

# Лабораторная работа номер 1

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## Цель работы

Вспомнить основы работы с системой контроля версий git.

```
PS M:\projects\math_modeling> git config --global user.name "MstislavRomanovski"  
PS M:\projects\math_modeling> git config --global user.email "batle.05.frog@gmail.com"  
PS M:\projects\math_modeling> git config --global core.autocrlf true  
PS M:\projects\math_modeling> git config --global core.safecrlf true  
PS M:\projects\math_modeling> git config --global core.quotepath off  
PS M:\projects\math_modeling> cd M:\projects  
PS M:\projects> mkdir math_modeling
```

Рис. 1: 1.1

```
PS M:\projects\math_modeling> git config --global user.name "MstislavRomanovski"  
PS M:\projects\math_modeling> git config --global user.email "batle.05.frog@gmail.com"  
PS M:\projects\math_modeling> git config --global core.autocrlf true  
PS M:\projects\math_modeling> git config --global core.safecrlf true  
PS M:\projects\math_modeling> git config --global core.quotepath off  
PS M:\projects\math_modeling> cd M:\projects  
PS M:\projects> mkdir math_modeling
```

Рис. 2: 1.1

# Ход Работы

```
PS M:\projects\math_modeling> cd M:\projects
```

```
PS M:\projects> mkdir math_modeling
```

Directory: M:\projects

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:05		math_modeling

```
PS M:\projects> cd M:\projects\math_modeling\
```

```
PS M:\projects\math_modeling> git init
```

```
Initialized empty Git repository in M:/projects/math_modeling/.git/
```

```
PS M:\projects\math_modeling> New-Item hello.html
```

Directory: M:\projects\math\_modeling

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:05	0	hello.html

```
PS M:\projects\math_modeling> git add .\hello.html
```

```
PS M:\projects\math_modeling> git commit -m "Initial Commit"
```

```
[master (root-commit) 912d6d8] Initial Commit
```

```
1 file changed, 0 insertions(+), 0 deletions(-)
```

```
create mode 100644 hello.html
```

```
PS M:\projects\math_modeling> git add .\hello.html  
PS M:\projects\math_modeling> git status
```

Рис. 4: 1.4

```
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> 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. 5: 1.4.2

```
PS M:\projects\math_modeling> git commit -m "Added standard HTML page tags"
[master b170bfc] Added standard HTML page tags
 1 file changed, 5 insertions(+), 2 deletions(-)
PS M:\projects\math_modeling> 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")
PS M:\projects\math_modeling> git add .
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

PS M:\projects\math_modeling> git commit -m "Added HTML header"
[master 75acc37] Added HTML header
 1 file changed, 2 insertions(+)
```

Рис. 6: 1.4.21



```
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Рис. 7: 1.4.3

# Ход Работы

```
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300
```

Added HTML header

```
commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Added standard HTML page tags

```
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling> git checkout aa37f071e69b31
Note: switching to 'aa37f071e69b31'.
```

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 aa37f07 Initial Commit

```
PS M:\projects\math_modeling> cat hello.html
```

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

```
PS M:\projects\math_modeling> git checkout master
```

```
Previous HEAD position was aa37f07 Initial Commit
```

```
Switched to branch 'master'
```

```
PS M:\projects\math_modeling> cat hello.html
```

```
<head>
```

```
</head>
```

```
<html>
```

# Ход Работы

HEAD is now at b170bfc Added standard HTML page tags

```
PS M:\projects\math_modeling> cat hello.html
```

```
<html>
```

```
  <body>
```

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

```
  </body>
```

```
</html>
```

```
PS M:\projects\math_modeling> git tage v1-beta
```

git: 'tage' is not a git command. See 'git --help'.

The most similar command is

stage

```
PS M:\projects\math_modeling> git checkout master
```

Previous HEAD position was b170bfc Added standard HTML page tags

Switched to branch 'master'

```
PS M:\projects\math_modeling> git tag
```

```
v1
```

```
PS M:\projects\math_modeling> 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 b170bfc Added standard HTML page tags

```
PS M:\projects\math_modeling> git tag v1-beta
```

```
PS M:\projects\math_modeling> git checkout master
```

Previous HEAD position was b170bfc Added standard HTML page tags

Switched to branch 'master'

```
PS M:\projects\math_modeling> git tag
```

```
v1
```

```
v1-beta
```

```
PS M:\projects\math_modeling> git tag v1-beta
PS M:\projects\math_modeling> git checkout master
Previous HEAD position was b170bfc Added standard HTML page tags
Switched to branch 'master'
PS M:\projects\math_modeling> git tag
v1
v1-beta
PS M:\projects\math_modeling> git log master --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Рис. 10: 1.4.7

```
PS M:\projects\math_modeling> git tag v1-beta
PS M:\projects\math_modeling> git checkout master
Previous HEAD position was b170bfc Added standard HTML page tags
Switched to branch 'master'
PS M:\projects\math_modeling> git tag
v1
v1-beta
PS M:\projects\math_modeling> git log master --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Рис. 11: 1.4.7

# Ход Работы

```
Initial Commit
PS M:\projects\math_modeling> git checkout master
Already on 'master'
PS M:\projects\math_modeling> 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")
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
PS M:\projects\math_modeling> cat hello.html
<head>
</head>
<html>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

PS M:\projects\math_modeling> git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
```

```
PS M:\projects\math_modeling> git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
```

**Рис. 13:** 1.6

# Ход Работы

```
PS M:\projects\math_modeling> git add hello.html
PS M:\projects\math_modeling> git commit -m "Oops,it wasn't intended to be committed"
[master c29d812] Oops,it wasn't intended to be committed
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git revert HEAD
[master 6cFb178] Revert "Oops,it wasn't intended to be committed"
1 file changed, 4 insertions(+), 5 deletions(-)
PS M:\projects\math_modeling> git log
commit 6cFb178dc829a816ab400c4abff2c735be684a05 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:27:09 2024 +0300

    Revert "Oops,it wasn't intended to be committed"

    This reverts commit c29d812ad04bbd7859246920b92a9af9b1e82d4a.

commit c29d812ad04bbd7859246920b92a9af9b1e82d4a
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:26:51 2024 +0300

    Oops,it wasn't intended to be committed

commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300

    Initial Commit
```



```
PS M:\projects\math_modeling> git tag oops
PS M:\projects\math_modeling> git log master --all
commit 6cfb178dc829a816ab400c4abff2c735be684a05 (HEAD -> master, tag: oops)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:27:09 2024 +0300

    Revert "Oops,it wasn't intended to be committed"

    This reverts commit c29d812ad04bbd7859246920b92a9af9b1e82d4a.

commit c29d812ad04bbd7859246920b92a9af9b1e82d4a
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:26:51 2024 +0300

    Oops,it wasn't intended to be committed

commit 75acc3737010c09fa16f02c30ebc1bffa23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit
```

# Ход Работы

```
PS M:\projects\math_modeling> git reset --hard v1
HEAD is now at 75acc37 Added HTML header
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300

    Initial Commit
PS M:\projects\math_modeling>
```

Рис. 16: 1.8(2)

# Ход Работы

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
PS M:\projects\math_modeling> git tag -d oops
Deleted tag 'oops' (was 6cfb178)
PS M:\projects\math_modeling> git log --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300
```

Added HTML header

```
commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Added standard HTML page tags

```
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling>
```

# Ход Работы

```
Initial Commit
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git commit -m "Add an author comment"
[master 63ed9e7] Add an author comment
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git commit --amend -m "Add an author/email comment"
[master 6b1a91f] Add an author/email comment
Date: Thu Feb 8 12:42:17 2024 +0300
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git log
commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:42:17 2024 +0300

    Add an author/email comment

commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bffc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

```
Initial Commit
PS M:\projects\math_modeling> mkdir lib

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
d-----          08.02.2024     12:46             lib

PS M:\projects\math_modeling> git mv hello.html lib
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    hello.html -> lib/hello.html

PS M:\projects\math_modeling> git commit -m "Moved hello.html to lib"
[master 1aac232] Moved hello.html to lib
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename hello.html => lib/hello.html (100%)
PS M:\projects\math_modeling>
```

Рис. 19: 1.11

```
PS M:\projects\math_modeling> New-Item index.html

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024    12:48              0 index.html

PS M:\projects\math_modeling> git add index.html
PS M:\projects\math_modeling> git commit -m "Added index.html"
[master 61bfc3f] Added index.html
 1 file changed, 5 insertions(+)
 create mode 100644 index.html
PS M:\projects\math_modeling> _
```

Рис. 20: 1.12

# Ход Работы

```
PS M:\projects\math_modeling\.git\objects> ls M:\projects\math_modeling\.git\objects
```

Directory: M:\projects\math\_modeling\.git\objects

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:06		02
d----	08.02.2024 12:43		10
d----	08.02.2024 12:43		18
d----	08.02.2024 12:47		1a
d----	08.02.2024 12:50		28
d----	08.02.2024 12:11		39
d----	08.02.2024 12:50		42
d----	08.02.2024 12:07		53
d----	08.02.2024 12:07		5b
d----	08.02.2024 12:24		5c
d----	08.02.2024 12:50		61
d----	08.02.2024 12:42		63
d----	08.02.2024 12:43		6b
d----	08.02.2024 12:42		6c
d----	08.02.2024 12:12		75
d----	08.02.2024 12:26		8c
d----	08.02.2024 12:06		91
d----	08.02.2024 12:42		a0
d----	08.02.2024 12:26		a4
d----	08.02.2024 12:08		aa
d----	08.02.2024 12:47		b1
d----	08.02.2024 12:12		b7
d----	08.02.2024 12:11		bd
d----	08.02.2024 12:26		c2
d----	08.02.2024 12:05		e6
d----	08.02.2024 12:05		info
d----	08.02.2024 12:05		pack

Рис. 21: 1.13.2

```
PS M:\projects\math_modeling\.git\objects> cat M:\projects\math_modeling\.git\config
[core]
    repositoryformatversion = 0
    filemode = false
    bare = false
    logallrefupdates = true
    symlinks = false
    ignorecase = true
```

**Рис. 22: 1.13.3**



# Ход Работы

Directory: M:\projects\math\_modeling\.git\refs

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:50		heads
d----	08.02.2024 12:40		tags

PS M:\projects\math\_modeling\.git> ls refs/heads

Directory: M:\projects\math\_modeling\.git\refs\heads

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:50	41	master

PS M:\projects\math\_modeling\.git> ls refs/tags

Directory: M:\projects\math\_modeling\.git\refs\tags

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:18	41	v1
-a---	08.02.2024 12:19	41	v1-beta

PS M:\projects\math\_modeling\.git> ls refs/tags/v1

Directory: M:\projects\math\_modeling\.git\refs\tags

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:18	41	v1

PS M:\projects\math\_modeling\.git>

```
PS M:\projects\math_modeling\.git> cat HEAD  
ref: refs/heads/master  
PS M:\projects\math_modeling\.git>
```

**Рис. 24:** 1.13.5

# Ход Работы

```
PS M:\projects\math_modeling\.git> git log --max-count=1
commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html
PS M:\projects\math_modeling\.git> git cat-file -t <hash>
ParserError:
Line |
  1  | git cat-file -t <hash>
      | ~
      | The '<' operator is reserved for future use.
PS M:\projects\math_modeling\.git> git cat-file -t 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
commit
PS M:\projects\math_modeling\.git> git cat-file -p 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
tree 28ae32661901086a62dcfb52134345cef30521df
parent 1aac232c934f8d63a75d2fc926d9688b2747ca56
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385818 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385818 +0300

Added index.html
PS M:\projects\math_modeling\.git> git cat-file -p 28ae32661901086a62dcfb52134345cef30521df
100644 blob 4259d9fadfd92fdfbdfefbe1d0dbfe3ac19f1a91      index.html
040000 tree 1003b008aa9a64dc160719e01f66bd814edf635d      lib
PS M:\projects\math_modeling\.git> git cat-file -p 1003b008aa9a64dc160719e01f66bd814edf635d
100644 blob 188a14643bbab8288df777414ed4380c30e7274b      hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 1003b008aa9a64dc160719e01f66bd814edf635d
100644 blob 188a14643bbab8288df777414ed4380c30e7274b      hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 188a14643bbab8288df777414ed4380c30e7274b
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
<head>
</head>
<body>
```

# Ход Работы

```
PS M:\projects\math_modeling\.git> git cat-file -p 1aac232c934f8d63a75d2fc926d9688b2747ca56
tree 1b435a41197dd56bd137a102c631df94f5ac3db4
parent 6b1a91f3adb6564df1ff7ac0b22663937e115f1
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385676 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385676 +0300
```

Moved hello.html to lib

```
PS M:\projects\math_modeling\.git> git cat-file -p 6b1a91f3adb6564df1ff7ac0b22663937e115f1
tree 1003b008aa9a64dc160719e01f66bd814edf635d
parent 75acc3737010c09fa16f02c30ebc1bff23d47d53
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385337 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385431 +0300
```

Add an author/email comment

```
PS M:\projects\math_modeling\.git> git cat-file -p 75acc3737010c09fa16f02c30ebc1bff23d47d53
tree b7d435edbae7c5ea28e63c6b2c459ee14a639c3b
parent b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
author MstislavRomanovski <batle.05.frog@gmail.com> 1707383574 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707383574 +0300
```

Added HTML header

```
PS M:\projects\math_modeling\.git> git cat-file -p b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
tree 39244a281685d83fbfed8c43d561598030b74d64
parent aa37f071e69b312ae624736192f83c5a6e1ca9c1
author MstislavRomanovski <batle.05.frog@gmail.com> 1707383462 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707383462 +0300
```

Added standard HTML page tags

```
PS M:\projects\math_modeling\.git> git log aa37f071e69b312ae624736192f83c5a6e1ca9c1
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling\.git> git log 39244a281685d83fbfed8c43d561598030b74d64
PS M:\projects\math_modeling\.git> git cat-file -p 39244a281685d83fbfed8c43d561598030b74d64
100644 blob 6c7ba8e1875a418341f33ee7640357855647f7c2 hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 6c7ba8e1875a418341f33ee7640357855647f7c2
<html>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
PS M:\projects\math_modeling\.git>
```

# Ход Работы

```
PS M:\projects\math_modeling\.git> git checkout master
fatal: this operation must be run in a work tree
PS M:\projects\math_modeling\.git> cd M:\projects\math_modeling
PS M:\projects\math_modeling> git checkout -b style
Switched to a new branch 'style'
PS M:\projects\math_modeling> git status
On branch style
nothing to commit, working tree clean
PS M:\projects\math_modeling> New-Item lib/style.css

Directory: M:\projects\math_modeling\lib


Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024      13:22             0 style.css

PS M:\projects\math_modeling> git add lib/style.css
PS M:\projects\math_modeling> git commit -m "Added css stylesheet"
[style e04d1c5] Added css stylesheet
1 file changed, 3 insertions(+)
create mode 100644 lib/style.css
PS M:\projects\math_modeling> git add lib/hello.html
PS M:\projects\math_modeling> git commit -m "Hello uses style.css"
[style 02ffffde] Hello uses style.css
1 file changed, 7 insertions(+), 5 deletions(-)
PS M:\projects\math_modeling> git add index.html
PS M:\projects\math_modeling> git commit -m "Updated index.html"
[style 10f9b29] Updated index.html
1 file changed, 7 insertions(+), 3 deletions(-)
PS M:\projects\math_modeling>
```

# Ход Работы

```
PS M:\projects\math_modeling> git log --all
commit 10f9b296905b4adf15d345876bddd783de1674c9 (HEAD -> style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300
```

Updated index.html

```
commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:26:04 2024 +0300
```

Hello uses style.css

```
commit e04d1c516619d03b20188253eb26bdb3d3b05547
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:23:39 2024 +0300
```

Added css stylesheet

```
commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d (master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300
```

Added index.html

```
commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:47:56 2024 +0300
```

Moved hello.html to lib

```
commit 6b1a91f3adb6564df1ff7ac9b222662937e115f1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:42:17 2024 +0300
```

Add an author/email comment

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
```

```
PS M:\projects\math_modeling> cat lib/hello.html
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
<head>
</head>
<body>
<h1>Hello, World!</h1>
</body>
</html>
```

```
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> cat lib/hello.html
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
```

```
  <head>
  <link type="text/css" rel="stylesheet"
        media="all" href="style.css" />
  </head>
```

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

```
</html>
PS M:\projects\math_modeling>
```

# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch "master"
PS M:\projects\math_modeling> New-Item README.md

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024      13:31             0 README.md

PS M:\projects\math_modeling> git add README.md
PS M:\projects\math_modeling> git commit -m "Added README"
[master 88df991] Added README
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
PS M:\projects\math_modeling> git log --graph --all
* commit 88df991874ce361bcf2cccec723838d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdf8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit e04d1c516619d03b2018825eb26bdb3d3b05547
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

* commit 61bfc3f052c98f6ee368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1aac272c934f8d63a75d2fc926e9688b7747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib
...skipping...
* commit 88df991874ce361bcf2cccec723838d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdf8ebfd3d6f04723eb01a64bd798ea2f89
```

# Ход Работы

```
Moved hello.html to lib
PS M:\projects\math_modeling> git checkout master
Already on 'master'
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> git merge master
Merge made by the 'ort' strategy.
 README.md | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md
PS M:\projects\math_modeling> git log --graph --all
* commit a53f0be4f8270bc47a9e3a187ab78638de1295db (HEAD -> style)
  \ Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:33:48 2024 +0300

   Merge branch 'master' into style

* commit 88df991874ce361bcf2ccec723838d48e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

   Added README

* commit 10f9b2969805b4adf15d345876fdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

   Updated index.html

* commit 82ffffdfe8bf3d6f94725eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

   Hello uses style.css

* commit e04d1c516619d83b2018825eb26bdh3d3b85547
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

   Added css stylesheet

* commit 61bfc3f852c98ef5e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:58:18 2024 +0300

   ...skipping...
* commit a53f0be4f8270bc47a9e3a187ab78638de1295db (HEAD -> style)
  \ Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:33:48 2024 +0300

   Merge branch 'master' into style

* commit 88df991874ce361bcf2ccec723838d48e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

   Added README

* commit 10f9b2969805b4adf15d345876fdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

   Updated index.html
```

Рис. 30: 1.19



# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git add lib/hello.html
PS M:\projects\math_modeling> git commit -m "Life is Pain"
[master 4e34d52] Life is Pain
1 file changed, 3 insertions(+), 2 deletions(-)
PS M:\projects\math_modeling> git log --graph --all
fatal: unrecognized argument: --all
PS M:\projects\math_modeling> git log --graph --all
* commit 4e34d52f630d9f8a3debefc9ee6e0b27d35bd3a6 (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit a53f6be4f8270bc47a9e3a187ab78638de1295bb (style)
  Merge: 10f9b29 88df991
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:33:48 2024 +0300

    Merge branch 'master' into style

* commit 88df991874ce361bcf2cceec723838d3d8e8777c
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css
```

```
Added standard HTML page tags
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> 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.
PS M:\projects\math_modeling> git add .\lib\hello.html
PS M:\projects\math_modeling> git vommit -m "Merge conflict solution"
git: 'vommit' is not a git command. See 'git --help'.

The most similar command is
commit
PS M:\projects\math_modeling> git commit -m "Merge conflict solution"
[style 10446c1] Merge conflict solution
PS M:\projects\math_modeling> _
```

Рис. 32: 1.21

# Ход Работы

```
PS M:\projects\math_modeling> git checkout style
Already on 'style'
PS M:\projects\math_modeling> git log --graph
* commit 10f9b296905b4adf15d345876bfd703de1674c9 (HEAD -> style)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:46:27 2024 +0300

    Merge: a53f6be4c34d92

    Merge conflict solution

* commit 4e34d52f630d9f8a3debefc9e6e0b27d33bd3a6 (master)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit a53f6be4f8270bc47a9e3a187ab78638de1295bb
   Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:33:48 2024 +0300

    Merge branch 'master' into style

* commit 88df991874ce361bcf2ccec723838d3d8e8777c
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffde8ebfd3d6f04723eb01a64bd798ea2f89
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> git reset --hard 10f9b296905b4adf15d345876bfd703de1674c9
HEAD is now at 10f9b29 Updated index.html
PS M:\projects\math_modeling> git log --graph --all
* commit 4e34d52f630d9f8a3debefc9e6e0b27d33bd3a6 (master)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit 88df991874ce361bcf2ccec723838d3d8e8777c
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (HEAD -> style)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html
```

# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git log --graph
* commit 4e34d52f630d9f8a3debec9ee60b27d35bd3a6 (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit 88df991874ce361bcf2ccec72383d3d8e8777c
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib

* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:42:17 2024 +0300

    Add an author/email comment

* commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

* commit b170bfc11f8dbc288ca0ff38ffcc53541e15c3e9 (tag: v1-beta)
PS M:\projects\math_modeling> git reset --hard 88df991874ce361bcf2ccec72383d3d8e8777c
HEAD is now at 88df991 Added README
PS M:\projects\math_modeling> git log --graph --all
fatal: unrecognized argument: -graph
PS M:\projects\math_modeling> git log --graph --all
* commit 88df991874ce361bcf2ccec72383d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02fffdef8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300
```

# Ход Работы

```
* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> git rebase master
Successfully rebased and updated refs/heads/style.
PS M:\projects\math_modeling> git log --graph --all
* commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit e0c9a12973bfc370a31c35a8a79faf5e1d729e7
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit 1093debb34652e76947dab7db91848d54b368a88
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

* commit 88df991874ce361bfc2cceec72383d3d8e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1a8c232c934f8d63a75d2fc926d9688b2747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib

* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
...skipping...
* commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit e0c9a12973bfc370a31c35a8a79faf5e1d729e7
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit 1093debb34652e76947dab7db91848d54b368a88
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet
```

# Ход Работы

```
* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git merge style
Updating 88df991..644d4d6
Fast-forward
 index.html      | 10 ++++++---
 lib/hello.html  | 12 ++++++-----
 lib/style.css   | 3 +++
 3 files changed, 17 insertions(+), 8 deletions(-)
 create mode 100644 lib/style.css
PS M:\projects\math_modeling> git log
commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> master, style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

commit e0c9a12973bfc370a31c35a8a79faf5e1d729a7
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

commit 1093debb34652e76947dab7db91848d54b368a88
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

commit 88df991874ce361bcf2cceec723838d3d8e8777c
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html
```

# Ход Работы

```
commit 6b1a91f3adb6564dffff7ac0b222663937e115f1
PS M:\projects\math_modeling> cd M:\projects
PS M:\projects> git clone math_modeling cloned
Cloning into 'cloned'...
done.
PS M:\projects> cd cloned
PS M:\projects\cloned> ls

Directory: M:\projects\cloned

Mode                LastWriteTime         Length Name
----                -
d-----          08.02.2024   14:05           lib
-a---          08.02.2024   14:05        197 index.html
-a---          08.02.2024   14:05           0 README.md

PS M:\projects\cloned> git log --all
commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> master, origin/style, origin/master, origin/HEAD)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

commit e0c9a12973bfc370a31c35a8a79faf5e1d729a7
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

commit 1093debb34652e76947dab7db91848d54b368a88
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

commit 88df991874ce361bcf2ccec72383d3d8e8777c
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 12:50:18 2024 +0300

    Added index.html

commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
Author: MstislavRomanovski <batle.05.frog@gmail.com>
```

Рис. 37: 1.26

```
Initial Commit
~
PS M:\projects\cloned> git remote
origin
PS M:\projects\cloned> git remote show origin
* remote origin
  Fetch URL: M:/projects/math_modeling
  Push URL: M:/projects/math_modeling
  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)
PS M:\projects\cloned> git branch
* master
PS M:\projects\cloned> git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style
PS M:\projects\cloned>
```



```
PS M:\projects\cloned> cat README.md
PS M:\projects\cloned> git merge origin/master
Updating 644d4d6..5ecd808
Fast-forward
 README.md | 1 +
 1 file changed, 1 insertion(+)
PS M:\projects\cloned> cat README.md
This is the Hello World example from the git tutorial.
PS M:\projects\cloned> git branch --track style origin/style
branch 'style' set up to track 'origin/style'.
PS M:\projects\cloned> git branch -a
* master
  style
remotes/origin/HEAD -> origin/master
remotes/origin/master
remotes/origin/style
PS M:\projects\cloned> git log --max-count=2
commit 5ecd808e7dacc4116009bf36615b5416cd2d975e (HEAD -> master, origin/master, origin/HEAD)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 14:11:06 2024 +0300

    Changed README in origin repo

commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (origin/style, style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300
```

Рис. 39: 1.30

```
PS M:\projects\cloned> cd M:\projects\  
PS M:\projects> git clone --bare math_modeling math_modeling.git  
Cloning into bare repository 'math_modeling.git'...  
done.  
PS M:\projects> cd .\math_modeling\  
PS M:\projects\math_modeling> git remote add shared ../hello.git  
PS M:\projects\math_modeling> git checkout master  
Already on 'master'  
M      README.md  
PS M:\projects\math_modeling> git add README.md  
PS M:\projects\math_modeling> git commit -m "Added shared comment to readme"  
[master 048f10e] Added shared comment to readme  
1 file changed, 2 insertions(+), 1 deletion(-)
```

Рис. 40: 1.31

```
PS M:\projects\math_modeling> git remote remove shared
PS M:\projects\math_modeling> git remote -d shared ../math_modeling.git
error: unknown switch `d'
usage: git remote [-v | --verbose]
or: git remote add [-t <branch>] [-m <master>] [-f] [--tags | --no-tags] [--mirror=<fetch|push>] <name> <url>
or: git remote rename [--[no-]progress] <old> <new>
or: git remote remove <name>
or: git remote set-head <name> (-a | --auto | -d | --delete | <branch>)
or: git remote [-v | --verbose] show [-n] <name>
or: git remote prune [-n | --dry-run] <name>
or: git remote [-v | --verbose] update [-p | --prune] [(<group> | <remote>)...]
or: git remote set-branches [--add] <name> <branch>...
or: git remote get-url [--push] [--all] <name>
or: git remote set-url [--push] <name> <newurl> [<oldurl>]
or: git remote set-url --add <name> <newurl>
or: git remote set-url --delete <name> <url>

-v, --verbose          be verbose; must be placed before a subcommand

PS M:\projects\math_modeling> git remote add shared ../math_modeling.git
PS M:\projects\math_modeling> 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), 423 bytes | 423.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To ../math_modeling.git
   5ecd808..048f10e  master -> master
PS M:\projects\math_modeling> .
```

Рис. 41: 1.32

```
Please make sure you have the correct access rights
and the repository exists.
PS M:\projects\cloned> git remote add shared ../math_modeling.git
PS M:\projects\cloned> 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), 403 bytes | 2.00 KiB/s, done.
From ../math_modeling
 * branch          master      -> FETCH_HEAD
 * [new branch]    master      -> shared/master
Updating 5ecd808..048f10e
Fast-forward
 README.md | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)
PS M:\projects\cloned> cat README.md
This is the Hello World example from the git tutorial.
(CHANGED IN ORIGINAL AND PUSHED TO SHARED)
PS M:\projects\cloned> █
```

Рис. 42: 1.38

Вспомнить основы работы с системой контроля версий git.

```
PS M:\projects\math_modeling> git config --global user.name "MstislavRomanovski"  
PS M:\projects\math_modeling> git config --global user.email "batle.05.frog@gmail.com"  
PS M:\projects\math_modeling> git config --global core.autocrlf true  
PS M:\projects\math_modeling> git config --global core.safecrlf true  
PS M:\projects\math_modeling> git config --global core.quotepath off  
PS M:\projects\math_modeling> cd M:\projects  
PS M:\projects> mkdir math_modeling
```

Рис. 43: 1.1

```
PS M:\projects\math_modeling> git config --global user.name "MstislavRomanovski"  
PS M:\projects\math_modeling> git config --global user.email "batle.05.frog@gmail.com"  
PS M:\projects\math_modeling> git config --global core.autocrlf true  
PS M:\projects\math_modeling> git config --global core.safecrlf true  
PS M:\projects\math_modeling> git config --global core.quotepath off  
PS M:\projects\math_modeling> cd M:\projects  
PS M:\projects> mkdir math_modeling
```

Рис. 44: 1.1

# Ход Работы

```
PS M:\projects\math_modeling> cd M:\projects
```

```
PS M:\projects> mkdir math_modeling
```

Directory: M:\projects

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:05		math_modeling

```
PS M:\projects> cd M:\projects\math_modeling\
```

```
PS M:\projects\math_modeling> git init
```

```
Initialized empty Git repository in M:/projects/math_modeling/.git/
```

```
PS M:\projects\math_modeling> New-Item hello.html
```

Directory: M:\projects\math\_modeling

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:05	0	hello.html

```
PS M:\projects\math_modeling> git add .\hello.html
```

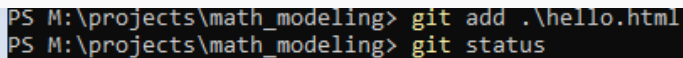
```
PS M:\projects\math_modeling> git commit -m "Initial Commit"
```

```
[master (root-commit) 912d6d8] Initial Commit
```

```
1 file changed, 0 insertions(+), 0 deletions(-)
```

```
create mode 100644 hello.html
```



A screenshot of a Windows command prompt window with a black background and white text. The prompt is 'PS M:\projects\math\_modeling>'. The first command entered is 'git add .\hello.html'. The second command entered is 'git status'.

```
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git status
```

Рис. 46: 1.4

```
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> 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. 47: 1.4.2

```
PS M:\projects\math_modeling> git commit -m "Added standard HTML page tags"
[master b170bfc] Added standard HTML page tags
 1 file changed, 5 insertions(+), 2 deletions(-)
PS M:\projects\math_modeling> 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")
PS M:\projects\math_modeling> git add .
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

PS M:\projects\math_modeling> git commit -m "Added HTML header"
[master 75acc37] Added HTML header
 1 file changed, 2 insertions(+)
```

Рис. 48: 1.4.21

```
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Рис. 49: 1.4.3

# Ход Работы

```
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300
```

Added HTML header

```
commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Added standard HTML page tags

```
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling> git checkout aa37f071e69b31
Note: switching to 'aa37f071e69b31'.
```

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 aa37f07 Initial Commit

```
PS M:\projects\math_modeling> cat hello.html
```

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

```
PS M:\projects\math_modeling> git checkout master
```

```
Previous HEAD position was aa37f07 Initial Commit
```

```
Switched to branch 'master'
```

```
PS M:\projects\math_modeling> cat hello.html
```

```
<head>
```

```
</head>
```

```
<html>
```

# Ход Работы

HEAD is now at b170bfc Added standard HTML page tags

```
PS M:\projects\math_modeling> cat hello.html
```

```
<html>
```

```
  <body>
```

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

```
  </body>
```

```
</html>
```

```
PS M:\projects\math_modeling> git tage v1-beta
```

git: 'tage' is not a git command. See 'git --help'.

The most similar command is

stage

```
PS M:\projects\math_modeling> git checkout master
```

Previous HEAD position was b170bfc Added standard HTML page tags

Switched to branch 'master'

```
PS M:\projects\math_modeling> git tag
```

```
v1
```

```
PS M:\projects\math_modeling> 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 b170bfc Added standard HTML page tags

```
PS M:\projects\math_modeling> git tag v1-beta
```

```
PS M:\projects\math_modeling> git checkout master
```

Previous HEAD position was b170bfc Added standard HTML page tags

Switched to branch 'master'

```
PS M:\projects\math_modeling> git tag
```

```
v1
```

```
v1-beta
```

```
PS M:\projects\math_modeling> git tag v1-beta
PS M:\projects\math_modeling> git checkout master
Previous HEAD position was b170bfc Added standard HTML page tags
Switched to branch 'master'
PS M:\projects\math_modeling> git tag
v1
v1-beta
PS M:\projects\math_modeling> git log master --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Рис. 52: 1.4.7

```
PS M:\projects\math_modeling> git tag v1-beta
PS M:\projects\math_modeling> git checkout master
Previous HEAD position was b170bfc Added standard HTML page tags
Switched to branch 'master'
PS M:\projects\math_modeling> git tag
v1
v1-beta
PS M:\projects\math_modeling> git log master --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Рис. 53: 1.4.7



# Ход Работы

```
Initial Commit
PS M:\projects\math_modeling> git checkout master
Already on 'master'
PS M:\projects\math_modeling> 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")
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
PS M:\projects\math_modeling> cat hello.html
<head>
</head>
<html>

  <body>

    <h1>Hello, World!</h1>

  </body>
</html>
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   hello.html

PS M:\projects\math_modeling> git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
```

```
PS M:\projects\math_modeling> git reset HEAD hello.html
Unstaged changes after reset:
M       hello.html
PS M:\projects\math_modeling> git checkout hello.html
Updated 1 path from the index
PS M:\projects\math_modeling> git status
On branch master
nothing to commit, working tree clean
```

**Рис. 55:** 1.6

# Ход Работы

```
PS M:\projects\math_modeling> git add hello.html
PS M:\projects\math_modeling> git commit -m "Oops,it wasn't intended to be committed"
[master c29d812] Oops,it wasn't intended to be committed
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git revert HEAD
[master 6cFb178] Revert "Oops,it wasn't intended to be committed"
1 file changed, 4 insertions(+), 5 deletions(-)
PS M:\projects\math_modeling> git log
commit 6cFb178dc829a816ab400c4abff2c735be684a05 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:27:09 2024 +0300

    Revert "Oops,it wasn't intended to be committed"

    This reverts commit c29d812ad04bbd7859246920b92a9af9b1e82d4a.

commit c29d812ad04bbd7859246920b92a9af9b1e82d4a
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:26:51 2024 +0300

    Oops,it wasn't intended to be committed

commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300

    Initial Commit
```

```
PS M:\projects\math_modeling> git tag oops
PS M:\projects\math_modeling> git log master --all
commit 6cfb178dc829a816ab400c4abff2c735be684a05 (HEAD -> master, tag: oops)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:27:09 2024 +0300

    Revert "Oops,it wasn't intended to be committed"

    This reverts commit c29d812ad04bbd7859246920b92a9af9b1e82d4a.

commit c29d812ad04bbd7859246920b92a9af9b1e82d4a
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:26:51 2024 +0300

    Oops,it wasn't intended to be committed

commit 75acc3737010c09fa16f02c30ebc1bffa23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit
```

```
PS M:\projects\math_modeling> git reset --hard v1
HEAD is now at 75acc37 Added HTML header
PS M:\projects\math_modeling> git log
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

    Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

    Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300

    Initial Commit
PS M:\projects\math_modeling>
```

Рис. 58: 1.8(2)

# Ход Работы

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
PS M:\projects\math_modeling> git tag -d oops
Deleted tag 'oops' (was 6cfb178)
PS M:\projects\math_modeling> git log --all
commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (HEAD -> master, tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300
```

Added HTML header

```
commit b170bfc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300
```

Added standard HTML page tags

```
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling>
```

# Ход Работы

```
Initial Commit
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git commit -m "Add an author comment"
[master 63ed9e7] Add an author comment
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git add .\hello.html
PS M:\projects\math_modeling> git commit --amend -m "Add an author/email comment"
[master 6b1a91f] Add an author/email comment
Date: Thu Feb 8 12:42:17 2024 +0300
1 file changed, 5 insertions(+), 4 deletions(-)
PS M:\projects\math_modeling> git log
commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1 (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:42:17 2024 +0300

Add an author/email comment

commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:12:54 2024 +0300

Added HTML header

commit b170bffc11f8dbc288ca0ff38ffc553541e15c3e9 (tag: v1-beta)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:11:02 2024 +0300

Added standard HTML page tags

commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300

Initial Commit

commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

```
Initial Commit
PS M:\projects\math_modeling> mkdir lib

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
d-----          08.02.2024    12:46             lib

PS M:\projects\math_modeling> git mv hello.html lib
PS M:\projects\math_modeling> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    hello.html -> lib/hello.html

PS M:\projects\math_modeling> git commit -m "Moved hello.html to lib"
[master 1aac232] Moved hello.html to lib
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename hello.html => lib/hello.html (100%)
PS M:\projects\math_modeling>
```

Рис. 61: 1.11



```
PS M:\projects\math_modeling> New-Item index.html

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024   12:48              0 index.html

PS M:\projects\math_modeling> git add index.html
PS M:\projects\math_modeling> git commit -m "Added index.html"
[master 61bfc3f] Added index.html
 1 file changed, 5 insertions(+)
 create mode 100644 index.html
PS M:\projects\math_modeling> _
```

Рис. 62: 1.12

# Ход Работы

```
PS M:\projects\math_modeling\.git\objects> ls M:\projects\math_modeling\.git\objects
```

Directory: M:\projects\math\_modeling\.git\objects

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:06		02
d----	08.02.2024 12:43		10
d----	08.02.2024 12:43		18
d----	08.02.2024 12:47		1a
d----	08.02.2024 12:50		28
d----	08.02.2024 12:11		39
d----	08.02.2024 12:50		42
d----	08.02.2024 12:07		53
d----	08.02.2024 12:07		5b
d----	08.02.2024 12:24		5c
d----	08.02.2024 12:50		61
d----	08.02.2024 12:42		63
d----	08.02.2024 12:43		6b
d----	08.02.2024 12:42		6c
d----	08.02.2024 12:12		75
d----	08.02.2024 12:26		8c
d----	08.02.2024 12:06		91
d----	08.02.2024 12:42		a0
d----	08.02.2024 12:26		a4
d----	08.02.2024 12:08		aa
d----	08.02.2024 12:47		b1
d----	08.02.2024 12:12		b7
d----	08.02.2024 12:11		bd
d----	08.02.2024 12:26		c2
d----	08.02.2024 12:05		e6
d----	08.02.2024 12:05		info
d----	08.02.2024 12:05		pack

Рис. 63: 1.13.2

```
PS M:\projects\math_modeling\.git\objects> cat M:\projects\math_modeling\.git\config
[core]
    repositoryformatversion = 0
    filemode = false
    bare = false
    logallrefupdates = true
    symlinks = false
    ignorecase = true
```

**Рис. 64:** 1.13.3

# Ход Работы

Directory: M:\projects\math\_modeling\.git\refs

Mode	LastWriteTime	Length	Name
d----	08.02.2024 12:50		heads
d----	08.02.2024 12:40		tags

PS M:\projects\math\_modeling\.git> ls refs/heads

Directory: M:\projects\math\_modeling\.git\refs\heads

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:50	41	master

PS M:\projects\math\_modeling\.git> ls refs/tags

Directory: M:\projects\math\_modeling\.git\refs\tags

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:18	41	v1
-a---	08.02.2024 12:19	41	v1-beta

PS M:\projects\math\_modeling\.git> ls refs/tags/v1

Directory: M:\projects\math\_modeling\.git\refs\tags

Mode	LastWriteTime	Length	Name
-a---	08.02.2024 12:18	41	v1

PS M:\projects\math\_modeling\.git>

```
PS M:\projects\math_modeling\.git> cat HEAD
ref: refs/heads/master
PS M:\projects\math_modeling\.git>
```

**Рис. 66:** 1.13.5

# Ход Работы

```
PS M:\projects\math_modeling\.git> git log --max-count=1
commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d (HEAD -> master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html
PS M:\projects\math_modeling\.git> git cat-file -t <hash>
ParserError:
Line |
  1  | git cat-file -t <hash>
      | ~
      | The '<' operator is reserved for future use.
PS M:\projects\math_modeling\.git> git cat-file -t 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
commit
PS M:\projects\math_modeling\.git> git cat-file -p 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
tree 28ae32661901086a62dcfb52134345cef30521df
parent 1aac232c934f8d63a75d2fc926d9688b2747ca56
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385818 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385818 +0300

Added index.html
PS M:\projects\math_modeling\.git> git cat-file -p 28ae32661901086a62dcfb52134345cef30521df
100644 blob 4259d9fadfd92fdfbdfefbe1d0dbfe3ac19f1a91      index.html
040000 tree 1003b008aa9a64dc160719e01f66bd814edf635d      lib
PS M:\projects\math_modeling\.git> git cat-file -p 1003b008aa9a64dc160719e01f66bd814edf635d
100644 blob 188a14643bbab8288df777414ed4380c30e7274b      hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 1003b008aa9a64dc160719e01f66bd814edf635d
100644 blob 188a14643bbab8288df777414ed4380c30e7274b      hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 188a14643bbab8288df777414ed4380c30e7274b
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
<head>
</head>
<body>
```

# Ход Работы

```
PS M:\projects\math_modeling\.git> git cat-file -p 1aac232c934f8d63a75d2fc926d9688b2747ca56
tree b1435a41197dd56bd137a102c631df94f5ac3db4
parent 6b1a91f3adb6564df1ff7ac0b22663937e115f1
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385676 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385676 +0300
```

Moved hello.html to lib

```
PS M:\projects\math_modeling\.git> git cat-file -p 6b1a91f3adb6564df1ff7ac0b22663937e115f1
tree 1003b008aa9a64dc160719e01f66bd814edf635d
parent 75acc3737010c09fa16f02c30ebc1bff23d47d53
author MstislavRomanovski <batle.05.frog@gmail.com> 1707385337 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707385431 +0300
```

Add an author/email comment

```
PS M:\projects\math_modeling\.git> git cat-file -p 75acc3737010c09fa16f02c30ebc1bff23d47d53
tree b7d435edbae7c5ea28e63c6b2c459ee14a639c3b
parent b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
author MstislavRomanovski <batle.05.frog@gmail.com> 1707383574 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707383574 +0300
```

Added HTML header

```
PS M:\projects\math_modeling\.git> git cat-file -p b170bfc11f8dbc288ca0ff38ffc553541e15c3e9
tree 39244a281685d83fbfed8c43d561598030b74d64
parent aa37f071e69b312ae624736192f83c5a6e1ca9c1
author MstislavRomanovski <batle.05.frog@gmail.com> 1707383462 +0300
committer MstislavRomanovski <batle.05.frog@gmail.com> 1707383462 +0300
```

Added standard HTML page tags

```
PS M:\projects\math_modeling\.git> git log aa37f071e69b312ae624736192f83c5a6e1ca9c1
commit aa37f071e69b312ae624736192f83c5a6e1ca9c1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:07:17 2024 +0300
```

Initial Commit

```
commit 912d6d81f0ad2db816c465b259e2d51ea579d111
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:06:15 2024 +0300
```

Initial Commit

```
PS M:\projects\math_modeling\.git> git log 39244a281685d83fbfed8c43d561598030b74d64
PS M:\projects\math_modeling\.git> git cat-file -p 39244a281685d83fbfed8c43d561598030b74d64
100644 blob 6c7ba8e1875a418341f33ee7640357855647f7c2 hello.html
PS M:\projects\math_modeling\.git> git cat-file -p 6c7ba8e1875a418341f33ee7640357855647f7c2
<html>
  <body>
    <h1>Hello, World!</h1>
  </body>
</html>
PS M:\projects\math_modeling\.git>
```

# Ход Работы

```
PS M:\projects\math_modeling\.git> git checkout master
fatal: this operation must be run in a work tree
PS M:\projects\math_modeling\.git> cd M:\projects\math_modeling
PS M:\projects\math_modeling> git checkout -b style
Switched to a new branch 'style'
PS M:\projects\math_modeling> git status
On branch style
nothing to commit, working tree clean
PS M:\projects\math_modeling> New-Item lib/style.css

Directory: M:\projects\math_modeling\lib

Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024     13:22           0 style.css

PS M:\projects\math_modeling> git add lib/style.css
PS M:\projects\math_modeling> git commit -m "Added css stylesheet"
[style e04d1c5] Added css stylesheet
1 file changed, 3 insertions(+)
create mode 100644 lib/style.css
PS M:\projects\math_modeling> git add lib/hello.html
PS M:\projects\math_modeling> git commit -m "Hello uses style.css"
[style 02ffffde] Hello uses style.css
1 file changed, 7 insertions(+), 5 deletions(-)
PS M:\projects\math_modeling> git add index.html
PS M:\projects\math_modeling> git commit -m "Updated index.html"
[style 10f9b29] Updated index.html
1 file changed, 7 insertions(+), 3 deletions(-)
PS M:\projects\math_modeling>
```



# Ход Работы

```
PS M:\projects\math_modeling> git log --all
commit 10f9b296905b4adf15d345876bddd783de1674c9 (HEAD -> style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300
```

Updated index.html

```
commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:26:04 2024 +0300
```

Hello uses style.css

```
commit e04d1c516619d03b20188253eb26bdb3d3b05547
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:23:39 2024 +0300
```

Added css stylesheet

```
commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d (master)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300
```

Added index.html

```
commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:47:56 2024 +0300
```

Moved hello.html to lib

```
commit 6b1a91f3adb6564df1ff7ac9b222662937e115f1
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:42:17 2024 +0300
```

Add an author/email comment

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
```

```
PS M:\projects\math_modeling> cat lib/hello.html
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
<head>
</head>
<body>
<h1>Hello, World!</h1>
</body>
</html>
```

```
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> cat lib/hello.html
<!-- Author: Roman Malkov : batle.05.frog@gmail.com-->
<html>
```

```
  <head>
  <link type="text/css" rel="stylesheet"
        media="all" href="style.css" />
  </head>
```

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

```
</html>
PS M:\projects\math_modeling>
```

# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch "master"
PS M:\projects\math_modeling> New-Item README.md

Directory: M:\projects\math_modeling

Mode                LastWriteTime         Length Name
----                -
-a---             08.02.2024      13:31             0 README.md

PS M:\projects\math_modeling> git add README.md
PS M:\projects\math_modeling> git commit -m "Added README"
[master 88df991] Added README
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
PS M:\projects\math_modeling> git log --graph --all
* commit 88df991874ce361bcf2cccec723838d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfdd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit e04d1c516619d03b2018825eb26bdb3d3b05547
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

* commit 61bfc3f052c98f6ee368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1aac272c934f8d63a75d2fc926e9688b7747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib
...skipping...
* commit 88df991874ce361bcf2cccec723838d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfdd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
```

# Ход Работы

```
Moved hello.html to lib
PS H:\projects\math_modeling> git checkout master
Already on 'master'
PS H:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS H:\projects\math_modeling> git merge master
Merge made by the 'ort' strategy.
 README.md | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md
PS H:\projects\math_modeling> git log --graph --all
* commit a53f6be4f8278bc47a9e3a187ab78638de1295db (HEAD -> style)
  \ Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:33:48 2024 +0300

   Merge branch 'master' into style

* commit 88df991874ce361bcf2ccceec723838d3d8e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

   Added README

* commit 10f9b2969805b4adf15d345876bfdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

   Updated index.html

* commit 82ffffdfe8bf3d6f94725eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

   Hello uses style.css

* commit e04dc156619d83b2018825eb26b8d3d3b85547
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

   Added css stylesheet

* commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:58:18 2024 +0300

   ...skipping...
* commit a53f6be4f8278bc47a9e3a187ab78638de1295db (HEAD -> style)
  \ Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:33:48 2024 +0300

   Merge branch 'master' into style

* commit 88df991874ce361bcf2ccceec723838d3d8e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

   Added README

* commit 10f9b2969805b4adf15d345876bfdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

   Updated index.html
```

Рис. 72: 1.19

# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git add lib/hello.html
PS M:\projects\math_modeling> git commit -m "Life is Pain"
[master 4e34d52] Life is Pain
1 file changed, 3 insertions(+), 2 deletions(-)
PS M:\projects\math_modeling> git log --graph --all
fatal: unrecognized argument: --all
PS M:\projects\math_modeling> git log --graph --all
* commit 4e34d52f630d9f8a3debefc9ee6e0b27d35bd3a6 (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit a53f6be4f8270bc47a9e3a187ab78638de1295bb (style)
  Merge: 10f9b29 88df991
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:33:48 2024 +0300

    Merge branch 'master' into style

* commit 88df991874ce361bcf2cceec723838d3d8e8777c
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfdd703de1674c9
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffdef8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css
```

```
|      Added standard HTML page tags
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> 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.
PS M:\projects\math_modeling> git add .\lib\hello.html
PS M:\projects\math_modeling> git vommit -m "Merge conflict solution"
git: 'vommit' is not a git command. See 'git --help'.

The most similar command is
    commit
PS M:\projects\math_modeling> git commit -m "Merge conflict solution"
[style 10446c1] Merge conflict solution
PS M:\projects\math_modeling> _
```

Рис. 74: 1.21

# Ход Работы

```
PS M:\projects\math_modeling> git checkout style
Already on 'style'
PS M:\projects\math_modeling> git log --graph
* commit 10f9b296905b4adf15d345876bfd703de1674c9 (HEAD -> style)
   Merge: a53f6be4c34d92
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:46:27 2024 +0300

    Merge conflict solution

* commit 4e34d52f630d9f8a3debefc9e6e0b27d33bd3a6 (master)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit a53f6be4f8270bc47a9e3a187ab78638de1295bb
   Merge: 10f9b29 88df991
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:33:48 2024 +0300

    Merge branch 'master' into style

* commit 88df991874ce361bcf2ccec723838d3d8e8777c
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02ffffde8ebfd3d6f04723eb01a64bd798ea2f89
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> git reset --hard 10f9b296905b4adf15d345876bfd703de1674c9
HEAD is now at 10f9b29 Updated index.html
PS M:\projects\math_modeling> git log --graph --all
* commit 4e34d52f630d9f8a3debefc9e6e0b27d33bd3a6 (master)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit 88df991874ce361bcf2ccec723838d3d8e8777c
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (HEAD -> style)
   Author: MstislavRomanovski <batle.05.frog@gmail.com>
   Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html
```

# Ход Работы

```
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git log --graph
* commit 4e34d52f630d9f8a3debecf9ee60b27d35bd3a6 (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:39:23 2024 +0300

    Life is Pain

* commit 88df991874ce361bcf2ccec72383d3d8e8777c
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib

* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:42:17 2024 +0300

    Add an author/email comment

* commit 75acc3737010c09fa16f02c30ebc1bfff23d47d53 (tag: v1)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:12:54 2024 +0300

    Added HTML header

* commit b170bfc11f8dbc288ca0ff38ffcc53541e15c3e9 (tag: v1-beta)
PS M:\projects\math_modeling> git reset --hard 88df991874ce361bcf2ccec72383d3d8e8777c
HEAD is now at 88df991 Added README
PS M:\projects\math_modeling> git log --graph --all
fatal: unrecognized argument: -graph
PS M:\projects\math_modeling> git log --graph --all
* commit 88df991874ce361bcf2ccec72383d3d8e8777c (HEAD -> master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 10f9b296905b4adf15d345876bfd703de1674c9 (style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit 02fffdef8ebfd3d6f04723eb01a64bd798ea2f89
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300
```

# Ход Работы

```
* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
PS M:\projects\math_modeling> git checkout style
Switched to branch 'style'
PS M:\projects\math_modeling> git rebase master
Successfully rebased and updated refs/heads/style.
PS M:\projects\math_modeling> git log --graph --all
* commit 644d4dd6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit e0c9a12973bfc370a31c35a8a79faf5e1d729e7
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit 1093debb34652e76947dab7db91848d54b368a88
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

* commit 88df991874ce361bfc2cceec72383d3d8e8777c (master)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

* commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html

* commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 12:47:56 2024 +0300

    Moved hello.html to lib

* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
...skipping...
* commit 644d4dd6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> style)
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

* commit e0c9a12973bfc370a31c35a8a79faf5e1d729e7
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

* commit 1093debb34652e76947dab7db91848d54b368a88
  Author: MstislavRomanovski <batle.05.frog@gmail.com>
  Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet
```



# Ход Работы

```
* commit 6b1a91f3adb6564df1ff7ac0b222663937e115f1
PS M:\projects\math_modeling> git checkout master
Switched to branch 'master'
PS M:\projects\math_modeling> git merge style
Updating 88df991..644d4d6
Fast-forward
 index.html      | 10 ++++++---
 lib/hello.html  | 12 ++++++-----
 lib/style.css   | 3 +++
 3 files changed, 17 insertions(+), 8 deletions(-)
 create mode 100644 lib/style.css
PS M:\projects\math_modeling> git log
commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> master, style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

commit e0c9a12973bfc370a31c35a8a79faf5e1d729a7
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

commit 1093debb34652e76947dab7db91848d54b368a88
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

commit 88df991874ce361bcf2cceec723838d3d8e8777c
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:31:44 2024 +0300

    Added README

commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 12:50:18 2024 +0300

    Added index.html
```

# Ход Работы

```
commit 6b1a91f3adb6564dffff7ac0b222663937e115f1
PS M:\projects\math_modeling> cd M:\projects
PS M:\projects> git clone math_modeling cloned
Cloning into 'cloned'...
done.
PS M:\projects> cd cloned
PS M:\projects\cloned> ls

Directory: M:\projects\cloned

Mode                LastWriteTime         Length Name
----                -
d-----          08.02.2024   14:05             lib
-a---          08.02.2024   14:05           197 index.html
-a---          08.02.2024   14:05              0 README.md

PS M:\projects\cloned> git log --all
commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (HEAD -> master, origin/style, origin/master, origin/HEAD)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:27:26 2024 +0300

    Updated index.html

commit e0c9a12973bfcb370a31c35a8a79faf5e1d729a7
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:26:04 2024 +0300

    Hello uses style.css

commit 1093debb34652e76947dab7db91848d54b368a88
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:23:39 2024 +0300

    Added css stylesheet

commit 88df991874ce361bcf2ccec723838d3d8e8777c
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 13:31:44 2024 +0300

    Added README

commit 61bfc3f852c98ef6e368b1652cc2736daaf8fa3d
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date:   Thu Feb 8 12:50:18 2024 +0300

    Added index.html

commit 1aac232c934f8d63a75d2fc926d9688b2747ca56
Author: MstislavRomanovski <batle.05.frog@gmail.com>
```

Рис. 79: 1.26

```
Initial Commit
~
PS M:\projects\cloned> git remote
origin
PS M:\projects\cloned> git remote show origin
* remote origin
  Fetch URL: M:/projects/math_modeling
  Push URL: M:/projects/math_modeling
  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)
PS M:\projects\cloned> git branch
* master
PS M:\projects\cloned> git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
  remotes/origin/style
PS M:\projects\cloned>
```

```
PS M:\projects\cloned> cat README.md
PS M:\projects\cloned> git merge origin/master
Updating 644d4d6..5ecd808
Fast-forward
 README.md | 1 +
 1 file changed, 1 insertion(+)
PS M:\projects\cloned> cat README.md
This is the Hello World example from the git tutorial.
PS M:\projects\cloned> git branch --track style origin/style
branch 'style' set up to track 'origin/style'.
PS M:\projects\cloned> git branch -a
* master
  style
remotes/origin/HEAD -> origin/master
remotes/origin/master
remotes/origin/style
PS M:\projects\cloned> git log --max-count=2
commit 5ecd808e7dacc4116009bf36615b5416cd2d975e (HEAD -> master, origin/master, origin/HEAD)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 14:11:06 2024 +0300

    Changed README in origin repo

commit 644d4d6b7b5efb3bc3b4486174778d1054dd0cd5 (origin/style, style)
Author: MstislavRomanovski <batle.05.frog@gmail.com>
Date: Thu Feb 8 13:27:26 2024 +0300
```

Рис. 81: 1.30

```
PS M:\projects\cloned> cd M:\projects\  
PS M:\projects> git clone --bare math_modeling math_modeling.git  
Cloning into bare repository 'math_modeling.git'...  
done.  
PS M:\projects> cd .\math_modeling\  
PS M:\projects\math_modeling> git remote add shared ../hello.git  
PS M:\projects\math_modeling> git checkout master  
Already on 'master'  
M      README.md  
PS M:\projects\math_modeling> git add README.md  
PS M:\projects\math_modeling> git commit -m "Added shared comment to readme"  
[master 048f10e] Added shared comment to readme  
1 file changed, 2 insertions(+), 1 deletion(-)
```

Рис. 82: 1.31

```
PS M:\projects\math_modeling> git remote remove shared
PS M:\projects\math_modeling> git remote -d shared ../math_modeling.git
error: unknown switch `d'
usage: git remote [-v | --verbose]
or: git remote add [-t <branch>] [-m <master>] [-f] [--tags | --no-tags] [--mirror=<fetch|push>] <name> <url>
or: git remote rename [--[no-]progress] <old> <new>
or: git remote remove <name>
or: git remote set-head <name> (-a | --auto | -d | --delete | <branch>)
or: git remote [-v | --verbose] show [-n] <name>
or: git remote prune [-n | --dry-run] <name>
or: git remote [-v | --verbose] update [-p | --prune] [(<group> | <remote>)...]
or: git remote set-branches [--add] <name> <branch>...
or: git remote get-url [--push] [--all] <name>
or: git remote set-url [--push] <name> <newurl> [<oldurl>]
or: git remote set-url --add <name> <newurl>
or: git remote set-url --delete <name> <url>

-v, --verbose          be verbose; must be placed before a subcommand

PS M:\projects\math_modeling> git remote add shared ../math_modeling.git
PS M:\projects\math_modeling> 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), 423 bytes | 423.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To ../math_modeling.git
   5ecd808..048f10e  master -> master
PS M:\projects\math_modeling> .
```

Рис. 83: 1.32

```
Please make sure you have the correct access rights
and the repository exists.
PS M:\projects\cloned> git remote add shared ../math_modeling.git
PS M:\projects\cloned> 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), 403 bytes | 2.00 KiB/s, done.
From ../math_modeling
 * branch          master      -> FETCH_HEAD
 * [new branch]    master      -> shared/master
Updating 5ecd808..048f10e
Fast-forward
 README.md | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)
PS M:\projects\cloned> cat README.md
This is the Hello World example from the git tutorial.
(CHANGED IN ORIGINAL AND PUSHED TO SHARED)
PS M:\projects\cloned> █
```

Рис. 84: 1.38