

**МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ
ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ
ВЫСШЕГО ОБРАЗОВАНИЯ
«СЕВЕРО-КАВКАЗСКИЙ ФЕДЕРАЛЬНЫЙ УНИВЕРСИТЕТ»
ИНСТИТУТ ЦИФРОВОГО РАЗВИТИЯ**

**Отчет о лабораторной работе №2.1 по дисциплине основы
программной инженерии**

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Отчет защищен с оценкой _____ Дата защиты _____

Ставрополь, 2021 г.

ВЫПОЛНЕНИЕ:

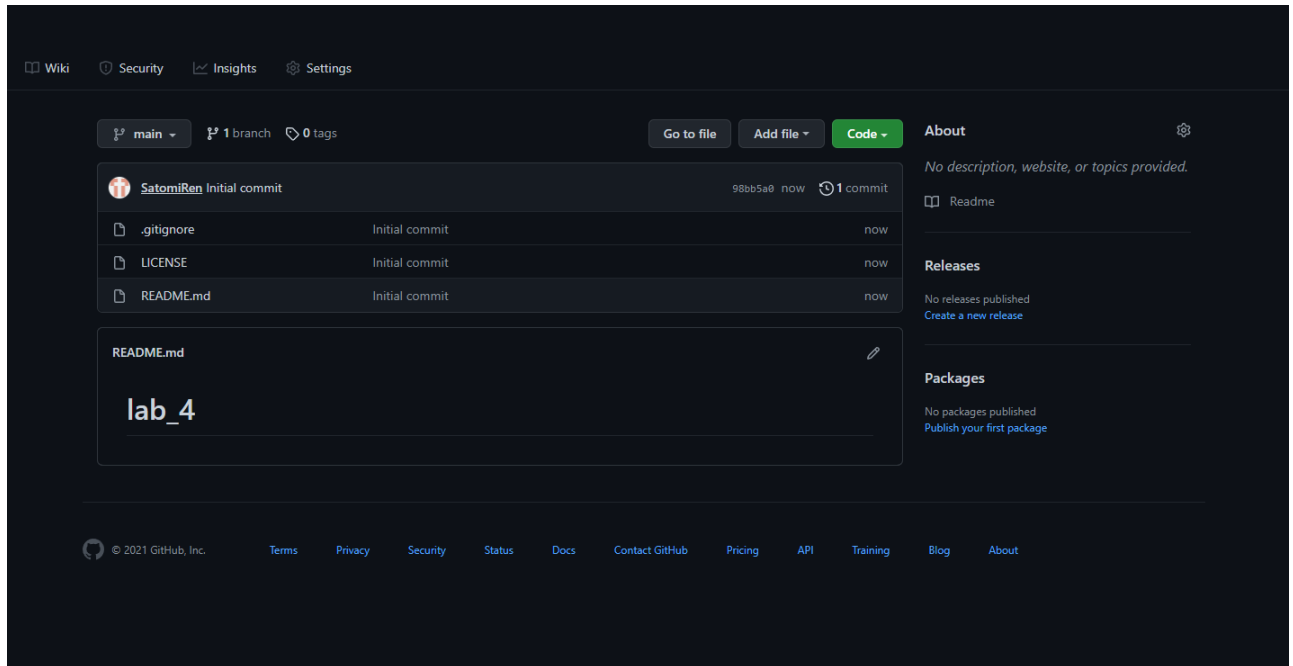


Рисунок 4.1 - Создание репозитория

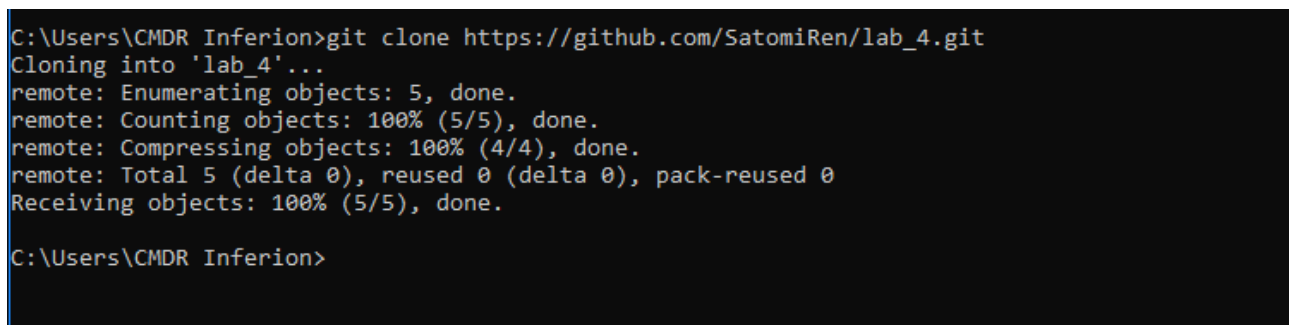


Рисунок 4.2 - Клонирование репозитория



Рисунок 4.3 - Организация репозитория в соответствии с моделью git-flow

Имя	Дата изменения	Тип	Размер
.idea	01.12.2021 10:51	Папка с файлами	
venv	01.12.2021 10:51	Папка с файлами	
.gitignore	30.11.2021 22:39	Текстовый докум...	2 КБ
LICENSE	30.11.2021 22:39	Файл	2 КБ
README.md	30.11.2021 22:39	Файл "MD"	1 КБ

Рисунок 4.5 - Создание проекта PyCharm в папке репозитория

The screenshot shows the PyCharm IDE interface. The top toolbar includes buttons for File, Edit, View, Navigate, Code, Refactor, Run, Tools, Git, Window, and Help. The main editor displays the file `user.py` with the following code:

```

1 name = input("What's your name? ")
2 old = input("How old are you? ")
3 address = input("Where do you live? ")
4 print("This is", name, ",")
5 print("Who is", old, "years old")
6 print("And lives in", address)

```

The Run console at the bottom shows the execution of the script with the following output:

```

Run: user
"C:\Users\CMDR Inferion\lab_4\venv\Scripts\python.exe" "C:/Users/CMDR Inferion/lab_4/venv/Scripts/user.py"
What's your name? Philip
How old are you? 19
Where do you live? Stavropol, Russia
This is Philip ,
Who is 19 years old
And lives in Stavropol, Russia
Process finished with exit code 0

```

Рисунок 4.6 - Программа user.py

The screenshot shows a code editor with a file named `arithmetic.py` in a project called `lab_4`. The code is as follows:

```
1 print("Solve the mathematical problem: 4 * 100 - 54")
2 answer = input("Your answer: ")
3 correct = 4 * 100 - 54
4 print("Correct answer is", correct)
```

Below the code editor, the `Run` panel shows the execution of the script. The command executed is `"C:\Users\CMDR Inferion\lab_4\venv\Scripts\python.exe" "C:/Users/CMDR Inferion/lab_4/venv/Scripts/arithmetic.py"`. The output is:

```
Solve the mathematical problem: 4 * 100 - 54
Your answer: 346
Correct answer is 346
```

The process finished with exit code 0.

Рисунок 4.7 - Программа `arithmetic.py`

The screenshot shows a code editor with a file named `numbers.py` in a project called `lab_4`. The code is as follows:

```
1 first = int(input("Input 1st number: "))
2 second = int(input("Input 2nd number: "))
3 third = int(input("Input 3rd number: "))
4 fourth = int(input("Input 4th number: "))
5 sum1 = first + second
6 sum2 = third + fourth
7 total = float(sum1 / sum2)
8 print(round(total, 2))
```

Below the code editor, the `Run` panel shows the execution of the script. The command executed is `"C:\Users\CMDR Inferion\lab_4\venv\Scripts\python.exe" "C:/Users/CMDR Inferion/lab_4/venv/Scripts/numbers.py"`. The output is:

```
Input 1st number: 324
Input 2nd number: 7548
Input 3rd number: 7865
Input 4th number: 384
0.95
```

The process finished with exit code 0.

Рисунок 4.8 - Программа `numbers.py`

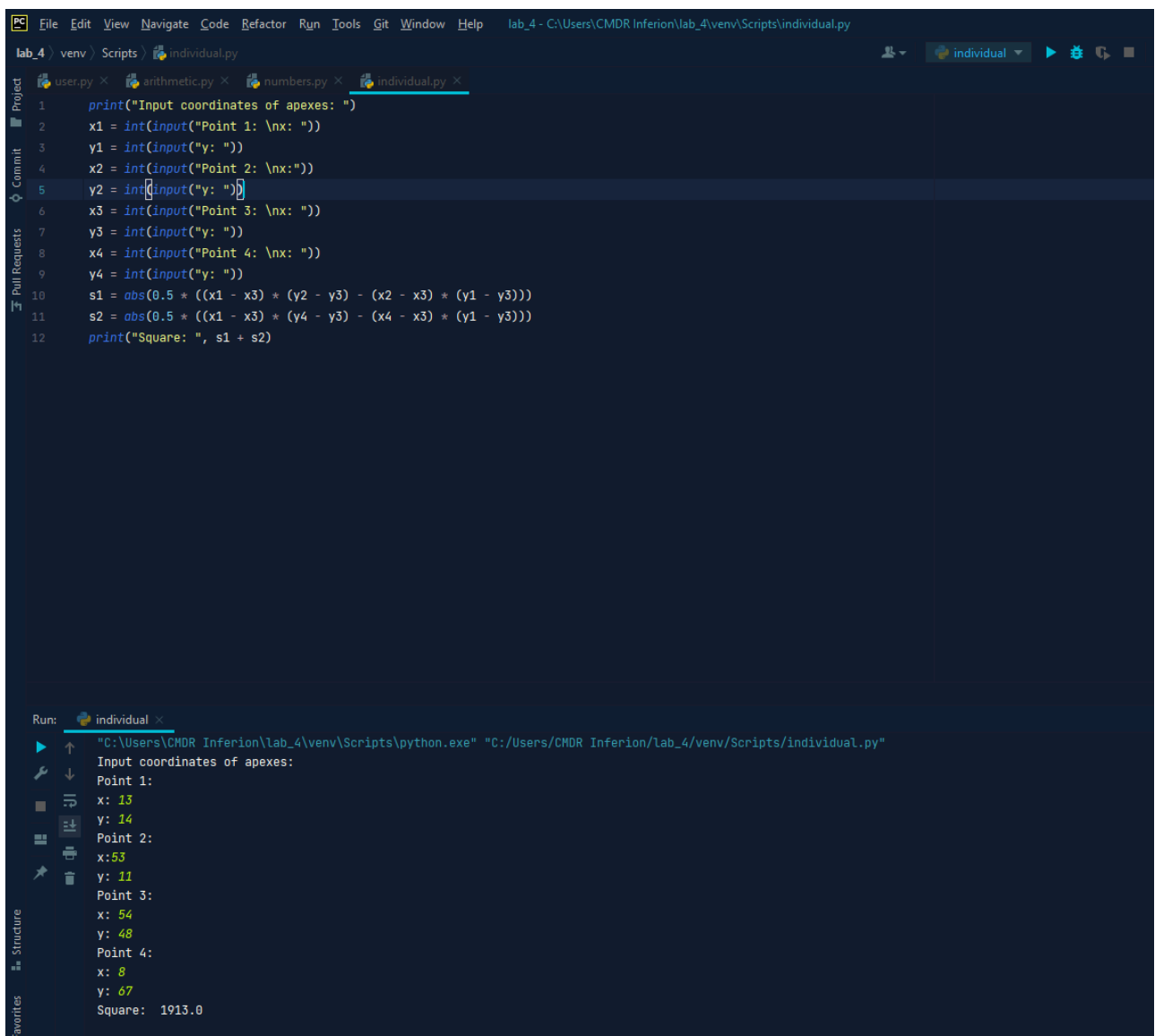


Рисунок 4.9 - Программа individual.py

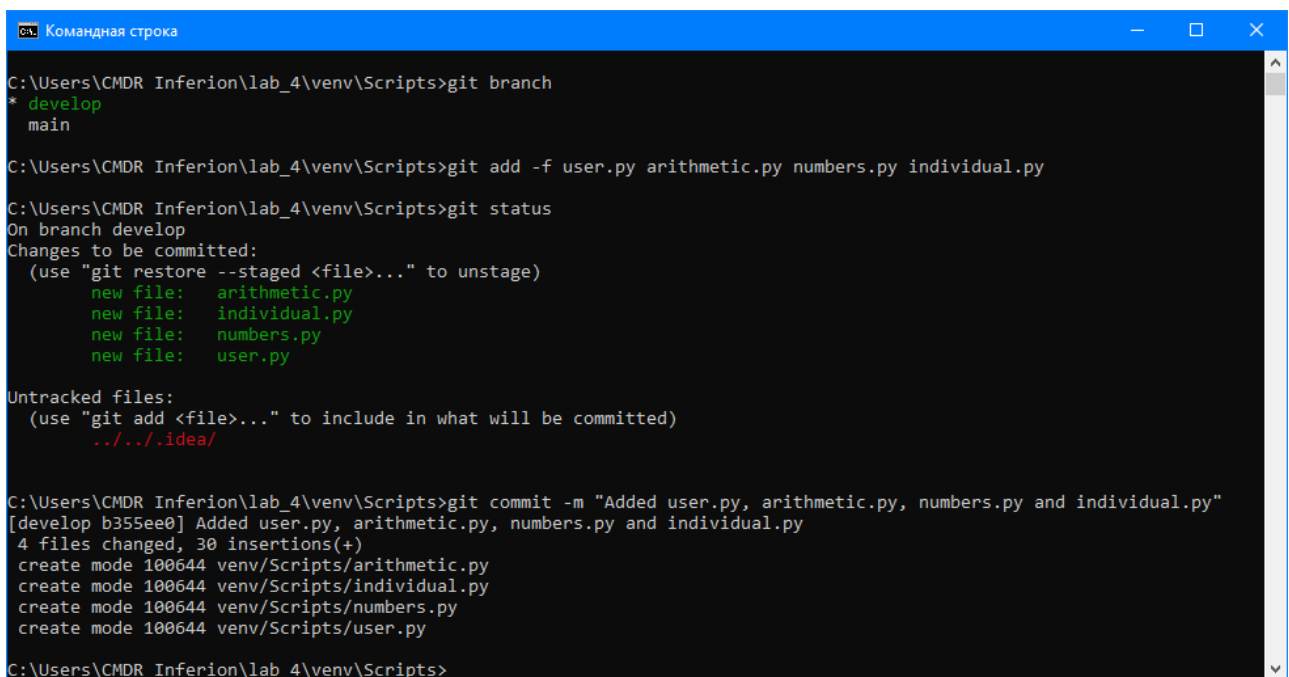


Рисунок 4.10 - Коммит вышеперечисленных файлов

```

C:\Users\CMDR Inferion\lab_4\venv\Scripts>git branch
* develop
  main

C:\Users\CMDR Inferion\lab_4\venv\Scripts>git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

C:\Users\CMDR Inferion\lab_4\venv\Scripts>git merge develop
Updating 98bb5a0..b355ee0
Fast-forward
 venv/Scripts/arithmetic.py | 4 ++++
 venv/Scripts/individual.py | 12 ++++++++
 venv/Scripts/numbers.py    | 8 ++++++
 venv/Scripts/user.py       | 6 +++++
 4 files changed, 30 insertions(+)
 create mode 100644 venv/Scripts/arithmetic.py
 create mode 100644 venv/Scripts/individual.py
 create mode 100644 venv/Scripts/numbers.py
 create mode 100644 venv/Scripts/user.py

```

Рисунок 4.11 - Слияние веток develop и main

```

C:\Users\CMDR Inferion\lab_4\venv\Scripts>git push --set-upstream origin develop
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 12 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (8/8), 1.04 KiB | 1.04 MiB/s, done.
Total 8 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:   https://github.com/SatomiRen/lab_4/pull/new/develop
remote:
To https://github.com/SatomiRen/lab_4.git
 * [new branch]      develop -> develop
Branch 'develop' set up to track remote branch 'develop' from 'origin'.

C:\Users\CMDR Inferion\lab_4\venv\Scripts>

```

Рисунок 4.12 - Отправка изменений в репозиторий GitHub

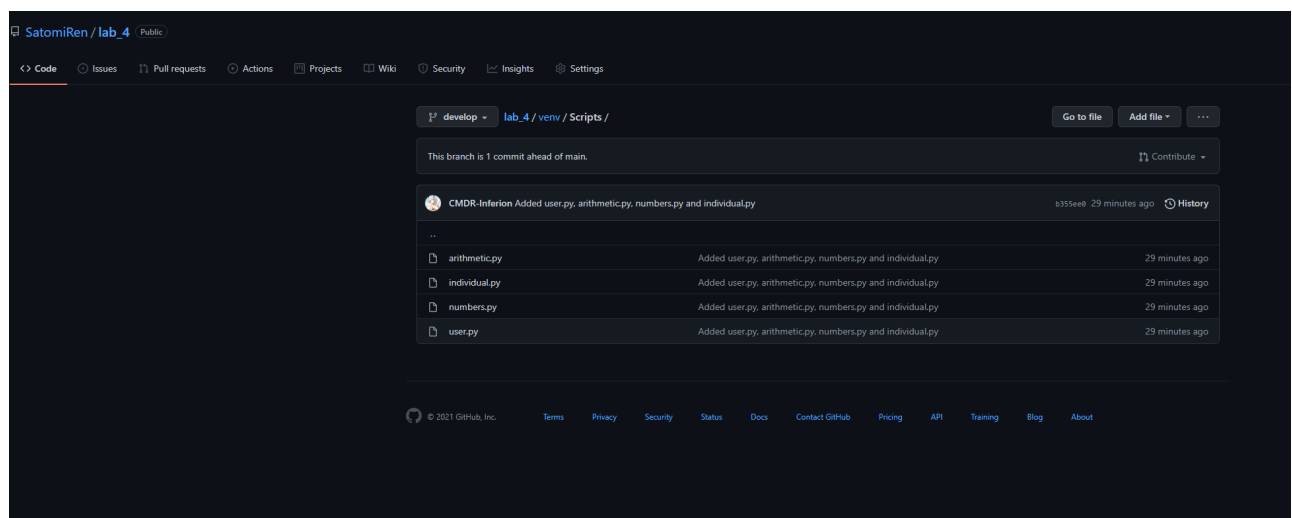


Рисунок 4.13 - Добавленные изменения в ветке develop на GitHub