Презентация по лабораторной работе 1

Работа с Git

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Подготовка к созданию проекта

```
nasidorova@ubuntu:~$ git config --global core.autocrlf input
nasidorova@ubuntu:~$ git config --global core.safecrlf true
nasidorova@ubuntu:~$ git config --global core.quotepath off
nasidorova@ubuntu:~$ mkdir hello
nasidorova@ubuntu:~$ cd hello
nasidorova@ubuntu:~/hello$ touch hello.html
nasidorova@ubuntu:~/hello$ echo "Hello, World!" > hello.html
nasidorova@ubuntu:~/hello$ git init
Initialized empty Git repository in /home/nasidorova/hello/.git/
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git commit -m "Initial Commit"
[master (root-commit) 510c82e] Initial Commit
 1 file changed, 1 insertion(+)
 create mode 100644 hello.html
nasidorova@ubuntu:~/hello$ git status
On branch master
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$
```

Рис. 1: Подготовка к созданию проекта

Код страницы

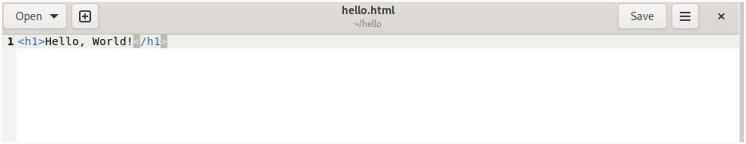

Рис. 2: Код страницы

Добавление комментария

Рис. 3: Добавление комментария

Добавление файла

```
nasidorova@ubuntu:~/hello$ echo <h1>Hello, World!</h1>  > hello.html
bash: !: event not found
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ 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")
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

nasidorova@ubuntu:~/hello$ git commit
[master f999955] Added h1 tag
 1 file changed, 1 insertion(+), 1 deletion(-)
nasidorova@ubuntu:~/hello$ git status
On branch master
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$
```

Рис. 4: Добавление файла

Появление заголовка

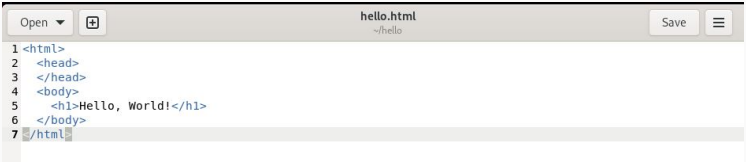

Рис. 5: Появление заголовка

Добавление изменений

```
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ 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

nasidorova@ubuntu:~/hello$ git commit -m "Added standart HTML page tags"
[master 494d99b] Added standart HTML page tags
 1 file changed, 5 insertions(+), 1 deletion(-)
nasidorova@ubuntu:~/hello$ 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")
nasidorova@ubuntu:~/hello$ git add .
nasidorova@ubuntu:~/hello$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

nasidorova@ubuntu:~/hello$ git commit -m "Added HTML header"
[master b75ce07] Added HTML header
 1 file changed, 2 insertions(+)
nasidorova@ubuntu:~/hello$
```

Логи

```
nasidorova@ubuntu:~/hello$ git log
commit b75ce07ba1769748e98f798f15011d3350b5648a (HEAD -> master)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header

commit 494d99b14ee97fe6ec77535a8167519a22e345b5
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:38:54 2025 +0300

    Added standart HTML page tags

commit f999955599634150fabc46e0e77b2f4d24045f53
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:27:21 2025 +0300

    Added h1 tag

commit 510c82ea1e72be58185f9d3e2283c138dea28171
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:19:39 2025 +0300

    Initial Commit
nasidorova@ubuntu:~/hello$ git log --pretty=oneline
b75ce07ba1769748e98f798f15011d3350b5648a (HEAD -> master) Added HTML header
494d99b14ee97fe6ec77535a8167519a22e345b5 Added standart HTML page tags
f999955599634150fabc46e0e77b2f4d24045f53 Added h1 tag
510c82ea1e72be58185f9d3e2283c138dea28171 Initial Commit
nasidorova@ubuntu:~/hello$
```

Версии файла

```
nasidorova@ubuntu:~/hello$ git checkout 510c82e
Note: switching to '510c82e'.

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 510c82e Initial Commit
nasidorova@ubuntu:~/hello$ cat hello.html
Hello, World!
nasidorova@ubuntu:~/hello$ git checkout master
Previous HEAD position was 510c82e Initial Commit
Switched to branch 'master'
nasidorova@ubuntu:~/hello$ cat hello.html
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
nasidorova@ubuntu:~/hello$
```

Теги файла

```
nasidorova@ubuntu:~/hello$ git tag v1-beta
nasidorova@ubuntu:~/hello$ git checkout v1
Previous HEAD position was 494d99b Added standart HTML page tags
HEAD is now at b75ce07 Added HTML header
nasidorova@ubuntu:~/hello$ git checkout v1-beta
Previous HEAD position was b75ce07 Added HTML header
HEAD is now at 494d99b Added standart HTML page tags
nasidorova@ubuntu:~/hello$ git tag
v1
v1-beta
nasidorova@ubuntu:~/hello$ git log master --all
commit b75ce07ba1769748e98f798f15011d3350b5648a (tag: v1, master)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header

commit 494d99b14ee97fe6ec77535a8167519a22e345b5 (HEAD, tag: v1-beta)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:38:54 2025 +0300

    Added standart HTML page tags

commit f999955599634150fabc46e0e77b2f4d24045f53
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:27:21 2025 +0300

    Added h1 tag

commit 510c82ea1e72be58185f9d3e2283c138dea28171
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:19:39 2025 +0300

    Initial Commit
```

Комментарий в коде

Рис. 10: Комментарий в коде

Нежелательный комментарий

Рис. 11: Нежелательный комментарий

Индексация изменений

```
nasidorova@ubuntu:~/hello$ git checkout master
Previous HEAD position was 494d99b Added standart HTML page tags
Switched to branch 'master'
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ 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")
nasidorova@ubuntu:~/hello$ git checkout hello.html
Updated 1 path from the index
nasidorova@ubuntu:~/hello$ git status
On branch master
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$ cat hello.html
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

nasidorova@ubuntu:~/hello$ git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
nasidorova@ubuntu:~/hello$ git checkout hello.html
Updated 1 path from the index
nasidorova@ubuntu:~/hello$ git status
On branch master
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$
```

Сброс буфера

```
nasidorova@ubuntu:~/hello$ git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
nasidorova@ubuntu:~/hello$ git checkout hello.html
Updated 1 path from the index
nasidorova@ubuntu:~/hello$ git status
On branch master
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git commit -m "Oops, we didn't want this commit"
[master 356b245] Oops, we didn't want this commit
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/hello$ git revert HEAD
[master f39f9b0] Revert "Oops, we didn't want this commit"
 1 file changed, 1 deletion(-)
nasidorova@ubuntu:~/hello$ git log
commit f39f9b0aaa0e6407f6e506543480cd6398c39e6a (HEAD -> master)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:02:12 2025 +0300

    Revert "Oops, we didn't want this commit"

    This reverts commit 356b24530e3031d078c13a12c573c66d18aa599b.

commit 356b24530e3031d078c13a12c573c66d18aa599b
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:01:42 2025 +0300

    Oops, we didn't want this commit

commit b75ce07ba1769748e98f798f15011d3350b5648a (tag: v1)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header
```

Сброс изменений файла

```
nasidorova@ubuntu:~/hello$ git tag oops
nasidorova@ubuntu:~/hello$ git reset --hard v1
HEAD is now at b75ce07 Added HTML header
nasidorova@ubuntu:~/hello$ git log
commit b75ce07ba1769748e98f798f15011d3350b5648a (HEAD -> master, tag: v1)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header

commit 494d99b14ee97fe6ec77535a8167519a22e345b5 (tag: v1-beta)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:38:54 2025 +0300

    Added standart HTML page tags

commit f9999555996341 50fabc46e0e77b2f4d24045f53
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:27:21 2025 +0300

    Added h1 tag

commit 510c82ea1e72be58185f9d3e2283c138dea28171
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:19:39 2025 +0300

    Initial Commit
nasidorova@ubuntu:~/hello$ git log --all
commit f39f9b0aaa0e6407f6e506543480cd6398c39e6a (tag: oops)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:02:12 2025 +0300

    Revert "Oops, we didn't want this commit"

    This reverts commit 356b24530e3031d078c13a12c573c66d18aa599b.

commit 356b24530e3031d078c13a12c573c66d18aa599b
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:01:42 2025 +0300

    Oops, we didn't want this commit

commit b75ce07ba1769748e98f798f15011d3350b5648a (HEAD -> master, tag: v1)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300
```

Удаление тега

```
nasidorova@ubuntu:~/hello$ git tag -d oops
Deleted tag 'oops' (was f39f9b0)
nasidorova@ubuntu:~/hello$ git log --all
commit b75ce07ba1769748e98f798f15011d3350b5648a (HEAD -> master, tag: v1)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header

commit 494d99b14ee97fe6ec77535a8167519a22e345b5 (tag: v1-beta)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:38:54 2025 +0300

    Added standart HTML page tags

commit f999955599634150fabc46e0e77b2f4d24045f53
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:27:21 2025 +0300

    Added h1 tag

commit 510c82ea1e72be58185f9d3e2283c138dea28171
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:19:39 2025 +0300

    Initial Commit
nasidorova@ubuntu:~/hello$
```

Рис. 15: Удаление тега

Ссылка на автора

Рис. 16: Ссылка на автора

Отправка изменений

```
    Initial Commit
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git commit -m "Add an author comment"
[master f702f71] Add an author comment
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/hello$ gedit hello.html
nasidorova@ubuntu:~/hello$ git add hello.html
nasidorova@ubuntu:~/hello$ git commit --amend -m "Add an author/email comment"
[master f040dd0] Add an author/email comment
 Date: Mon Feb 17 19:15:20 2025 +0300
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/hello$ git log
commit f040dd0bdc5f3c556eb95307f2ba06bcfce36693 (HEAD -> master)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:15:20 2025 +0300

    Add an author/email comment

commit b75ce07ba1769748e98f798f15011d3350b5648a (tag: v1)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:40:57 2025 +0300

    Added HTML header

commit 494d99b14ee97fe6ec77535a8167519a22e345b5 (tag: v1-beta)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:38:54 2025 +0300

    Added standart HTML page tags

commit f999955599634150fabc46e0e77b2f4d24045f53
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:27:21 2025 +0300

    Added h1 tag

commit 510c82ea1e72be58185f9d3e2283c138dea28171
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 18:19:39 2025 +0300

    Initial Commit
nasidorova@ubuntu:~/hello$
```

Новый файл

Рис. 18: Новый файл

Мои каталоги

```
nasidorova@ubuntu:~/hello$ mkdir lib
nasidorova@ubuntu:~/hello$ git mv hello.html lib
nasidorova@ubuntu:~/hello$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    hello.html -> lib/hello.html

nasidorova@ubuntu:~/hello$ git commit -m "Moved hello.html to lib"
[master a2e06e6] Moved hello.html to lib
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename hello.html => lib/hello.html (100%)
nasidorova@ubuntu:~/hello$ touch index.html
nasidorova@ubuntu:~/hello$ gedit index.html
nasidorova@ubuntu:~/hello$ git add index.html
nasidorova@ubuntu:~/hello$ git commit -m "Added index.html"
[master 78c7f25] Added index.html
 1 file changed, 5 insertions(+)
 create mode 100644 index.html
nasidorova@ubuntu:~/hello$ ls -C .git
branches  COMMIT_EDITMSG  config  description  HEAD  hooks  index  info  logs  objects  ORIG_HEAD  packed-refs  refs
nasidorova@ubuntu:~/hello$ ls -C .git/objects
0c  0d  14  35  49  51  52  5c  62  6d  78  8a  8c  a2  ae  b3  b4  b7  b8  bd  be  cd  f0  f3  f7  f9  info  pack
nasidorova@ubuntu:~/hello$ ls -C .git/objects/<dir>
bash: syntax error near unexpected token `newline'
nasidorova@ubuntu:~/hello$ ls -C .git/objects/52
3cd318fc3b74ad3852cd34a74720ad6f7dd422
nasidorova@ubuntu:~/hello$ cat .git/config
[core]
        repositoryformatversion = 0
        filemode = true
        bare = false
        logallrefupdates = true
nasidorova@ubuntu:~/hello$ ls .git/refs
heads  tags
nasidorova@ubuntu:~/hello$ ls .git/refs/heads
master
nasidorova@ubuntu:~/hello$ ls .git/refs/tags
v1  v1-beta
nasidorova@ubuntu:~/hello$ ls .git/refs/tags/v1
.git/refs/tags/v1
nasidorova@ubuntu:~/hello$
```

Рис. 19: Мои каталоги

Цвет

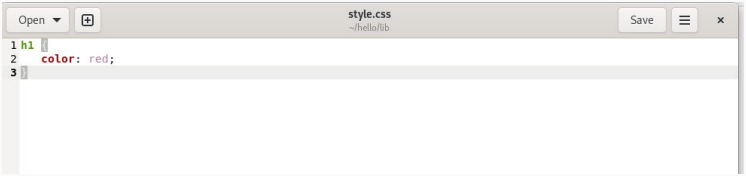

Рис. 20: Цвет

Просмотр через хэш

```
nasidorova@ubuntu:~/hello$ cat .git/HEAD
ref: refs/heads/master
nasidorova@ubuntu:~/hello$ git log --max-count=1
commit 78c7f254dd0dd567fdee6c55bd7565913dabf573 (HEAD -> master)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:25:57 2025 +0300

    Added index.html
nasidorova@ubuntu:~/hello$ git cat-file -t 78c7f25
commit
nasidorova@ubuntu:~/hello$ git cat-file -p 78c7f25
tree b427cdf12168423483831ab498750bedb31fb1fe
parent a2e06e6b8d3c7d8a013d5ad7b0cc3b4589f0a7b1
author nasidorova <nsmails@mail.ru> 1739809557 +0300
committer nasidorova <nsmails@mail.ru> 1739809557 +0300

Added index.html
nasidorova@ubuntu:~/hello$ git cat-file -p b427cdf
100644 blob aeeb538cd0610f43516914c29faaae04e80a870d    index.html
040000 tree 5ce6e90785764bd9687e6507d4b7ef37f674efad    lib
nasidorova@ubuntu:~/hello$ git cat-file -p 5ce6e90
100644 blob 8cf1e1d09745f6d4506ee6d4afc5d6ee4a51988e    hello.html
nasidorova@ubuntu:~/hello$ git cat-file -p 8cf1e1d
<!-- Author: Natalya A. Sidorova (1132226432@rudn.ru) -->
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
nasidorova@ubuntu:~/hello$ git checkout -b style
Switched to a new branch 'style'
nasidorova@ubuntu:~/hello$ git status
On branch style
nothing to commit, working tree clean
nasidorova@ubuntu:~/hello$ touch lib/style.css
nasidorova@ubuntu:~/hello$ gedit lib/style.css
nasidorova@ubuntu:~/hello$ git add lib/style.css
nasidorova@ubuntu:~/hello$ git commit -m "Added css stylesheet"
[style e05aaa4] Added css stylesheet
 1 file changed, 3 insertions(+)
 create mode 100644 lib/style.css
nasidorova@ubuntu:~/hello$
```

Добавление стиля в файл

Рис. 22: Добавление стиля в файл

Разделение ветки

```
nasidorova@ubuntu:~/hello$ git checkout master
Switched to branch 'master'
nasidorova@ubuntu:~/hello$ echo "This is Hello World example from the git tutorial" > README.md
nasidorova@ubuntu:~/hello$ git add README.md
nasidorova@ubuntu:~/hello$ git commit -m "Added README"
[master 4cb78e4] Added README
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
nasidorova@ubuntu:~/hello$ git log --graph --all
* commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d (HEAD -> master)
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 20:31:57 2025 +0300
|
|     Added README
|
| * commit 2081e20ee18641cfbe03a79a58f2f56219a9f3f3 (style)
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:20:27 2025 +0300
| |
| |     Updated index.html
| |
| * commit 9bac2d01ddf74b9177a32a1c573d20147b9dcb29
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:18:16 2025 +0300
| |
| |     Hello uses style.css
| |
| * commit e05aaa482da637db9c49754bf249eee7b6841a46
|/  Author: nasidorova <nsmails@mail.ru>
|   Date:   Mon Feb 17 20:12:52 2025 +0300
|
|       Added css stylesheet
|
* commit 78c7f254dd0dd567fdee6c55bd7565913dabf573
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 19:25:57 2025 +0300
|
|     Added index.html
|
* commit a2e06e6b8d3c7d8a013d5ad7b0cc3b4589f0a7b1
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 19:21:03 2025 +0300
|
|     Moved hello.html to lib
|
```

Объединение

```
nasidorova@ubuntu:~/hello$ git checkout style
Switched to branch 'style'
nasidorova@ubuntu:~/hello$ git merge master
Merge made by the 'ort' strategy.
 README.md | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
nasidorova@ubuntu:~/hello$ git log --graph --all
*   commit 2d49a48bff3589a1a7348f6bb59af5b203560ef1 (HEAD -> style)
|\  Merge: 2081e20 4cb78e4
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:33:51 2025 +0300
| |
| |     Merge branch 'master' into style
| |
| * commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d (master)
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:31:57 2025 +0300
| |
| |     Added README
| |
* | commit 2081e20ee18641cfbe03a79a58f2f56219a9f3f3
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:20:27 2025 +0300
| |
| |     Updated index.html
| |
* | commit 9bac2d01ddf74b9177a32a1c573d20147b9dcb29
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:18:16 2025 +0300
| |
| |     Hello uses style.css
| |
* | commit e05aaa482da637db9c49754bf249eee7b6841a46
|/  Author: nasidorova <nsmails@mail.ru>
|   Date:   Mon Feb 17 20:12:52 2025 +0300
|
|       Added css stylesheet
|
```

Создание конфликта

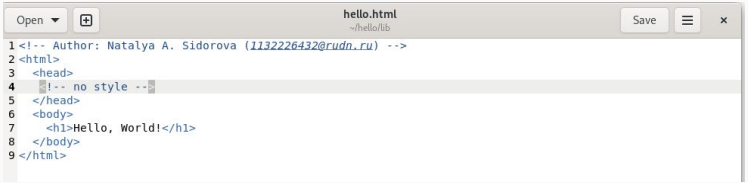

Рис. 25: Создание конфликта

Разделение

```
nasidorova@ubuntu:~/hello$ git checkout master
Switched to branch 'master'
nasidorova@ubuntu:~/hello$ get lib/hello.html
Command 'get' not found, but there are 18 similar ones.
nasidorova@ubuntu:~/hello$ gedit lib/hello.html
nasidorova@ubuntu:~/hello$ git add lib/hello.html
nasidorova@ubuntu:~/hello$ git commit -m "Life is great"
[master 71e1b4c] Life is great
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/hello$ git log --graph --all
* commit 71e1b4ccb20ecd0b6d4407b91310961b84a95b6b (HEAD -> master)
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 20:37:37 2025 +0300
|
|     Life is great
|
| *   commit 2d49a48bff3589a1a7348f6bb59af5b203560ef1 (style)
| |\  Merge: 2081e20 4cb78e4
| |/  Author: nasidorova <nsmails@mail.ru>
|/|   Date:   Mon Feb 17 20:33:51 2025 +0300
| |
| |       Merge branch 'master' into style
| |
* | commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:31:57 2025 +0300
| |
| |     Added README
| |
| * commit 2081e20ee18641cfbe03a79a58f2f56219a9f3f3
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:20:27 2025 +0300
| |
| |     Updated index.html
| |
| * commit 9bac2d01ddf74b9177a32a1c573d20147b9dcb29
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:18:16 2025 +0300
| |
| |     Hello uses style.css
| |
| * commit e05aaa482da637db9c49754bf249eee7b6841a46
|/  Author: nasidorova <nsmails@mail.ru>
|   Date:   Mon Feb 17 20:12:52 2025 +0300
|
|       Added css stylesheet
```

Конфликт

Рис. 27: Конфликт

Решение конфликта

Рис. 28: Решение конфликта

Ветки не конфликтуют

```
nasidorova@ubuntu:~/hello$ git reset --hard 2081e20
HEAD is now at 2081e20 Updated index.html
nasidorova@ubuntu:~/hello$ git log --graph --all
* commit 71e1b4ccb20ecd0b6d4407b91310961b84a95b6b (master)
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 20:37:37 2025 +0300
|
|     Life is great
|
* commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 20:31:57 2025 +0300
|
|     Added README
|
| * commit 2081e20ee18641cfbe03a79a58f2f56219a9f3f3 (HEAD -> style)
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:20:27 2025 +0300
| |
| |     Updated index.html
| |
| * commit 9bac2d01ddf74b9177a32a1c573d20147b9dcb29
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:18:16 2025 +0300
| |
| |     Hello uses style.css
| |
```


Рис. 29: Ветки не конфликтуют

Новый файл

```
nasidorova@ubuntu:~/hello$ git reset --hard 4cb78e4
HEAD is now at 4cb78e4 Added README
nasidorova@ubuntu:~/hello$ git log --graph --all
* commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d (HEAD -> master)
| Author: nasidorova <nsmails@mail.ru>
| Date:   Mon Feb 17 20:31:57 2025 +0300
|
|     Added README
|
| * commit 2081e20ee18641cfbe03a79a58f2f56219a9f3f3 (style)
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:20:27 2025 +0300
| |
| |     Updated index.html
| |
| * commit 9bac2d01ddf74b9177a32a1c573d20147b9dcb29
| | Author: nasidorova <nsmails@mail.ru>
| | Date:   Mon Feb 17 20:18:16 2025 +0300
| |
| |     Hello uses style.css
| |
| * commit e05aaa482da637db9c49754bf249eee7b6841a46
|/  Author: nasidorova <nsmails@mail.ru>
|   Date:   Mon Feb 17 20:12:52 2025 +0300
|
|       Added css stylesheet
|
* commit 78c7f254dd0dd567fdee6c55bd7565913dabf573
```

Соединение веток

```
nasidorova@ubuntu:~/hello$ git checkout master
Switched to branch 'master'
nasidorova@ubuntu:~/hello$ git merge style
Updating 4cb78e4..48c6c95
Fast-forward
 index.html     | 3 +++
 lib/hello.html | 1 +
 lib/style.css  | 3 +++
 3 files changed, 7 insertions(+)
 create mode 100644 lib/style.css
nasidorova@ubuntu:~/hello$ git log
commit 48c6c95be0aad55e044135c1258704902506957f (HEAD -> master, style)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:20:27 2025 +0300

    Updated index.html

commit 8770cd9b97d4e8ff9140f65c3e029cec81330bcc
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:18:16 2025 +0300

    Hello uses style.css

commit 044be300552c8fde0048fd300845f39e7e20e971
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:12:52 2025 +0300

    Added css stylesheet

commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:31:57 2025 +0300

    Added README

commit 78c7f254dd0dd567fdee6c55bd7565913dabf573
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:25:57 2025 +0300

    Added index.html

commit a2a06e6b8d3c7d8a913d5ad7b0cc3b4589f0a7b1
```

origin ветка

```
nasidorova@ubuntu:~/hello$ cd ..
nasidorova@ubuntu:~$ git clone hello cloned_hello
Cloning into 'cloned_hello'...
done.
nasidorova@ubuntu:~$ cd cloned_hello
nasidorova@ubuntu:~/cloned_hello$ ls
index.html  lib  README.md
nasidorova@ubuntu:~/cloned_hello$ git log --all
commit 48c6c95be0aad55e044135c1250704902506957f (HEAD -> master, origin/style, origin/master, origin/HEAD)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:20:27 2025 +0300

    Updated index.html

commit 8770cd9b97d4e8ff9140f65c3e029cec81330bcc
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:18:16 2025 +0300

    Hello uses style.css

commit 044be300552c8fde0048fd300845f39e7e20e971
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:12:52 2025 +0300

    Added css stylesheet

commit 4cb78e4fbe067bb8a97fac433d8563cf5a10094d
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:31:57 2025 +0300

    Added README

commit 78c7f254dd0dd567fdee6c55bd7565913dabf573
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 19:25:57 2025 +0300

    Added index.html

commit a2e06e6b8d3c7d8a013d5ad7b0cc3b4589f0a7b1
```

Рис. 32: origin ветка

Содержимое файла

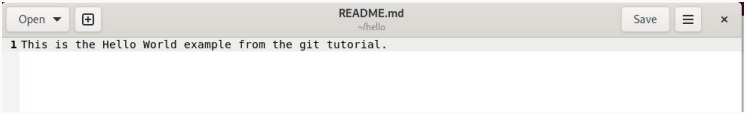

Рис. 33: Содержимое файла

слияние репозиториев

```
nasidorova@ubuntu:~/cloned_hello$ git remote
origin
nasidorova@ubuntu:~/cloned_hello$ git remote show origin
* remote origin
  Fetch URL: /home/nasidorova/hello
  Push  URL: /home/nasidorova/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)
nasidorova@ubuntu:~/cloned_hello$ git branch
* master
nasidorova@ubuntu:~/cloned_hello$ git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style
nasidorova@ubuntu:~/cloned_hello$ cd ..
nasidorova@ubuntu:~$ cd hello
nasidorova@ubuntu:~/hello$ gedit README.md
nasidorova@ubuntu:~/hello$ git add README.md
nasidorova@ubuntu:~/hello$ git commit -m "Changed README in original repo"
[master 7910200] Changed README in original repo
 1 file changed, 1 insertion(+), 1 deletion(-)
nasidorova@ubuntu:~/hello$ cd ..
nasidorova@ubuntu:~$ cd cloned_hello/
nasidorova@ubuntu:~/cloned_hello$ 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), 354 bytes | 177.00 KiB/s, done.
From /home/nasidorova/hello
   48c6c95..7910200  master     -> origin/master
nasidorova@ubuntu:~/cloned_hello$ git log --all
commit 79102004d3fd994587903da4507cdc3c3da6a018 (origin/master, origin/HEAD)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 21:10:20 2025 +0300

    Changed README in original repo
```

Чистый репозиторий

```
nasidorova@ubuntu:~/cloned_hello$ cat README
cat: README: No such file or directory
nasidorova@ubuntu:~/cloned_hello$ cat README.md
This is Hello World example from the git tutorial
nasidorova@ubuntu:~/cloned_hello$ git merge origin/master
Updating 48c6c95..7910200
Fast-forward
 README.md | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
nasidorova@ubuntu:~/cloned_hello$ cat README.md
This is the Hello World example from the git tutorial.
nasidorova@ubuntu:~/cloned_hello$ git branch --track style origin/style
Branch 'style' set up to track remote branch 'style' from 'origin'.
nasidorova@ubuntu:~/cloned_hello$ git branch -a
* master
  style
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style
nasidorova@ubuntu:~/cloned_hello$ git log --max-count=2
commit 79102004d3fd994587903da4507cdc3c3da6a018 (HEAD -> master, origin/master, origin/HEAD)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 21:10:20 2025 +0300

    Changed README in original repo

commit 48c6c95be0aad55e044135c1258704902506957f (origin/style, style)
Author: nasidorova <nsmails@mail.ru>
Date:   Mon Feb 17 20:20:27 2025 +0300

    Updated index.html
nasidorova@ubuntu:~/cloned_hello$ cd ..
nasidorova@ubuntu:~$ git clone --bare hello hello.git
Cloning into bare repository 'hello.git'...
done.
nasidorova@ubuntu:~$ ls hello.git
branches  config  description  HEAD  hooks  info  objects  packed-refs  refs
nasidorova@ubuntu:~$ cd hello
nasidorova@ubuntu:~/hello$ git remoted add shared ~/hello.git
git: 'remoted' is not a git command. See 'git --help'.

The most similar command is
        remote-fd
nasidorova@ubuntu:~/hello$ git remote add shared ~/hello.git
nasidorova@ubuntu:~/hello$
```

Последнее изменение файла

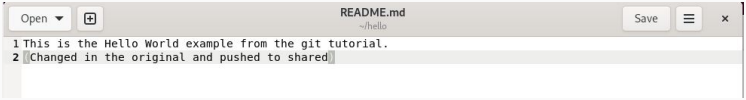

Рис. 36: Последнее изменение файла

Общие изменения

```
nasidorova@ubuntu:~/hello$ git remote add shared ~/hello.git
nasidorova@ubuntu:~/hello$ gedit README.md
nasidorova@ubuntu:~/hello$ git checkout master
M       README.md
Already on 'master'
nasidorova@ubuntu:~/hello$ git add README.md
nasidorova@ubuntu:~/hello$ git commit -m "Added shared comment to readme"
[master 2bdf01f] Added shared comment to readme
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/hello$ 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), 401 bytes | 200.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To /home/nasidorova/hello.git
   7910200..2bdf01f  master -> master
nasidorova@ubuntu:~/hello$ cd ..
nasidorova@ubuntu:~$ cd cloned_hello/
nasidorova@ubuntu:~/cloned_hello$ git remote add shared ~/hello.git
nasidorova@ubuntu:~/cloned_hello$ git branch --track shared master
Branch 'shared' set up to track local branch 'master'.
nasidorova@ubuntu:~/cloned_hello$ 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), 381 bytes | 190.00 KiB/s, done.
From /home/nasidorova/hello
 * branch            master     -> FETCH_HEAD
 * [new branch]      master     -> shared/master
Updating 7910200..2bdf01f
Fast-forward
 README.md | 1 +
 1 file changed, 1 insertion(+)
nasidorova@ubuntu:~/cloned_hello$ cat README.md
This is the Hello World example from the git tutorial.
(Changed in the original and pushed to shared)
nasidorova@ubuntu:~/cloned_hello$
```