

**РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ**  
**Факультет физико-математических и естественных наук**  
**Кафедра прикладной информатики и теории вероятностей**

**ОТЧЁТ**  
**ПО ЛАБОРАТОРНОЙ РАБОТЕ № 3**  
дисциплина: Архитектура компьютеров

Студент: Сычев Е.О.

Группа: НММбд-03-22

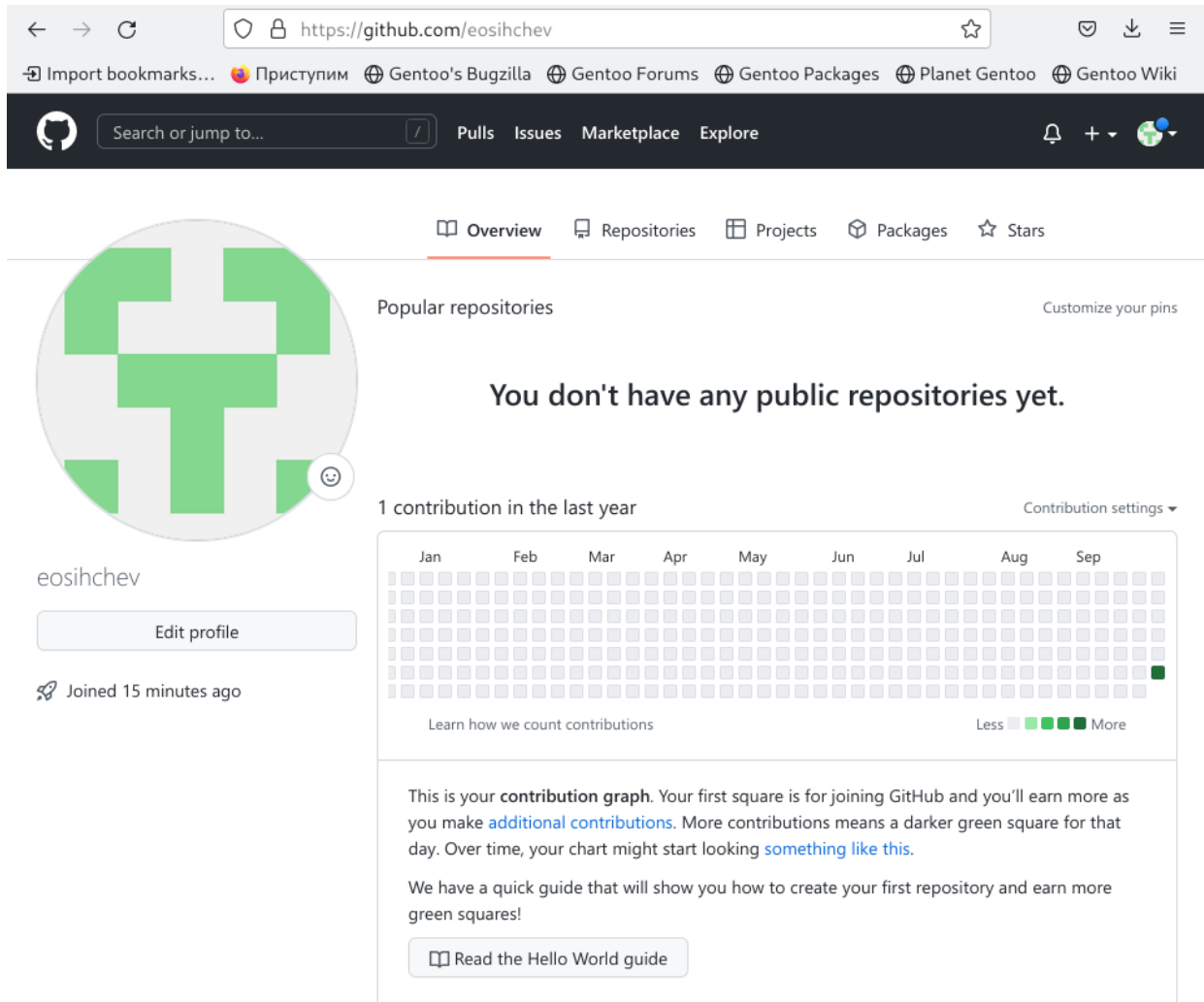
**МОСКВА**

2022 г.

**Цель работы:** Изучить идеологию и применение средств контроля версий. Приобрести практические навыки по работе с системой git.

## Выполнение лабораторной работы:

1) Создаем учетную запись github.



The screenshot shows the GitHub profile page for user 'eosihchev'. The browser address bar displays 'https://github.com/eosihchev'. The page features a large green and white pixelated avatar on the left. To the right of the avatar, the text 'You don't have any public repositories yet.' is displayed. Below this, a '1 contribution in the last year' section shows a contribution graph with a single green square in September. The page also includes navigation links like 'Overview', 'Repositories', 'Projects', 'Packages', and 'Stars' at the top, and a 'Read the Hello World guide' button at the bottom.

2) Проводим базовую настройку git.

```
[eosihchev@fedora ~]$ git config --global user.name "<eosihchev>"
[eosihchev@fedora ~]$ git config --global user.email "<1132226469@pfur.ru>"
[eosihchev@fedora ~]$ git config --global core.quotepath false
[eosihchev@fedora ~]$ git config --global init.defaultBranch master
[eosihchev@fedora ~]$ git config --global core.autocrlf input
[eosihchev@fedora ~]$ git config --global core.safecrlf warn
[eosihchev@fedora ~]$
```

### 3) Создаем SSH ключ.

```
[eosihchev@fedora ~]$ ssh-keygen -C "Egor Sychev <1132226469@pfur.ru>"
Generating public/private rsa key pair.
Enter file in which to save the key (/home/eosihchev/.ssh/id_rsa):
Created directory '/home/eosihchev/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/eosihchev/.ssh/id_rsa
Your public key has been saved in /home/eosihchev/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:KdWE2j35mQrb5TTU8/Y9SqxSvRwQcW0BwcrgrkY2RfE Egor Sychev <1132226469@pfur.ru>
The key's randomart image is:
+---[RSA 3072]-----+
|      oo.o++..|
|      .=. . . . o |
|      o+..+Eo..|
|      ...+++.. o |
|      . S  +oo o |
|      =.. .0o  o|
|      o o+.=.+o.o|
|      o..o  +o .o|
|      .   ..  ..|
+-----[SHA256]-----+
[eosihchev@fedora ~]$
```

### 4) Копируем SSH ключ в буфер обмена.


```
[eosihchev@fedora ~]$ cat ~/.ssh/id_rsa.pub | xclip -sel clip
[eosihchev@fedora ~]$
```

### 5) Вставляем ключ на сайте.

#### SSH keys / Add new

Title

Key type

Authentication Key 

Key

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQgQDQtk65iiqFTFp2U+7DKWiPvZWyr5Qv1MpRWdaoasJ
cJr8dmp+/HLhJNoCOVL1PbUQuBJHqAX8y4I6lv8ANpfDb6JOGHyO93Jd9naGxK4wQ15wEZG0r
xBlTjIWZe5qGsWTbx1L+TRTpu+LjZIP9
/OSJBrs57XdPIHzqzV5syV2bhanvPKWXppN17qPNzbT6UU1tVeudjcDxw768xivDo0KVIzop7DlSr
tuSGF6s6sFAYOAvdyV4wr+fym0CPuNpAhO8HUaLj4SdC6CZRJv4JEd8oxJA7xr8Z1xCW41APWts
nI2ddl+QqFZz9vWktpCg2Z7Lk1JBt0k1Ct3nniVxTSoiDdrzkZmU8phaLoSnFumfyrW8FS
/eYHURABbhOqCrVSVIPmp6N5XS2H6sh58GFrIxDINMV2jRonTSsdlozMLk42ASogW1K9UHF6yJ
7kQVzUWopqpBfEb0cpBMY8iDPa1F6FbOOApCLvGV98nd1ZltX1MIGFY0b1hdS1jhK/2bE= Egor
```

Add SSH key

## SSH keys

[New SSH key](#)

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

### Authentication Keys



**Title**  
SHA256:KdWE2j35mQrb5TTU8/Y9SqxSvRwQcW0BwcngrkY2RfE  
Added on 7 Oct 2022  
Never used — Read/write

Delete

Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH problems](#).

6) Создаем каталог для предмета «Архитектура компьютера».

```
[eosihchev@fedora ~]$ mkdir -p ~/work/study/2022-2023/"Архитектура компьютера"
[eosihchev@fedora ~]$
```

7) Переходим на страницу репозитория с шаблоном курса, выбираем use this template, задаем имя репозитория и создаем его.

### Create a new repository from course-directory-student-template

The new repository will start with the same files and folders as [yamadharm/course-directory-student-template](#).

Owner \*

 eosihchev ▾

Repository name \*

/ study\_2022-2023\_arh-pc ✓

Great repository names are [short](#), [simple](#), and [easy to remember](#). Your new repository will be created as `study_2022-2023_arh-pc`. [Why not?](#)

Description (optional)

☒  **Public**

Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

☐ **Include all branches**

Copy all branches from yamadharm/course-directory-student-template and not just master.

 You are creating a public repository in your personal account.

Create repository from template

## 8) Переходим в каталог курса и клонируем созданный репозиторий.

```
[eosihchev@fedora ~]$ cd ~/work/study/2022-2023/"Архитектура компьютера"
[eosihchev@fedora Архитектура компьютера]$ git clone --recursive git@github.com:eosihchev/study_2022-2023_arh-pc.git arch-pc
Cloning into 'arch-pc'...
The authenticity of host 'github.com (140.82.121.3)' can't be established.
ED25519 key fingerprint is SHA256:+DiY3wvV6TuJJhbpZisF/zLDA0zPMSvHdkr4UvC0qU.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added 'github.com' (ED25519) to the list of known hosts.
remote: Enumerating objects: 26, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (25/25), done.
remote: Total 26 (delta 0), reused 17 (delta 0), pack-reused 0
Receiving objects: 100% (26/26), 16.02 KiB | 8.01 MiB/s, done.
Submodule 'template/presentation' (https://github.com/yamadharma/academic-presentation-markdown-template.git) registered for path 'template/presentation'
Submodule 'template/report' (https://github.com/yamadharma/academic-laboratory-report-template.git) registered for path 'template/report'
Cloning into '/home/eosihchev/work/study/2022-2023/Архитектура компьютера/arch-pc/template/presentation'...
remote: Enumerating objects: 71, done.
remote: Counting objects: 100% (71/71), done.
remote: Compressing objects: 100% (49/49), done.
remote: Total 71 (delta 23), reused 68 (delta 20), pack-reused 0
Receiving objects: 100% (71/71), 88.89 KiB | 938.00 KiB/s, done.
Resolving deltas: 100% (23/23), done.
Cloning into '/home/eosihchev/work/study/2022-2023/Архитектура компьютера/arch-pc/template/report'...
remote: Enumerating objects: 78, done.
remote: Counting objects: 100% (78/78), done.
remote: Compressing objects: 100% (52/52), done.
remote: Total 78 (delta 31), reused 69 (delta 22), pack-reused 0
Receiving objects: 100% (78/78), 292.27 KiB | 253.00 KiB/s, done.
Resolving deltas: 100% (31/31), done.
Submodule path 'template/presentation': checked out '2703b47423792d472694aaf7555a5626dce51a25'
Submodule path 'template/report': checked out 'df7b2ef80f8def3b9a496f8695277469a1a7842a'
[eosihchev@fedora Архитектура компьютера]$
```

## 9) Переходим в каталог курса, удаляем лишние файлы, создаем необходимые каталоги.

```
[eosihchev@fedora Архитектура компьютера]$ cd ~/work/study/2022-2023/"Архитектура компьютера"/arch-pc
[eosihchev@fedora arch-pc]$ rm package.json
[eosihchev@fedora arch-pc]$ echo arch-pc > COURSE
[eosihchev@fedora arch-pc]$ make
```

## 10) Отправляем файлы на сервер.

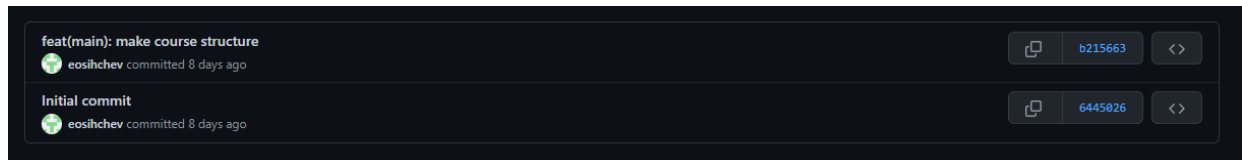
```
[eosihchev@fedora arch-pc]$ git add .
```

















```
[eosihchev@fedora arch-pc]$ git commit -am 'feat(main): make course structure'
[master b215663] feat(main): make course structure
91 files changed, 8229 insertions(+), 14 deletions(-)
create mode 100644 labs/lab01/presentation/Makefile
create mode 100644 labs/lab01/presentation/image/kulyabov.jpg
create mode 100644 labs/lab01/presentation/presentation.md
create mode 100644 labs/lab01/report/Makefile
create mode 100644 labs/lab01/report/bib/cite.bib
create mode 100644 labs/lab01/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab01/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab01/report/report.md
create mode 100644 labs/lab02/presentation/Makefile
create mode 100644 labs/lab02/presentation/image/kulyabov.jpg
create mode 100644 labs/lab02/presentation/presentation.md
create mode 100644 labs/lab02/report/Makefile
create mode 100644 labs/lab02/report/bib/cite.bib
create mode 100644 labs/lab02/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab02/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab02/report/report.md
create mode 100644 labs/lab03/presentation/Makefile
create mode 100644 labs/lab03/presentation/image/kulyabov.jpg
create mode 100644 labs/lab03/presentation/presentation.md
create mode 100644 labs/lab03/report/Makefile
create mode 100644 labs/lab03/report/bib/cite.bib
create mode 100644 labs/lab03/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab03/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab03/report/report.md
create mode 100644 labs/lab04/presentation/Makefile
create mode 100644 labs/lab04/presentation/image/kulyabov.jpg
create mode 100644 labs/lab04/presentation/presentation.md
create mode 100644 labs/lab04/report/Makefile
create mode 100644 labs/lab04/report/bib/cite.bib
create mode 100644 labs/lab04/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab04/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab04/report/report.md
create mode 100644 labs/lab05/presentation/Makefile
create mode 100644 labs/lab05/presentation/image/kulyabov.jpg
create mode 100644 labs/lab05/presentation/presentation.md
create mode 100644 labs/lab05/report/Makefile
create mode 100644 labs/lab05/report/bib/cite.bib
create mode 100644 labs/lab05/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab05/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab05/report/report.md
create mode 100644 labs/lab06/presentation/Makefile
create mode 100644 labs/lab06/presentation/image/kulyabov.jpg
create mode 100644 labs/lab06/presentation/presentation.md
create mode 100644 labs/lab06/report/Makefile
create mode 100644 labs/lab06/report/bib/cite.bib
create mode 100644 labs/lab06/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab06/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab06/report/report.md
create mode 100644 labs/lab07/presentation/Makefile
create mode 100644 labs/lab07/presentation/image/kulyabov.jpg
create mode 100644 labs/lab07/presentation/presentation.md
create mode 100644 labs/lab07/report/Makefile
create mode 100644 labs/lab07/report/bib/cite.bib
create mode 100644 labs/lab07/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab07/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab07/report/report.md
create mode 100644 labs/lab08/presentation/Makefile
create mode 100644 labs/lab08/presentation/image/kulyabov.jpg
create mode 100644 labs/lab08/presentation/presentation.md
create mode 100644 labs/lab08/report/Makefile
create mode 100644 labs/lab08/report/bib/cite.bib
```

```
create mode 100644 labs/lab08/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab08/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab08/report/report.md
create mode 100644 labs/lab09/presentation/Makefile
create mode 100644 labs/lab09/presentation/image/kulyabov.jpg
create mode 100644 labs/lab09/presentation/presentation.md
create mode 100644 labs/lab09/report/Makefile
create mode 100644 labs/lab09/report/bib/cite.bib
create mode 100644 labs/lab09/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab09/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab09/report/report.md
create mode 100644 labs/lab10/presentation/Makefile
create mode 100644 labs/lab10/presentation/image/kulyabov.jpg
create mode 100644 labs/lab10/presentation/presentation.md
create mode 100644 labs/lab10/report/Makefile
create mode 100644 labs/lab10/report/bib/cite.bib
create mode 100644 labs/lab10/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab10/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab10/report/report.md
create mode 100644 labs/lab11/presentation/Makefile
create mode 100644 labs/lab11/presentation/image/kulyabov.jpg
create mode 100644 labs/lab11/presentation/presentation.md
create mode 100644 labs/lab11/report/Makefile
create mode 100644 labs/lab11/report/bib/cite.bib
create mode 100644 labs/lab11/report/image/placeimg_800_600_tech.jpg
create mode 100644 labs/lab11/report/pandoc/csl/gost-r-7-0-5-2008-numeric.csl
create mode 100644 labs/lab11/report/report.md
delete mode 100644 package.json
create mode 100644 prepare
```

```
[eosihchev@fedora arch-pc]$ git push
Enumerating objects: 22, done.
Counting objects: 100% (22/22), done.
Compressing objects: 100% (16/16), done.
Writing objects: 100% (20/20), 310.94 KiB | 2.32 MiB/s, done.
Total 20 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:eosihchev/study_2022-2023_arh-pc.git
 6445026..b215663 master -> master
[eosihchev@fedora arch-pc]$
```

11) Проверяем правильность создания иерархии рабочего пространства в локальном репозитории и на странице github.



	eosihchev feat(main): make course structure ...	15 minutes ago	 2
	config	Initial commit	29 minutes ago
	labs	feat(main): make course structure	15 minutes ago
	template	Initial commit	29 minutes ago
	.gitattributes	Initial commit	29 minutes ago
	.gitignore	Initial commit	29 minutes ago
	.gitmodules	Initial commit	29 minutes ago
	CHANGELOG.md	Initial commit	29 minutes ago
	COURSE	feat(main): make course structure	15 minutes ago
	LICENSE	Initial commit	29 minutes ago
	Makefile	Initial commit	29 minutes ago
	README.en.md	Initial commit	29 minutes ago
	README.git-flow...	Initial commit	29 minutes ago
	README.md	Initial commit	29 minutes ago
	prepare	feat(main): make course structure	15 minutes ago

```
[eosihchev@fedora arch-pc]$ ls -la
.          config  .gitattributes  labs      prepare      README.md
..         COURSE  .gitignore     LICENSE   README.en.md  template
CHANGELOG.md .git  .gitmodules    Makefile  README.git-flow.md
[eosihchev@fedora arch-pc]$
```

# Самостоятельная работа:

1) Скопируем предыдущие отчеты по лабораторным работам в нужные каталоги.

```
[eosihchev@fedora arch-pc]$ cp ~/Загрузки/Л01_Сычев_отчет.pdf ~/work/study/2022-2023/"Архитектура компьютера"/arch-pc/labs/lab01/report
[eosihchev@fedora arch-pc]$ cp ~/Загрузки/Л02_Сычев_отчет.pdf ~/work/study/2022-2023/"Архитектура компьютера"/arch-pc/labs/lab02/report
```

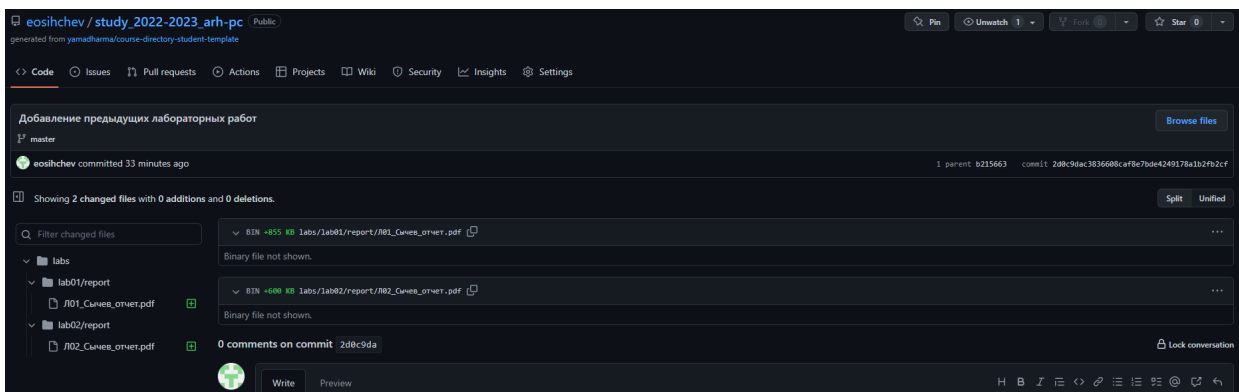
2) Загрузим отчеты на github, при помощи команд git add, git commit и git push.

```
[eosihchev@fedora arch-pc]$ git add -A
[eosihchev@fedora arch-pc]$ git status
На ветке master
Ваша ветка обновлена в соответствии с «origin/master».

Изменения, которые будут включены в коммит:
(используйте «git restore --staged <файл>...», чтобы убрать из индекса)
    новый файл:   "labs/lab01/report/\320\23301_\320\241\321\213\321\207\320\265\320\262_\320\276\321\202\321\207\320\265\321\202_.pdf"
    новый файл:   "labs/lab02/report/\320\23302_\320\241\321\213\321\207\320\265\320\262_\320\276\321\202\321\207\320\265\321\202_.pdf"

[eosihchev@fedora arch-pc]$ git commit -m "Добавление предыдущих лабораторных работ"
[master 2d0c9da] добавление предыдущих лабораторных работ
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 "labs/lab01/report/\320\23301_\320\241\321\213\321\207\320\265\320\262_\320\276\321\202\321\207\320\265\321\202_.pdf"
create mode 100644 "labs/lab02/report/\320\23302_\320\241\321\213\321\207\320\265\320\262_\320\276\321\202\321\207\320\265\321\202_.pdf"
[eosihchev@fedora arch-pc]$ git push
Перечисление объектов: 15, готово.
Подсчет объектов: 100% (13/13), готово.
Сжатие объектов: 100% (9/9), готово.
Запись объектов: 100% (9/9), 1.25 Миб | 4.21 Миб/с, готово.
Всего 9 (изменений 3), повторно использовано 0 (изменений 0), повторно использовано пакетов 0
remote: Resolving deltas: 100% (3/3), completed with 2 local objects.
To github.com:eosihchev/study_2022-2023_arh-pc.git
   b215663..2d0c9da master -> master
[eosihchev@fedora arch-pc]$
```

3) Проверим правильность выполненных действий.



**Вывод:** Я изучил идеологию и применене средств контроля версий. В том числе приобрел практические навыки по работе с системой git.