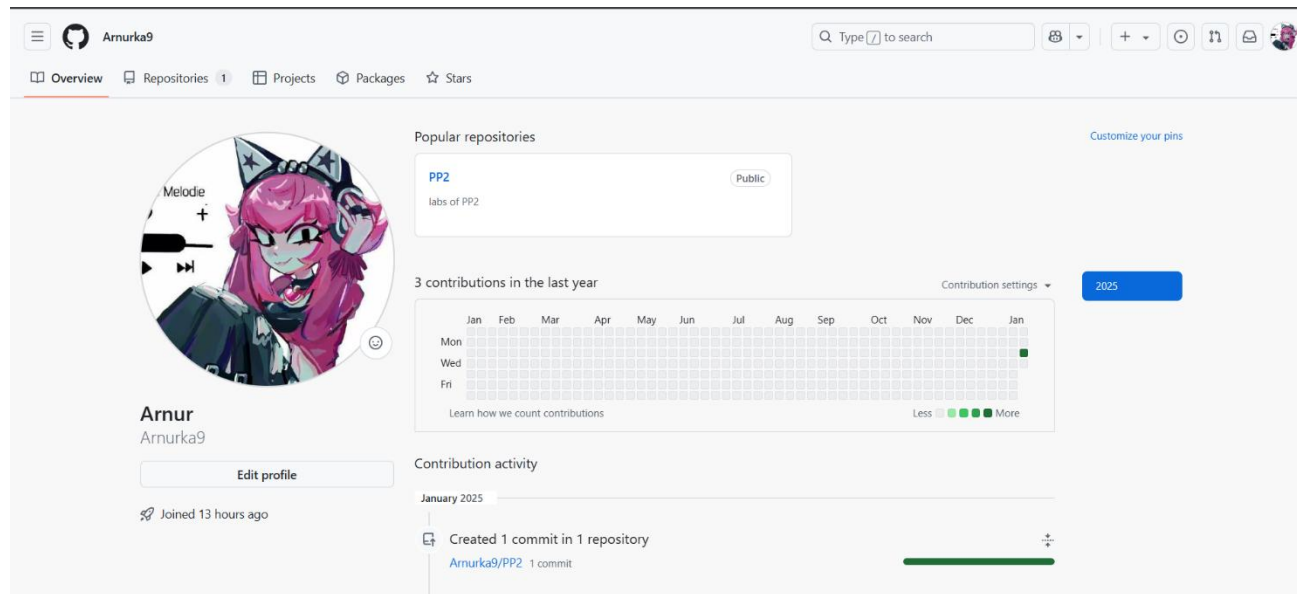


```
C:\Users\ARNUR>git --version
git version 2.47.1.windows.1

C:\Users\ARNUR>|
```

1)

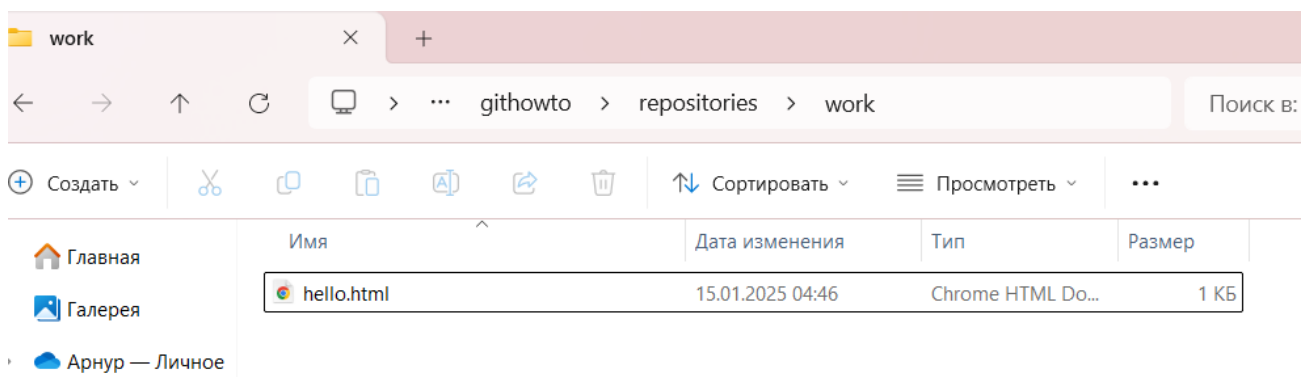


2)

<https://github.com/Arnurka9>

3) Githowto:

```
C:\Users\ARNUR> cd ..
C:\Users> cd ..
C:\> cd ..
C:\> cd ..
C:\> cd D
Системе не удается найти указанный путь.
C:\> d:
D:\> cd
D:\> cd githowto
D:\githowto> cd repositories
D:\githowto\repositories> mkdir work
D:\githowto\repositories> cd work
D:\githowto\repositories\work> touch hello.html
"touch" не является внутренней или внешней
командой, исполняемой программой или пакетным файлом.
D:\githowto\repositories\work> echo Hello, World > hello.html
D:\githowto\repositories\work> git init
Initialized empty Git repository in D:/githowto/repositories/work/.git/
D:\githowto\repositories\work> git add hello.html
D:\githowto\repositories\work> git commit -m "Initial Commit"
[main (root-commit) cf6fd27] Initial Commit
1 file changed, 1 insertion(+)
create mode 100644 hello.html
D:\githowto\repositories\work>|
```

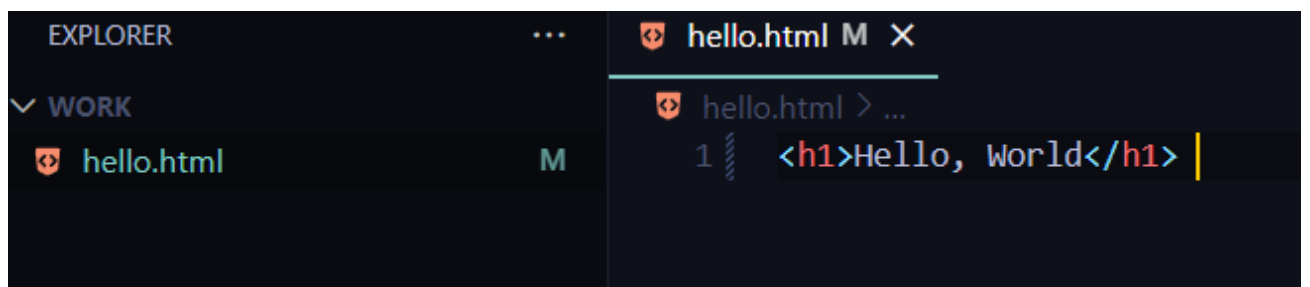


Lesson 3 Проверка состояния

```
D:\githowto\repositories\work> git status
On branch main
nothing to commit, working tree clean

D:\githowto\repositories\work>|
```

Lesson 4 Внесение изменений



```
D:\githowto\repositories\work> git status
On branch main
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")

D:\githowto\repositories\work>|
```

Lesson 5 Индексация изменений

```
D:\githowto\repositories\work> git add hello.html

D:\githowto\repositories\work> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

D:\githowto\repositories\work>|
```

Lesson 6 Индексация и коммит

```
D:\githowto\repositories\work> git add hello.html

D:\githowto\repositories\work> git comit -m "Changes for hello.html"
git: 'comit' is not a git command. See 'git --help'.

The most similar command is
    commit

D:\githowto\repositories\work>git commit -m "Changes for hello.html"
[main 2fc683e] Changes for hello.html
 1 file changed, 1 insertion(+), 1 deletion(-)

D:\githowto\repositories\work>|
```

Lesson 7 Коммит изменений

The top part of the image shows a VS Code interface. The Explorer sidebar on the left shows a project structure with a `.git` folder and a `hello.html` file. The main editor area shows the `COMMIT_EDITMSG` file, which contains a template for a commit message. The bottom part of the image shows a terminal window with the following commands and output:

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories
$ cd work

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit
On branch main
nothing to commit, working tree clean

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit
Aborting commit due to empty commit message.

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit
hint: Waiting for your editor to close the file... |
```

The bottom part of the image shows the VS Code interface again. The `COMMIT_EDITMSG` file is open, and the commit message `Added h1 tag` has been entered. The rest of the template text is still visible.

The terminal window shows the successful completion of the first commit:

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit
[main 04b96a0] Added h1 tag
1 file changed, 1 insertion(+), 1 deletion(-)
```

The terminal window shows the status of the repository after the first commit:

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
nothing to commit, working tree clean
```

Lesson 8 Изменения, а не файлы

```
EXPLORER
WORK
hello.html M

hello.html M X COMMIT_EDITMSG
hello.html > html
1 <html>
2   <body>
3     <h1>Hello, World</h1>
4   </body>
5 </html>
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html
```

```
hello.html > html
1 <html>
2   <head>
3   </head>
4   <body>
5     <h1>Hello, World</h1>
6   </body>
7 </html>
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
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
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit -m "Added standard HTML page tags"
[main 8439878] Added standard HTML page tags
1 file changed, 5 insertions(+), 1 deletion(-)
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
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")
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add .
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git commit -m "Added HTML header"
[main 4df038d] Added HTML header
1 file changed, 2 insertions(+)
```

Lesson 9 История

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log
commit 4df038d7cd82a1f28e7fdf163a589bdde5c570ce (HEAD -> main)
Author: Arnurka9 <arnurchikkun@gmail.com>
Date:   Wed Jan 15 12:21:16 2025 +0500

    Added HTML header

commit 8439878d4f72705c815984a820c6e32daa85ad36
Author: Arnurka9 <arnurchikkun@gmail.com>
Date:   Wed Jan 15 12:18:51 2025 +0500

    Added standard HTML page tags

commit 04b96a068cd1b5890e1152bd2b96c62595992ff3
Author: Arnurka9 <arnurchikkun@gmail.com>
Date:   Wed Jan 15 11:56:03 2025 +0500

    Added h1 tag

commit 2fc683e9838d6d74c34fdc0bf102c73bfcdfabd1
Author: Arnurka9 <arnurchikkun@gmail.com>
Date:   Wed Jan 15 05:09:54 2025 +0500

    Changes for hello.html

commit cf6fd27ef8f53bfe556935f153582e86f9c9942a
Author: Arnurka9 <arnurchikkun@gmail.com>
Date:   Wed Jan 15 04:48:27 2025 +0500

    Initial Commit

```

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --pretty=oneline
4df038d7cd82a1f28e7fdf163a589bdde5c570ce (HEAD -> main) Added HTML header
8439878d4f72705c815984a820c6e32daa85ad36 Added standard HTML page tags
04b96a068cd1b5890e1152bd2b96c62595992ff3 Added h1 tag
2fc683e9838d6d74c34fdc0bf102c73bfcdfabd1 Changes for hello.html
cf6fd27ef8f53bfe556935f153582e86f9c9942a Initial Commit

```

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --oneline --max-count=2
4df038d (HEAD -> main) Added HTML header
8439878 Added standard HTML page tags

```

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --oneline --since="5 minutes ago"

```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --oneline --until="5 minutes ago"
4df038d (HEAD -> main) Added HTML header
8439878 Added standard HTML page tags
04b96a0 Added h1 tag
2fc683e Changes for hello.html
cf6fd27 Initial Commit
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --oneline --author="Arnurka9"
4df038d (HEAD -> main) Added HTML header
8439878 Added standard HTML page tags
04b96a0 Added h1 tag
2fc683e Changes for hello.html
cf6fd27 Initial Commit
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --oneline --all
4df038d (HEAD -> main) Added HTML header
8439878 Added standard HTML page tags
04b96a0 Added h1 tag
2fc683e Changes for hello.html
cf6fd27 Initial Commit
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --pretty=format:"%h %ad | %s [%an]" --date=short
4df038d 2025-01-15 | Added HTML header (HEAD -> main) [Arnurka9]
8439878 2025-01-15 | Added standard HTML page tags [Arnurka9]
04b96a0 2025-01-15 | Added h1 tag [Arnurka9]
2fc683e 2025-01-15 | Changes for hello.html [Arnurka9]
cf6fd27 2025-01-15 | Initial Commit [Arnurka9]
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log --all --pretty=format:"%h %ad %s (%an)" --since="7 days ago"
4df038d Wed Jan 15 12:21:16 2025 +0500 Added HTML header (Arnurka9)
8439878 Wed Jan 15 12:18:51 2025 +0500 Added standard HTML page tags (Arnurka9)
04b96a0 Wed Jan 15 11:56:03 2025 +0500 Added h1 tag (Arnurka9)
2fc683e Wed Jan 15 05:09:54 2025 +0500 Changes for hello.html (Arnurka9)
cf6fd27 Wed Jan 15 04:48:27 2025 +0500 Initial Commit (Arnurka9)
```

- `--pretty="..."` — определяет формат вывода.
- `%h` — укороченный хеш коммита.
- `%ad` — дата коммита.
- `|` — просто визуальный разделитель.
- `%s` — комментарий.
- `%d` — дополнения коммита («головы» веток или теги).
- `%an` — имя автора.

- `--date=short` — сохраняет формат даты коротким и симпатичным.

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git config --global format.pretty '%h %ad | %s%d [%an]'
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git config --global log.date short
```

Lesson 10 Получение старых версии

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log
4df038d 2025-01-15 | Added HTML header (HEAD -> main) [Arnurka9]
8439878 2025-01-15 | Added standard HTML page tags [Arnurka9]
04b96a0 2025-01-15 | Added h1 tag [Arnurka9]
2fc683e 2025-01-15 | Changes for hello.html [Arnurka9]
cf6fd27 2025-01-15 | Initial Commit [Arnurka9]
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git checkout 04b96a0
Note: switching to '04b96a0'.

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 04b96a0 Added h1 tag

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((04b96a0...))
$ cat hello.html
<h1>Hello, World</h1>

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((04b96a0...))
$ git switch main
Previous HEAD position was 04b96a0 Added h1 tag
Switched to branch 'main'

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ cat hello.html
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World</h1>
  </body>
</html>
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)

```

Lesson 11 Создание тегов версии

```

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git tag v1

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git log
4df038d 2025-01-15 | Added HTML header (HEAD -> main, tag: v1) [Arnurka9]
8439878 2025-01-15 | Added standard HTML page tags [Arnurka9]
04b96a0 2025-01-15 | Added h1 tag [Arnurka9]
2fc683e 2025-01-15 | Changes for hello.html [Arnurka9]
cf6fd27 2025-01-15 | Initial Commit [Arnurka9]

```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
```

```
$ 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 8439878 Added standard HTML page tags

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((8439878...))
```

```
$ cat hello.html
```

```
<html>
  <body>
    <h1>Hello, world</h1>
  </body>
</html>
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((8439878...))
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1-beta))
```

```
$ git log
```

```
8439878 2025-01-15 | Added standard HTML page tags (HEAD, tag: v1-beta) [Arnurka9]
04b96a0 2025-01-15 | Added h1 tag [Arnurka9]
2fc683e 2025-01-15 | Changes for hello.html [Arnurka9]
cf6fd27 2025-01-15 | Initial Commit [Arnurka9]
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1-beta))
```

```
$ git checkout v1
```

Previous HEAD position was 8439878 Added standard HTML page tags

HEAD is now at 4df038d Added HTML header

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1))
```

```
$ git checkout v1-beta
```

Previous HEAD position was 4df038d Added HTML header

HEAD is now at 8439878 Added standard HTML page tags

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1-beta))
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1-beta))
$ git tag
v1
v1-beta

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work ((v1-beta))
$ git log main --all
4df038d 2025-01-15 | Added HTML header (tag: v1, main) [Arnurka9]
8439878 2025-01-15 | Added standard HTML page tags (HEAD, tag: v1-beta) [Arnurka9]
04b96a0 2025-01-15 | Added h1 tag [Arnurka9]
2fc683e 2025-01-15 | Changes for hello.html [Arnurka9]
cf6fd27 2025-01-15 | Initial Commit [Arnurka9]
```

Lesson 12 Отмена локальных изменений (до индексации)

```
hello.html M x COMMIT_EDITMSG

hello.html > html
1  <html>
2    <head>
3    </head>
4    <body>
5      <h1>Hello, World</h1>
6      <!-- This is a bad comment. We want to revert it. -->
7    </body>
8  </html>
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
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")
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git checkout hello.html
Updated 1 path from the index

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
nothing to commit, working tree clean

ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ cat hello.html
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World</h1>
  </body>
</html>
```

Lesson 13 Отмена проиндексированных изменений (перед коммитом)

hello.html M X COMMIT_EDITMSG

hello.html > html > body

```
1 <html>
2   <head>
3   |   <!-- This is an unwanted but staged comment -->
4   </head>
5   <body>
6   |   <h1>Hello, World</h1>
7   </body>
8 </html>
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git add hello.html
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   hello.html
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git reset HEAD hello.html
Unstaged changes after reset:
M    hello.html
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git checkout hello.html
Updated 1 path from the index
```

```
ARNUR@DESKTOP-EGJ5NRS MINGW64 /d/githowto/repositories/work (main)
$ git status
On branch main
nothing to commit, working tree clean
```