

Шаблон отчёта по лабораторной работе 4

Продвинутое использование git

Абдуллахи Бахара

}

Цель работы

- Получение навыков правильной работы с репозиториями git.

Задание

- Выполнить работу для тестового репозитория.
- Преобразовать рабочий репозиторий в репозиторий с git-flow и conventional commits.

Выполнение лабораторной работы:

Установка программного обеспечения

- Установка git-flow:
- Linux
- Fedora
- Установка из коллекции репозитория Copr
(<https://copr.fedorainfracloud.org/coprs/elegos/gitflow/>):

```
# Enable the copr repository dnf copr enable elegos/gitflow # Install gitflow dnf install gitflow
```

foot

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

```
[babdullakhi@babdullakhi ~]$ sudo dnf install gitflow
Copr repo for gitflow owned by elegos 1.7 kB/s | 1.5 kB 00:00
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
Is this ok [y/N]:
```

```

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
Is this ok [y/N]: y
Downloading Packages:
gitflow-1.12.3-1.fc34.x86_64.rpm      470 kB/s | 57 kB      00:00
-----
Total                                442 kB/s | 57 kB      00:00
Copr repo for gitflow owned by elegos 7.0 kB/s | 998 B      00:00
Importing GPG key 0x80F63AA3:
  Userid      : "elegos_gitflow (None) <elegos#gitflow@copr.fedorahosted.org>"
  Fingerprint: 9357 99B0 49C5 C5C3 6CF3 9A22 823C A8E6 80F6 3AA3
  From        : https://download.copr.fedorainfracloud.org/results/elegos/
gitflow/pubkey.gpg
Is this ok [y/N]: y
Key imported successfully
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      : 1/1
  Installing     : gitflow-1.12.3-1.fc34.x86_64 1/1
  Verifying      : gitflow-1.12.3-1.fc34.x86_64 1/1

Installed:
gitflow-1.12.3-1.fc34.x86_64

Complete!
[babdullakhi@babdullakhi ~]$

```

Установка Node.js :

```
[babdullakhi@babdullakhi ~]$ sudo dnf install nodejs
Last metadata expiration check: 0:01:27 ago on Wed 06 Mar 2024 11:42:04 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 454 kB/s | 48 kB   00:00
(2/5): nodejs-full-118n-20.10.0-3.fc39. 3.1 MB/s | 8.5 MB   00:02
(3/5): nodejs-docs-20.10.0-3.fc39.noarc 2.5 MB/s | 8.1 MB   00:03
(4/5): nodejs-libs-20.10.0-3.fc39.x86_6 4.9 MB/s | 15 MB   00:03
(5/5): nodejs-npm-10.2.3-1.20.10.0.3.fc 3.3 MB/s | 2.2 MB   00:00
-----
Total                                7.8 MB/s | 34 MB   00:04
Running transaction check
Transaction check succeeded.
Running transaction test
```

- Чтобы установить apt-get install pnpm, нужно установить apt с помощью этого камнда dnf install apt:

```
[babdullakhi@babdullakhi ~]$ sudo apt-get install pnpm
sudo: apt-get: command not found
[babdullakhi@babdullakhi ~]$ sudo dnf install apt
Last metadata expiration check: 0:03:23 ago on Wed 06 Mar 2024 11:42:04 PM MSK.
Dependencies resolved.
=====
Package                Architecture Version                               Repository      Size
=====
Installing:
apt                    x86_64     2.7.11-1.fc39                       updates         1.3 M
Installing dependencies:
apt-libs              x86_64     2.7.11-1.fc39                       updates         1.1 M
dpkg                  x86_64     1.21.21-2.fc39                      fedora          1.6 M
libmd                 x86_64     1.1.0-2.fc39                        fedora          47 k

Transaction Summary
=====
Install 4 Packages

Total download size: 4.0 M
Installed size: 13 M
Is this ok [y/N]: y
Downloading Packages:
[==== ] --- B/s | 0 B   --:-- ETA
```

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

Настройка Node.js:

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

```
[babdullakhi@babdullakhi ~]$ sudo 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.2lrr02Sm9U/pnpm to /home/babdullakhi/.local/share/pnpm/pnpm
Appended new lines to /home/babdullakhi/.bashrc

Next configuration changes were made:
export Pnpm_HOME="/home/babdullakhi/.local/share/pnpm"
case ":$PATH:" in
  *) $Pnpm_HOME:"*" ;;
  *) export PATH="$Pnpm_HOME:$PATH" ;;
esac

To start using pnpm, run:
source /home/babdullakhi/.bashrc
[babdullakhi@babdullakhi ~]$
```

- Запустите:
- Перелогиньтесь, или выполните:

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

Общепринятые коммиты:

- commitizen:
- Данная программа используется для помощи в форматировании КОММИТОВ.

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

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

Done in 4.1s
[babdullakhi@babdullakhi ~]$
```

- При этом устанавливается скрипт git-cz, который мы и будем использовать для коммитов.
- standard-changelog:
- Данная программа используется для помощи в создании логов.

```
[babdullakhi@babdullakhi ~]$ 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/babdullakhi/.local/share/pnpm/global/5:
+ commitizen 4.3.0

Done in 7s
[babdullakhi@babdullakhi ~]$
```

- Практический сценарий использования git:
 - 1) Подключение репозитория к github
- Создайте репозиторий на GitHub. Для примера назовём его git-extended.

SSH and GPG keys – Mozilla Firefox

[Browser]

OC_09.0

Installati

SSH an x

+

▼

x

←

→

↻

🔒

https://github.com

☆

🔍

👤

☰

⚙️

Most Visited

🌐

Fedora Docs

📰

Fedora Magazine

➡️

☰

Settings

Bahara12

+

▼

x

📁

New repository

📁

Import repository

📁

New codespace

🔗

New gist

📁

New organization

📁

New project

📁

Your organizations

🌐

Your enterprises

☆

Your stars

❤️

Your sponsors

🔗

Your gists

⬆️

Upgrade

🌐

Try Enterprise

🔗

Feature preview

⚙️

Settings

👤

Bahara12 (B

Your personal ac

👤

Go to your personal profile

👤

Public profile

⚙️

Account

👤

Appearance

👤

Accessibility

🔔

Notifications

Access

💰

Billing and plans

✉️

Emails

🔒

Password and auther

🔌

Sessions

🔑

SSH and GPG keys

https://github.com/new

New repository – Mozilla Firefox

[Browser]

OC_09.0

Installati

New re x

+

▼

x

←

→

↻

🔒

https://github.com

☆

🔍

👤

☰

⚙️

Most Visited

🌐

Fedora Docs

📰

Fedora Magazine

➡️

☰

New repository

🔍

📁

📁

📁

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk (*).

Repository template

No template

Start your repository with a template repository's contents.

Owner *

Bahara12

Repository name *

git-extended

🟢 git-extended is available.

Great repository names are short and memorable. Need inspiration? How about [solid-guacamole](#) ?

Description (optional)

foot

[babbullakhi@babbullakhi ~]\$ sudo 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.21rr02Sm9U/pnpm to /home/babbullakhi/.local/share/pnpm/pnpm

Appended new lines to /home/babbullakhi/.bashrc

Next configuration changes were made:

export PNPM_HOME="/home/babbullakhi/.local/share/pnpm"

case " :\$PATH:" in

) :\$PNPM_HOME:) ;;

*) export PATH="\$PNPM_HOME:\$PATH" ;;

esac

To start using pnpm, run:

source /home/babbullakhi/.bashrc

[babbullakhi@babbullakhi ~]\$ pnpm setup

bash: pnpm: command not found

[babbullakhi@babbullakhi ~]\$ source ~/.bashrc

[babbullakhi@babbullakhi ~]\$ pnpm setup

No changes to the environment were made. Everything is already up to date.

[babbullakhi@babbullakhi ~]\$ source ~/.bashrc

[babbullakhi@babbullakhi ~]\$ pnpm add -g commitizen

Packages: +152

Download 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/babbullakhi/.local/share/pnpm/global/5:

+ commitizen 4.3.0

Done in 7s

[babbullakhi@babbullakhi ~]\$ pnpm add -g standard-changelog

Packages: +56

Download registry.npmjs.org/typescript/5.4.2: 5.82 MB/5.82 MB, done

Progress: resolved 208, reused 152, downloaded 56, added 56, done

/home/babbullakhi/.local/share/pnpm/global/5:

+ standard-changelog 5.0.0

Done in 4.1s

[babbullakhi@babbullakhi ~]\$

New repository – Mozilla Firefox

[Browser]

OC_09.0 | Installati | New re X

https://github.com

Most Visited | Fedora Docs | Fedora Magazine

This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: None

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license

License: None

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

You are creating a public repository in your personal account.

Create repository

Terms | Privacy | Security | Status | Docs | Contact | Manage cookies

Do not share my personal information

© 2024 GitHub, Inc.

```
foot
[baabdullakhi@baabdullakhi ~]$ sudo 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.21rr02Sm9U/pnpm to /home/baabdullakhi/.local/share/pnpm/pnpm
Appended new lines to /home/baabdullakhi/.bashrc

Next configuration changes were made:
export PNPM_HOME="/home/baabdullakhi/.local/share/pnpm"
case ":$PATH:" in
  "":$PNPM_HOME:"*) ;;
  *) export PATH="$PNPM_HOME:$PATH" ;;
esac

To start using pnpm, run:
source /home/baabdullakhi/.bashrc
[baabdullakhi@baabdullakhi ~]$ pnpm setup
bash: pnpm: command not found
[baabdullakhi@baabdullakhi ~]$ source ~/.bashrc
[baabdullakhi@baabdullakhi ~]$ pnpm setup
No changes to the environment were made. Everything is already up to date.
[baabdullakhi@baabdullakhi ~]$ source ~/.bashrc
[baabdullakhi@baabdullakhi ~]$ 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/baabdullakhi/.local/share/pnpm/global/5:
+ commitizen 4.3.0

Done in 7s
[baabdullakhi@baabdullakhi ~]$ pnpm add -g standard-changelog
Packages: +56
Progress: resolved 208, reused 152, downloaded 56, added 56, done

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

Done in 4.1s
[baabdullakhi@baabdullakhi ~]$
```

Bahara12/git-extended – Mozilla Firefox

[Browser]

OC_09.0 | Installati | Bahara X

https://github.com

Most Visited | Fedora Docs | Fedora Magazine

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

HTTPS | SSH | git@github.com:Baahara12/git-extended

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

echo "# git-extended" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin git@github.com:Baahara12:
git push -u origin main

...or push an existing repository from the command line

git remote add origin git@github.com:Baahara12:
git branch -M main

```
foot
Next configuration changes were made:
export PNPM_HOME="/home/baabdullakhi/.local/share/pnpm"
case ":$PATH:" in
  "":$PNPM_HOME:"*) ;;
  *) export PATH="$PNPM_HOME:$PATH" ;;
esac

To start using pnpm, run:
source /home/baabdullakhi/.bashrc
[baabdullakhi@baabdullakhi ~]$ pnpm setup
bash: pnpm: command not found
[baabdullakhi@baabdullakhi ~]$ source ~/.bashrc
[baabdullakhi@baabdullakhi ~]$ pnpm setup
No changes to the environment were made. Everything is already up to date.
[baabdullakhi@baabdullakhi ~]$ source ~/.bashrc
[baabdullakhi@baabdullakhi ~]$ 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/baabdullakhi/.local/share/pnpm/global/5:
+ commitizen 4.3.0

Done in 7s
[baabdullakhi@baabdullakhi ~]$ pnpm add -g standard-changelog
Packages: +56
Progress: resolved 208, reused 152, downloaded 56, added 56, done

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

Done in 4.1s
[baabdullakhi@baabdullakhi ~]$ cd ./git-extended
bash: cd: ./git-extended: No such file or directory
[baabdullakhi@baabdullakhi ~]$ cd ./git-extended
bash: cd: ./git-extended: No such file or directory
[baabdullakhi@baabdullakhi ~]$ git commit -m "first commit"
fatal: not a git repository (or any parent up to mount point /)
Stopping at filesystem boundary (GIT_DISCOVERY_ACROSS_FILESYSTEM not set).
[baabdullakhi@baabdullakhi ~]$ git clone --recursive
```


Делаем первый коммит и выкладываем на github:

- Сначала мы входим в файл git-extended, затем создадим файл README.md, открываем там README.md, потом с помощью nano там напишем README.md после этого начинаем коммитить на github:

```
[babdullakhi@babdullakhi ~]$ cd ./git-extended
bash: cd: ./git-extended: No such file or directory
[babdullakhi@babdullakhi ~]$ cd ./git-extended
bash: cd: ./git-extended: No such file or directory
[babdullakhi@babdullakhi ~]$ git commit -m "first commit"
fatal: not a git repository (or any parent up to mount point /)
Stopping at filesystem boundary (GIT_DISCOVERY_ACROSS_FILESYSTEM not set).
[babdullakhi@babdullakhi ~]$ git clone --recursive git@github.com:Bahara12/git-extended.git
Cloning into 'git-extended'...
warning: You appear to have cloned an empty repository.
[babdullakhi@babdullakhi ~]$ ^C
[babdullakhi@babdullakhi ~]$ cd ./git-extended
[babdullakhi@babdullakhi git-extended]$ touch readme.md
[babdullakhi@babdullakhi git-extended]$ nano readme.md
[babdullakhi@babdullakhi git-extended]$ git add .
[babdullakhi@babdullakhi git-extended]$ git commit -m "first commit"
[main (root-commit) 7383a4c] first commit
1 file changed, 1 insertion(+)
 create mode 100644 readme.md
[babdullakhi@babdullakhi git-extended]$ git remote add origin git@github.com:Bahara12/git-extended.git
error: remote origin already exists.
[babdullakhi@babdullakhi git-extended]$ git push -u origin master
error: src refspec master does not match any
error: failed to push some refs to 'github.com:Bahara12/git-extended.git'
[babdullakhi@babdullakhi git-extended]$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 874 bytes | 874.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:Bahara12/git-extended.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
[babdullakhi@babdullakhi git-extended]$
```

Конфигурация общепринятых коммитов:

- Конфигурация для пакетов Node.js

```
[babdullakhi@babdullakhi git-extended]$ npm init
Wrote to /home/babdullakhi/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"
}
[babdullakhi@babdullakhi git-extended]$
```

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

```
GNU nano 7.2 package.json Modified
{
  "name": "git-extended",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:Bahara12/git-extended.git",
  "author": "bahara abdullahi baharaabdullahi4@gmail.com",
  "license": "CC-BY-4.0",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}
```

- добавим новые файлы, зафиксируем их и отправим на Github:

```
[babdullakhi@babdullakhi git-extended]$ git add .
[babdullakhi@babdullakhi 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):
(11) adding 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 9cc3412] feat(readme.md): adding file
1 file changed, 15 insertions(+)
create mode 100644 package.json
[babdullakhi@babdullakhi 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), 1.16 KiB | 1.16 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:Bahara12/git-extended.git
7383a4c..9cc3412 main -> main
[babdullakhi@babdullakhi git-extended]$ git flow init

Which branch should be used for bringing forth production releases?
- main
Branch name for production releases: [main]
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/babdullakhi/git-extended/.git/hooks]

[babdullakhi@babdullakhi git-extended]$
```

Конфигурация git-flow:

- мы инициализируем git-flow и устанавливаем префикс для ярлыков v.

```
[babdullakhi@babdullakhi git-extended]$ git flow init

Which branch should be used for bringing forth production releases?
- main
Branch name for production releases: [main]
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/babdullakhi/git-extended/.git/hooks]

[babdullakhi@babdullakhi git-extended]$
```

- Проверьте, что Вы на ветке develop:
- Загрузите весь репозиторий в хранилище:

```
[babdullakhi@babdullakhi git-extended]$ git branch
* develop
main
[babdullakhi@babdullakhi 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/Bahara12/git-extended/pull/new/develop
remote:
To github.com:Bahara12/git-extended.git
 * [new branch]      develop -> develop
[babdullakhi@babdullakhi git-extended]$
```

- Установите внешнюю ветку как вышестоящую для этой ветки:

```
[babdullakhi@babdullakhi git-extended]$ git branch --set-upstream-to=ori
gin/develop develop
branch 'develop' set up to track 'origin/develop'.
[babdullakhi@babdullakhi git-extended]$
```

- Создадим релиз с версией 1.0.0

```
[babdullakhi@babdullakhi git-extended]$ git flow release start 1.0.0
Switched to a new branch 'release/1.0.0'

Summary of actions:
- A new branch 'release/1.0.0' was created, based on 'develop'
- You are now on branch 'release/1.0.0'

Follow-up actions:
- Bump the version number now!
- Start committing last-minute fixes in preparing your release
- When done, run:

    git flow release finish '1.0.0'

[babdullakhi@babdullakhi git-extended]$
```

- Создадим журнал изменений

```
[babdullakhi@babdullakhi git-extended]$ standard-changelog --first-release
✓ created CHANGELOG.md
✓ output changes to CHANGELOG.md
[babdullakhi@babdullakhi git-extended]$
```

- Добавим журнал изменений в индекс:

```
[babdullakhi@babdullakhi git-extended]$ git add CHANGELOG.md
[babdullakhi@babdullakhi git-extended]$ git commit -am 'chore(site): add changelog'
[release/1.0.0 4f20e06] chore(site): add changelog
1 file changed, 9 insertions(+)
create mode 100644 CHANGELOG.md
[babdullakhi@babdullakhi git-extended]$
```

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

```
foot
GNU nano 7.2 /home/babdullakhi/git-extended/.git/MERGE_MSG
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.
```

- Зальём релизную ветку в основную ветку:

```
[babdullakhi@babdullakhi git-extended]$ git flow release finish 1.2.3
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
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 7945f42).

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'

[babdullakhi@babdullakhi git-extended]$
```

- Отправим данные на github:

```
[babdullakhi@babdullakhi 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 | 947.00 KiB/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:Bahara12/git-extended.git
 b8d628c..561efcf develop -> develop
 01aab4e..0e04a44 main -> main
[babdullakhi@babdullakhi git-extended]$
```

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

```
[babdullakhi@babdullakhi git-extended]$ git push --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 156 bytes | 156.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:Bahara12/git-extended.git
 * [new tag]         v1.2.3 -> v1.2.3
[babdullakhi@babdullakhi git-extended]$
```

Работа с репозиторием git:

- Разработка новой функциональности:
- Создадим ветку для новой функциональности:


```
[babdullakhi@babdullakhi git-extended]$ git flow feature start feature_branch
Switched to a new branch 'feature/feature_branch'

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

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

    git flow feature finish feature_branch

[babdullakhi@babdullakhi git-extended]$
```

- следует объединить ветку:

```
[babdullakhi@babdullakhi git-extended]$ git flow feature finish feature_branch
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Already up to date.
Deleted branch feature/feature_branch (was b8d628c).

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

[babdullakhi@babdullakhi git-extended]$
```

- Создание релиза git-flow:
- Создадим релиз с версией 1.2.3:

```
[babdullakhi@babdullakhi git-extended]$ git flow release start 1.2.3
Switched to a new branch 'release/1.2.3'

Summary of actions:
- A new branch 'release/1.2.3' was created, based on 'develop'
- You are now on branch 'release/1.2.3'

Follow-up actions:
- Bump the version number now!
- Start committing last-minute fixes in preparing your release
- When done, run:

    git flow release finish '1.2.3'

[babdullakhi@babdullakhi git-extended]$
```

- Обновите номер версии в файле package.json.

```
foot
GNU nano 7.2 package.json Modified
{
  "name": "git-extended",
  "version": "1.2.3",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:Bahara12/git-extended.git",
  "author": "bahara abdullahi baharaabdullahi4@gmail.com",
  "license": "CC-BY-4.0",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}
```

- Создадим журнал изменений

```
[babdullakhi@babdullakhi git-extended]$ standard-changelog
✓ output changes to CHANGELOG.md
[babdullakhi@babdullakhi git-extended]$
```

- Добавим журнал изменений в индекс
- Зальём релизную ветку в основную ветку

```
[babdullakhi@babdullakhi git-extended]$ git add CHANGELOG.md
[babdullakhi@babdullakhi git-extended]$ git commit -am 'chore(site): update changelog'
[release/1.2.3 7945f42] chore(site): update changelog
2 files changed, 5 insertions(+), 1 deletion(-)
[babdullakhi@babdullakhi git-extended]$ git flow release finish 1.2.3
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
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 7945f42).

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'
```

```
foot
GNU nano 7.2 /home/babdullakhi/git-extended/.git/MERGE_MSG
Merge tag 'v1.2.3' 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
- Создадим релиз на github с комментарием из журнала изменений:

```
[babdullakhi@babdullakhi git-extended]$ gh release create v1.2.3 -F CHANGES.md
https://github.com/Bahara12/git-extended/releases/tag/v1.2.3
[babdullakhi@babdullakhi git-extended]$
```

Выводы:

- Получение навыков правильной работы с репозиториями git.