Презентация по лабораторной работе №4

Продвинутое использование git

Софич А.С

04 марта 2024

Российский университет дружбы народов, Москва, Россия

НКАбд-05-23

- Софич Андрей Геннадьевич
- Студент
- НКАбд-05-23
- Российский университет дружбы народов
- 1132237371@pfur.ru

Цели и задачи

Получение навыков правильной работы с репозиториями git

Выполнение лабораторной работы

Устанавливаю gitflow

Для работы с NODE.JS добавим каталог с исполняемыми файлами. Запускаю, используя команду pnpm setup


```
[sofich132237371@fedora ~]$ pnpm setup
bash: pnpm: command not found
[sofich132237371@fedora ~]$ sudo dnf install pnpm
Last metadata expiration check: 0:01:20 ago on Mon 04 Mar 2024 12:44:13 AM NSK.
Dependencies resolved.
========================================================================================================
 Package                Architecture         Version                        Repository          
========================================================================================================
Installing:
 pnpm                   noarch               8.12.0-1.fc39                  updates
Installing dependencies:
 nodejs                 x86_64               1:20.10.0-3.fc39               updates
 nodejs-libs            x86_64               1:20.10.0-3.fc39               updates
Installing weak dependencies:
 nodejs-docs            noarch               1:20.10.0-3.fc39               updates
 nodejs-full-i18n       x86_64               1:20.10.0-3.fc39               updates
 nodejs-npm             x86_64               1:10.2.3-1.20.10.0.3.fc39      updates

Transaction Summary
========================================================================================================
Install  6 Packages

Total download size: 37 N
Installed size: 196 M
Is this ok [y/N]: y
Downloading Packages:
(1/6): nodejs-20.10.0-3.fc39.x86_64.rpm                                          511 kB/s |  48 kB
(2/6): nodejs-docs-20.10.0-3.fc39.noarch.rpm                                     1.6 MB/s | 8.1 MB
(3-5/6): nodejs-full-i18n-20.10.0-3.fc39.x86_64.rpm   62% [==================    ]  3.2 MB/s |  23 MB
```

Создаю пустой файл в новый репозиторий, делаю первый коммит и выкладываю на github

```
[sofich132237371@fedora git-extended]$ git >> README1.md
[sofich132237371@fedora git-extended]$ git add README1.md
[sofich132237371@fedora git-extended]$ git commit -m "first commit"
[main f472fbf] first commit
 1 file changed, 44 insertions(+)
 create mode 100644 README1.md
[sofich132237371@fedora git-extended]$ git remote add origin git@github.com:AndreySofich/git-extended.git
error: remote origin already exists.
[sofich132237371@fedora git-extended]$ git push -u origin master
error: src refspec master does not match any
error: failed to push some refs to 'github.com:AndreySofich/git-extended.git'
[sofich132237371@fedora git-extended]$ git push -u origin main
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), 1.87 KiB | 1.87 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:AndreySofich/git-extended.git
   b34cc72..f472fbf  main -> main
branch 'main' set up to track 'origin/main'.
```

Рис. 3: Добавление на github

Выполняю конфигурацию для пакетов NODE.js

```
[sofich132237371@fedora git-extended]$ pnpm init
Wrote to /home/sofich132237371/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"
}
```

Добавляю новый файлы,выполняю коммит и отправляю изменения на github


```
[sofich132237371@fedora git-extended]$ git add .
[sofich132237371@fedora 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):
 (6) chanhe
? Provide a longer description of the change: (press enter to skip)

? Are there any breaking changes? Yes
? A BREAKING CHANGE commit requires a body. Please enter a longer description of the commit itself:
 -
? Describe the breaking changes:
 sorry
? Does this change affect any open issues? Yes
? Add issue references (e.g. "fix #123", "re #123".):

[main 6402e38] feat: chanhe
 1 file changed, 14 insertions(+)
 create mode 100644 package.json
[sofich132237371@fedora git-extended]$ git push
```

Рис. 5. Добавление изменений на github

Инициализирую gitflow, префикс для ярлыков устанавливаю в v


```
[sofich132237371@fedora 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/sofich132237371/git-extended/.git/hooks]
```

Рис. 6: Инициализация gitflow

Проверяю,что нахожусь на ветке develop и отправляю весь репозиторий в хранилище

```
[sofich132237371@fedora git-extended]$ git branch
* develop
  main
[sofich132237371@fedora git-extended]$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:      https://github.com/AndreySofich/git-extended/pull/new/develop
remote:
To github.com:AndreySofich/git-extended.git
 * [new branch]      develop -> develop
```

Рис. 7: Загрузка в хранилище

Уставливаю внешнюю ветку как вышестоящую для этой ветке

```
[sofich132237371@fedora git-extended]$ git branch --set-upstream-to=origin/develop develop
branch 'develop' set up to track 'origin/develop'.
```

Рис. 8: Установка внешней ветки

Создаю релиз с версией 1.0.0

```
[sofich132237371@fedora 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'
```

Рис. 9: Создание релиза

Создаю журнал изменений и добавляю его в индекс


```
[sofich132237371@fedora git-extended]$ standard-changelog --first-release
✓ created CHANGELOG.md
✓ output changes to CHANGELOG.md
[sofich132237371@fedora git-extended]$ git add CHANGELOG.md
[sofich132237371@fedora git-extended]$ git commit -am 'chore(site): add changelog'
```

Рис. 10: Создание журнала

Заливаю релизную ветку в основную ветку


```
[sofich132237371@fedora git-extended]$ git flow release finish 1.0.0
Branches 'main' and 'origin/main' have diverged.
And local branch 'main' is ahead of 'origin/main'.
Already on 'main'
Your branch is ahead of 'origin/main' by 2 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 | 14 ++++++++++++++
 1 file changed, 14 insertions(+)
 create mode 100644 CHANGELOG.md
Deleted branch release/1.0.0 (was d075b7f).
```

Рис. 11: Вложение ветки

Отправляю данные на github

```
[sofich132237371@fedora git-extended]$ git push --all
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 2.84 KiB | 2.84 MiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:AndreySofich/git-extended.git
   6402e38..b105a30  develop -> develop
   6402e38..d193d7c  main -> main
[sofich132237371@fedora git-extended]$ git push --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 162 bytes | 162.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:AndreySofich/git-extended.git
 * [new tag]         v1.0.0 -> v1.0.0
```

Создаю релиз на GitHub

```
[sofich132237371@fedora git-extended]$ gh release create v1.0.0 -F CHANGELOG.md
https://github.com/AndreySofich/git-extended/releases/tag/v1.0.0
[sofich132237371@fedora 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

[sofich132237371@fedora 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 b105a30).
```

Создаю ветку для новой функциональности


```
[sofich132237371@fedora git-extended]$ git flow release start 1.2.3
Switched to a new branch 'release/1.2.3'
```

Рис. 14: Создание ветки

Обновляю файл package.json и создаю журнал изменений, добавляю журнал в индекс и заливаю ветку в основную

```
[sofich132237371@fedora git-extended]$ standard-changelog
✓ output changes to CHANGELOG.md
[sofich132237371@fedora git-extended]$ git add CHANGELOG.md
[sofich132237371@fedora git-extended]$ git commit -am 'chore(site): update changelog'
[release/1.2.3 6dfb519] chore(site): update changelog
 2 files changed, 5 insertions(+), 1 deletion(-)
[sofich132237371@fedora 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(-)
```

Отправляю данные на github

```
[sofich132237371@fedora 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), 2.74 KiB | 2.74 MiB/s, done.
Total 6 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To github.com:AndreySofich/git-extended.git
   b105a30..286a928  develop -> develop
   d193d7c..8bef9e2  main -> main
[sofich132237371@fedora git-extended]$ git push --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 162 bytes | 162.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:AndreySofich/git-extended.git
 * [new tag]         v1.2.3 -> v1.2.3
```

Создаю релиз на GitHub с комментарием из журнала изменений


```
[sofich132237371@fedora git-extended]$ gh release create v1.2.3 -F CHANGELOG.md
https://github.com/AndreySofich/git-extended/releases/tag/v1.2.3
```

Рис. 17: Создание релиза

Выводы

В ходе работы я получение навыков правильной работы с репозиториями git