

Отчет по лабораторной работе №2

Предмет: Архитектура Операционных Систем

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Содержание

Цель работы	5
Задание	6
Выполнение лабораторной работы	7
Выводы	12

Список таблиц

Список иллюстраций

Цель работы

Изучить идеологию и применение средств контроля версий и освоить умения по работе с git.

Задание

Установка git установка gh Базовая настройка git создание ssh ключа и pgr
создание репозитория.

Выполнение лабораторной работы

1) установка git:

```
dkivanenko@dkivavenko:~$ sudo apt install git
[sudo] password for dkivanenko:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email
  git-gui git-svn
```

2) установка gh:

```
dkivanenko@dkivavenko:~$ sudo apt install gh
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  gh
0 upgraded, 1 newly installed, 0 to remove and 213 not installed.
Need to get 6 242 kB of archives.
After this operation, 33,7 MB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu jammy/universe amd64 gh amd64 1.35.9-1 [6242 kB]
Fetched 6242 kB in 1s (6150 kB/s)
debconf: delaying package configuration, since apt-utils is not installed

```

3) базовая настройка git:

```
dkivanenko@dkivavenko:~$ git config --global user.name "Dmitriy Ivanenko"
dkivanenko@dkivavenko:~$ git config --global user.email "dimitradonred@gmail.com"
dkivanenko@dkivavenko:~$ git config --global core.quotepath false
dkivanenko@dkivavenko:~$ git config --global init.defaultBranch master
dkivanenko@dkivavenko:~$ git config --global core.autocrlf input
dkivanenko@dkivavenko:~$ git config --global core.safecrlf warn
dkivanenko@dkivavenko:~$
```

4) создаю ключи ssh:

```

dkivanenko@dkivavenko:~$ ssh-keygen -t rsa -b 4096
Generating public/private rsa key pair.
Enter file in which to save the key (/home/dkivanenko/.ssh/
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in key1
Your public key has been saved in key1.pub
The key fingerprint is:
SHA256:/VWkmQTrSy1La1ddISkgSyoKYrCzW+DPuWASSod04V0 dkivanen
The key's randomart image is:
+---[RSA 4096]---+
|..  E o .. .oo..|

```

5) создаю ключи pgr:

```

dkivanenko@dkivavenko:~$ gpg --full-generate-key
gpg (GnuPG) 2.2.27; Copyright (C) 2021 Free Software Founda
This is free software: you are free to change and redistrib
There is NO WARRANTY, to the extent permitted by law.

gpg: directory '/home/dkivanenko/.gnupg' created
gpg: keybox '/home/dkivanenko/.gnupg/pubring.kbx' created
Please select what kind of key you want:
(1) RSA and RSA (default)
(2) DSA and Elgamal
(3) DSA (sign only)
(4) RSA (sign only)

```

6) У меня гит хаб настроен, в скринкасте показано. Вывожу список ключей и копирую отпечаток:

```

dkivanenko@dkivavenko:~$ gpg --list-secret-keys --keyid-for
gpg: checking the trustdb
gpg: marginals needed: 3 completes needed: 1 trust model:
gpg: depth: 0 valid: 1 signed: 0 trust: 0-, 0q, 0n,
/home/dkivanenko/.gnupg/pubring.kbx
-----
sec   rsa4096/7E7DCE7C3E93BA35 2024-02-24 [SC]
      B9829BF77E5F982291B734BB7E7DCE7C3E93BA35
uid           [ultimate] Dmitriy (awdawdawd) <dimitra
ssb   rsa4096/34D6D6FE610F6100 2024-02-24 [E]

```

Далее вывожу и затем копирую ключ в буфер обмена:


```

dkivanenko@dkivavenko:~$ gpg --armor --export 7E7DCE7C3E93BA35
-----BEGIN PGP PUBLIC KEY BLOCK-----


mQINBGXaRugBEADV40eNqF/aRq7tbXQeZ/9WSrKnCatnHEKZNeFbko0hsk/+
kN36HwR/1YMF1h8keGVls2fTF/jUcCyZ1nAhGps0fhYTQRnLkYJiJEoFqQn9
rSNQIzwMx6llB1LXnRLKU0K3H2fjGTP9yzxZIwRVTJuFSXqnFzuoyW+WMaXB
cHsfHcYMJ3Liwc4kk+jN/A6oT5aaowTqhcQEvhEm1kSZ2ZYUXU8G/ZcEpx3B
Wl6/2i+CamzKRU+eFAt2Vg8JB00sqLAjJKo6e9ifeXfnhxxqSrxIgXPJv0M6
ha6oKIqo4/qcscjJjq588qjeHI9K44i6bQzz1T8hoCY05ZL+UziXidaaNT2H
tPHDE9KgZl+X+skUR0KUL92qfE0NB3tH3dsLSBeD02HvaBrdzng7bX9y6N0K
WfonRDT+UkXIQKgWbAIVm+Vv4Wge0youjZ8eGebZ3kl0+Jin3Wg/VBGMfTie
IZGuLsEWHK0ueB7MqZzLYEi23U1VVDcgrLzTkLyRdSOJg9Gjni9bk0VR4Y7j
-----END PGP PUBLIC KEY BLOCK-----

```

В гитхабе добавил ключ pgr:

GPG keys

This is a list of GPG keys associated with your account. Remove any keys that you do not recog



a

Email address: dimitradonred@gmail.com

Key ID: 7E7DCE7C3E93BA35

Subkeys: 34D6D6FE610F6100

Added on Feb 24, 2024

Learn how to [generate a GPG key and add it to your account](#).

7) Настраиваю автоматические подписи по инструкции:

```

dkivanenko@dkivavenko:~$ git config --global user.signingkey 7E7DCE7C3E93BA35
dkivanenko@dkivavenko:~$ git config --global commit.gpgsign true
dkivanenko@dkivavenko:~$ git config --global gpg.program $(which gpg2)
dkivanenko@dkivavenko:~$

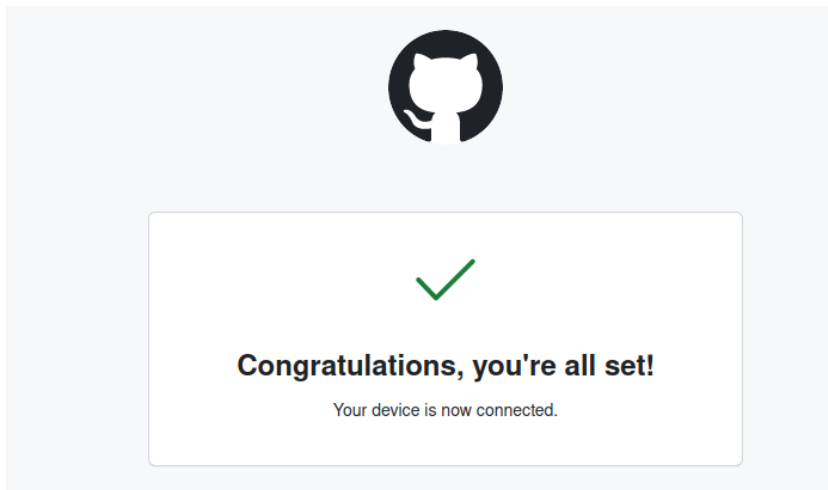
```

8) Настраиваем gh:

```

dkivanenko@dkivavenko:~$ gh auth login
? What account do you want to log into? [Use arrows to move, type to filter]
> GitHub.com
  GitHub Enterprise Server

```



Все выполнено:

```
dkivanenko@dkivavenko: ~$ gh auth login
? What account do you want to log into? GitHub.com
? What is your preferred protocol for Git operations? SSH
? Generate a new SSH key to add to your GitHub account? Yes
? Enter a passphrase for your new SSH key (Optional)
? How would you like to authenticate GitHub CLI? Login with a web browser

! First copy your one-time code: 3E9F-655F
- Press Enter to open github.com in your browser...
Gtk-Message: 22:50:31.866: Not loading module "atk-bridge": The functionality is provided by a separate package. Please try to not load it.
✓ Authentication complete. Press Enter to continue...

- gh config set -h github.com git_protocol ssh
✓ Configured git protocol
✓ Uploaded the SSH key to your GitHub account: /home/dkivanenko/.ssh/id_ed25519.pub
✓ Logged in as risingfevers
```

9) Создаю репозиторий курса на основе.

```
dkivanenko@dkivavenko:~$ mkdir -p ~/work/study/2023-2024/"Операционные системы"
dkivanenko@dkivavenko:~$ cd ~/work/study/2023-2024/"Операционные системы"
dkivanenko@dkivavenko:~/work/study/2023-2024/Операционные системы$ git init
Initialized empty Git repository in /home/dkivanenko/work/study/2023-2024/Операционные системы/.git/
dkivanenko@dkivavenko:~/work/study/2023-2024/Операционные системы$ git remote add origin https://github.com/risingfevers/study_2023-2024_os-intro.git
✓ Created repository risingfevers/study_2023-2024_os-intro on GitHub
dkivanenko@dkivavenko:~/work/study/2023-2024/Операционные системы$ git push -u origin master
Enumerating objects: 32, done.
Compressing objects: 100% (22/22), done.
Writing objects to disk: 100% (22/22), done.
remote: Compressing objects: 100% (22/22), done.
remote: Total 32 (reusing 0 from existing compression): 100% (22/22), done.
✓ Created repository risingfevers/study_2023-2024_os-intro on GitHub
rsive git@github.com:risingfevers/study_2023-2024_os-intro.git os-introclone --recurse-submodules
Cloning into 'os-intro'...
The authenticity of host 'github.com (140.82.121.3)' can't be established.
ED25519 key fingerprint is SHA256:+DiY3wvvV6TuJJhbpZisF/zLDA0zPMSvHdkr4UvCOqU.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'github.com' (ED25519) to the list of known hosts.
remote: Enumerating objects: 32, done.
remote: Counting objects: 100% (22/22), done.
```

10) Настройка каталога курса:

```
2023-2024/"Операционные системы"/os-intro024/Операционные системы$ cd ~/work/study/2023-2024/Операционные системы/os-intro$ ls
CHANGELOG.md  COURSE  Makefile  README.en.md  README.md
config        LICENSE  package.json  README.git-flow.md  template
age.jsonko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$ rm pack
dkivanenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$
```

```
eparenenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$ make pr
dkivavenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$
```

11) Добавляю файлы на сервер:

```
eparenenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$ make pr
dkivavenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$ git add
mit -ам 'feat(main): make course structure'4/Операционные системы/os-intro$ git com
[master 096f576] feat(main): make course structure
 360 files changed, 98412 insertions(+), 14 deletions(-)
   create mode 100644 labs/README.md
   create mode 100644 labs/README.ru.md

dkivavenko@dkivavenko:~/work/study/2023-2024/Операционные системы/os-intro$ git pus
counting objects: 38, done.
counting objects: 100% (38/38), done.
delta compression using up to 5 threads
compressing objects: 100% (30/30), done.
writing objects: 100% (37/37), 342.07 KiB | 2.53 MiB/s, done.
total 37 (delta 4), reused 0 (delta 0), pack-reused 0
```

Выводы

Изучили методы работы с git. Изучили применение средств контроля версий.