

ЛАБОРАТОРНАЯ РАБОТА 4

Продвинутое использование git.

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- Получение навыков правильной работы с репозиториями git.

Установка программного обеспечения

Установка git-flow (dnf copr enable elegos/gitflow)

- Установка из коллекции репозитория Copr

Enable the copr repository `dnf copr enable elegos/gitflow`

```
[lchileshe@lchileshe ~]$ sudo dnf copr enable elegos/gitflow
[sudo] password for lchileshe:
Enabling a Copr repository. Please note that this repository is not part
of the main distribution, and quality may vary.
```

```
The Fedora Project does not exercise any power over the contents of
this repository beyond the rules outlined in the Copr FAQ at
<https://docs.pagure.org/copr.copr/user\_documentation.html#what-i-can-build-in-copr>,
and packages are not held to any quality or security level.
```

```
Please do not file bug reports about these packages in Fedora
Bugzilla. In case of problems, contact the owner of this repository.
```

Install gitflow

```
dnf install gitflow
```

```
[lchileshe@lchileshe ~]$ sudo dnf install gitflow
Copr repo for gitflow owned by elegos    1.4 kB/s | 1.5 kB    00:01
Fedora 39 - x86_64 - Updates             7.9 kB/s | 21 kB    00:02
Fedora 39 - x86_64 - Updates            163 kB/s | 3.6 MB    00:22
Dependencies resolved.

=====
Package Arch   Version
              Repository              Size
=====
Installing:
  gitflow x86_64 1.12.3-1.fc34
              copr:copr.fedorainfracloud.org:elegos:gitflow 57 k

Transaction Summary
=====
Install 1 Package

Total download size: 57 k
Installed size: 262 k
```

Установка Node.js

На Node.js базируется программное обеспечение для семантического версионирования и общепринятых коммитов.

```
[lchileshe@lchileshe ~]$ sudo dnf install nodejs
[sudo] password for lchileshe:
Last metadata expiration check: 0:05:31 ago on Fri 08 Mar 2024 12:50:38 PM MSK.
Dependencies resolved.
=====
Package           Arch    Version                               Repo      Size
=====
Installing:
nodejs             x86_64  1:20.10.0-3.fc39                     updates   48 k
Installing dependencies:
nodejs-libs        x86_64  1:20.10.0-3.fc39                     updates   15 M
Installing weak dependencies:
nodejs-docs        noarch  1:20.10.0-3.fc39                     updates   8.1 M
nodejs-full-118n   x86_64  1:20.10.0-3.fc39                     updates   8.5 M
nodejs-npm          x86_64  1:10.2.3-1.20.10.0.3.fc39            updates   2.2 M

Transaction Summary
=====
Install 5 Packages

Total download size: 34 M
Installed size: 183 M
Is this ok [y/N]: Y
Downloading Packages:
(1/5): nodejs-20.10.0-3.fc39.x86_64.rpm 25 kB/s | 48 kB      00:01
(2/5): nodejs-docs-20.10.0-3.fc39.noarc 73 kB/s | 8.1 MB     01:53
(3/5): nodejs-full-118n-20.10.0-3.fc39. 71 kB/s | 8.5 MB     02:02
(4/5): nodejs-npm-10.2.3-1.20.10.0.3.fc 100 kB/s | 2.2 MB    00:22
(5/5): nodejs-libs-20.10.0-3.fc39.x86_6 88 kB/s | 15 MB      03:00  =
-----
Total                               191 kB/s | 34 MB     03:03
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
```

установка apt-get install pnpm из Интернета

apt-get install pnpm

The screenshot shows a Firefox browser window with the URL `https://pnpm.io/installation`. The page is titled "Installation | pnpm" and features a sidebar with navigation links: Introduction, Motivation, Installation (highlighted), Feature Comparison, Usage, CLI commands, Configuration, Features, Recipes, and Advanced. The main content area is titled "On POSIX systems" and contains a terminal snippet: `iwr https://get.pnpm.io/install.ps1 -useb | iex`. Below this, it says "If you don't have curl installed, you would like to use wget:" followed by another terminal snippet: `wget -qO- https://get.pnpm.io/install.sh | sh -`. At the bottom, there is a section titled "In a Docker container". On the right side, there is a "Prerequisites" section with links to "Using a standalone script", "On Windows", "On POSIX systems" (highlighted), "In a Docker container", "Installing a specific version", "Using Corepack", "Using npm", "Using Homebrew", and "Using winget".

1 Installation | pnpm — Mozilla Firefox 100% 100% 10.0.2.15/24 17% 30% I 96% 23:41

T[foot firefox thunar]

foot Installation | pnpm — Mozilla Firefox Pictures - Thunar

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← → ↻ https://pnpm.io/installation

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Introduction Motivation Installation Feature Comparison Usage CLI commands Configuration Features Recipes Advanced

iwr https://get.pnpm.io/install.ps1 -useb | iex

On POSIX systems

curl -fsSL https://get.pnpm.io/install.sh | sh -

If you don't have curl installed, you would like to use wget:

wget -qO- https://get.pnpm.io/install.sh | sh -

In a Docker container

Prerequisites

Using a standalone script

On Windows

On POSIX systems

In a Docker container

Installing a specific version

Using Corepack

Using npm

Using Homebrew

Using winget

apt-get install pnpm

```
[lchileshe@lchileshe ~]$ wget -qO- https://get.pnpm.io/install.sh | sh -  
==> Downloading pnpm binaries 8.15.4  
WARN using --force I sure hope you know what you are doing  
Copying pnpm CLI from /tmp/tmp.4X0h0KS13o/pnpm to /home/lchileshe/.local/share/pnpm/pnpm  
Appended new lines to /home/lchileshe/.bashrc  
  
Next configuration changes were made:  
export PNPM_HOME="/home/lchileshe/.local/share/pnpm"  
case ":$PATH:" in  
  *:$PNPM_HOME:*) ;;  
  *) export PATH="$PNPM_HOME:$PATH" ;;  
esac  
  
To start using pnpm, run:  
source /home/lchileshe/.bashrc
```

Рис. 5: apt-get install pnpm

Настройка Node.js

Для работы с Node.js добавим каталог с исполняемыми файлами, устанавливаемыми yarn, в переменную PATH.

```
[lchileshe@lchileshe ~]$  
  
pnpm setup  
bash: pnpm: command not found  
[lchileshe@lchileshe ~]$ source ~/.bashrc  
[lchileshe@lchileshe ~]$ pnpm setup  
No changes to the environment were made. Everything is already up to date.  
[lchileshe@lchileshe ~]$  
  
source ~/.bashrc
```

Рис. 6: Настройка Node.js

Общепринятые коммиты

- Данная программа используется для помощи в форматировании КОММИТОВ.

```
[lchileshe@lchileshe ~]$ pnpm add -g commitizen
Packages: +152
+++++
Downloading registry.npmjs.org/typescript/5.4.2: 5.82 MB/5.82 MB, done
Progress: resolved 152, reused 0, downloaded 152, added 152, done

/home/lchileshe/.local/share/pnpm/global/5:
+ commitizen 4.3.0

Done in 58.5s
```

Рис. 7: commitizen

- Данная программа используется для помощи в создании логов.

```
[lchileshe@lchileshe ~]$ pnpm add -g standard-changelog
Packages: +56
+++++
Progress: resolved 208, reused 152, downloaded 56, added 56, done

/home/lchileshe/.local/share/pnpm/global/5:
+ standard-changelog 5.0.0

Done in 14.8s
```

Рис. 8: pnpm add -g standard-changelog

- Подключение репозитория к github

```
[lchileshe@lchileshe ~]$ git clone --recursive git@github.com:LupupaChileshe/git-extended.git  
Cloning into 'git-extended'...  
warning: You appear to have cloned an empty repository.
```

Рис. 9: git clone

Делаем первый коммит и выкладываем на github

```
[lchileshe@lchileshe git-extended]$ touch README.md
[lchileshe@lchileshe git-extended]$ ls
README.md
[lchileshe@lchileshe git-extended]$ git add .
[lchileshe@lchileshe git-extended]$ git commit -m "first commit"
[main (root-commit) 176fa73] first commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md
[lchileshe@lchileshe git-extended]$ git remote add origin git@github.com:LupupaChileshe/git-extended.git
error: remote origin already exists.
[lchileshe@lchileshe git-extended]$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 869 bytes | 869.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:LupupaChileshe/git-extended.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

Рис. 10: first commit

Конфигурация для пакетов Node.js

```
[lchileshe@lchileshe git-extended]$ pnpm init
Wrote to /home/lchileshe/git-extended/package.json

{
  "name": "git-extended",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

Рис. 11: pnpm init

Сконфигурируем формат коммитов. Для этого добавим в файл `package.json` команду для формирования коммитов

```
[lchileshe@lchileshe git-extended]$ nano package.json
[lchileshe@lchileshe git-extended]$ git add .
[lchileshe@lchileshe git-extended]$ git cz
cz-cli@4.3.0, cz-conventional-changelog@3.3.0

? Select the type of change that you're committing: feat:      A new
feature
? What is the scope of this change (e.g. component or file name): (press
  enter to skip)
? Write a short, imperative tense description of the change (max 94
  chars):
  (10) added file
? Provide a longer description of the change: (press enter to skip)

? Are there any breaking changes? No
? Does this change affect any open issues? No
[main 1581d65] feat: added file
  1 file changed, 15 insertions(+)
  create mode 100644 package.json
[lchileshe@lchileshe git-extended]$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 1.15 KiB | 1.15 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
```

Загрузите весь репозиторий в хранилище

```
[lchileshe@lchileshe git-extended]$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:   https://github.com/LupupaChileshe/git-extended/pull/new/develop
remote:
To github.com:LupupaChileshe/git-extended.git
 * [new branch]      develop -> develop
```

Рис. 13: git push --all

- Я получил навыки корректной работы с git-репозиториями