec798a21f
Author: mrshcherbak <batyalove13@gmail.com>
Date:   Fri Feb 9 11:28:11 2024 +0300

    Updated index.html

commit 33267c9911579c83cc223111c56005902f63f231
Author: mrshcherbak <batyalove13@gmail.com>
Date:   Fri Feb 9 11:23:52 2024 +0300
```

Рис. 17: Выполнение команд

Работа с Git

```
mrshcherbak@Margo MINGW64 ~
$ git clone --bare hello hello.git
Cloning into bare repository 'hello.git'...
done.

mrshcherbak@Margo MINGW64 ~
$ ls hello.git
HEAD  config  description  hooks/  info/  objects/  packed-refs  refs/

mrshcherbak@Margo MINGW64 ~
$ cd hello

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git remote add shared ../hello.git

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git checkout master
Already on 'master'
M   README.md

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git add README.md

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git commit -m "Added shared comment to readme"
[master 0bceaaa] Added shared comment to readme
1 file changed, 2 insertions(+), 1 deletion(-)

mrshcherbak@Margo MINGW64 ~/hello (master)
$ git push shared master
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 439 bytes | 439.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To ../hello.git
    e11aed4..0bceaaa  master -> master

mrshcherbak@Margo MINGW64 ~/hello (master)
$
```

Рис. 18: Выполнение команд

Работа с Git

```
mrshcherbak@margo MINGW64 ~/hello (master)
$ cd ../cloned_hello

mrshcherbak@margo MINGW64 ~/cloned_hello (master)
$ git remote add shared ../hello.git

mrshcherbak@margo MINGW64 ~/cloned_hello (master)
$ git branch --track shared master
branch 'shared' set up to track 'master'.

mrshcherbak@margo MINGW64 ~/cloned_hello (master)
$ git pull shared master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 419 bytes | 83.00 KiB/s, done.
From ../hello
 * branch            master       -> FETCH_HEAD
 * [new branch]      master       -> shared/master
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
Automatic merge failed; fix conflicts and then commit the result.
```

Рис. 19: Выполнение команд

```
mrshcherbak@margo MINGW64 ~/cloned_hello (master|MERGING)
$ cat README.md
This is the Hello world example from the git tutorial.
(Changed in the original and pushed to shared)
```

Рис. 20: Выполнение команд

Таким образом, в ходе ЛР№1 я настроила рабочее пространство для лабораторной работы. Изучила систему контроля версий Git.