
0.1 Front matter

title: “ ” №2” subtitle: “ ”w author: “ ”

0.2 Bibliography

bibliography: bib/cite.bib csl: pandoc/csl/gost-r-7-0-5-2008-numeric.csl

0.3 Pdf output format

toc: true # Table of contents toc-depth: 2 lof: true # List of figures lot: true # List of tables fontsize: 12pt linestretch: 1.5 papersize: a4 documentclass: scrreprt ## I18n polyglossia polyglossia-lang: name: russian options: - spelling=modern - babelshorthands=true polyglossia-otherlangs: name: english ## I18n babel babel-lang: russian babel-otherlangs: english

1

git. — ,

2

1. git
2. SSH
3. GPG
4. Git
5. GitHub
6. .

3

3.1

git gh : dnf install git dnf install gh (. 1).

3.2 git

email , (. 2).
utf-8 git (. 3).

```

eakiseleva@eakiseleva ~]$ sudo -i
[root@eakiseleva ~]# dnf -y install git
Обновление и загрузка репозитория:
Fedora 41 - x86_64 - Updates          100% | 32.9 KiB/s | 25.9 KiB | 00m01s
Fedora 41 - x86_64 - Updates          100% | 2.6 MiB/s | 2.7 MiB | 00m01s
Репозитории загружены.
Пакет "git-2.48.1-1.fc41.x86_64" уже установлен.

Нечего делать.
[root@eakiseleva ~]# dnf -y install gh
Обновление и загрузка репозитория:
Репозитории загружены.


| Пакет      | Арх.   | Версия        | Репозиторий | Размер   |
|------------|--------|---------------|-------------|----------|
| Установка: |        |               |             |          |
| gh         | x86_64 | 2.65.0-1.fc41 | updates     | 42.6 MiB |


Сводка транзакции:
Установка: 1 пакета

Общий размер входящих пакетов составляет 10 MiB. Необходимо загрузить 10 MiB.
После этой операции будут использоваться дополнительные 43 MiB (установка 43 MiB, удаление 0 B).


|                                 |      |           |          |        |
|---------------------------------|------|-----------|----------|--------|
| [1/1] gh-0:2.65.0-1.fc41.x86_64 | 100% | 6.5 MiB/s | 10.3 MiB | 00m02s |
| [1/1] Total                     | 100% | 4.5 MiB/s | 10.3 MiB | 00m02s |


```

Figure 1: git gh

```

[root@eakiseleva ~]# git config --global user.name "Liza kiseleva"
[root@eakiseleva ~]# git config --global user.email "lk3093398@gmail.com"

```

Figure 2: email

```

[root@eakiseleva ~]# git config --global core.quotepath false
[root@eakiseleva ~]#

```

Figure 3: utf-8 git

master (. 4).

```
[root@eakiseleva ~]# git config --global init.defaultBranch master
[root@eakiseleva ~]#
```

Figure 4:

autocrlf safecrlf (. 5).

```
[root@eakiseleva ~]# git config --global core.autocrlf input
[root@eakiseleva ~]# git config --global core.safecrlf warn
[root@eakiseleva ~]#
```

Figure 5: autocrlf safecrlf

3.3 SSH

ssh 4096 rsa (. 6).

```
[root@eakiseleva ~]# ssh-keygen -t rsa -b 4096
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
Enter passphrase for "/root/.ssh/id_rsa" (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa
Your public key has been saved in /root/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:fPiYn/SRNQueEI51sWlsCcVUS3V9Jp0y4r4X0U/zbH8 root@eakiseleva
The key's randomart image is:
----[RSA 4096]-----+
  .+.oo+|
  oo*+.=|
  o O+.+.|
  . =.=o ...|
  S.+...o+o|
  =.o.= o=|
  o.o =...|
  o.o.. E|
  +o. .|
  -----[SHA256]-----+
[root@eakiseleva ~]#
```

Figure 6: ssh rsa

ssh ed25519 (. 7).

3.4 GPG

GPG, RSA and RSA, : 4096,
(. 8).

```

root@eakiseleva ~]# ssh-keygen -t ed25519
generating public/private ed25519 key pair.
Enter file in which to save the key (/root/.ssh/id_ed25519):
Enter passphrase for "/root/.ssh/id_ed25519" (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_ed25519
Your public key has been saved in /root/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:ErgYoKJdholA60QUEbtBYXTGoCCpakYs45aj5HJmPg root@eakiseleva
The key's randomart image is:
---[ED25519 256]---+
+XB+. |
B*o+oo |
@== * |
@*o* . |
*+o . . S |
++ o . |
=. * |
.o + |
. E . |
-----[SHA256]-----+
root@eakiseleva ~]#

```

Figure 7: ssh ed25519

```

root@eakiseleva ~]# gpg --list-secret-keys --keyid-format LONG
gpg: проверка таблицы доверия
gpg: marginals needed: 3 completes needed: 1 trust model: pgp
gpg: глубина: 0 достоверных: 1 подписанных: 0 доверие: 0-, 0q, 0n, 0f, 1u
[keyboard]
-I-----
sec   rsa4096/51C58C4712275F18 2025-03-06 [SC]
      2374A25E5C2BD28432BC06C851C58C4712275F18
uid   [ абсолютно ] Liza Kiseleva <lk3093398@gmail.com>
ssb   rsa4096/A27F39CBC58C3614 2025-03-06 [E]

```

Figure 8:

3.5 GPG Github

(. 9).

```
root@eakiseleva ~]# gpg --list-secret-keys --keyid-format LONG
gpg: проверка таблицы доверия
gpg: marginals needed: 3 completes needed: 1 trust model: pgp
gpg: глубина: 0 достоверных: 1 подписанных: 0 доверие: 0-, 0q, 0n, 0m, 0f, 1u
[keyboard]
X-----
sec rsa4096/51C58C4712275F18 2025-03-06 [SC]
      2374A25E5C2BD28432BC06C851C58C4712275F18
uid          [ абсолютно ] Liza Kiseleva <lk3093398@gmail.com>
ssb rsa4096/A27F39CBC58C3614 2025-03-06 [E]
```

Figure 9:

“New GPG key” (. 10).

Add new GPG key

Title

Key

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

mQINBGfjnx0BEACjs4W674cg30yGmcQWPqdTGVjM0uh8dDG8zTm0XehKcq7MIP
HV
AILb+gPEw+BPpmiYnp2KsOLqddwX3bO1zDOXV+jGttnr6ZbEKxbsGRFIU4hSGFH4
eIwM5GaM14nciPmTwX33LpU8MDJ+xSgkREDWyllro6oChuCh34DXyrvokoj+aE1p
RAHyvfhNWHpKYudvnSAZ+6d3tvWxacExG2fdZG2sITg0nrVatKI2j/5F3e4NFuje
uKMU7aWhysrNijIXrfulembSuaQwU+csDzr0lEXffBLpF2yLM9vh5E8IW12Y117w
Vw2v8zTazS9VwqgpKXAIdzYfWKtE49NsQsIZFmpFz3hweFFD9K9MvHmAVXWa2qD

Add GPG key

Figure 10: PGP

3.6 Git

git: email, git (. 11).

```
teakiseleva1@eakiseleva ~]$ git config --global user.signingkey 3AE07A5AAEFF106
teakiseleva1@eakiseleva ~]$ git config --global commit.gpgsign true
teakiseleva1@eakiseleva ~]$ git config --global gpg.program $(which gpg2)
bash: wich: команда не найдена
teakiseleva1@eakiseleva ~]$ git config --global gpg.program $(which gpg2)
teakiseleva1@eakiseleva ~]$
```

Figure 11: Git

3.7

gh

gh,

12).

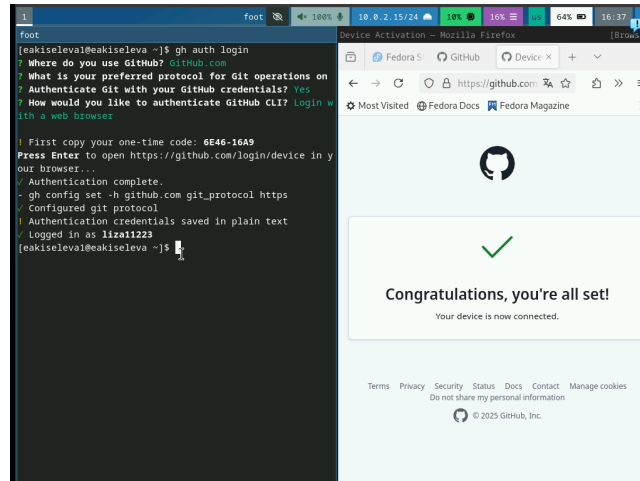


Figure 12:

gh

3.8

mkdir -p,

cd

“ ”.

gh repo create study_2022-2023_os-intro --template yamadharm/course-directory-student-trmplate --public,

https, ssh,

gh

https (. 13).

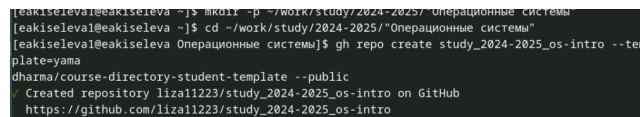


Figure 13:

cd,

ls.

rm,

makefile (. 14).

(

)

git add

git commit (. 15).

```

[eakiseleva@eakiseleva Операционные системы]$ cd study_2024-2025_os-intro
[eakiseleva@eakiseleva study_2024-2025_os-intro]$ rm package.json
[eakiseleva@eakiseleva study_2024-2025_os-intro]$ echo os-intro > COURSE
[eakiseleva@eakiseleva study_2024-2025_os-intro]$ make
Usage:
  make <target>

Targets:
  list           List of courses
  prepare        Generate directories structure
  submodule      Update submodules
[eakiseleva@eakiseleva study_2024-2025_os-intro]$

```

Figure 14:

```

[eakiseleva@eakiseleva study_2024-2025_os-intro]$ git add .
[eakiseleva@eakiseleva study_2024-2025_os-intro]$ git commit -am 'feat(main): make course s
tructure'
[main 3eaab6d] feat(main): make course structure
2 files changed, 1 insertion(+), 14 deletions(-)
delete mode 100644 package.json
[eakiseleva@eakiseleva study_2024-2025_os-intro]$ git push
Перечисление объектов: 5, готово.
Подсчет объектов: 100% (5/5), готово.
При сжатии изменений используется до 4 потоков
Сжатие объектов: 100% (2/2), готово.
Запись объектов: 100% (3/3), 949 байтов | 949.00 КиБ/с, готово.
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/lizal1223/study_2024-2025_os-intro.git
   f749c45..3eaab6d  master -> master
[eakiseleva@eakiseleva study_2024-2025_os-intro]$

```

Figure 15:

4

git.

5

1. (VCS) -

- . . VCS :

2. - . commit -

3. VCS (: CVS, TFS, AccuRev) -

VCS (: Git, Bazaar) -

(), ()

4. ,
5. ,
6. ,
7. : git init ()
: git pull : git
push : git status : git
diff : / / : git add
. / (/ : git add —):
git rm — :
: git commit -am ‘ ,
: git commit , : git checkout -b
— : git checkout — (,
,)
: git push origin — : git merge
-no-ff — : : git branch -d
— : git branch -D —
: git push origin : —
8. git push -all ,
9. - , , .
10. , .gitignore