

Отчёт по лабораторной работе №2

По теме: «Первоначальная настройка git»

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Содержание

Цель работы

Ход выполнения лабораторной работы

Вывод

Цель работы

Целью данной работы является:

1. Изучить идеологию и применение средств контроля версий;
2. Освоить умения по работе с git.

Ход выполнения лабораторной работы

1. Я открыл терминал и указал имя и email владельца репозитория:

```
kechubaev@localhost-live:~$ git config --global user.name "Kirill Chubaev"
kechubaev@localhost-live:~$ git config --global user.email "kirillchubaev8@gmail.com"
kechubaev@localhost-live:~$ git config --global core.quotepath false
```

```
kechubaev@localhost-live:~$ git config --global core.quotepath false
kechubaev@localhost-live:~$ git config --global init.defaultBranch master
```

2. Далее настроил utf-8 в выводе сообщений git и задал имя начальной ветки, а также ввёл параметр «autocrlf:» и параметр «safecrlf:»:

```
kechubaev@localhost-live:~$ git config --global core.autocrlf input
kechubaev@localhost-live:~$ git config --global core.safecrlf warn
```

3. Я сгенерировал пару ключей, которые сохранились в каталоге ~/.ssh/. Далее загрузил сгенерированный открытый ключ на GitHub:

```
kechubaev@localhost-live:~  
kechubaev@localhost-live:~$ ssh-keygen -C "Kirill Chubaev <kirillchubaev8@gmail.com>"  
Generating public/private ed25519 key pair.  
Enter file in which to save the key (/home/kechubaev/.ssh/id_ed25519):  
Created directory '/home/kechubaev/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /home/kechubaev/.ssh/id_ed25519  
Your public key has been saved in /home/kechubaev/.ssh/id_ed25519.pub  
The key fingerprint is:  
SHA256:zU2TlWPkdG2l4KKczH3H3AeZK5KR5c9m+qy9Jgu/OWI Kirill Chubaev <kirillchubaev8@gmail.com>  
The key's randomart image is:  
+--[ED25519 256]--+  
|      o.+o.|  
|      = +=. |  
|      + *.B.o|  
|    + * * B = |  
|    S * + X o |  
|      o * . |  
|      . . |  
|    Eoo=. |  
|      . .B=. |  
+-----[SHA256]-----+  
kechubaev@localhost-live:~$
```

```
kechubaev@localhost-live:~$ cat ~/.ssh/id_ed25519.pub  
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAICvY8WpuF/Rvc+FzQFH9pvRUb4pUNabwQGdc32soc0fQ Kirill Chubaev <kirillchubaev8@gmail.com>
```

```
kechubaev@localhost-live:~$ gpg --full-generate-key  
gpg (GnuPG) 2.4.5; Copyright (C) 2024 g10 Code GmbH  
This is free software: you are free to change and redistribute it.  
There is NO WARRANTY, to the extent permitted by law.  
  
gpg: directory '/home/kechubaev/.gnupg' created  
Please select what kind of key you want:  
  (1) RSA and RSA  
  (2) DSA and Elgamal  
  (3) DSA (sign only)  
  (4) RSA (sign only)  
  (9) ECC (sign and encrypt) *default*  
  (10) ECC (sign only)  
  (14) Existing key from card  
Your selection? 1  
RSA keys may be between 1024 and 4096 bits long.  
What keysize do you want? (3072) 4096
```

4. Далее я сгенерировал PGP-ключ и указал ему соответствующие настройки

```
kechubaev@localhost-live:~ — gpg --full-generate-key

<n> = key expires in n days
<n>w = key expires in n weeks
<n>m = key expires in n months
<n>y = key expires in n years
Key is valid for? (0) 0
Key does not expire at all
Is this correct? (y/N) y

GnuPG needs to construct a user ID to identify your key.

Real name: Kirill
Email address: kirillchubaev8@gmail.com
Comment: Hello everybody! It is time for computer science)
Invalid character in comment
Comment: Hello!
You selected this USER-ID:
    "Kirill (Hello!) <kirillchubaev8@gmail.com>"

Change (N)ame, (C)omment, (E)mail or (O)key/(Q)uit? 0
We need to generate a lot of random bytes. It is a good idea to perform
some other action (type on the keyboard, move the mouse, utilize the
disks) during the prime generation; this gives the random number
generator a better chance to gain enough entropy.
```

5. Затем я вывел отпечаток данного ключа и загрузил на GitHub:

```
kechubaev@localhost-live:~$ gpg --list-secret-keys --keyid-format LONG
gpg: checking the trustdb
gpg: marginals needed: 3 completes needed: 1 trust model: pgp
gpg: depth: 0 valid: 1 signed: 0 trust: 0-, 0q, 0n, 0m, 0f, 1u
[keyboard]
*****
sec   rsa4096/016D8FB0379E5A2D 2025-03-02 [SC]
      1DF2E44F2CCA730DC5820533016D8FB0379E5A2D
uid           [ultimate] Kirill (Hello!) <kirillchubaev8@gmail.com>
ssb   rsa4096/0E92CCA70634DC2D 2025-03-02 [E]
```

```

kechubaev@localhost-live:~$ gpg --armor --export 016D8FB0379E5A2D
-----BEGIN PGP PUBLIC KEY BLOCK-----

mQINBGfEjDUBEACfeZPbSAHvzOMgOsyJ9vMvFoENO/YEBErIznuRB8FxmKT3CT7S
vrrqS6rDRzi40bBIMtvaYzWgNmUOdtq0GUCnN8CjglL6EOZJn9mbhzQG6Xb08wR
5X40HxH3z6jy0GyR6182Zy2rWXYia7RSUGwqyi7fVjVtFI7hUMD4mjYf36Kz8fMU
teBrg3YNPQJgQIOwbmpjSDi0e0SCGLDMzAGUvLi/4BJnlcztr/AIbk9t2vrnlbL
vmeSzgYqiKiYw50eXPkZDniIGZP0IVtVtK28o1lQc3nt0ErIWTN6RXH4UGVxmRXxj
mrwR+ssY2jPSuMOE+fVZoSfuXug+inprIcWU0F8AkPGFUAm2f0eQGmVHu7ki80CY
4juHuPsFGdLyVV0lRphHvRB08dfSs7eIMJ4j/hJJktVY/nAvIlHfZ6cPokcc+GeR
NN9yuuJIKAEShao0yvGnvnaFTtk/SQ6hQF72iLvqLWKe97TIhd978H43uNl4cOP3
ZQyaMPVI1glxtRIHDfegMiPuvSQNfCMy9rt4MN96/RHQ5kgwAo77/EsYFp1WVdMu
Zvbl+WTwiHgdhLXXWckTC4ZVBeE/sUvso7N6T062fnxoVCINfmEN+WmsJSLY49Tg

```



KirillChubaev (KirillChubaev)

Your personal account

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Emails

Password and authentication

Sessions

SSH and GPG keys

Organizations

Enterprises

Moderation

Add new GPG key

Title

Key1001

Key

-----BEGIN PGP PUBLIC KEY BLOCK-----

```

mQINBGfEjDUBEACfeZPbSAHvzOMgOsyJ9vMvFoENO/YEBErIznuRB8FxmKT3CT7S
vrrqS6rDRzi40bBIMtvaYzWgNmUOdtq0GUCnN8CjglL6EOZJn9mbhzQG6Xb08wR
5X40HxH3z6jy0GyR6182Zy2rWXYia7RSUGwqyi7fVjVtFI7hUMD4mjYf36Kz8fMU
teBrg3YNPQJgQIOwbmpjSDi0e0SCGLDMzAGUvLi/4BJnlcztr/AIbk9t2vrnlbL
vmeSzgYqiKiYw50eXPkZDniIGZP0IVtVtK28o1lQc3nt0ErIWTN6RXH4UGVxmRXxj
mrwR+ssY2jPSuMOE+fVZoSfuXug+inprIcWU0F8AkPGFUAm2f0eQGmVHu7ki80CY
4juHuPsFGdLyVV0lRphHvRB08dfSs7eIMJ4j/hJJktVY/nAvIlHfZ6cPokcc+GeR

```

Add GPG key

6. Потом указал Git применять ключ при подписи коммитов:

```

kechubaev@localhost-live:~$ git config --global user.signingkey 016D8FB0379E5A2D
kechubaev@localhost-live:~$ git config --global commit.gpgsign true
kechubaev@localhost-live:~$ git config --global gpg.program $(which gpg2)

```


7. Перейдя на станицу репозитория с шаблоном курса, я начал создавать репозиторий через сайт GitHub. Я выбрал вкладку «Use this template» и в открывшемся окне я задал имя репозитория «study_2024-2025» и создал сам репозиторий:

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Required fields are marked with an asterisk (*).

Repository template

 yamadharma/course-directory-student-template ▾

Start your repository with a template repository's contents.

☐ Include all branches

Copy all branches from yamadharma/course-directory-student-template and not just the default branch.

Owner *

 KirillChubaev ▾

Repository name *

study_2024-2025

✔ study_2024-2025 is available.

Great repository names are short and memorable. Need inspiration? How about [shiny-umbrella](#) ?

Description (optional)

☒ Public

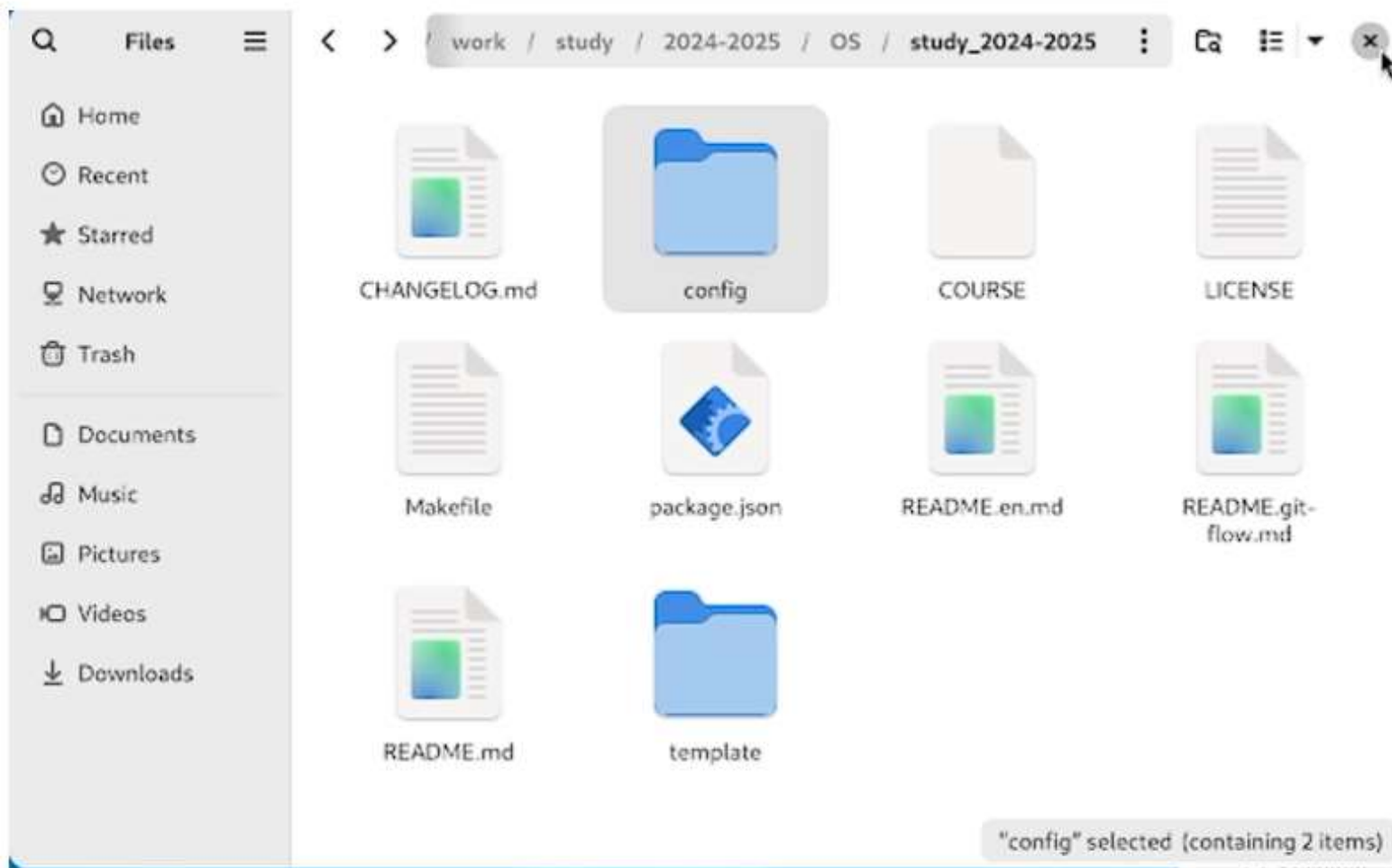
Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

8. Затем я клонировал репозиторий с помощью специальной команды:

```
kechubaev@localhost-live:~$ cd -/work/study/2024-2025
kechubaev@localhost-live:~/work/study/2024-2025$ mkdir OS
kechubaev@localhost-live:~/work/study/2024-2025$ cd OS
kechubaev@localhost-live:~/work/study/2024-2025/OS$ git clone --recursive git@github.com:kechubaev/study_2022-2023_os-intro.git os-intro
```



9. Далее я удалил ненужные файлы и с помощью команды make создал дополнительные каталоги:

```
kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$ echo os-intro > COURSE
kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$ make
Usage:
  make <target>

Targets:
  list          List of courses
  prepare       Generate directories structure
  submodule     Update submules

kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$ make prepare
kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$
```

10. И загрузил их на GitHub:

```
kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$ git add .
kechubaev@localhost-live:~/work/study/2024-2025/05/study_2024-2025$ git commit -am 'feat
at(main): make course structure'

```


KirillChubaev Add files via upload 2bf1899 · 1 hour ago 12 Commits		
config	Initial commit	4 hours ago
labs	Add files via upload	1 hour ago
presentation	feat(main): make course structure	4 hours ago
project-personal	feat(main): make course structure	4 hours ago
template	Initial commit	4 hours ago
.gitattributes	Initial commit	4 hours ago
.gitignore	Initial commit	4 hours ago
.gitmodules	Initial commit	4 hours ago
CHANGELOG.md	Initial commit	4 hours ago
COURSE	feat(main): make course structure	4 hours ago
LICENSE	Initial commit	4 hours ago
Makefile	Initial commit	4 hours ago
README.en.md	Initial commit	4 hours ago
README.git-flow.md	Initial commit	4 hours ago
README.md	Initial commit	4 hours ago

Вывод

В ходе выполнения данной лабораторной работы я изучл идеологию и применение средств контроля версий, а также освоил умения по работе с git.