Операционные системы

Продвинутое использование git

Матиев Даниэль Саматович

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1. Цели и задачи работы

Цель лабораторной работы

Получение навыков правильной работы с репозиториями git.

Задачи лабораторной работы

1 Выполнить работу для тестового репозитория.

2 Преобразовать рабочий репозиторий в репозиторий с git-flow и conventional commits.

2. Процесс выполнения лабораторной работы

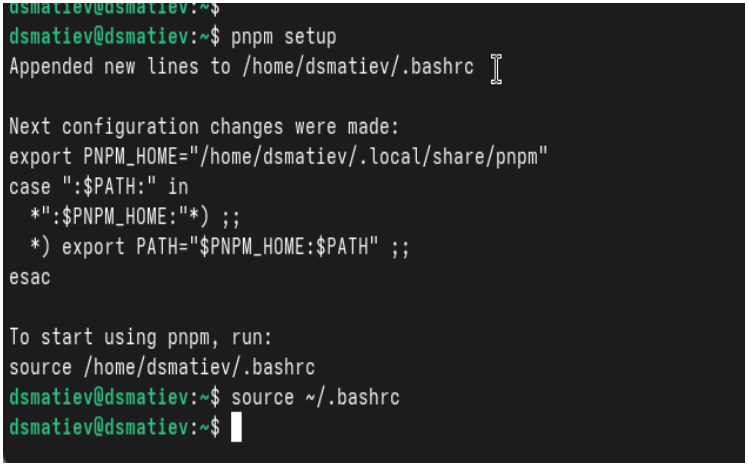

Рисунок 1: Node.js

Рисунок 2: установка commitizen

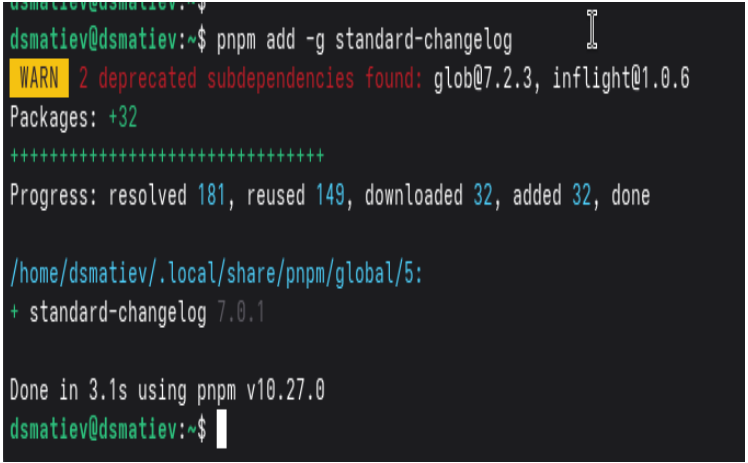

Рисунок 3: установка standard-changelog

package.json

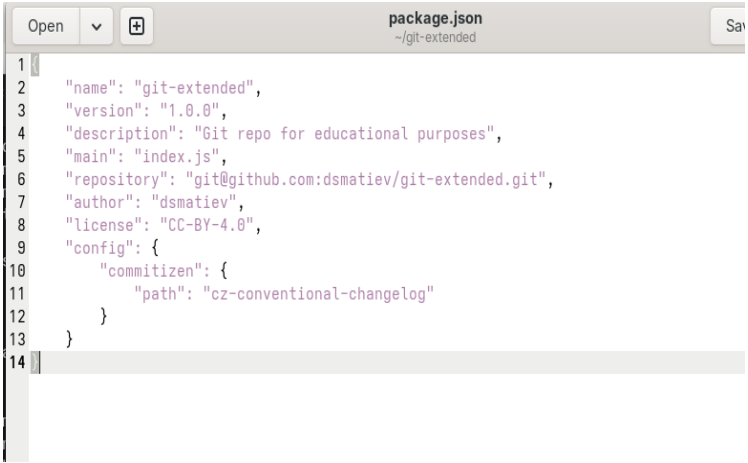

Рисунок 4: package.json

Использование commitizen

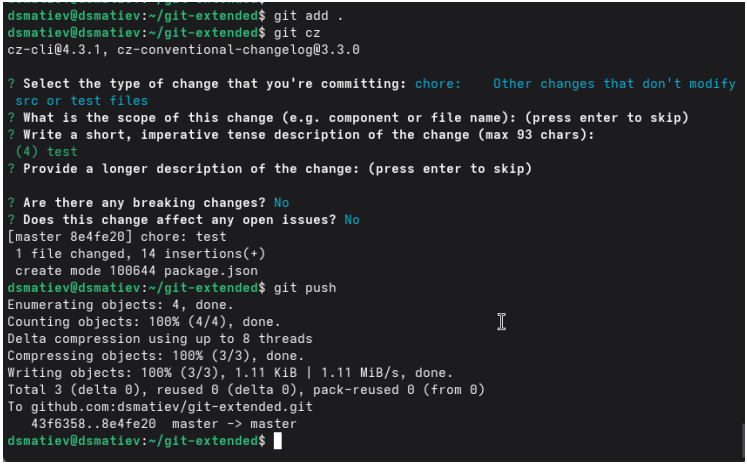

Рисунок 5: Отправка

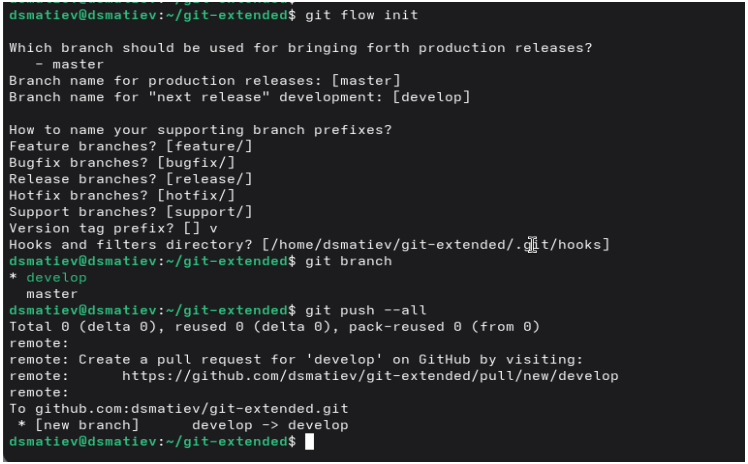

Рисунок 6: Инициализация и загрузка изменений

```
dsmatiev@dsmatiev:~/git-extended$ git branch --set-upstream-to=origin/develop develop
branch 'develop' set up to track 'origin/develop'.
dsmatiev@dsmatiev:~/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'

dsmatiev@dsmatiev:~/git-extended$ standard-changelog --first-release
dsmatiev@dsmatiev:~/git-extended$ git add CHANGELOG.md
dsmatiev@dsmatiev:~/git-extended$ git commit -am 'chore(site): add changelog'
[release/1.0.0 d3a1b37] chore(site): add changelog
 1 file changed, 4 insertions(+)
 create mode 100644 CHANGELOG.md
dsmatiev@dsmatiev:~/git-extended$ git flow release finish 1.0.0
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
Merge made by the 'ort' strategy.
 CHANGELOG.md | 4 ++++
 1 file changed, 4 insertions(+)
 create mode 100644 CHANGELOG.md
Already on 'master'
Your branch is ahead of 'origin/master' by 2 commits.
```

Рисунок 7: Завершение релиза

Отправим данные на github

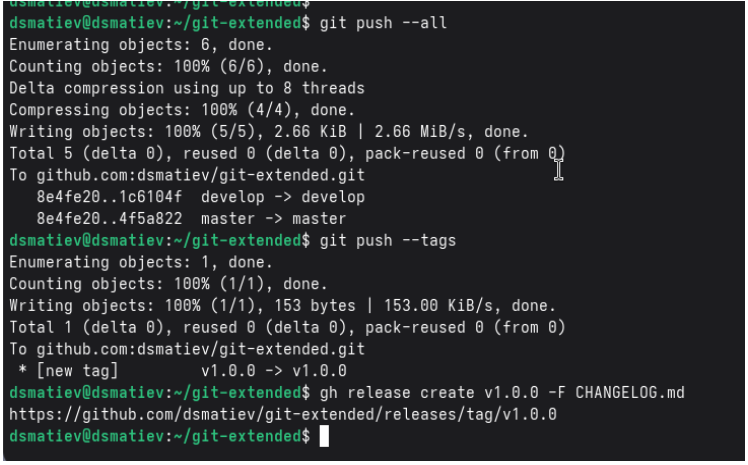

Рисунок 8: Отправка

Объединение веток

```
dsmatiev@dsmatiev:~/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

dsmatiev@dsmatiev:~/git-extended$ touch test2
dsmatiev@dsmatiev:~/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 1c6104f).

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'

dsmatiev@dsmatiev:~/git-extended$
```

Рисунок 9: Объединение веток

```
Summary of actions:
- Release branch 'release/1.2.3' has been merged into 'master'
- 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'

dsmatiev@dsmatiev:~/git-extended$ git push --all
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 2.77 KiB | 2.77 MiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:dsmatiev/git-extended.git
   1c6104f..22e300c  develop -> develop
   4f5a822..df8e16a  master -> master
dsmatiev@dsmatiev:~/git-extended$ git push --tags
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 154 bytes | 154.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:dsmatiev/git-extended.git
 * [new tag]         v1.2.3 -> v1.2.3
dsmatiev@dsmatiev:~/git-extended$ gh release create v1.2.3 -F CHANGELOG.md
https://github.com/dsmatiev/git-extended/releases/tag/v1.2.3
dsmatiev@dsmatiev:~/git-extended$
```

Рисунок 10: Завершение релиза

Подготовка рабочего репозитория

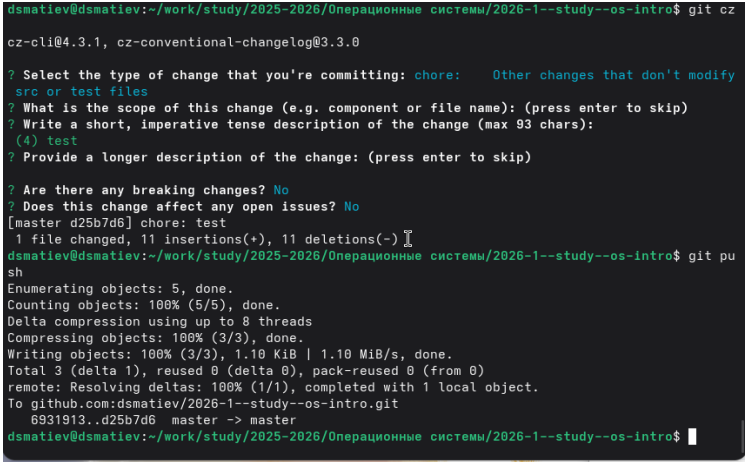

Рисунок 11: package.json и коммит

Подготовка рабочего репозитория

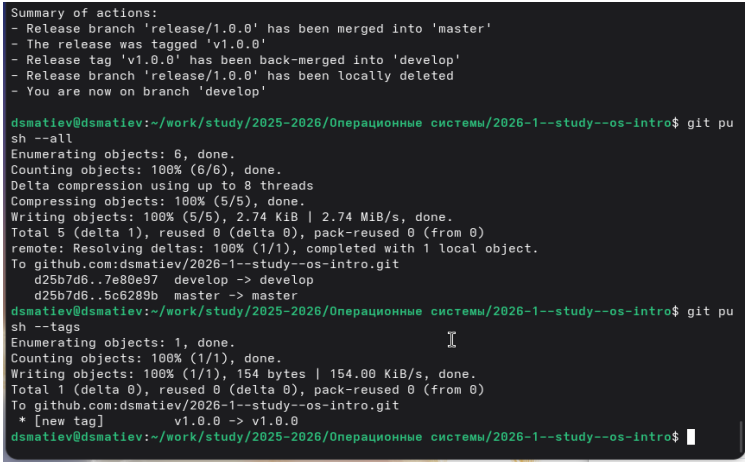

Рисунок 12: Завершение релиза

3. Выводы по проделанной работе

Вывод

Мы приобрели практические навыки взаимодействия с дополнительными функциями гитхаб.