РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ

Факультет физико-математических и естественных наук

Кафедра ИТ

ЛАБОРАТОРНАЯ РАБОТА №2

дисциплина: Операционные системы

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Группа: НБИбд-02-21

Ст. билет №: 1032212957

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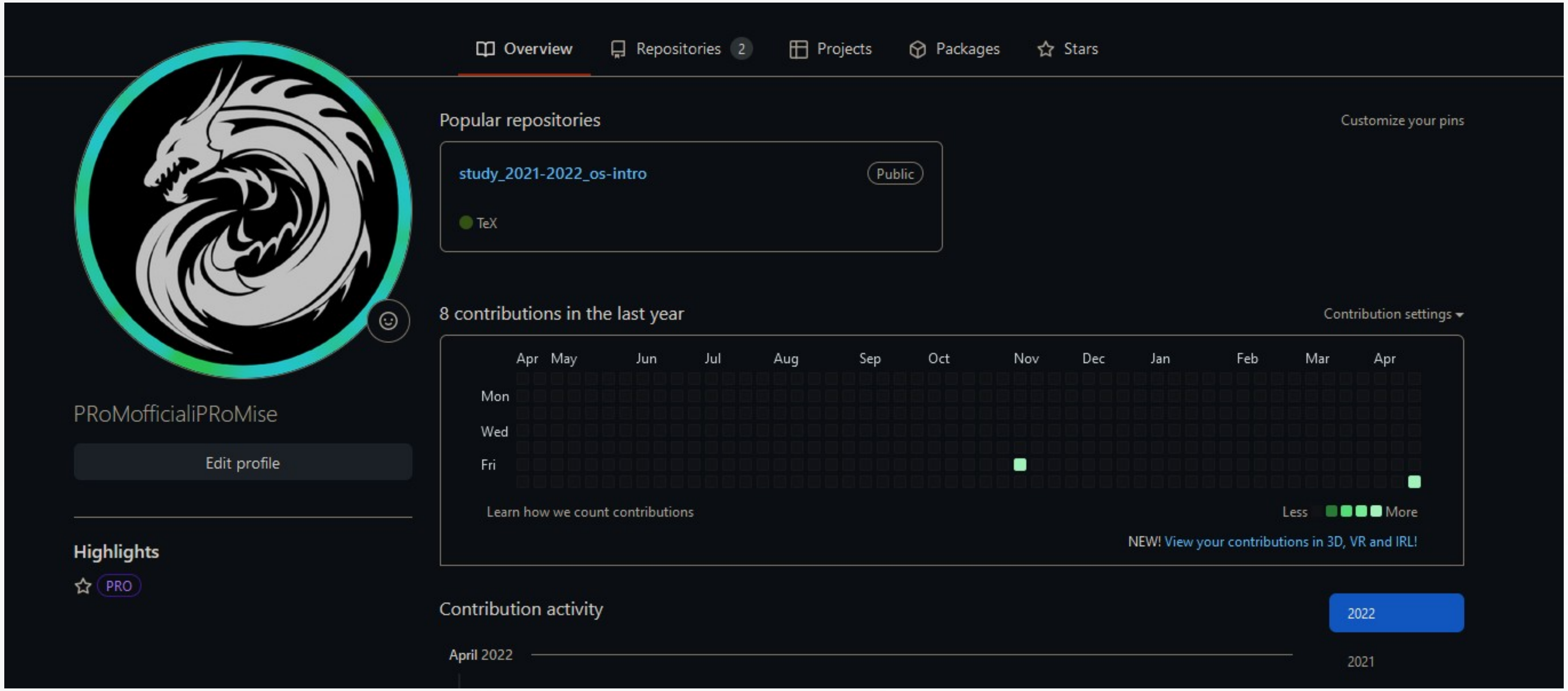
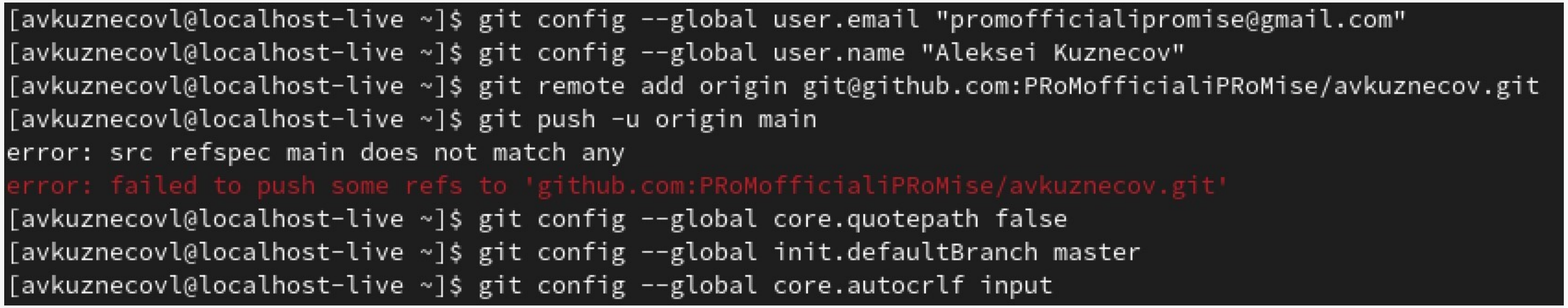
Цель работы

Целью данной работы является изучение идеологии и применение средств контроля версий.

Создаём учетную запись на github

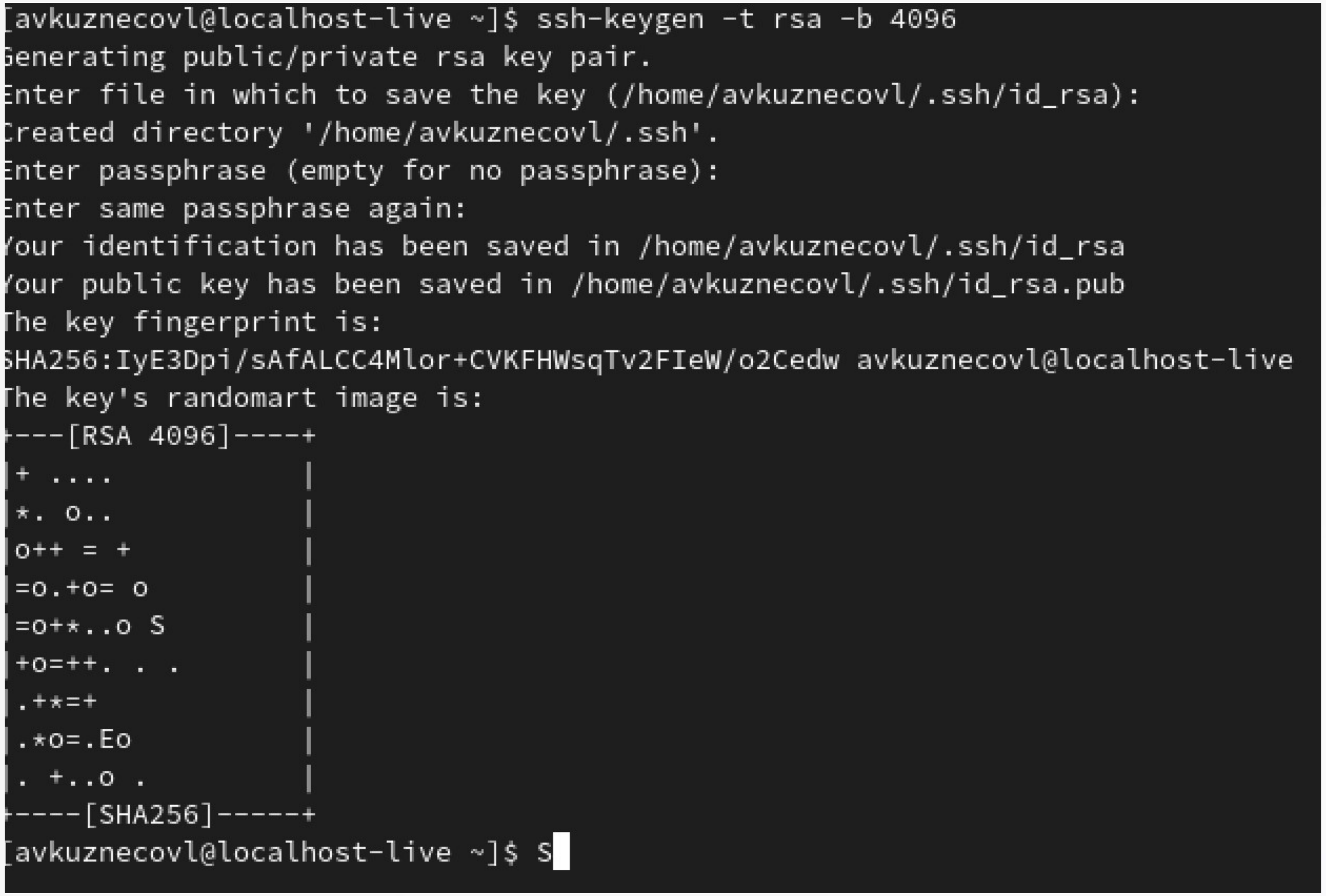


Настраиваем систему контроля версий git
Синхронизируем учётную запись github с компьютером:



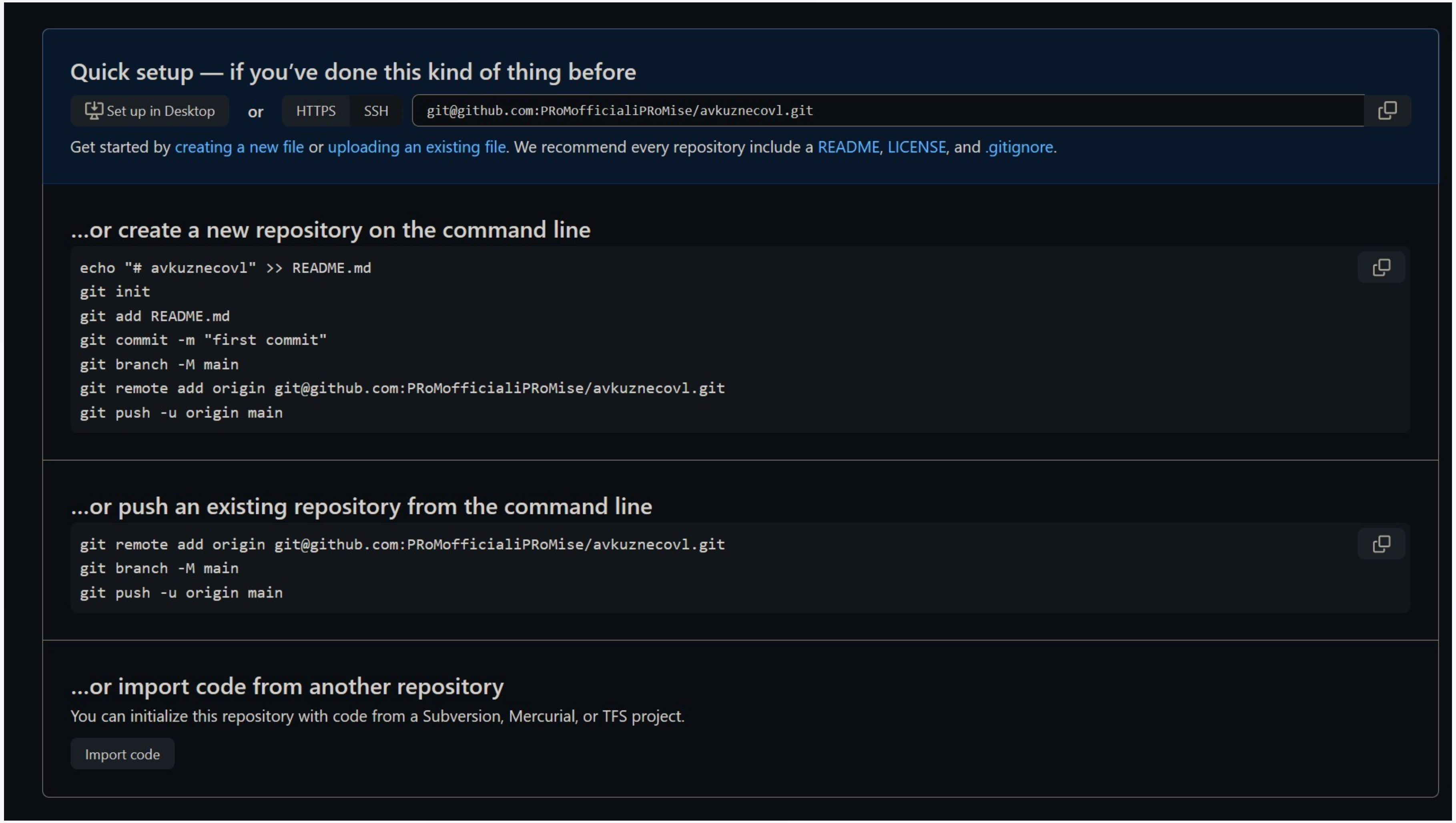
```
[avkuznecovl@localhost-live ~]$ git config --global user.email "promofficialipromise@gmail.com"
[avkuznecovl@localhost-live ~]$ git config --global user.name "Aleksei Kuznecov"
[avkuznecovl@localhost-live ~]$ git remote add origin git@github.com:PRoMofficialiPRoMise/avkuznecov.git
[avkuznecovl@localhost-live ~]$ git push -u origin main
error: src refspec main does not match any
error: failed to push some refs to 'github.com:PRoMofficialiPRoMise/avkuznecov.git'
[avkuznecovl@localhost-live ~]$ git config --global core.quotepath false
[avkuznecovl@localhost-live ~]$ git config --global init.defaultBranch master
[avkuznecovl@localhost-live ~]$ git config --global core.autocrlf input
```

Создаём новый ключ на github ssh-keygen и привязываем его к компьютеру через консоль



```
[avkuznecovl@localhost-live ~]$ ssh-keygen -t rsa -b 4096
Generating public/private rsa key pair.
Enter file in which to save the key (/home/avkuznecovl/.ssh/id_rsa):
Created directory '/home/avkuznecovl/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/avkuznecovl/.ssh/id_rsa
Your public key has been saved in /home/avkuznecovl/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:IyE3Dpi/sAfALCC4Mlor+CVKFHWsqTv2FIeW/o2Cedw avkuznecovl@localhost-live
The key's randomart image is:
+---[RSA 4096]----+
|+ ....           |
|*. o..           |
|o++ = +          |
|=o.+o= o         |
|=o+*..o S        |
|+o=++. . .       |
|.+*=+            |
|.*o=.Eo          |
|. +..o .         |
+----[SHA256]-----+
[avkuznecovl@localhost-live ~]$ S
```

Создаём новый репозиторий на сайте под названием work и переносим его на наш ПК



Quick setup — if you’ve done this kind of thing before

```
git@github.com:PRoMofficialiPRoMise/avkuznecovl.git
```

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

...or create a new repository on the command line

```
echo "# avkuznecovl" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin git@github.com:PRoMofficialiPRoMise/avkuznecovl.git
git push -u origin main
```

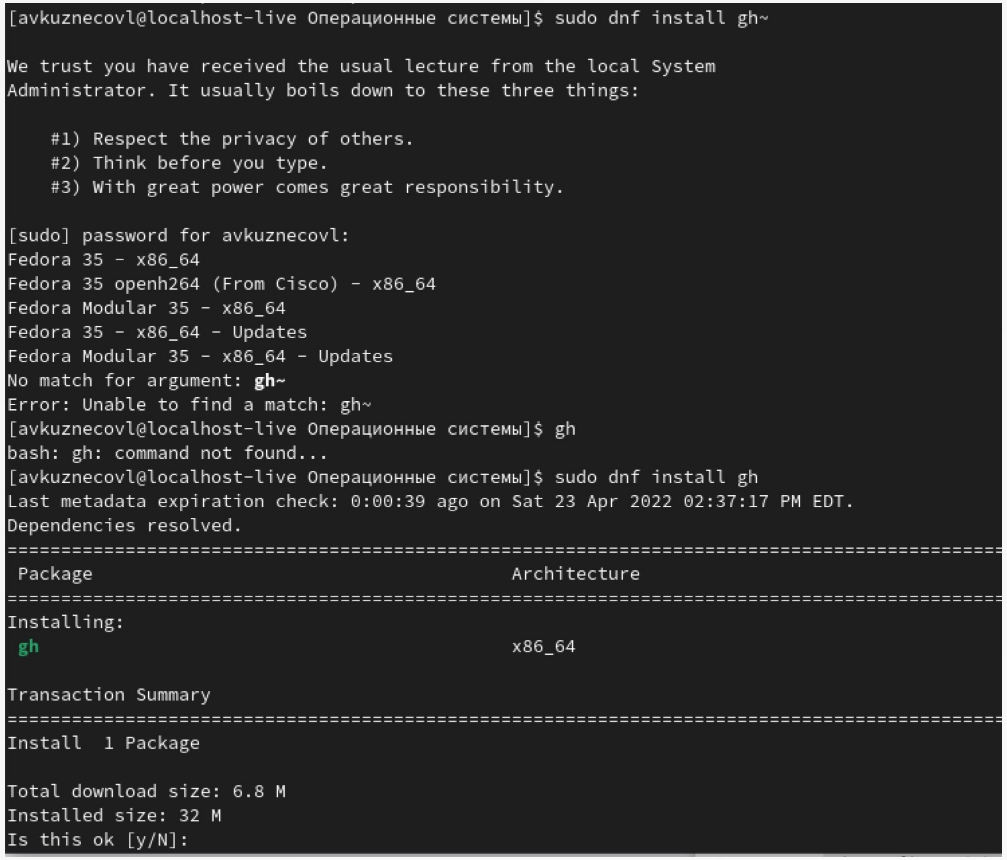
...or push an existing repository from the command line

```
git remote add origin git@github.com:PRoMofficialiPRoMise/avkuznecovl.git
git branch -M main
git push -u origin main
```

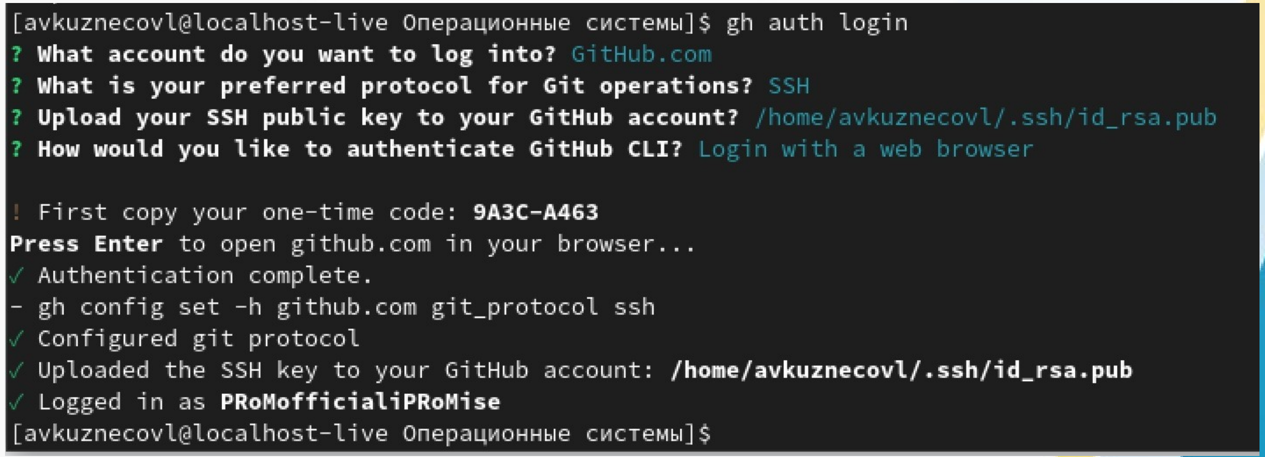
...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Устанавливаем в консоли gh и проходим авторизацию:

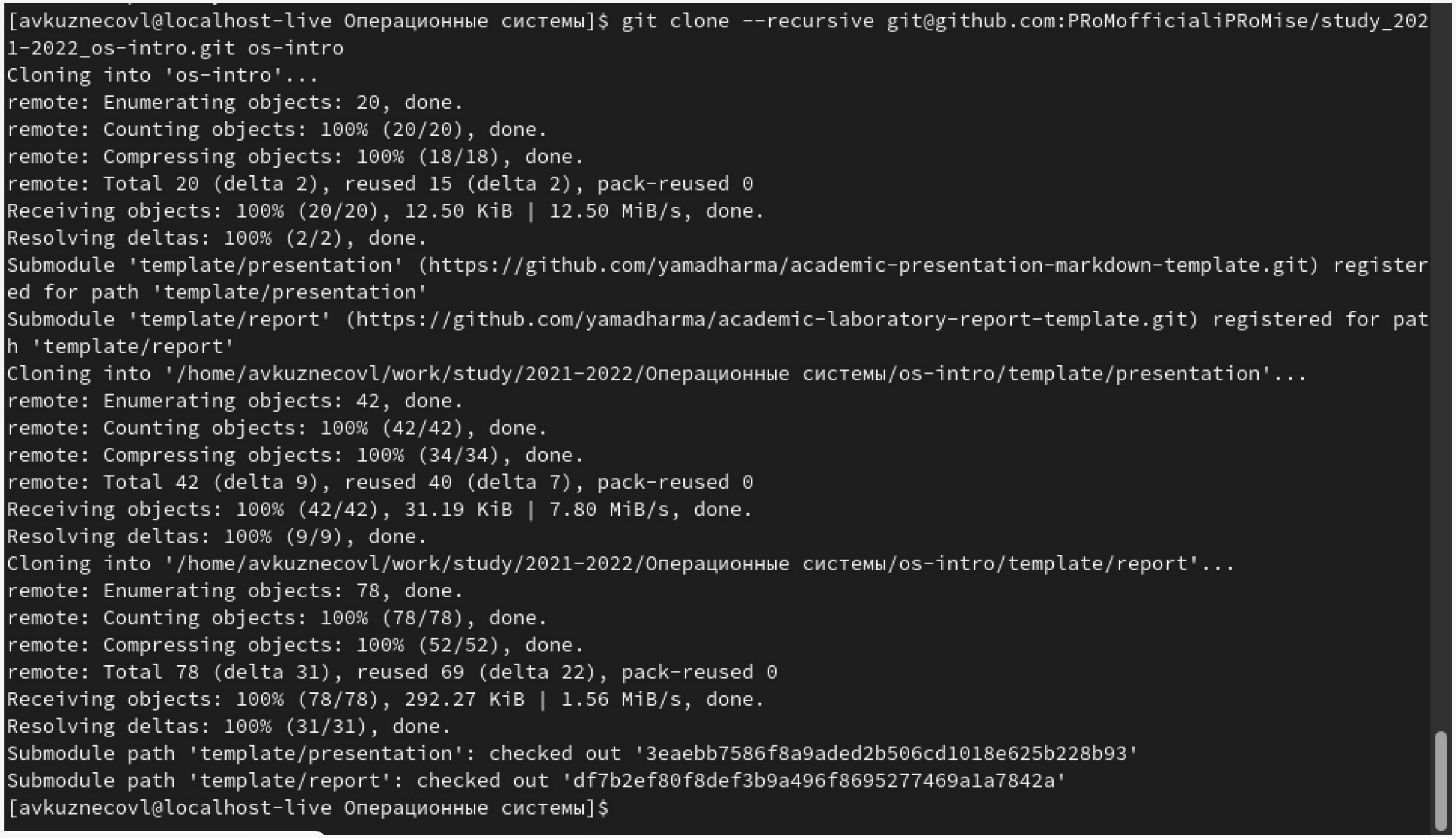


```
[avkuznecovl@localhost-live Операционные системы]$ sudo dnf install gh~

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

    #1) Respect the privacy of others.
    #2) Think before you type.
    #3) With great power comes great responsibility.

[sudo] password for avkuznecovl:
Fedora 35 - x86_64
Fedora 35 openh264 (From Cisco) - x86_64
Fedora Modular 35 - x86_64
Fedora 35 - x86_64 - Updates
Fedora Modular 35 - x86_64 - Updates
No match for argument: gh~
Error: Unable to find a match: gh~
[avkuznecovl@localhost-live Операционные системы]$ gh
bash: gh: command not found...
[avkuznecovl@localhost-live Операционные системы]$ sudo dnf install gh
Last metadata expiration check: 0:00:39 ago on Sat 23 Apr 2022 02:37:17 PM EDT.
Dependencies resolved.
============================================================================================
 Package                                              Architecture
============================================================================================
Installing:
 gh                                                   x86_64

Transaction Summary
============================================================================================
Install  1 Package

Total download size: 6.8 M
Installed size: 32 M
Is this ok [y/N]:
```



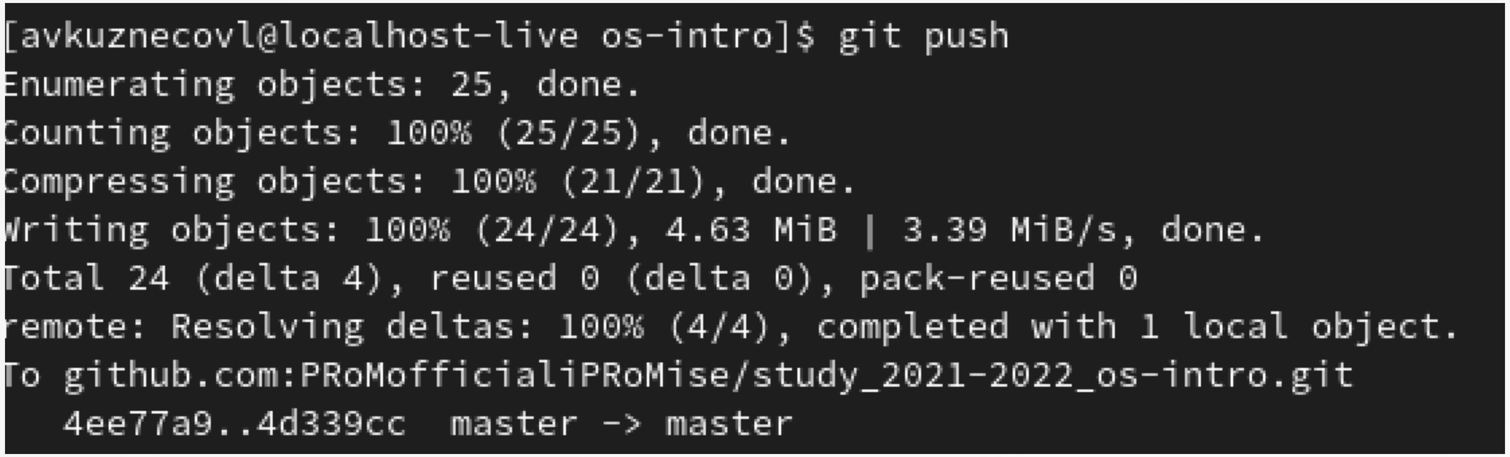
```
[avkuznecovl@localhost-live Операционные системы]$ gh auth login
? What account do you want to log into? GitHub.com
? What is your preferred protocol for Git operations? SSH
? Upload your SSH public key to your GitHub account? /home/avkuznecovl/.ssh/id_rsa.pub
? How would you like to authenticate GitHub CLI? Login with a web browser

! First copy your one-time code: 9A3C-A463
Press Enter to open github.com in your browser...
✓ Authentication complete.
- gh config set -h github.com git_protocol ssh
✓ Configured git protocol
✓ Uploaded the SSH key to your GitHub account: /home/avkuznecovl/.ssh/id_rsa.pub
✓ Logged in as PRoMofficialiPRoMise
[avkuznecovl@localhost-live Операционные системы]$
```

Применяем шаблон, который был указан в методичке



```
[avkuznecovl@localhost-live Операционные системы]$ git clone --recursive git@github.com:PRoMofficialiPRoMise/study_202
1-2022_os-intro.git os-intro
Cloning into 'os-intro'...
remote: Enumerating objects: 20, done.
remote: Counting objects: 100% (20/20), done.
remote: Compressing objects: 100% (18/18), done.
remote: Total 20 (delta 2), reused 15 (delta 2), pack-reused 0
Receiving objects: 100% (20/20), 12.50 KiB | 12.50 MiB/s, done.
Resolving deltas: 100% (2/2), done.
Submodule 'template/presentation' (https://github.com/yamadharma/academic-presentation-markdown-template.git) register
ed for path 'template/presentation'
Submodule 'template/report' (https://github.com/yamadharma/academic-laboratory-report-template.git) registered for pat
h 'template/report'
Cloning into '/home/avkuznecovl/work/study/2021-2022/Операционные системы/os-intro/template/presentation'...
remote: Enumerating objects: 42, done.
remote: Counting objects: 100% (42/42), done.
remote: Compressing objects: 100% (34/34), done.
remote: Total 42 (delta 9), reused 40 (delta 7), pack-reused 0
Receiving objects: 100% (42/42), 31.19 KiB | 7.80 MiB/s, done.
Resolving deltas: 100% (9/9), done.
Cloning into '/home/avkuznecovl/work/study/2021-2022/Операционные системы/os-intro/template/report'...
remote: Enumerating objects: 78, done.
remote: Counting objects: 100% (78/78), done.
remote: Compressing objects: 100% (52/52), done.
remote: Total 78 (delta 31), reused 69 (delta 22), pack-reused 0
Receiving objects: 100% (78/78), 292.27 KiB | 1.56 MiB/s, done.
Resolving deltas: 100% (31/31), done.
Submodule path 'template/presentation': checked out '3eaebb7586f8a9aded2b506cd1018e625b228b93'
Submodule path 'template/report': checked out 'df7b2ef80f8def3b9a496f8695277469a1a7842a'
[avkuznecovl@localhost-live Операционные системы]$
```

Делаем первый commit и выкладываем его на github. Я сделал сначала макет Лабораторных, а также залил данные первой лабы, поэтому на скриншоте вместится только пуш (видно, что много файлов было установлено)



```
[avkuznecovl@localhost-live os-intro]$ git push
Enumerating objects: 25, done.
Counting objects: 100% (25/25), done.
Compressing objects: 100% (21/21), done.
Writing objects: 100% (24/24), 4.63 MiB | 3.39 MiB/s, done.
Total 24 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 1 local object.
To github.com:PRoMofficialiPRoMise/study_2021-2022_os-intro.git
   4ee77a9..4d339cc  master -> master
```

Вывод

Я изучил идеологию и применение контроля версий.

Спасибо за внимание!