

# Продвинутое использование git

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9 март 2024

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# Установка программного обеспечения

- Установка git-flow
- Установка Node.js
- Настройка Node.js

```
[sabdullakhi@sabdullakhi ~]$ sudo dnf copr enable elegos/gitflow
[sudo] password for sabdullakhi:
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.

Do you really want to enable copr.fedorainfracloud.org/elegos/gitflow? [
y/N]: y
Repository successfully enabled.
[sabdullakhi@sabdullakhi ~]$ sudo dnf install gitflow
Copr repo for gitflow owned by elegos 2.6 kB/s | 1.5 kB 00:00
```

```
[sabdullakhi@sabdullakhi ~]$ sudo dnf install nodejs
Last metadata expiration check: 0:01:31 ago on Tue 05 Mar 2024 10:23:32 AM 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-i18n        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
=====
```

```
[sabdullakhi@sabdullakhi ~]$ sudo apt-get install pnpm  
Reading package lists... Done  
Building dependency tree... Done  
E: Unable to locate package pnpm  
[sabdullakhi@sabdullakhi ~]$ █
```

##

```
[sabdullakhi@sabdullakhi ~]$ pnpm setup  
No changes to the environment were made. Everything is already up to date.  
[sabdullakhi@sabdullakhi ~]$ source ~/.bashrc  
[sabdullakhi@sabdullakhi ~]$ █
```

# Общепринятые коммиты

1. commitizen
2. standard-changelog

```
[sabdullakhi@sabdullakhi ~]$ pnpm add -g commitizen
Packages: +152
+++++
Downloading registry.npmjs.org/typescript/5.3.3: 5.76 MB/5.76 MB, done
Progress: resolved 152, reused 0, downloaded 152, added 152, done

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

Done in 31.5s
[sabdullakhi@sabdullakhi ~]$ pnpm add -g standard-changelog
Packages: +56
+++++
Progress: resolved 208, reused 152, downloaded 56, added 56, done

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


Done in 10s
[sabdullakhi@sabdullakhi ~]$
```

# Конфигурация общепринятых коммитов

- Конфигурация для пакетов Node.js

```
[sabdullakhi@sabdullakhi git-extended]$ pnpm init
Wrote to /home/sabdullakhi/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"
}
```

 ##

Quick setup — if you've done this kind of thing before

# Конфигурация для пакетов Node.js

```
[sabdullakhi@sabdullakhi git-extended]$ pnpm init
Wrote to /home/sabdullakhi/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"
}
```

## Сконфигурируем формат коммитов. Для этого добавим в файл package.json

```
GNU nano 7.2                                package.json                                Mc
{
  "name": "git-extended",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:Shogofa21/git-extended.git",
  "keywords": [],
  "author": "Shogofa Abdullahi abdullahishogofa11@gmail.com",
  "license": "ISC",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}
```



- Добавим новые файлы:
- Выполним коммит:
- Отправим на github:

```

[sabdullakhi@sabdullakhi git-extended]$ npm init
Wrote to /home/sabdullakhi/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"
}
[sabdullakhi@sabdullakhi git-extended]$ nano package.json
[sabdullakhi@sabdullakhi git-extended]$ nano package.json
[sabdullakhi@sabdullakhi git-extended]$ git add .
[sabdullakhi@sabdullakhi 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) readme.md
? Write a short, imperative tense description of the change (max 83
chars):
(12) step up 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 3808425] feat(readme.md): step up file
1 file changed, 15 insertions(+)
create mode 100644 package.json
[sabdullakhi@sabdullakhi git-extended]$ git push

```

## Отправим на github:

- Отправим на github:
- Префикс для ярлыков установим в v.
- Проверьте, что Вы на ветке develop:
- Загрузите весь репозиторий в хранилище:
- Загрузите весь репозиторий в хранилище:

# Отправим на github фото:

```
[sabdullakhi@sabdullakhi git-extended]$ git flow init
Already initialized for gitflow.
To force reinitialization, use: git flow init -f
[sabdullakhi@sabdullakhi git-extended]$ git flow init -f

Which branch should be used for bringing forth production releases?
- develop
- main
Branch name for production releases: [main]

Which branch should be used for integration of the "next release"?
- develop
Branch name for "next release" development: [develop]

How to name your supporting branch prefixes?
Feature branches? [feature/]
Bugfix branches? [bugfix/]
Release branches? [release/]
Hotfix branches? [hotfix/]
Support branches? [support/]
Version tag prefix? [] v
Hooks and filters directory? [/home/sabdullakhi/git-extended/.git/hooks]

[sabdullakhi@sabdullakhi git-extended]$ git branch
* develop
  main
[sabdullakhi@sabdullakhi 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/Shogofa21/git-extended/pull/new/develop
remote:
To github.com:Shogofa21/git-extended.git
 * [new branch]   develop -> develop
[sabdullakhi@sabdullakhi git-extended]$ git branch --set-upstream-to=ori
gin/develop develop
branch 'develop' set up to track 'origin/develop'.
[sabdullakhi@sabdullakhi git-extended]$
```

- Создадим релиз с версией 1.0.0 :
  - standard-changelog –first-release
- Добавим журнал изменений в индекс :
  - git add CHANGELOG.md
  - git commit -am 'chore(site): add changelog'
- зальём релизную ветку в основную ветку
  - git flow release finish 1.0.0 ##

```
/home/sabdullakhi/git-extended/.git/TAG_EDITMSG
v1.0.0
#
# Write a message for tag:
#   v1.0.0
# Lines starting with '#' will be ignored.
```

- Отправим данные на github
- Создадим релиз на github. Для этого будем использовать утилиты работы с github:

```
foot
Merge made by the 'ort' strategy.
CHANGELOG.md | 4 +++
package.json | 2 +-
2 files changed, 5 insertions(+), 1 deletion(-)
Already on 'main'
Your branch is ahead of 'origin/main' by 3 commits.
(use 'git push' to publish your local commits)
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Merge made by the 'ort' strategy.
CHANGELOG.md | 4 +++
package.json | 2 +-
2 files changed, 5 insertions(+), 1 deletion(-)
Deleted branch release/1.2.3 (was 92520c0).

Summary of actions:
- Release branch 'release/1.2.3' has been merged into 'main'
- The release was tagged 'v1.2.3'
- Release tag 'v1.2.3' has been back-merged into 'develop'
- Release branch 'release/1.2.3' has been locally deleted
- You are now on branch 'develop'

[sabdullakhi@sabdullakhi git-extended]$ git push --all
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 4 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 2.78 KiB | 2.78 MiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To github.com:Shogofa21/git-extended.git
   0655429..2ce2043  develop -> develop
   3ab8ab7..56d1421  main -> main
[sabdullakhi@sabdullakhi git-extended]$ git push --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 161 bytes | 161.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:Shogofa21/git-extended.git
```

## 1. Разработка новой функциональности

- Создадим ветку для новой функциональности:
  - `git flow feature start feature_branch`
- Далее, продолжаем работу с git как обычно.
- По окончании разработки новой функциональности следующим шагом следует объединить ветку `feature_branch` с `develop`:
  - `git flow feature finish feature_branch`

## Создание релиза git-flow

- Создадим релиз с версией 1.2.3:
  - `git flow release start 1.2.3`
- Обновите номер версии в файле `package.json`. Установите её в 1.2.3.
- Создадим журнал изменений
  - `standard-changelog`
- Добавим журнал изменений в индекс
  - `git add CHANGELOG.md`
  - `git commit -am 'chore(site): update changelog'`
- Зальём релизную ветку в основную ветку
  - `git flow release finish 1.2.3`



## Создание релиза git-flow фото:

```
Merge tag 'v1.0.0' into develop  
v  
# Please enter a commit message to explain why this merge is necessary,  
# especially if it merges an updated upstream into a topic branch.  
#  
# Lines starting with '#' will be ignored, and an empty message aborts  
# the commit.
```

## Отправим данные на github

- `git push -all`
- `git push -tags`
  - Создадим релиз на github с комментарием из журнала изменений:
    - `gh release create v1.2.3 -F CHANGELOG.md`

Спасибо за внимание!