Институт цифровых интеллектуальных систем

Кафедра компьютерных систем управления

Дисциплина «Основы системного программного обеспечения»

Отчет по лабораторной работе №_1_

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1. **Цель**

2. **Задачи работы**

3. **Описание и выполнение тестовых (если присутствуют) и индивидуальных заданий**

Цель работы: научиться работать со своим репозиторием GitHub, создавать и отправлять на сервер коммиты, подключаться к своему аккаунту и репозиторию через консоль GitBash. Восстанавливать файлы из других версий коммитов, создавать, удалять, соединять ветки репозитория, а также подключаться к чужим. Редактировать и создавать новые файлы в чужих репозиториях и отправлять на сервер.

Задачи работы: фиксация изменений в области заготовленных файлов, отправка коминат на сервер, запрос изменения с сервера, создание, слияние, удаление новой ветки, рросмотр изменений и разрешение конфликтов, возврат к предыдущему состоянию, исправление коммита.

Выполнение работы

Рис.1 Поиск сторонних файлов в .git

```
warning: in the working copy of 'hooks/pre-applypatch.sample', LF will be replaced by CRLF the next tim
e Git touches it
warning: in the working copy of 'hooks/pre-commit.sample', LF will be replaced by CRLF the next time Gi
t touches it
warning: in the working copy of 'hooks/pre-merge-commit.sample', LF will be replaced by CRLF the next t
ime Git touches it
warning: in the working copy of 'hooks/pre-push.sample', LF will be replaced by CRLF the next time Git
touches it
warning: in the working copy of 'hooks/pre-rebase.sample', LF will be replaced by CRLF the next time Gi
t touches it
warning: in the working copy of 'hooks/pre-receive.sample', LF will be replaced by CRLF the next time G
it touches it
warning: in the working copy of 'hooks/prepare-commit-msg.sample', LF will be replaced by CRLF the next
 time Git touches it
warning: in the working copy of 'hooks/push-to-checkout.sample', LF will be replaced by CRLF the next t
ime Git touches it
warning: in the working copy of 'hooks/sendemail-validate.sample', LF will be replaced by CRLF the next
 time Git touches it
warning: in the working copy of 'hooks/update.sample', LF will be replaced by CRLF the next time Git to
uches it

HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$ git add info/
warning: in the working copy of 'info/exclude', LF will be replaced by CRLF the next time Git touches i
t

HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   1.txt
        new file:   FETCH_HEAD
        new file:   HEAD
        new file:   config
        new file:   description
        new file:   hooks/applypatch-msg.sample
        new file:   hooks/commit-msg.sample
        new file:   hooks/fsmonitor-watchman.sample
        new file:   hooks/post-update.sample
        new file:   hooks/pre-applypatch.sample
        new file:   hooks/pre-commit.sample
        new file:   hooks/pre-merge-commit.sample
        new file:   hooks/pre-push.sample
        new file:   hooks/pre-rebase.sample
        new file:   hooks/pre-receive.sample
        new file:   hooks/prepare-commit-msg.sample
        new file:   hooks/push-to-checkout.sample
        new file:   hooks/sendemail-validate.sample
        new file:   hooks/update.sample
        new file:   info/exclude


HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$
```

Рис. 2. Добавление новых файлов

```
No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   1.txt
        new file:   FETCH_HEAD
        new file:   HEAD
        new file:   config
        new file:   description
        new file:   hooks/applypatch-msg.sample
        new file:   hooks/commit-msg.sample
        new file:   hooks/fsmonitor-watchman.sample
        new file:   hooks/post-update.sample
        new file:   hooks/pre-applypatch.sample
        new file:   hooks/pre-commit.sample
        new file:   hooks/pre-merge-commit.sample
        new file:   hooks/pre-push.sample
        new file:   hooks/pre-rebase.sample
        new file:   hooks/pre-receive.sample
        new file:   hooks/prepare-commit-msg.sample
        new file:   hooks/push-to-checkout.sample
        new file:   hooks/sendemail-validate.sample
        new file:   hooks/update.sample
        new file:   info/exclude


HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$ git commit -m "first commit"
[master (root-commit) 5bac796] first commit
 20 files changed, 883 insertions(+)
 create mode 100644 1.txt
 create mode 100644 FETCH_HEAD
 create mode 100644 HEAD
 create mode 100644 config
 create mode 100644 description
 create mode 100644 hooks/applypatch-msg.sample
 create mode 100644 hooks/commit-msg.sample
 create mode 100644 hooks/fsmonitor-watchman.sample
 create mode 100644 hooks/post-update.sample
 create mode 100644 hooks/pre-applypatch.sample
 create mode 100644 hooks/pre-commit.sample
 create mode 100644 hooks/pre-merge-commit.sample
 create mode 100644 hooks/pre-push.sample
 create mode 100644 hooks/pre-rebase.sample
 create mode 100644 hooks/pre-receive.sample
 create mode 100644 hooks/prepare-commit-msg.sample
 create mode 100644 hooks/push-to-checkout.sample
 create mode 100644 hooks/sendemail-validate.sample
 create mode 100644 hooks/update.sample
 create mode 100644 info/exclude

HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$ git status
On branch master
nothing to commit, working tree clean

HELLSING@HELLSING-PC MINGW64 /c/Users/hellsing/.git (master)
$
```

Рис.3. Создание коммита

Рис.4 Отправка коммита на сервер

```
MINGW64:/c/Users/HELLSING/.git                                    —    □    ×

fatal: Authentication failed for 'https://github.com/ilysha-228/Lab1-Stankin-ADB2107.git/'

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ ^C

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ git push origin master
Enumerating objects: 27, done.
Counting objects: 100% (27/27), done.
Delta compression using up to 8 threads
Compressing objects: 100% (22/22), done.
Writing objects: 100% (26/26), 12.55 KiB | 6.27 MiB/s, done.
Total 26 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (3/3), done.
To https://github.com/ilysha-228/Lab1-Stankin-ADB2107.git
   c40837c..1952303  master -> master

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ git log
commit 1952303ca507bb25459a9d509e5fda51db52c567 (HEAD -> master, origin/master)
Merge: 5bac796 c40837c
Author: ilysha-228 <ilya_kudymov@mail.ru>
Date:   Sun May 19 22:18:04 2024 +0300

    Merge branch 'master' of https://github.com/ilysha-228/Lab1-Stankin-ADB2107

commit 5bac79658960e5095776c35e661be6c21b509b69
Author: ilysha-228 <ilya_kudymov@mail.ru>
Date:   Sun May 19 22:14:23 2024 +0300

    first commit

commit c40837c816026dc60692c068714e33d26651d48c
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 11:11:07 2024 +0300

    Update README.md

commit 89dcc5e208719ba0d107505a5fed88ac0b65248b
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:33:26 2024 +0300

    Rename mb truth lab to mb truth lab.txt

commit b726188b7054191c2f2359634e529aab270dea94
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:33:05 2024 +0300

    Create mb truth lab

commit 0d26eda28f88767547c26e11f7b1969cfc719243
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:22:54 2024 +0300

    README.md

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$
```
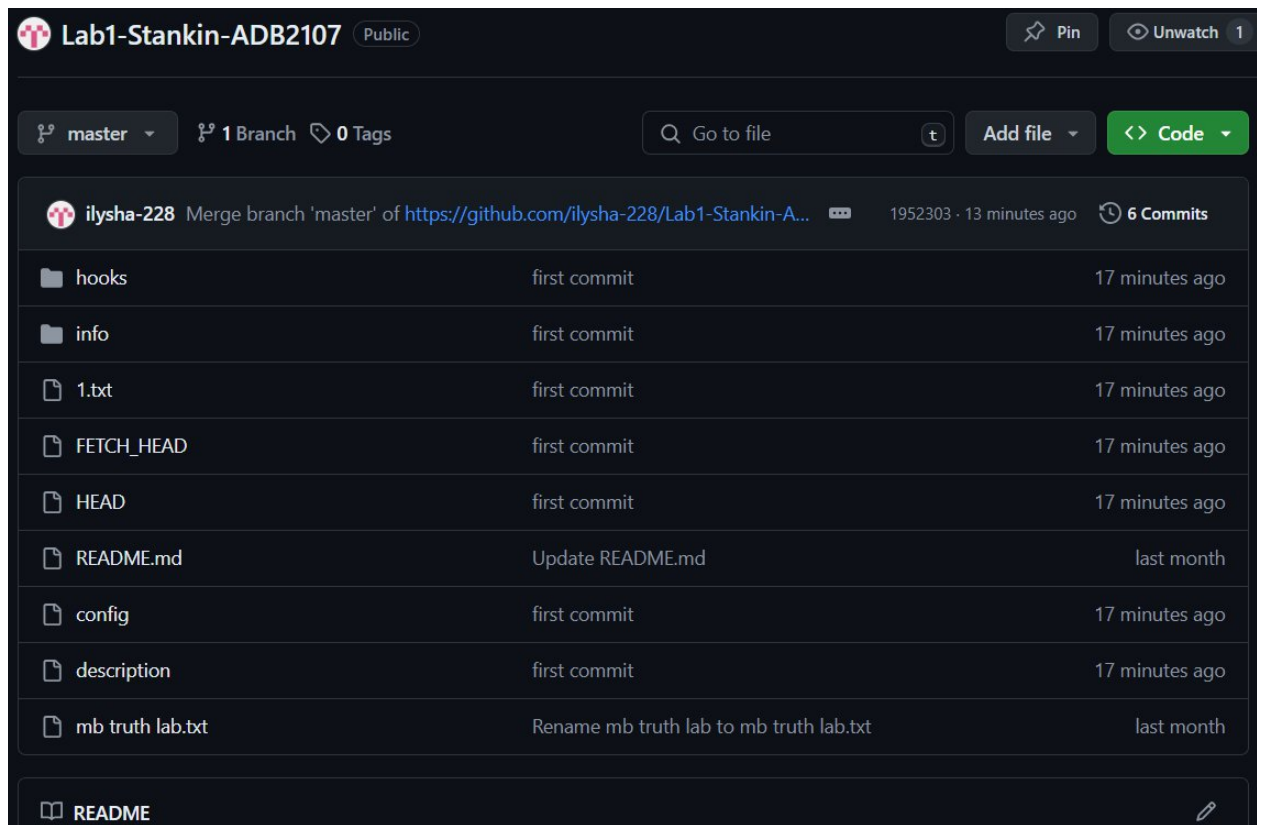
Рис.5 Проверка через git log

Рис.6. Результат отправки

```
commit b726188b7054191c2f2359634e529aab270dea94
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:    Tue Apr 9 09:33:05 2024 +0300

    Create mb truth lab

commit 0d26eda28f88767547c26e11f7b1969cfc719243
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:    Tue Apr 9 09:22:54 2024 +0300

    README.md

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ git branch second

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ git branch
* master
  second

HELLSING@HELLSING-PC MINGW64 ~/.git (master)
$ git checkout second
Switched to branch 'second'

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git status
On branch second
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Kudymov.txt

nothing added to commit but untracked files present (use "git add" to track)

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git add Kudymov.txt

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git status
On branch second
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Kudymov.txt


HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git commit -m "second commit for second branch"
[second 705d034] second commit for second branch
 1 file changed, 1 insertion(+)
 create mode 100644 Kudymov.txt

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git status
On branch second
nothing to commit, working tree clean

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$
```

Рис.7. Создание новой ветки, подключение

```
Author: ilysha-228 <ilya_kudymov@mail.ru>
Date:   Sun May 19 22:18:04 2024 +0300

    Merge branch 'master' of https://github.com/ilysha-228/Lab1-Stankin-ADB2107

commit 5bac79658960e5095776c35e661be6c21b509b69
Author: ilysha-228 <ilya_kudymov@mail.ru>
Date:   Sun May 19 22:14:23 2024 +0300

    first commit

commit c40837c816026dc60692c068714e33d26651d48c
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 11:11:07 2024 +0300

    Update README.md

commit 89dcc5e208719ba0d107505a5fed88ac0b65248b
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:33:26 2024 +0300

    Rename mb truth lab to mb truth lab.txt

commit b726188b7054191c2f2359634e529aab270dea94
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:33:05 2024 +0300

    Create mb truth lab

commit 0d26eda28f88767547c26e11f7b1969cfc719243
Author: Лера Язагит <128056452+ilysha-228@users.noreply.github.com>
Date:   Tue Apr 9 09:22:54 2024 +0300

    README.md

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git branch
  master
* second

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$ git push origin second
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 296 bytes | 296.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'second' on GitHub by visiting:
remote:      https://github.com/ilysha-228/Lab1-Stankin-ADB2107/pull/new/second
remote:
To https://github.com/ilysha-228/Lab1-Stankin-ADB2107.git
 * [new branch]      second -> second

HELLSING@HELLSING-PC MINGW64 ~/.git (second)
$
```

Рис. 8. Отправка нового коммита на новую ветку second

Рис. 9. Слияние веток, удаление second, создание новой ветки и отправка нового коммита на сервер в ветку newdev

Рис.10 Работа с файлом в ветке newdev

Рис. 11. Попытка слияния веток с разными файлами

Рис.12 Подключение к чужому репозиторию и отправка туда своего файла