Начинаю лабораторную работу с установки и настройки Git

```
logout
srluipp@localhost-live:~$ git config --global user.name "srluipp"
srluipp@localhost-live:~$ git config --global user.email "1132236039@gmail.com"
srluipp@localhost-live:~$ git config --global quotepath false
error: key does not contain a section: quotepath
srluipp@localhost-live:~2$ sudo dnf install git
[sudo] password for srluipp:
Fedora 39 - x86_64          [    ===                ] --- B/s |   0 B     --:-- ETA
```

Так же необходимо устанавливать пакеты Quarto, Nodejs,
GitFlow. Предустанавливаю все через терминал.

```
linux-amd64.tar.gz [following]
--2026-02-16 06:16:29--  https://github.com/quarto-dev/quarto-cli/releases/download/v1.8
.27/quarto-1.6-linux-amd64.tar.gz
Reusing existing connection to github.com:443.
HTTP request sent, awaiting response... 404 Not Found
2026-02-16 06:16:30 ERROR 404: Not Found.

srluipp@localhost-live:~8$ wget https://github.com/quarto-dev/quarto-cli/releases/downlo
ad/v1.8.27/quarto-1.8.27-linux-amd64.tar.gz \
    -O quarto-linux.tar.gz
--2026-02-16 06:17:23--  https://github.com/quarto-dev/quarto-cli/releases/download/v1.8
.27/quarto-1.8.27-linux-amd64.tar.gz
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://release-assets.githubusercontent.com/github-production-release-asset/2
98579934/7a7077d3-1675-4d4f-b337-f08d73dac8de?sp=r&sv=2018-11-09&sr=b&spr=https&se=2026-
02-16T12%3A12%3A28Z&rscd=attachment%3B+filename%3Dquarto-1.8.27-linux-amd64.tar.gz&rsct=
application%2Foctet-stream&skoid=96c2d410-5711-43a1-aedd-ab1947aa7ab0&sktid=398a6654-997
b-47e9-b12b-9515b896b4de&skt=2026-02-16T11%3A11%3A57Z&ske=2026-02-16T12%3A12%3A28Z&sks=b
&skv=2018-11-09&sig=O37pdF2bLUaXf6sqziZztp5gnAW%2FjJo6acXJp7agTaU%3D&jwt=eyJ0eXAiOiJKV1Q
iLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJnaXRodWIuY29tIiwiYXVkIjoicmVsZWFzZS1hc3NldHMuZ2l0aHVidX
NlcmNvbnRlbnQuY29tIiwia2V5Ijoia2V5MSIsImV4cCI6MTc3MTI0NDE3MCwibmJmIjoxNzcxMjQwNTcwLCJwYX
```

File   Edit   View   Search   Terminal   Help

```
srluipp@localhost-live:~$ sudo dnf -y install libxcrypt-compat
Last metadata expiration check: 1:55:30 ago on Mon 16 Feb 2026 04:23:55 AM EST.
Dependencies resolved.
================================================================================
 Package                Architecture      Version            Repository     Size
================================================================================
Installing:
 libxcrypt-compat       x86_64            4.4.36-2.fc39        fedora         90 k

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

Total download size: 90 k
Installed size: 193 k
Downloading Packages:
[MIRROR] libxcrypt-compat-4.4.36-2.fc39.x86_64.rpm: Curl error (28): Timeout was reached
 for http://fedora-archive.ip-connect.vn.ua/fedora/linux/releases/39/Everything/x86_64/o
s/Packages/l/libxcrypt-compat-4.4.36-2.fc39.x86_64.rpm [Failed to connect to fedora-arch
ive.ip-connect.vn.ua port 80 after 30013 ms: Timeout was reached]
[MIRROR] libxcrypt-compat-4.4.36-2.fc39.x86_64.rpm: Curl error (28): Timeout was reached
 for https://dl.fedoraproject.org/pub/archive/fedora/linux/releases/39/Everything/x86_64
/os/Packages/l/libxcrypt-compat-4.4.36-2.fc39.x86_64.rpm [Operation too slow. Less than
```

Установка Nodejs

REDHAT_BUGZILLA_PRODUCT_VERSION=39
REDHAT_SUPPORT_PRODUCT_VERSION=39
[root@localhost-live ~]# sudo dnf --installroot=/mnt/big --releasever=39 --setopt=reposd
ir=/etc/yum.repos.d --nogpgcheck install -y nodejs npm
Fedora 39 - x86_64   3.4 MB/s | 89 MB   00:26
Fedora 39 openh264 (From Cisco) - x86_64   834 B/s | 2.6 kB   00:03
Fedora 39 - x86_64 - Updates   343 kB/s | 42 MB   02:05
Dependencies resolved.
==
 Package   Arch   Version   Repo   Size
==
Installing:
 nodejs   x86_64   1:20.17.0-1.fc39   updates   51 k
 nodejs-npm   x86_64   1:10.8.2-1.20.17.0.1.fc39   updates   2.1 M
Installing dependencies:
 alternatives   x86_64   1.26-1.fc39   updates   39 k
 audit-libs   x86_64   3.1.5-1.fc39   updates   123 k
 authselect   x86_64   1.4.3-1.fc39   fedora   149 k
 authselect-libs   x86_64   1.4.3-1.fc39   fedora   249 k
 basesystem   noarch   11-18.fc39   fedora   7.2 k
 bash   x86_64   5.2.26-1.fc39   updates   1.8 M
 bzip2-libs   x86_64   1.0.8-16.fc39   fedora   41 k
 ca-certificates   noarch   2024.2.69_v8.0.401-1.0.fc39 updates   871 k

```
root@localhost-live:~

File   Edit   View   Search   Terminal   Help

Installing:
 pnpm                     noarch      8.12.0-1.fc39                    updates      2.6 M
 yarn                     noarch      1.22.22-1                        yarn         1.2 M
Installing dependencies:
 nodejs                   x86_64      1:20.17.0-1.fc39                 updates       51 k
 nodejs-libs              x86_64      1:20.17.0-1.fc39                 updates       15 M
Installing weak dependencies:
 nodejs-docs              noarch      1:20.17.0-1.fc39                 updates      8.3 M
 nodejs-full-i18n         x86_64      1:20.17.0-1.fc39                 updates      8.4 M
 nodejs-npm               x86_64      1:10.8.2-1.20.17.0.1.fc39        updates      2.1 M


Transaction Summary
================================================================================
Install  7 Packages

Total size: 38 M
Total download size: 3.8 M
Installed size: 203 M
Downloading Packages:
[SKIPPED] nodejs-20.17.0-1.fc39.x86_64.rpm: Already downloaded
[SKIPPED] nodejs-docs-20.17.0-1.fc39.noarch.rpm: Already downloaded
[SKIPPED] nodejs-full-i18n-20.17.0-1.fc39.x86_64.rpm: Already downloaded
[SKIPPED] nodejs-libs-20.17.0-1.fc39.x86_64.rpm: Already downloaded
```

Настройка веток через терминал: git branch, git origin

```
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:    git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:    git branch -m <name>
Initialized empty Git repository in /home/srluipp/.git/
No branches exist yet. Base branches must be created now.
Branch name for production releases: [master] master
Branch name for "next release" development: [develop] develop

How to name your supporting branch prefixes?
Feature branches? [feature/] feature
Bugfix branches? [bugfix/] bugfix
Release branches? [release/]
Hotfix branches? [hotfix/]
Support branches? [support/]
Version tag prefix? [] v
Hooks and filters directory? [/home/srluipp/.git/hooks]
srluipp@localhost-live:~$
```

```
install -d -m 0755 /usr/local/share/doc/gitflow/hooks
install -m 0755 git-flow /usr/local/bin
install -m 0644 git-flow-init git-flow-feature git-flow-bugfix git-flow-hotfix git-flow-
release git-flow-support git-flow-version git-flow-log git-flow-config gitflow-common gi
tflow-shFlags /usr/local/bin
install -m 0644 hooks/filter-flow-hotfix-finish-tag-message hooks/filter-flow-hotfix-sta
rt-version hooks/filter-flow-release-branch-tag-message hooks/filter-flow-release-finish
-tag-message hooks/filter-flow-release-start-version hooks/post-flow-bugfix-delete hooks
/post-flow-bugfix-finish hooks/post-flow-bugfix-publish hooks/post-flow-bugfix-pull hook
s/post-flow-bugfix-start hooks/post-flow-bugfix-track hooks/post-flow-feature-delete hoo
ks/post-flow-feature-finish hooks/post-flow-feature-publish hooks/post-flow-feature-pull
 hooks/post-flow-feature-start hooks/post-flow-feature-track hooks/post-flow-hotfix-dele
te hooks/post-flow-hotfix-finish hooks/post-flow-hotfix-publish hooks/post-flow-hotfix-s
tart hooks/post-flow-release-branch hooks/post-flow-release-delete hooks/post-flow-relea
se-finish hooks/post-flow-release-publish hooks/post-flow-release-start hooks/post-flow-
release-track hooks/pre-flow-feature-delete hooks/pre-flow-feature-finish hooks/pre-flow
-feature-publish hooks/pre-flow-feature-pull hooks/pre-flow-feature-start hooks/pre-flow
-feature-track hooks/pre-flow-hotfix-delete hooks/pre-flow-hotfix-finish hooks/pre-flow-
hotfix-publish hooks/pre-flow-hotfix-start hooks/pre-flow-release-branch hooks/pre-flow-
release-delete hooks/pre-flow-release-finish hooks/pre-flow-release-publish hooks/pre-fl
ow-release-start hooks/pre-flow-release-track /usr/local/share/doc/gitflow/hooks
srluipp@localhost-live:~/gitflow-avh-develop$ git flow version
1.12.4-dev0 (AVH Edition)
srluipp@localhost-live:~/gitflow-avh-develop$
```

```
srluipp@localhost-live:~$ wget -O git-flow.tar.gz   https://github.com/petervanderdoes/g
itflow/archive/develop.tar.gz
--2026-02-16 05:06:49--  https://github.com/petervanderdoes/gitflow/archive/develop.tar.
gz
Resolving github.com (github.com)... 140.82.121.4
Connecting to github.com (github.com)|140.82.121.4|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://github.com/petervanderdoes/gitflow-avh/archive/develop.tar.gz [followi
ng]
--2026-02-16 05:06:50--  https://github.com/petervanderdoes/gitflow-avh/archive/develop.
tar.gz
Reusing existing connection to github.com:443.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/petervanderdoes/gitflow-avh/tar.gz/refs/heads/deve
lop [following]
--2026-02-16 05:06:50--  https://codeload.github.com/petervanderdoes/gitflow-avh/tar.gz/
refs/heads/develop
Resolving codeload.github.com (codeload.github.com)... 140.82.121.9
Connecting to codeload.github.com (codeload.github.com)|140.82.121.9|:443... connected.
```

```
Complete!
srluipp@localhost-live:~/tutorial$ sudo python3 -m pip install gitflow
Collecting gitflow
  Downloading gitflow-0.5.1.zip (180 kB)
                                              180.2/180.2 kB 476.0 kB/s eta 0:00:00
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Preparing metadata (pyproject.toml) ... done
```

Установка git-flow

```
srluipp@localhost-live:~/tutorial$ git config --global user.signingkey F74429847
1BFE80C5F9B21E5AF422ED4C47CC4C7
srluipp@localhost-live:~/tutorial$ git config --global commit.gpgsign true
srluipp@localhost-live:~/tutorial$ git config --global gpg.program $(which gpg)
```

Генерация и настройка ssh и gpg ключей

```
srluipp@localhost-live:~$ git flow feature start feature_branch
Switched to a new branch 'featurefeature_branch'

Summary of actions:
- A new branch 'featurefeature_branch' was created, based on 'develop'
- You are now on branch 'featurefeature_branch'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_branch

srluipp@localhost-live:~$ git flow feature finish feature_branch
Switched to branch 'develop'
Already up to date.
Deleted branch featurefeature_branch (was 9216a5c).

Summary of actions:
- The feature branch 'featurefeature_branch' was merged into 'develop'
- Feature branch 'featurefeature_branch' has been locally deleted
- You are now on branch 'develop'

srluipp@localhost-live:~$
```

```
srluipp@localhost-live:~$ sudo dnf -y install gh
Last metadata expiration check: 0:52:21 ago on Mon 16 Feb 2026 04:23:55 AM EST.
Dependencies resolved.
================================================================================
 Package         Architecture        Version                 Repository    Size
================================================================================
Installing:
 gh              x86_64              2.45.0-1.fc39            updates       9.1 M

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

Total download size: 9.1 M
Installed size: 46 M
Downloading Packages:
[MIRROR] gh-2.45.0-1.fc39.x86_64.rpm: Curl error (28): Timeout was reached for http://fe
dora-archive.ip-connect.vn.ua/fedora/linux/updates/39/Everything/x86_64/Packages/g/gh-2.
45.0-1.fc39.x86_64.rpm [Failed to connect to fedora-archive.ip-connect.vn.ua port 80 aft
er 30000 ms: Timeout was reached]
gh-2.45.0-1.fc39.x86_64.  0% [                              ] 5.2 kB/s |  23 kB    29:49 ETA
```

```
srluipp@localhost-live:~/tutorial$ gpg --armor --export F744298471BFE80C5F9B21E5
AF422ED4C47CC4C7
-----BEGIN PGP PUBLIC KEY BLOCK-----
```

```
mQINBGmS5cUBEADCrnuddQn52VdBDNUw4AXSoC2vp5Itsv2zzxwGiupokiB0Ah5U
QpgD0D7qEga3rCdxgG63K9Xgn95MRZB/aBNYxweh+aueNz6u2D4JFVImAtSvxW+R
qgUPJAYBQO1mrRzx1TkWOUO/EPNefAnjeZH2V4eVrWh2IoJ2Kso51KMZXmSi5zSg
TtcLWiO2/l0NzvkiiygwEgK+53RawCfJAFC8agrVYif0vTSopeeRTrfNN7SREAcJ
kcXLh27OFUzaT2xCRhZcuDU14bMkY/WBvBWIQoMUCyjYfdC4UH5A6m2vhToVr2ki
m89u0sZkFI/Zcsh8GITIWIcV+Ib46MQyuJkHYy8TKmlE9c/+VCmv6D2HR09I7IYm
lDH+i4XjL8Otxc6SLnRTJp0GQyjMOk9bieoWze2SRY7N6x+YPhG9cUQn3ccutdJs
CXiBdkaraHDMVEbWwj095l9PMenuzCvuPlWyUbn0iWuf5JMkAPbzBYMBvY8GlBGC
+uLtLFIW17xR+3Q2lIsVmnMr3SPPKrNCk3IY8HaPC5VNxtZyqJdNjMGtIWVt7X/0
yi+Px/VimGj3xp3WirN68BZoM0yE6gQ307eZjlsZ14TYxkxk8ySLL352HIVhnC2y
mauJcU85kNuHYowxtz2sfnKpaQDk/v8BsFGdRnTx0r2NZcHAo8ajC3qQ2QARAQAB
tCFzcmx1aXBwIChubykgPDExMzIyMzYwMzlAcGZ1ci5ydT6JAlEEEwEIADsWIQT3
RCmEcb/oDF+bIeWvQi7UxHzExwUCaZLlxQIbAwULCQgHAgIiAgYVCgkICwIEFgID
AQIeBwIXgAAKCRCvQi7UxHzEx032D/oDH7ZtJ0mWaClBc0NXaKY3R/v703yZ/NVr
GB8vlkW497xtn4YBZ8fHoF0RTU8K+klr4pusP3G+pnLwD/lyDR7qRxtd+76sYbd/
R+3f6uIeJDhWHZA5MFCTGrJkVEIzi7XjT1CKgmrbBirOjvlEK5qUCr60i8xBvyx1
O+VkpcrZCjDnciT+SBM9A+d6rTlurYcqmMbjLGLysFwL5mIfy60QGnid/LPWTPr2
xdsUKJeGQuQtQcDVdgPpsnEJpQBXxtXNnXslcGT5PU4oWTFmc6GMe6UVAmdXknlH
F4GgnnSUz1ow+Hu8PaQH1F34RCMFUmZkXHmUzahZbRcGAXRvb7S7XmGJvc6UwEMR
```

```
srluipp@localhost-live:~/tutorial$ cat ~/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQDz4sH/aYQPZnioOr2li+Dsg7QFRwe+rWAGEpJVSsNb
TYiqtpAK/ub35D8zkvAQ/sAN9yX1B/qI8Ewi704EfWUFRAp7RyW3At7ovovxoapi4nKLzqDuoj6NQ6h+
4kIbvqwdTD9hUhqrAFyFufZeFvdPw1y7WEObc2tMxS5yGBpvbCs86hvGlw8n1v/RpvHtzZhOnI59vb57
4+c4b8JLiGz2oJzmHKm7XrO2xSOKviP0SlnQHuPyKPU2g8pvSIyoGB2EWDguzcJ8hadEapLJAurmrmg+
yHwW/sRUJgHHjOe3YYrgCZcuX/KfN0XdMazdIi2OUfKWAzmatjyNK7CDFesraoToD8O67a6p6RNLJgqU
GB7D06+ykuEzP6/P7no0f0m05KdHXwUiOlF6EowftKB+P/tsYHVCkunazZEK+HtEWb9zQCl9IDpXbqHA
M9kM4GfIkv6AiyEd5VbJSdk5DW8z9srnPSdFaid5agoD4KIlR6OY/ZZeOqG9N12NRfgGoWE= srluipp
 <1132236039@pfur.ru>
```

Генерация и настройка ssh и gpg ключей

```
srluipp@localhost-live:~/tutorial$ git remote add origin git@github.com:srluipp/
study_2025-2026_matmod.git
srluipp@localhost-live:~/tutorial$ git push -u origin master
The authenticity of host 'github.com (140.82.121.4)' 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.
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 241 bytes | 241.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:        https://github.com/srluipp/study_2025-2026_matmod/pull/new/master
remote:
To github.com:srluipp/study_2025-2026_matmod.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
```

```
srluipp@localhost-live:~/tutorial2$ gpg --full-generate-key
gpg (GnuPG) 2.4.3; Copyright (C) 2023 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.

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
Requested keysize is 4096 bits
Please specify how long the key should be valid.
         0 = key does not expire
      <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
```

```
  (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
Requested keysize is 4096 bits
Please specify how long the key should be valid.
         0 = key does not expire
      <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: srluipp
Email address: 1132236039@pfur.ru
Comment: no
You selected this USER-ID:
    "srluipp (no) <1132236039@pfur.ru>"
```