

Практическая работа №1

Тема: «Основы Git и Github»

Цель работы:

Выполнение практической работы направлено на изучение:

1. наиболее распространенных практик в области контроля версий программного обеспечения, его использования в командной разработке ПО и DevOps;
2. концепции Git, основанной на понятиях репозитория и ветвления версий ПО;
3. порядка использования GitHub и его базовых операций.

Ход работы:

Выполнение задания №1 показано на рисунках 1.1 и 1.2, задания №2 на рисунках 1.3, 1.4, 1.5, 1.6.

```
Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (master)
$ git branch newbranch

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (master)
$ git cheakout newbranch
git: 'cheakout' is not a git command. See 'git --help'.

The most similar command is
    checkout

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (master)
$ git checkout newbranch
Switched to branch 'newbranch'

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ touch newbranchfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git add newbranchfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git commit -m "added newbranchgile"
[newbranch d480021] added newbranchgile
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 newbranchfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git loq
git: 'loq' is not a git command. See 'git --help'.

The most similar command is
    log

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git log
commit d4800210c233424af8ac4b786eb151e3bb5f9e61 (HEAD -> newbranch)
Author: Your Name <you@example.com>
Date:   Mon Feb 17 21:41:33 2025 +0300

    added newbranchgile

commit 5fc8b74ddc00de575b8c68606c5917c34b950ecd (master)
Author: Your Name <you@example.com>
Date:   Mon Feb 17 20:57:12 2025 +0300

    added goodfile
```

Рисунок 1.1 Создание ветки и добавление в неё файла

```

$ git revert HEAD --no-edit
[newbranch 87dd8a2] Revert "added newbranchfile"
Date: Mon Feb 17 21:42:31 2025 +0300
1 file changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 newbranchfile

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ touch newgoodfile

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git add newgoodfile

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git commit -m "add newgoodfile"
[newbranch fdc4e1d] add newgoodfile
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 newgoodfile

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git branch
  master
* newbranch

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git cheackout master
git: 'cheackout' is not a git command. See 'git --help'.

The most similar command is
  checkout

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git merge newbranch
Already up to date.

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (newbranch)
$ git checkout master
Switched to branch 'master'

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (master)
$ git merge newbranch
Updating 5fc8b74..fdc4e1d
Fast-forward
 newgoodfile | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 newgoodfile

Asus@LAPTOP-OKSMRVTS MINGW64 /c/repositories/1repo (master)
$ |

```

Рисунок 1.2 Откат изменений, создание нового файла и объединение веток

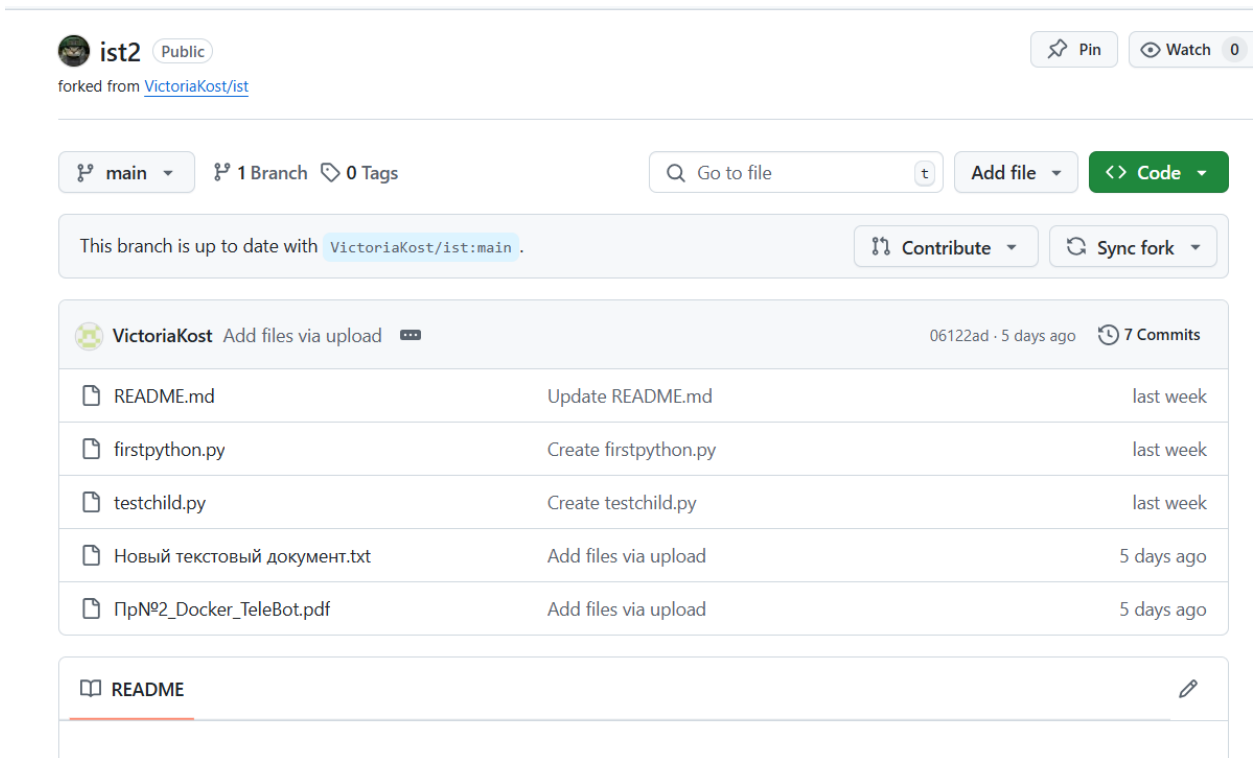


Рисунок 1.3 Fork проекта второго студента

```
Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories
$ git clone https://github.com/DmitryKa3/ist2.git
Cloning into 'ist2'...
remote: Enumerating objects: 19, done.
remote: Counting objects: 100% (19/19), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 19 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (19/19), 832.89 KiB | 599.00 KiB/s, done.
Resolving deltas: 100% (3/3), done.

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories
$ |
```

Рисунок 1.3 Clone проекта в локальный репозиторий

```
Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/ist2 (main)
$ touch verygoodfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/ist2 (main)
$ git add verygoodfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/ist2 (main)
$ git commit -m "added verygoodfile"
[main 9e4347b] added verygoodfile
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 verygoodfile

Asus@LAPTOP-0KSMRVTS MINGW64 /c/repositories/ist2 (main)
$ |
```

Рисунок 1.4 Добавление и фиксирование файла

```
$ git commit -m "added verygoodfile"
[main 9e4347b] added verygoodfile
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 verygoodfile

Asus@LAPTOP-OKSMRVT$ MINGW64 /c/repositories/ist2 (main)
$ git push origin master
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/DmitryKa3/ist2.git'

Asus@LAPTOP-OKSMRVT$ MINGW64 /c/repositories/ist2 (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 280 bytes | 280.00 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.
To https://github.com/DmitryKa3/ist2.git
06122ad..9e4347b main -> main

Asus@LAPTOP-OKSMRVT$ MINGW64 /c/repositories/ist2 (main)
$ |
```

Рисунок 1.5 Синхронизация с fork-репозиторием

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff compo](#)

base repository: VictoriaKost/ist

base: main

head repository: DmitryKa3/ist2

compare: main

✓ Able to merge. These branches c

Add a title

Added verygoodfile very needed

Add a description

Write

Preview

H B I

That cool file. He is needed in the project.

Markdown is supported

Paste, drop, or click to add files

☒ Allow edits by maintainers

Create pull request

Рисунок 1.6 Формирование pull request к origin проекту

Вывод: изучили основные команды Git, освоили работу с GitHub и его базовые операции.