

# Лабораторная работа 1

## Математическое моделирование

Выполнил: Юдин Герман Станиславович 1032192868

## Задание

Необходимо ознакомиться с возможностями git и создать репозиторий hello, следуя шагам методички. Также исследовать возможности Markdown и создать данный отчет.

## Выполнение работы

- Установил имя и адрес электронной почты

```
C:\Users\German>git config --global user.name "Yudin German"  
C:\Users\German>git config --global user.email "german.yudin@gmail.com"
```

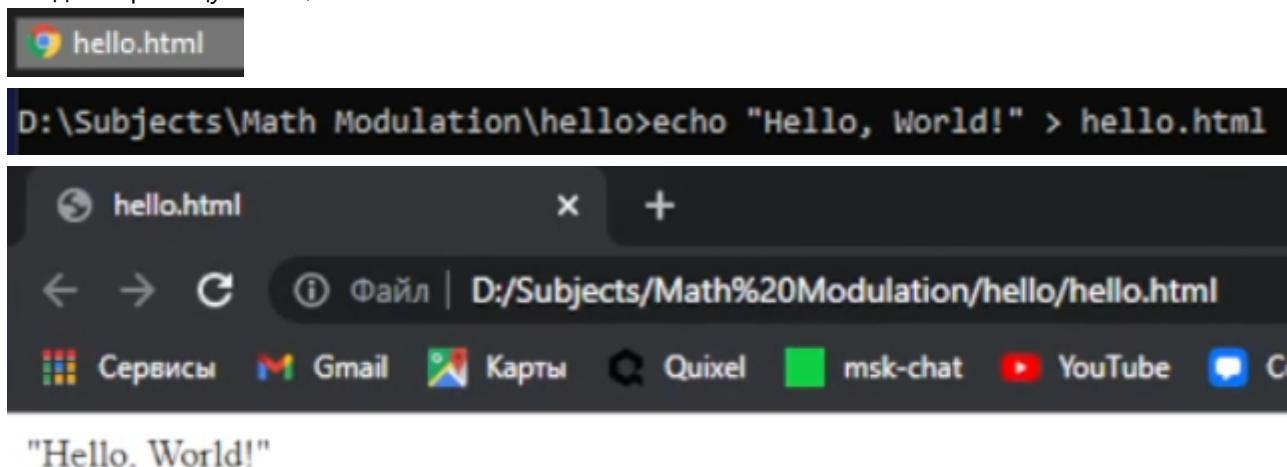
- Установил параметры установки окончаний строк

```
C:\Users\German>git config --global core.autocrlf true  
C:\Users\German>git config --global core.safecrlf true
```

- Установил отображение unicode

```
C:\Users\German>git config --global core.quotepath off
```

- Создал страницу "Hello, World!"



- Создал репозиторий

```
D:\Subjects\Math Modulation\hello>git init  
Initialized empty Git repository in D:/Subjects/Math Modulation/hello/.git/
```

- Добавил файл в репозиторий

```
D:\Subjects\Math Modulation\hello>git add hello.html

D:\Subjects\Math Modulation\hello>git commit -a -m "Initial Commit"
[master (root-commit) 340d58e] Initial Commit
 1 file changed, 1 insertion(+)
 create mode 100644 hello.html
```

- Проверил состояние репозитория

```
D:\Subjects\Math Modulation\hello>git status
On branch master
nothing to commit, working tree clean
```

Коммит успешно прошёл и никаких новых изменений нет

- Изменил страницу "Hello, World!"

```
<h1>Hello, World!</h1>

D:\Subjects\Math Modulation\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")
```

Видно, что есть изменения не внесённые в коммит

- Проиндексировал изменения и посмотрел состояние

```
D:\Subjects\Math Modulation\hello>git add hello.html

D:\Subjects\Math Modulation\hello>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   hello.html
```

На данный момент все изменения добавлены в коммит

- Сделал коммит и проверил состояние

```
D:\Subjects\Math Modulation\hello>git commit
```

Ввожу название для коммита

```
C:\Windows\System32\cmd.exe - git commit
Added h1 tag
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch master
# Changes to be committed:
#       modified:   hello.html
#
```

```
D:\Subjects\Math Modulation\hello>git status
On branch master
nothing to commit, working tree clean
```

- Добавил стандартные теги HTML

```
<html>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
```

- Добавил изменение в индекс git

```
D:\Subjects\Math Modulation\hello>git add hello.html
```

- Добавил секцию head в файле

```
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
```

- Проверил текущий статус

```
D:\Subjects\Math Modulation\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
```

Есть проиндексированное изменение файла и непроиндексированное

- Произвёл коммит проиндексированного изменения и снова проверил состояние

```
D:\Subjects\Math Modulation\hello>git commit -m "Added standard HTML page tags"
[master 259662e] Added standard HTML page tags
 1 file changed, 5 insertions(+), 1 deletion(-)
```

```
D:\Subjects\Math Modulation\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")
```

Осталось только непроиндексированное изменение

- Добавил второе изменение в индекс и проверил статус

```
D:\Subjects\Math Modulation\hello>git add .

D:\Subjects\Math Modulation\hello>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   hello.html
```

Успешно добавилось изменение в индекс

- Сделал ещё один коммит

```
D:\Subjects\Math Modulation\hello>git commit -m "Added HTML header"
[master c1664e7] Added HTML header
 1 file changed, 2 insertions(+)
```

- Посмотрел список произведённых изменений

```
D:\Subjects\Math Modulation\hello>git log
commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:31:15 2022 +0300

    Added h1 tag

commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300

    Initial Commit
```



- и в одностороннем формате истории

```
D:\Subjects\Math Modulation\hello>git log --pretty=oneline
c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master) Added HTML header
259662e2811d36b60bef6095e7060e79f472608 Added standard HTML page tags
68f9c4b110c596c57fe6bb4be77244bffb4f2926 Added h1 tag
340d58ef11e979bda0e63d3a9c5064bffd22ad9a Initial Commit
```



- Попробовал разные варианты вывода

```
D:\Subjects\Math Modulation\hello>git log --pretty=oneline --max-count=2
c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master) Added HTML header
259662e2811d36b60bef6095e7060e79f472608 Added standard HTML page tags
```

```
D:\Subjects\Math Modulation\hello>git log --pretty=oneline --until='10min'
c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master) Added HTML header
259662e2811d36b60bef6095e7060e79f472608 Added standard HTML page tags
68f9c4b110c596c57fe6bb4be77244bffb4f2926 Added h1 tag
340d58ef11e979bda0e63d3a9c5064bffd22ad9a Initial Commit
```

- Вывел справочную информацию используя git log --help, после этих действий открылся браузер

- Используя hash коммита перешёл на самый первый

```
D:\Subjects\Math Modulation\hello>git checkout 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Note: switching to '340d58ef11e979bda0e63d3a9c5064bffd22ad9a'.

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 340d58e Initial Commit
```

Здесь всего 1 коммит

```
D:\Subjects\Math Modulation\hello>git log
commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a (HEAD)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300

  Initial Commit
```

- вернулся обратно к новым коммитам

```
D:\Subjects\Math Modulation\hello>git checkout master
Previous HEAD position was 340d58e Initial Commit
Switched to branch 'master'

D:\Subjects\Math Modulation\hello>git log
commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:31:15 2022 +0300

    Added h1 tag

commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300
    Initial Commit
```

Как видим всё тот же список коммитов, что и раньше

- Создал тег первой версии

```
D:\Subjects\Math Modulation\hello>git tag v1

D:\Subjects\Math Modulation\hello>git log
commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master, tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:31:15 2022 +0300

    Added h1 tag

commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300

    Initial Commit
```

- Переключился на коммит раньше

```
D:\Subjects\Math Modulation\hello>git checkout v1~1
Note: switching to 'v1~1'.

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 259662e Added standard HTML page tags
```

- И установил новый тег v1-beta

```
D:\Subjects\Math Modulation\hello>git tag v1-beta
```

- Посмотрел все теги

```
D:\Subjects\Math Modulation\hello>git tag
v1
v1-beta
```

- Отмена локальных изменений (до индексации)

- Добавил комментарий для удаления

The screenshot shows a code editor with an HTML file. The code is:

```
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
    <!--This is a bad comment.-->
  </body>
</html>
```

The comment line `<!--This is a bad comment.-->` is highlighted with a light purple background, indicating it is selected or about to be deleted.

- проверил статус

```
D:\Subjects\Math Modulation\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")
```

- Отменил изменения

```
D:\Subjects\Math Modulation\hello>git checkout hello.html
Updated 1 path from the index

D:\Subjects\Math Modulation\hello>git status
On branch master
nothing to commit, working tree clean
```

The screenshot shows the same code editor as before, but now the comment line `<!--This is a bad comment.-->` has been removed, leaving a blank space where it was located.

- Отмена проиндексированных изменений (перед коммитом)

- добавил комментарий для удаления

```
>
head>
!-- This is an unwanted but staged comment -->
/head>
body>
<h1>Hello, World!</h1>
/body>
l>
```

- проиндексировал изменения

```
D:\Subjects\Math Modulation\hello>git add hello.html
```

- Проверил статус

```
D:\Subjects\Math Modulation\hello>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   hello.html
```

- Выполнил сброс буферной зоны

```
D:\Subjects\Math Modulation\hello>git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
```

- переключился на версию коммита

```
D:\Subjects\Math Modulation\hello>git checkout hello.html
Updated 1 path from the index

D:\Subjects\Math Modulation\hello>git status
On branch master
nothing to commit, working tree clean
```

## • Отмена коммитов

- добавил коментарий дял удаления

```
>
d>
>
<h1>Hello, World!</h1>
!-- This is an unwanted but committed change -->
y>
```

- закоммитил изменение

```
D:\Subjects\Math Modulation\hello>git commit -a -m "Oops, we didn't want this commit"
[master c6f80b3] Oops, we didn't want this commit
 1 file changed, 1 insertion(+)
```

- отменил коммит, используя revert

```
D:\Subjects\Math Modulation\hello>git revert HEAD
hint: Waiting for your editor to close the file...
```

```
C:\Windows\System32\cmd.exe - git revert HEAD
Revert "Oops, we didn't want this commit"

This reverts commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757.

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch master
# Changes to be committed:
#       modified:   hello.html
#
```

- проверил лог

```
commit f2ff6e3acf8a5b4a4d2fbe6c108e436c4bb60ab2 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:32 2022 +0300

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

    This reverts commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757.

commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:18 2022 +0300

    Oops, we didn't want this commit

commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608 (tag: v1-beta)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags
```

- Удаление коммита из ветки

- Проверил git log, есть два коммита Oops и Revert oops

```
commit f2ff6e3acf8a5b4a4d2fbe6c108e436c4bb60ab2 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:32 2022 +0300

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

    This reverts commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757.

commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:18 2022 +0300

    Oops, we didn't want this commit

commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608 (tag: v1-beta)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags
```

- Отметил данную ветку тегом oops

```
D:\Subjects\Math Modulation\hello>git tag oops
```

- Выполнил сброс к версии v1

```
D:\Subjects\Math Modulation\hello>git reset --hard v1
HEAD is now at c1664e7 Added HTML header

D:\Subjects\Math Modulation\hello>git log
commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master, tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608 (tag: v1-beta)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:31:15 2022 +0300

    Added h1 tag

commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300

    Initial Commit
```

- При этом в логе до сих пор существует ветка дляoops тега

```
C:\Windows\System32\cmd.exe - git log --all
commit f2ff6e3acf8a5b4a4d2fbe6c108e436c4bb60ab2 (tag: oops)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:32 2022 +0300

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

    This reverts commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757.

commit c6f80b337d2ff2964f0a3c8b993e3ca3b1f23757
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:44:18 2022 +0300

    Oops, we didn't want this commit

commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master, tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608 (tag: v1-beta)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
:
```

- Удаленик тег oops

```
D:\Subjects\Math Modulation\hello>git tag -d oops
Deleted tag 'oops' (was f2ff6e3)

D:\Subjects\Math Modulation\hello>git log --all
commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (HEAD -> master, tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

    Added HTML header

commit 259662e2811d36b60bef6095e7060e79f472608 (tag: v1-beta)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:33:43 2022 +0300

    Added standard HTML page tags

commit 68f9c4b110c596c57fe6bb4be77244bffb4f2926
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:31:15 2022 +0300

    Added h1 tag

commit 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:29:16 2022 +0300

    Initial Commit
```

- Внесение изменений в коммиты

- Добавил автора в файл hello.html

```

1 <!-- Author: Yudin German -->
2 <html>
3   <head>
4   </head>
5   <body>
6     <h1>Hello, World!</h1>
7   </body>
8 </html>

```

- И закоммитил изменение

```

D:\Subjects\Math Modulation\hello>git commit -a -m "Add an author comment"
[master 122a5a7] Add an author comment
 1 file changed, 1 insertion(+)

```

- Добавил email в файл

```

<!-- Author: Yudin German (german.yudin@gmail.com) -->
<html>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>

```

- Используя опцию amend включил в предыдущий коммит новое изменение

```

D:\Subjects\Math Modulation\hello>git commit --amend -m "Add an author/email comment"
[master 3974f54] Add an author/email comment
  Date: Wed Feb 9 19:47:54 2022 +0300
  1 file changed, 1 insertion(+)

```

- Изменение применилось

```

commit 3974f5406a70d0c6c38865993b4f78e2a650ef62 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:47:54 2022 +0300

      Add an author/email comment

commit c1664e7dfe22ee10ba4a29e5d672945b99420e90 (tag: v1)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:34:10 2022 +0300

      Added HTML header

```

- Перемещение файла

- Перенёс страницу hello.html в созданный каталог lib

```

D:\Subjects\Math Modulation\hello>git mv hello.html lib

```

```
D:\Subjects\Math Modulation\hello>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    renamed:    hello.html -> lib/hello.html
```

- Закоммитил перенос

```
D:\Subjects\Math Modulation\hello>git commit -m "Moved hello.html to lib"
[master 4798990] Moved hello.html to lib
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename hello.html => lib/hello.html (100%)
```

- Добавил файл index.html

```
<html>
  <body>
    <iframe src="lib/hello.html" width="200" height="200" />
  </body>
</html>
```

```
D:\Subjects\Math Modulation\hello>git add index.html
```

```
D:\Subjects\Math Modulation\hello>git commit -a -m "Added index.html"
[style 71aa7b1] Added index.html
 1 file changed, 5 insertions(+)
 create mode 100644 index.html
```

Но данный этап в видео сделать чуть позже, потому что я забыл, что git commit -a добавляет автоматически только то, что уже было добавлено ранее, а так как файл index.html создан впервые, то его и не добавило.

- Далее я ознакомился с каталогом .git. Увидел как хранятся коммиты, и где хранятся теги и ветки
- Работа с объектами git

- показал только последний коммит

```
D:\Subjects\Math Modulation\hello>git log --max-count=1
commit 4798990f768f8442610878a47788ddff5d783a75 (HEAD -> master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:51:01 2022 +0300

  Moved hello.html to lib
```

- взяв хеш коммита я увидел его тип

```
D:\Subjects\Math Modulation\hello>git cat-file -t 4798990f768f8442610878a47788ddff5d783a75
commit
```

- а также всю остальную информацию

```
D:\Subjects\Math Modulation\hello>git cat-file -p 4798990f768f8442610878a47788ddff5d783a75
tree e9dca7fe8bdcc42296a05a44681c64058ca57787
parent 3974f5406a70d0c6c38865993b4f78e2a650ef62
author Yudin German <german.yudin@gmail.com> 1644425461 +0300
committer Yudin German <german.yudin@gmail.com> 1644425461 +0300

Moved hello.html to lib
```

- по дереву нашёл хэш каталога

```
D:\Subjects\Math Modulation\hello>git cat-file -p e9dca7fe8bdcc42296a05a44681c64058ca57787
040000 tree 285e5fa1f97b3ffb7fc1dc9f348ebc770738e5ce    lib
```

- по каталогу нашёл хэш файла

```
D:\Subjects\Math Modulation\hello>git cat-file -p 285e5fa1f97b3ffb7fc1dc9f348ebc770738e5ce
100644 blob 859d335ae4c51b839888d43a0620b0730602c11e    hello.html
```

- вывел содержимое файла

```
D:\Subjects\Math Modulation\hello>git cat-file -p 859d335ae4c51b839888d43a0620b0730602c11e
<!- Author: Yudin German (german.yudin@gmail.com)-->
&lthtml>
  <head>
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
```

- Также самостоятельно смог найти самый первый хэш файла

```
D:\Subjects\Math Modulation\hello>git cat-file -p 259662e2811d36b60bef6095e7060e79f472608
tree 39244a281685d83fbfed8c43d561598030b74d64
parent 68f9c4b110c596c57fe6bb4be77244bffb4f2926
author Yudin German <german.yudin@gmail.com> 1644424423 +0300
committer Yudin German <german.yudin@gmail.com> 1644424423 +0300
```

Added standard HTML page tags

```
D:\Subjects\Math Modulation\hello>git cat-file -p 68f9c4b110c596c57fe6bb4be77244bffb4f2926
tree 629377ed8eb96afede9fd6cb7b48b1e4a1d3dc56
parent 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
author Yudin German <german.yudin@gmail.com> 1644424275 +0300
committer Yudin German <german.yudin@gmail.com> 1644424275 +0300
```

Added h1 tag

```
D:\Subjects\Math Modulation\hello>git cat-file -p 340d58ef11e979bda0e63d3a9c5064bffd22ad9a
tree ea95e17ea6fe834a7d915ba1c22916628aef1a7e
author Yudin German <german.yudin@gmail.com> 1644424156 +0300
committer Yudin German <german.yudin@gmail.com> 1644424156 +0300
```

Initial Commit

```
D:\Subjects\Math Modulation\hello>git cat-file -p ea95e17ea6fe834a7d915ba1c22916628aef1a7e
100644 blob 21d47457bd178004e7c495b214908ee44524b6e5    hello.html
```

## • Создание ветки

- Создал новую ветку style

```
D:\Subjects\Math Modulation\hello>git checkout -b style
Switched to a new branch 'style'
```

- Добавил файл стилей

```
h1 {
  color: red;
}
```

```
D:\Subjects\Math Modulation\hello>git add .  
D:\Subjects\Math Modulation\hello>git status  
On branch style  
Changes to be committed:  
  (use "git restore --staged <file>..." to unstage)  
    new file:  lib/style.css  
  
D:\Subjects\Math Modulation\hello>git commit -a -m "Added css stylesheet"  
[style 0000a07] Added css stylesheet  
 1 file changed, 3 insertions(+)  
 create mode 100644 lib/style.css
```

- Добавил стили на основной странице



```
Author: Yudin German (german.yudin@gmail.com) -->  
  >  
  head>  
    <link type="text/css" rel="stylesheet" media="all" href="style.css"  
  /head>  
  body>  
    <h1>Hello, World!</h1>  
  /body>  
  l>
```

- Добавил стили на странице index.html

---

```
<html>  
  <head>  
    <link type="text/css" rel="stylesheet" media="all" href="style.css"  
  </head>  
  <body>  
    <iframe src="lib/hello.html" width="200" height="200" />  
  </body>  
</html>
```

- На данный момент ветка style опережает ветку master на 4 коммита

```

commit 69df6fec72251703b96708adbd04361af0462767 (HEAD -> style)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

commit 3f3b06d9b58d66d16132e3ab70e5d52f2f3cedeb
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

commit 0000a0702152e57d4d6163967fb73f6ed2172792
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:03:14 2022 +0300

    Added css stylesheet

commit 71aa7b17d54644e3921f3e22e875468b0881c9a5
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:01:58 2022 +0300

    Added index.html

commit 4798990f768f8442610878a47788ddff5d783a75 (master)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 19:51:01 2022 +0300

```

- Навигация по веткам

- Перешёл на ветку master

```
D:\Subjects\Math Modulation\hello>git checkout master
Switched to branch 'master'
```

- Перешёл на ветку style

```
D:\Subjects\Math Modulation\hello>git checkout style
Switched to branch 'style'
```

- в обоих случаях файл менялся в зависимости от ветки, какие были изменения включены в ветку, такие и показывались в файлах

- Добавил README файл в ветку master

```

D:\Subjects\Math Modulation\hello>git checkout master
Switched to branch 'master'

D:\Subjects\Math Modulation\hello>echo "This is the hello world example from the git tutorial" > README.md

D:\Subjects\Math Modulation\hello>git add README.md

D:\Subjects\Math Modulation\hello>git commit -m "Added README"
[master 3392f8b] Added README
 1 file changed, 1 insertion(+)
 create mode 100644 README.md

```

- Различия двух веток

```
C:\Windows\System32\cmd.exe - git log --graph --all
* commit 3392f8b29125965178596a7219d8e908f3e5a1cd (HEAD -> master)
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:11:34 2022 +0300

    Added README

* commit 65afade387982aa337957021a31ddde34230aa6d (style)
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

* commit 69df6fec72251703b96708adbd04361af0462767
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

* commit 3f3b06d9b58d66d16132e3ab70e5d52f2f3cedeb
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

* commit 0000a0702152e57d4d6163967fb73f6ed2172792
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:03:14 2022 +0300

:
```

- Произвёл слияние веток

```
D:\Subjects\Math Modulation\hello>git checkout style
Switched to branch 'style'

D:\Subjects\Math Modulation\hello>git merge master
Merge made by the 'recursive' strategy.
 README.md | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

```
C:\Windows\System32\cmd.exe - git log --graph --all
* commit a0713aff40070bde7153f76cea9f7b79ee1728a0 (HEAD -> style)
  Merge: 65afade 3392f8b
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:12:30 2022 +0300

    Merge branch 'master' into style

* commit 3392f8b29125965178596a7219d8e908f3e5a1cd (master)
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:11:34 2022 +0300

    Added README

* commit 65afade387982aa337957021a31ddde34230aa6d
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

* commit 69df6fec72251703b96708adbd04361af0462767
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

* commit 3f3b06d9b58d66d16132e3ab70e5d52f2f3cedeb
  Author: Yudin German <german.yudin@gmail.com>
  Date:   Wed Feb 9 20:04:39 2022 +0300
:
```

- Разрешение конфликта

- На ветке master внёс изменения, отличные от ветки style

```
<!-- Author: Yudin German (german.yudin@gmail.com) -->
<html>
  <head>
    <!--no style-->
  </head>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
```

D:\Subjects\Math Modulation\hello>git commit -m "Life is great"  
[master 30422e2] Life is great  
1 file changed, 1 insertion(+)

- Ветки пересекаются

```
C:\Windows\System32\cmd.exe - git log --graph --all
* commit 30422e285300ab2109eebd6deebba2b82428df4 (HEAD -> master)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:14:01 2022 +0300
|
|     Life is great
|
* commit a0713aff40070bde7153f76cea9f7b79ee1728a0 (style)
| Merge: 65afade 3392f8b
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:12:30 2022 +0300
|
|     Merge branch 'master' into style
|
* commit 3392f8b29125965178596a7219d8e908f3e5a1cd
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:11:34 2022 +0300
|
|     Added README
|
* commit 65afade387982aa337957021a31ddde34230aa6d
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:10:04 2022 +0300
|
|     Correct work with hello.html
|
* commit 69df6fec72251703b96708adbd04361af0462767
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:05:55 2022 +0300
:
:
```

- При попытке соединить ветки, получил ошибку, которую вручную разрешил

```
D:\Subjects\Math Modulation\hello>git checkout style
Switched to branch 'style'

D:\Subjects\Math Modulation\hello>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.
```

```
<!-- Author: Yudin German (german.yudin@gmail.com) -->
<html>
  <head>
    <<<<< HEAD
      <link type="text/css" rel="stylesheet" media="all" href="style.
    =====
      <!--no style-->
    >>>>> master
      </head>
      <body>
        <h1>Hello, World!</h1>
      </body>
    </html>
```

```
D:\Subjects\Math Modulation\hello>git commit -m "Merged master fixed conflict"
[style 1156969] Merged master fixed conflict
```

- Сброс веток

- Чтобы перейти на коммит перед слиянием веток посмотрел коммиты

```
* commit 11569694db64a14d36ddc477228ec26124820a98 (HEAD -> style)
| Merge: a0713af 30422e2
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:15:32 2022 +0300
|
|       Merged master fixed conflict
|
* commit 30422e285300ab2109eebd6deebba2b82428df4 (master)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:14:01 2022 +0300
|
|       Life is great
|
* commit a0713aff40070bde7153f76cea9f7b79ee1728a0
| Merge: 65afade 3392f8b
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:12:30 2022 +0300
|
|       Merge branch 'master' into style
|
* commit 3392f8b29125965178596a7219d8e908f3e5a1cd
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:11:34 2022 +0300
|
|       Added README
|
* commit 65afade387982aa337957021a31ddde34230aa6d
| Author: Yudin German <german.yudin@gmail.com>
```

- далее сбросил ветку к коммиту перед слиянием

```
D:\Subjects\Math Modulation\hello>git reset --hard 65afade387982aa337957021a31ddde34230aa6d
HEAD is now at 65afade Correct work with hello.html
```

```
D:\Subjects\Math Modulation\hello>git log --graph --all
* commit 30422e285300ab2109eebd6deebba2b82428df4 (master)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:14:01 2022 +0300
|
|       Life is great
|
* commit 3392f8b29125965178596a7219d8e908f3e5a1cd
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:11:34 2022 +0300
|
|       Added README
|
* commit 65afade387982aa337957021a31ddde34230aa6d (HEAD -> style)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:10:04 2022 +0300
|
|       Correct work with hello.html
|
* commit 69df6fec72251703b96708adbd04361af0462767
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:05:55 2022 +0300
|
|       Updated index.html
```

- С веткой мастер произвел те же действия

```
D:\Subjects\Math Modulation\hello>git reset --hard 3392f8b29125965178596a7219d8e908f3e5a1cd
HEAD is now at 3392f8b Added README

* commit 3392f8b29125965178596a7219d8e908f3e5a1cd (HEAD -> master)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:11:34 2022 +0300
|
|       Added README
|
* commit 65afade387982aa337957021a31ddde34230aa6d (style)
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:10:04 2022 +0300
|
|       Correct work with hello.html
|
* commit 69df6fec72251703b96708adbd04361af0462767
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:05:55 2022 +0300
|
|       Updated index.html
|
* commit 3f3b06d9b58d66d16132e3ab70e5d52f2f3cedeb
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:04:39 2022 +0300
|
|       Hello uses style.css
|
* commit 0000a0702152e57d4d6163967fb73f6ed2172792
| Author: Yudin German <german.yudin@gmail.com>
| Date:   Wed Feb 9 20:03:14 2022 +0300
|
|       
```

- Перебазированием

- Для того, чтобы объединить ветки master и style в ветке style выполнил

```
D:\Subjects\Math Modulation\hello>git checkout style
Switched to branch 'style'

D:\Subjects\Math Modulation\hello>git rebase master
Successfully rebased and updated refs/heads/style.
```

```
* commit c17dc2da019aa22fb7a6d4df934d175840eb77c3 (HEAD -> style)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

* commit fca68a148a1f234be49a727a32586b8de454799f
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

* commit 272f8904231bc24ab5da5fb43045cf2dee42894b
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

* commit ef602ce28cbf16b1eb041869226241af19daedfb
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:03:14 2022 +0300

    Added css stylesheet

* commit a84c6b8e6cad0f02202e26ac3313dcfef23f90a4
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:01:58 2022 +0300

:
```

- Слияние в master

- Чтобы сливать style и master выполнил

```
D:\Subjects\Math Modulation\hello>git checkout master
Switched to branch 'master'

D:\Subjects\Math Modulation\hello>git merge style
Updating 3392f8b..c17dc2d
Fast-forward
  index.html      |  8 ++++++++
  lib/hello.html  |  1 +
  lib/style.css   |  3 ===
  3 files changed, 12 insertions(+)
  create mode 100644 index.html
  create mode 100644 lib/style.css
```

```

commit c17dc2da019aa22fb7a6d4df934d175840eb77c3 (HEAD -> master, style)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

commit fca68a148a1f234be49a727a32586b8de454799f
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

commit 272f8904231bc24ab5da5fb43045cf2dee42894b
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

commit ef602ce28cbf16b1eb041869226241af19daedfb
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:03:14 2022 +0300

    Added css stylesheet

commit a84c6b8e6cad0f02202e26ac3313dcfef23f90a4
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:01:58 2022 +0300

```

- Клонирование репозитория

- Для клонирования выполняется команда clone

```

D:\Subjects\Math Modulation>git clone hello cloned_hello
Cloning into 'cloned_hello'...
done.

```

- Для просмотра данного репозитория необходимо зайти в него

```

commit c17dc2da019aa22fb7a6d4df934d175840eb77c3 (HEAD -> master, origin/style, origin/master, origin/HEAD)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

commit fca68a148a1f234be49a727a32586b8de454799f
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

commit 272f8904231bc24ab5da5fb43045cf2dee42894b
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

commit ef602ce28cbf16b1eb041869226241af19daedfb
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:03:14 2022 +0300

    Added css stylesheet

commit a84c6b8e6cad0f02202e26ac3313dcfef23f90a4
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:01:58 2022 +0300

:-

```

- Удалённые ветки

- Информация об оригинальном репозитории получается выполнив команду

```
D:\Subjects\Math Modulation\cloned_hello>git remote origin
D:\Subjects\Math Modulation\cloned_hello>git remote show origin
* remote origin
  Fetch URL: D:/Subjects/Math Modulation/hello
  Push URL: D:/Subjects/Math Modulation/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)
```

- Чтобы увидеть все ветки выполнил

```
D:\Subjects\Math Modulation\cloned_hello>git branch
* master

D:\Subjects\Math Modulation\cloned_hello>git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style
```

В данном случае первая команда показывает локальные ветки, вторая все возможные

- Если изменить оригинальный репозиторий, например поменяв README файл

```
D:\Subjects\Math Modulation\hello>git add README.md
```

```
D:\Subjects\Math Modulation\hello>git commit -m "Changed README in original repo"
[master 5368189] Changed README in original repo
 1 file changed, 1 insertion(+), 1 deletion(-)
```

То чтобы получить все изменения в других репозиториях прописывается

```
D:\Subjects\Math Modulation\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), 362 bytes | 3.00 KiB/s, done.
From D:/Subjects/Math Modulation/hello
  c17dc2d..5368189  master      -> origin/master
```

```
C:\Windows\System32\cmd.exe - git log --all

commit 5368189f00ef2feac10995afa5aeab4c0ecb6ed3 (origin/master, origin/HEAD)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:23:58 2022 +0300

    Changed README in original repo

commit c17dc2da019aa22fb7a6d4df934d175840eb77c3 (HEAD -> master, origin/style)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html

commit fca68a148a1f234be49a727a32586b8de454799f
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:05:55 2022 +0300

    Updated index.html

commit 272f8904231bc24ab5da5fb43045cf2dee42894b
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:04:39 2022 +0300

    Hello uses style.css

commit ef602ce28cbf16b1eb041869226241af19daedfb
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:03:14 2022 +0300
```

```
D:\Subjects\Math Modulation\cloned_hello>type README.md
"This is the hello world example from the git tutorial"

D:\Subjects\Math Modulation\cloned_hello>git merge origin/master
Updating c17dc2d..5368189
Fast-forward
 README.md | 2 +-+
 1 file changed, 1 insertion(+), 1 deletion(-)

D:\Subjects\Math Modulation\cloned_hello>type README.md
This is the hello world example from the git tutorial.
```

- Но также существует и второй способ сделать слияние с оригиналом с помощью команды  
git pull
- Ветка наблюдения и чистые репозитории

- Так как нам не видны все ветки, то можно создать ветку наблюдения

```
D:\Subjects\Math Modulation\cloned_hello>git branch --track style origin/style
Branch 'style' set up to track remote branch 'style' from 'origin'.

D:\Subjects\Math Modulation\cloned_hello>git branch -a
* master
  style
    remotes/origin/HEAD -> origin/master
    remotes/origin/master
    remotes/origin/style

D:\Subjects\Math Modulation\cloned_hello>git log --max-count=2
commit 5368189f00ef2feac10995afa5aeab4c0ecb6ed3 (HEAD -> master, origin/master, origin/HEAD)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:23:58 2022 +0300

    Changed README in original repo

commit c17dc2da019aa22fb7a6d4df934d175840eb77c3 (origin/style, style)
Author: Yudin German <german.yudin@gmail.com>
Date:   Wed Feb 9 20:10:04 2022 +0300

    Correct work with hello.html
```

- чистые репозитории создаются для того, чтобы не иметь у себя рабочие файлы, только то, что связано с git

```
D:\Subjects\Math Modulation>git clone --bare hello hello.git
Cloning into bare repository 'hello.git'...
done.

D:\Subjects\Math Modulation>dir hello.git
Том в устройстве D имеет метку Work
Серийный номер тома: 7C99-E178

Содержимое папки D:\Subjects\Math Modulation\hello.git

09.02.2022 20:27 <DIR> .
09.02.2022 20:27 <DIR> ..
09.02.2022 20:27 163 config
09.02.2022 20:27 73 description
09.02.2022 20:27 23 HEAD
09.02.2022 20:27 <DIR> hooks
09.02.2022 20:27 <DIR> info
09.02.2022 20:27 <DIR> objects
09.02.2022 20:27 276 packed-refs
09.02.2022 20:27 <DIR> refs
        4 файлов           535 байт
       6 папок  784 245 600 256 байт свободно
```

- Добавил наш новый каталог к оригинальному репозиторию

```
D:\Subjects\Math Modulation>cd hello
D:\Subjects\Math Modulation\hello>git remote add shared ../hello.git
```

- Отправка изменений

- Изменим файл README

```
D:\Subjects\Math Modulation\hello>git add README.md  
D:\Subjects\Math Modulation\hello>git commit -m "Added shared comment to readme"  
[master 5511430] Added shared comment to readme  
 1 file changed, 1 insertion(+)
```

- И отправил изменения

```
D:\Subjects\Math Modulation\hello>git push shared master  
Enumerating objects: 5, done.  
Counting objects: 100% (5/5), done.  
Delta compression using up to 24 threads  
Compressing objects: 100% (3/3), done.  
Writing objects: 100% (3/3), 405 bytes | 405.00 KiB/s, done.  
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0  
To ..\hello.git  
 5368189..5511430  master -> master
```

- И извлечем все изменения

```
D:\Subjects\Math Modulation\hello>cd ..\cloned_hello  
D:\Subjects\Math Modulation\cloned_hello>git remote add shared ..\hello.git  
  
D:\Subjects\Math Modulation\cloned_hello>git branch --track shared master  
Branch 'shared' set up to track local branch 'master'.  
  
D:\Subjects\Math Modulation\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), 385 bytes | 4.00 KiB/s, done.  
From ..\hello  
 * branch      master    -> FETCH_HEAD  
 * [new branch] master    -> shared/master  
Updating 5368189..5511430  
Fast-forward  
 README.md | 1 +  
 1 file changed, 1 insertion(+)
```

```
D:\Subjects\Math Modulation\cloned_hello>type README.md  
This is the hello world example from the git tutorial.  
(Changed in the original and pushed to shared)  
D:\Subjects\Math Modulation\cloned_hello>
```

## Вывод

Выполнив данную лабораторную работу, я ознакомился с возможностями git и смог создать свой репозиторий. Также сделал данный отчет используя возможности Markdown.