

МИНОБРНАУКИ РОССИИ

федеральное государственное бюджетное образовательное учреждение высшего образования

«Московский государственный технологический университет «СТАНКИН»

(ФГБОУ ВО «МГТУ «СТАНКИН»)

Институт цифровых интеллектуальных систем Кафедра компьютерных систем управления

Дисциплина «Основы системного программного обеспечения»

Отчет по лабораторной работе № 1

Работа с системами контроля версий на примере Git Hub

Выполнил студент гр. АДБ-20-08:		Талтыкин А.В
	(дата) (подпись)	
Проверил к.т.н., доцент		Ковалев И.А.
	(дата) (подпись)	

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1. Цель

Ознакомиться и научиться работать с системами контроля версий на примере GitHub.

2. Задачи работы

Установить git на свой пк

Создать локальные репозиторий

Фиксация изменений в области заготовленных файлов

Отправить коммит на сервер

Переслать локальный коммит на сервер

Создание новой ветки

Слияние веток

Просмотр изменений и разрешение конфликтов

Удаление веток

Возврат к предыдущему состояние с загрузкой хэша

Исправление коммита

Отправка только нужных файлов на сервер

Совместная работа с git

3. Индивидуальная часть

Заходим в папку, где хранится текстовый документ с именем

```
💽 Командная строка - git log
                                                                                                                                     П
                                                                                                                                             X
командой, исполняемой программой или пакетным файлом.
C:\Users\andre>cd C:\Users\andre\Downloads\Taltikin
C:\Users\andre\Downloads\Taltikin>git config--global user.name"Hokkerokwerytd"
git: 'config--global' is not a git command. See 'git --help'.
C:\Users\andre\Downloads\Taltikin>git config--global user.name"andrei.taltikin@yandex.ru"
git: 'config--global' is not a git command. See 'git --help'.
C:\Users\andre\Downloads\Taltikin>git init
Initialized empty Git repository in C:/Users/andre/Downloads/Taltikin/.git/
C:\Users\andre\Downloads\Taltikin>git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
C:\Users\andre\Downloads\Taltikin>git add
Nothing specified, nothing added.
nint: Maybe you wanted to say 'git add .'?
nint: Turn this message off by running
nint: "git config advice.addEmptyPathspec false"
```

Сохраняем его в гите, после чего создаем первый коммит

```
🖭 Командная строка - git log
  \Users\andre\Downloads\Taltikin>git add .
C:\Users\andre\Downloads\Taltikin>git status
On branch master
No commits yet
Changes to be committed:
 (use "git rm --cached <file>..." to unstage)
    new file: Name.txt
C:\Users\andre\Downloads\Taltikin>git commit -m "first commit"
[master (root-commit) 69d9f80] first commit
1 file changed, 1 insertion(+)
create mode 100644 Name.txt
C:\Users\andre\Downloads\Taltikin>git status
On branch master
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git remote add origin https://github.com/Hokkerokwerytd/lr
C:\Users\andre\Downloads\Taltikin>git remote -v
origin https://github.com/Hokkerokwerytd/lr (fetch)
origin https://github.com/Hokkerokwerytd/lr (push)
info: please complete authentication in your browser...
Enumerating objects: 3, done.
```

Заходим в гит хаб и загружаем туда текстовый документ в ветку мастер

```
П
 💽 Командная строка - git log
                                                                                                                                                                   X
C:\Users\andre\Downloads\Taltikin>git push origin master
info: please complete authentication in your browser...
Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

Writing objects: 100% (3/3), 226 bytes | 226.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0), pack-reused 0

To https://github.com/Hokkerokwerytd/lr
 * [new branch]
                            master -> master
 C:\Users\andre\Downloads\Taltikin>git push origin master
Everything up-to-date
C:\Users\andre\Downloads\Taltikin>git log
                                                         542c20 (HEAD -> master, origin/master)
 Author: Hokkerokwerytd <andrei.taltikin@yandex.ru>
Date: Wed May 10 22:54:11 2023 +0300
     first commit
C:\Users\andre\Downloads\Taltikin>git branch second
C:\Users\andre\Downloads\Taltikin>git checout second
git: 'checout' is not a git command. See 'git --help'.
 The most similar command is
           checkout
C:\Users\andre\Downloads\Taltikin>git checkout second
Switched to branch 'second'
```

Создаем ветку second, преключаемся на нее и загружаем туда текстовый документ с фамилией и создаем второй коммит

```
 Командная строка - git log
                                                                                                                     :\Users\andre\Downloads\Taltikin>git status
On branch second
Untracked files:
 (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
C:\Users\andre\Downloads\Taltikin>git add Surname.txt
C:\Users\andre\Downloads\Taltikin>git commit -m "second commit"
[second 009e627] second commit
1 file changed, 1 insertion(+)
 create mode 100644 Surname.txt
C:\Users\andre\Downloads\Taltikin>git status
On branch second
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git remote add origin https://github.com/Hokkerokwerytd/lr
error: remote origin already exists.
C:\Users\andre\Downloads\Taltikin>git remote -v
origin https://github.com/Hokkerokwerytd/lr (fetch)
origin https://github.com/Hokkerokwerytd/lr (push)
C:\Users\andre\Downloads\Taltikin>git git pull origin second
git: 'git' is not a git command. See 'git --help'.
The most similar command is
```

```
👞 Командная строка - git log
                                                                                                                                                    C:\Users\andre\Downloads\Taltikin>git git push origin second
git: 'git' is not a git command. See 'git --help'.
The most similar command is
 C:\Users\andre\Downloads\Taltikin>git git push origin second
git: 'git' is not a git command. See 'git --help'.
The most similar command is
          init
C:\Users\andre\Downloads\Taltikin>git push origin second
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (6/6), 482 bytes | 482.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
 remote:
 remote: Create a pull request for 'second' on GitHub by visiting:
                https://github.com/Hokkerokwerytd/lr/pull/new/second
 remote:
 remote:
 To https://github.com/Hokkerokwerytd/lr
    [new branch]
                           second -> second
 C:\Users\andre\Downloads\Taltikin>git branch master
fatal: a branch named 'master' already exists
```

Объединяем ветки и переключаемся обратно на ветку мастер, после чего удаляем ветку second

```
🔤 Командная строка - git log
C:\Users\andre\Downloads\Taltikin>git status
On branch second
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git checkout master
Switched to branch 'master'
C:\Users\andre\Downloads\Taltikin>git status
On branch master
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git merge second
Updating 69d9f80..009e627
Fast-forward
Surname.txt | 1
1 file changed, 1 insertion(+)
create mode 100644 Surname.txt
C:\Users\andre\Downloads\Taltikin>git status
On branch master
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git merge second
Already up to date.
C:\Users\andre\Downloads\Taltikin>git branch -d second
Deleted branch second (was 009e627).
C:\Users\andre\Downloads\Taltikin>git log
```

Создаем ветку newdev и добавляем текстовый документ с отчеством, и проделываем те же действия, что и с веткой second

```
🖭 Командная строка - git log
                                                                                                                 ×
Deleted branch second (was 009e627).
C:\Users\andre\Downloads\Taltikin>git log
                                         3f3ac9 (HEAD -> master, origin/second)
Author: Hokkerokwerytd <andrei.taltikin@yandex.ru>
Date: Wed May 10 23:07:32 2023 +0300
   second commit
   mit 69d9f8084f1d64391b5c23acc6acb2239c542c20 (origin/master)
Author: Hokkerokwerytd <andrei.taltikin@yandex.ru>
Date: Wed May 10 22:54:11 2023 +0300
C:\Users\andre\Downloads\Taltikin>git push origin --delete second
To https://github.com/Hokkerokwerytd/lr
- [deleted]
C:\Users\andre\Downloads\Taltikin>git add surname.txt
C:\Users\andre\Downloads\Taltikin>git add Otchestvo.txt
C:\Users\andre\Downloads\Taltikin>git status
On branch master
Changes to be committed:
 (use "git restore --staged <file>..." to unstage)
```

```
X
🔤 Командная строка - git log
C:\Users\andre\Downloads\Taltikin>git commit -m "third commit"
[master 8b8c712] third commit
1 file changed, 1 insertion(+) create mode 100644 Otchestvo.txt
C:\Users\andre\Downloads\Taltikin>git status
On branch master
nothing to commit, working tree clean
C:\Users\andre\Downloads\Taltikin>git push origin master
To https://github.com/Hokkerokwerytd/lr
                                master -> master (fetch first)
nint: Updates were rejected because the remote contains work that you do nint: not have locally. This is usually caused by another repository pushing nint: to the same ref. You may want to first integrate the remote changes nint: (e.g., 'git pull ...') before pushing again.
nint: See the 'Note about fast-forwards' in 'git push --help' for details.
C:\Users\andre\Downloads\Taltikin>git push origin master
To https://github.com/Hokkerokwerytd/lr
                              master -> master (fetch first)
nint: not have locally. This is usually caused by another repository pushing nint: to the same ref. You may want to first integrate the remote changes nint: (e.g., 'git pull ...') before pushing again.
nint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

```
C:\Users\andre\Downloads\Taltikin>git push origin master
To https://github.com/Hokkerokwerytd/lr
! [rejected] master -> master (fetch first)
error: failed to push some refs to 'https://github.com/Hokkerokwerytd/lr'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

C:\Users\andre\Downloads\Taltikin>git pull origin master
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Counting objects: 100% (4/4), done.
remote: Counting objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 663 bytes | 47.00 KiB/s, done.
From https://github.com/Hokkerokwerytd/lr
* branch master -> FETCH_HEAD
6009f80.4171006 master -> origin/master
Menge made by the 'ort' strategy.

README.md | 1 +

1 file changed, 1 insertion(+)
create mode 100644 README.md

C:\Users\andre\Downloads\Taltikin>git push origin master
Enumerating objects: 100% (10/10), done.

Delta compression using up to 8 threads
Compression objects: 100% (6/6), done.
```





