

PROGRAMMAZIONE PROCEDURALE CON LABORATORIO

A.A. 2023/2024



INSTALLARE GITHUB

- 🕒 Molti tutorial su Internet, noi consideriamo Ubuntu.

```
francescosantini@ubuntu:~$ git --version  
bash: /usr/bin/git: No such file or directory
```

- 🕒 Il messaggio ci dice che git non è installato: installiamolo

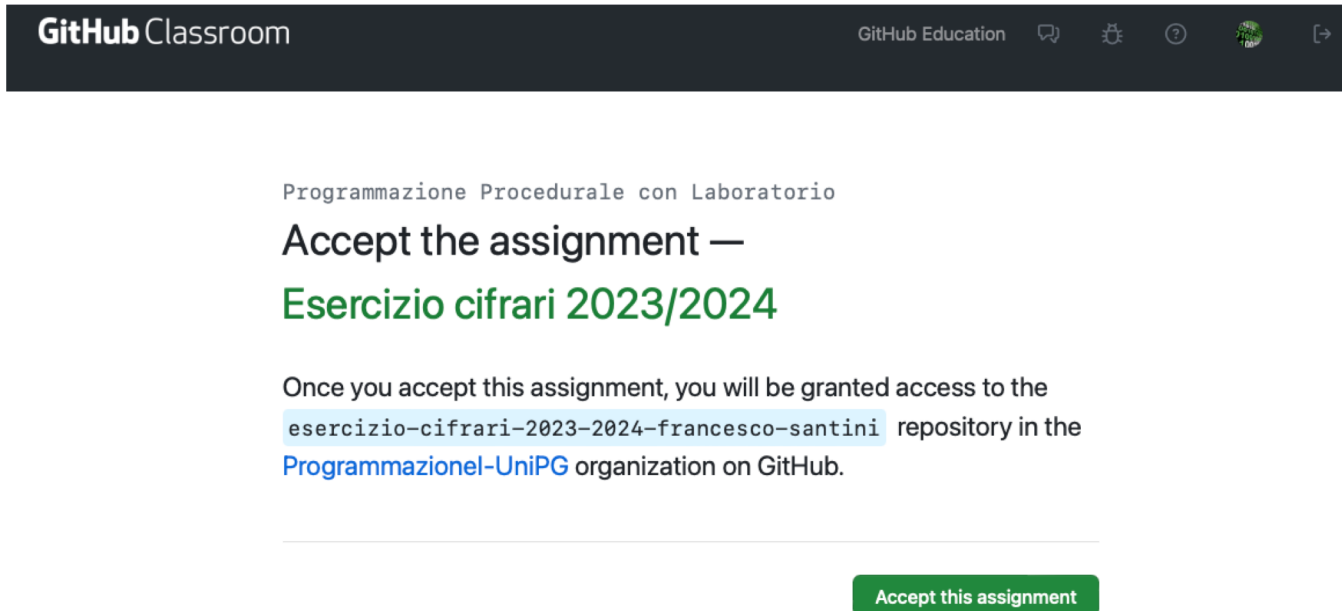
1) francescosantini@ubuntu:~\$ **sudo apt update**

2) francescosantini@ubuntu:~\$ **sudo apt install git**

3) francescosantini@ubuntu:~\$ **git --version**
git version 2.25.1

COMANDI BASE

- 🕒 Cliccare sul link dell'esercizio (Unistudium o pagina Web del corso)
- 🕒 Accettare l'esercizio



The screenshot shows the GitHub Classroom interface. At the top, there is a dark navigation bar with the text "GitHub Classroom" on the left and "GitHub Education" followed by several icons on the right. Below the navigation bar, the page content includes the text "Programmazione Procedurale con Laboratorio" in a small font, followed by "Accept the assignment —" in a larger font. The main title of the assignment is "Esercizio cifrari 2023/2024" in green. Below this, a paragraph explains that accepting the assignment grants access to the repository "esercizio-cifrari-2023-2024-francesco-santini" in the "Programmazioneel-UniPG" organization on GitHub. At the bottom right of the page, there is a green button labeled "Accept this assignment".

GitHub Classroom

GitHub Education

Programmazione Procedurale con Laboratorio

Accept the assignment —

Esercizio cifrari 2023/2024

Once you accept this assignment, you will be granted access to the `esercizio-cifrari-2023-2024-francesco-santini` repository in the [Programmazioneel-UniPG](#) organization on GitHub.

Accept this assignment

OTTERRETE

GitHub Classroom

GitHub Education



You accepted the assignment, **Esercizio cifrari 2023/2024** . We're configuring your repository now. This may take a few minutes to complete. Refresh this page to see updates.

 Your assignment is due by **Nov 26, 2023, 22:59 CEST**

Note: You may receive an email invitation to join [Programmazione1-UniPG](#) on your behalf. No further action is necessary.



Join the GitHub Student Developer Pack

Verified students receive free GitHub Pro plus thousands of dollars worth of the best real-world tools and training from GitHub Education partners — for free. For more information, visit "[GitHub Student Developer Pack](#)".

Apply


SE ASPETTATE E RICARICATE




You're ready to go!

You accepted the assignment, **Esercizio cifrari 2023/2024**.

Your assignment repository has been created:

 <https://github.com/ProgrammazioneI-UniPG/esercizio-cifrari-2023-2024-francesco-santini>

We've configured the repository associated with this assignment ([update](#)).

 Your assignment is due by **Nov 26, 2023, 22:59 CEST**

Note: You may receive an email invitation to join [ProgrammazioneI-UniPG](#) on your behalf. No further action is necessary.



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Apply

CONFIGURARE GITHUB

Adesso dobbiamo prima configurare l'access a Github.

Apriamo un terminale e

1) francescosantini@ubuntu:~\$ git config --global user.name "il_vostro_username_github"

2) francescosantini@ubuntu:~\$ git config --global user.email "la_vostra_email_github"

Per controllare che tutto sia ok,

francescosantini@ubuntu:~\$ git config -l

CONFIGURAZIONE AUTENTICAZIONE

- 🔒 L'accesso a Github tramite username e password è stato disabilitato a partire da

```
francescosantini@ubuntu:~$ git clone https://github.com/ProgrammazioneUniPG/esercizio-cifrari-2023-2024-francesco-santini
```

```
Cloning into 'esercizio-cifrari-2023-2024-francesco-santini'...
```

```
Username for 'https://github.com': francesco-santini
```

```
Password for 'https://francesco-santini@github.com':
```

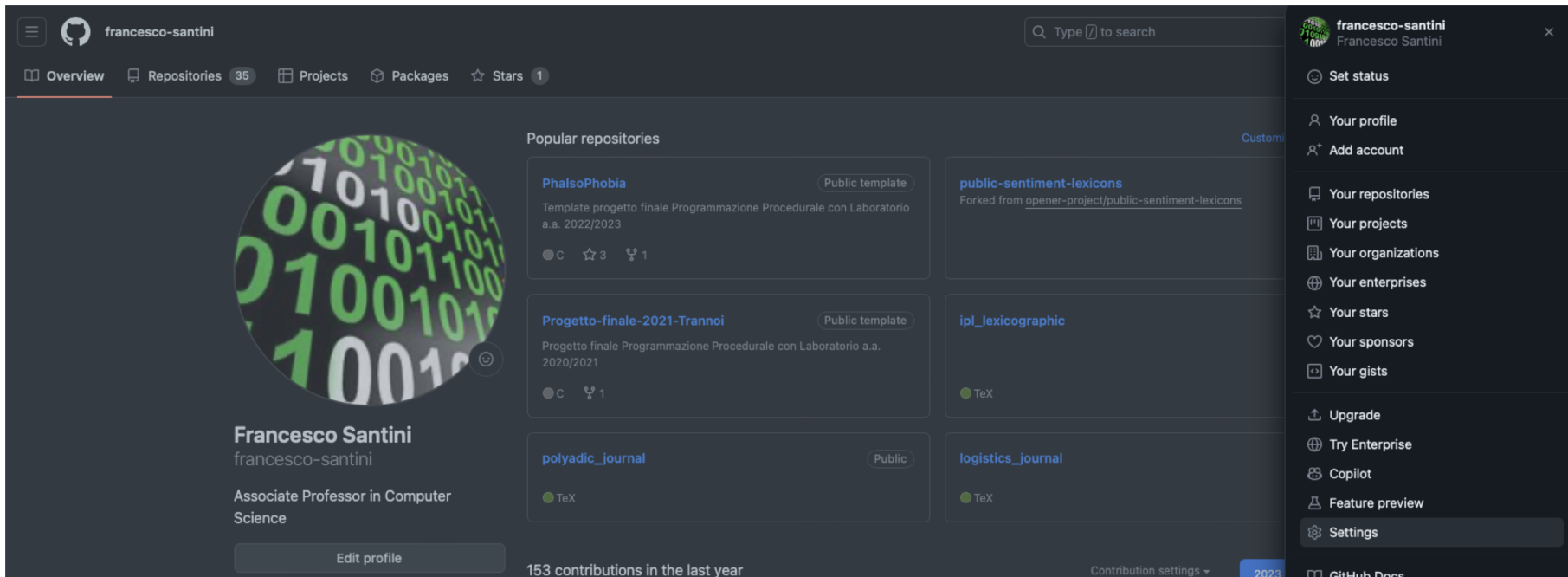
```
remote: Support for password authentication was removed on August 13, 2021.
```

```
remote: Please see https://docs.github.com/en/get-started/getting-started-with-git/about-remote-repositories#cloning-with-https-urls for information on currently recommended modes of authentication.
```

```
fatal: Authentication failed for 'https://github.com/ProgrammazioneUniPG/esercizio-cifrari-2023-2024-francesco-santini/'
```

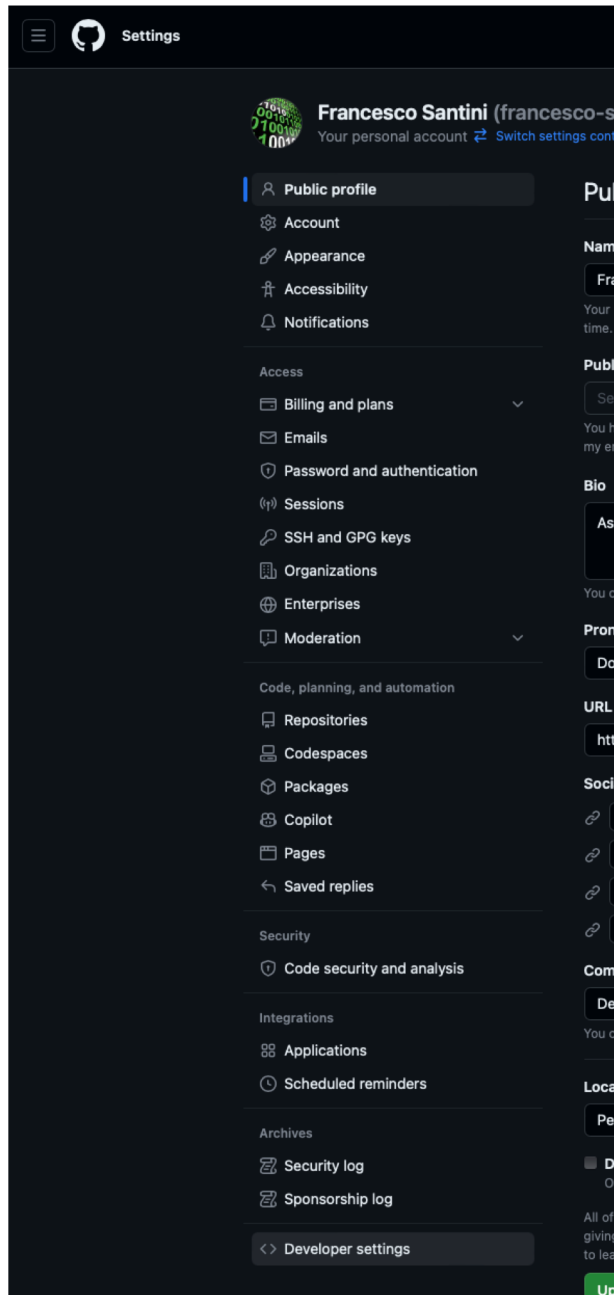
CREIAMO UN TOKEN DI ACCESSO

- 🌀 Aprite Github e andate su **Settings** dopo aver cliccato sulla vostra immagine di profile in alto a destra

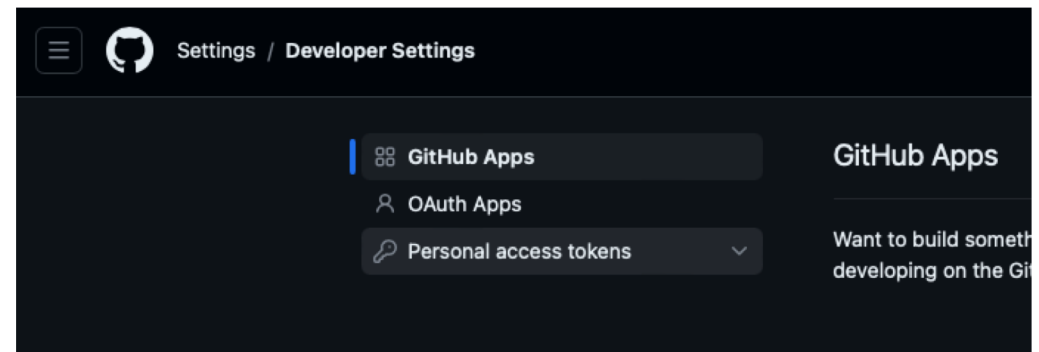


The screenshot shows the GitHub profile page for the user 'francesco-santini'. The profile information includes the name 'Francesco Santini', the username 'francesco-santini', and the title 'Associate Professor in Computer Science'. The profile picture is a circular image with a green and black background featuring binary code (0s and 1s). The 'Popular repositories' section lists several repositories, including 'PhalsoPhobia', 'Progetto-finale-2021-Trannoi', 'polyadic_journal', 'public-sentiment-lexicons', 'ipl_lexicographic', and 'logistics_journal'. The 'Settings' option is highlighted in the user menu on the right side of the page.

CREIAMO UN TOKEN DI ACCESSO

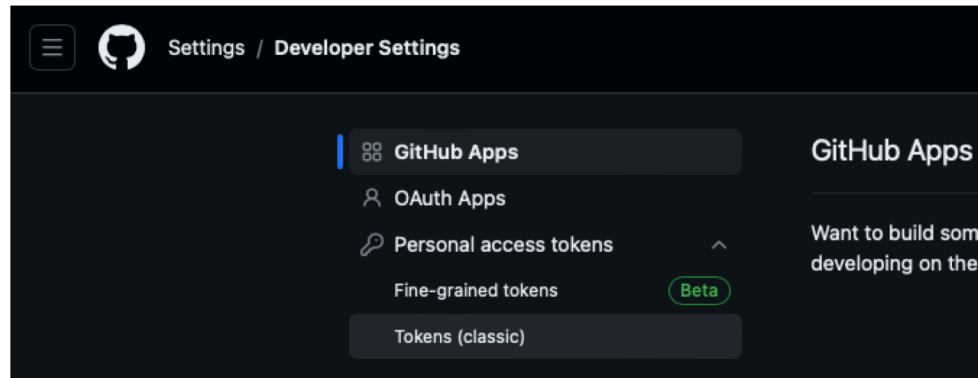


🔗 Cliccate poi su **Developer settings** e poi su **Personal access tokens**

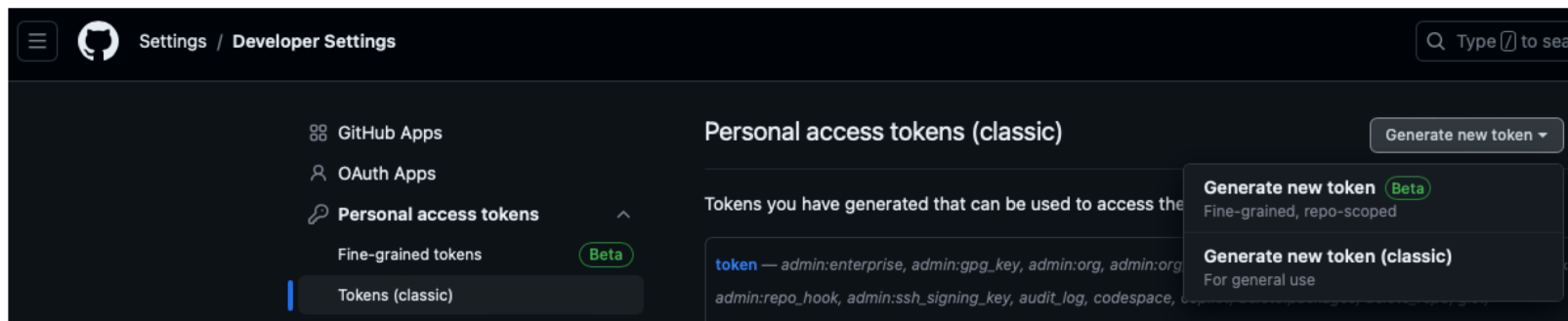


CREIAMO UN TOKEN DI ACCESSO

📍 Cliccate su **Tokens (classic)**



📍 E poi su **Generate new token (classic)**



CREIAMO UN TOKEN DI ACCESSO

- 🕒 Scrivete qualcosa in **Note**, selezionate **No expiration** in modo che il token non abbia scadenza e poi spuntate tutto sotto (**repo**, etc). Infine cliccate su **Generate token** in basso

GitHub Apps

OAuth Apps

Personal access tokens

Fine-grained tokens Beta

Tokens (classic)

New personal access token (classic)

Personal access tokens (classic) function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to [authenticate to the API over Basic Authentication](#).

Note

Token di accesso a Github

What's this token for?

Expiration *

No expiration The token will never expire!

GitHub strongly recommends that you set an expiration date for your token to help keep your information secure. [Learn more](#)

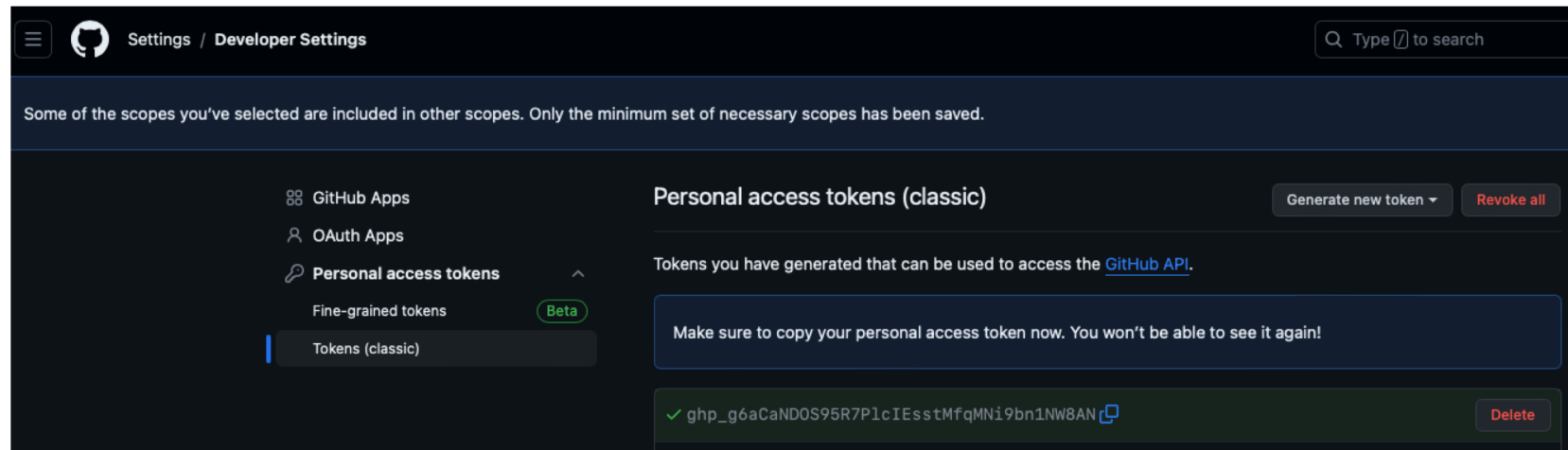
Select scopes

Scopes define the access for personal tokens. [Read more about OAuth scopes.](#)

| | |
|---|---|
| <input checked="" type="checkbox"/> repo | Full control of private repositories |
| <input checked="" type="checkbox"/> repo:status | Access commit status |
| <input checked="" type="checkbox"/> repo_deployment | Access deployment status |
| <input checked="" type="checkbox"/> public_repo | Access public repositories |
| <input checked="" type="checkbox"/> repo:invite | Access repository invitations |
| <input checked="" type="checkbox"/> security_events | Read and write security events |
| <input checked="" type="checkbox"/> workflow | Update GitHub Action workflows |
| <input checked="" type="checkbox"/> write:packages | Upload packages to GitHub Package Registry |
| <input checked="" type="checkbox"/> read:packages | Download packages from GitHub Package Registry |
| <input checked="" type="checkbox"/> delete:packages | Delete packages from GitHub Package Registry |
| <input checked="" type="checkbox"/> admin:org | Full control of orgs and teams, read and write org projects |
| <input checked="" type="checkbox"/> write:org | Read and write org and team membership, read and write org projects |
| <input checked="" type="checkbox"/> read:org | Read org and team membership, read org projects |
| <input checked="" type="checkbox"/> manage_runners:org | Manage org runners and runner groups |
| <input checked="" type="checkbox"/> admin:public_key | Full control of user public keys |
| <input checked="" type="checkbox"/> write:public_key | Write user public keys |

CREIAMO UN TOKEN DI ACCESSO

🕒 Infine, copiate il token che è stato generato



FINALMENTE CLONIAMO IL NOSTRO REPOSITORY

Nel terminale, andiamo nella cartella dove vogliamo avere il nostro progetto, per esempio nella nostra home con **cd ~/** (possiamo anche creare un cartella con **mkdir nome_cartella**)

Cloniamo poi il repository dell'esercizio con il comando sotto. **Username** è il Vostro account Github mentre **Password** è il token che vi siete generate prima (incollatelo con il tasto destro)

```
francescosantini@ubuntu:~$ git clone https://github.com/ProgrammazioneUniPG/esercizio-cifrari-2023-2024-francesco-santini
```

```
Cloning into 'esercizio-cifrari-2023-2024-francesco-santini'...
```

```
Username for 'https://github.com': francesco-santini
```

```
Password for 'https://francesco-santini@github.com':
```

```
remote: Enumerating objects: 8, done.
```

```
remote: Counting objects: 100% (8/8), done.
```

```
remote: Compressing objects: 100% (8/8), done.
```

```
remote: Total 8 (delta 1), reused 3 (delta 0), pack-reused 0
```

```
Unpacking objects: 100% (8/8), 8.48 KiB | 2.83 MiB/s, done.
```

SIAMO PRONTI

A questo punto troviamo una nuova cartella **esercizio-cifrari-2023-2024-vostro_nome_github** con dentro due file

```
francescosantini@ubuntu:~$ cd /esercizio-cifrari-2023-2024-vostro_nome_github
francescosantini@ubuntu:~$ ls
README.md soluzione.c
```

Potete aprire il file `soluzione.c` con Atom e modificarlo, poi...

SALVARE LE MODIFICHE IN GITHUB

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git restore <file>..." to discard changes in working directory)

modified: soluzione.c

no changes added to commit (use "git add" and/or "git commit -a")

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git add .
```

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

modified: soluzione.c

SALVARE LE MODIFICHE IN GITHUB

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git commit -m "primo commit"
```

```
[main 48c461b] primo commit
```

```
1 file changed, 1 insertion(+)
```

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git push
```

```
Enumerating objects: 5, done.
```

```
Counting objects: 100% (5/5), done.
```

```
Delta compression using up to 2 threads
```

```
Compressing objects: 100% (3/3), done.
```

```
Writing objects: 100% (3/3), 356 bytes | 356.00 KiB/s, done.
```

```
Total 3 (delta 1), reused 0 (delta 0)
```

```
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
```

```
To https://github.com/ProgrammazioneI-UniPG/esercizio-cifrari-2023-2024-francesco-santini
```

```
fa62d9b..48c461b main -> main
```

```
francescosantini@ubuntu:~/esercizio-cifrari-2023-2024-francesco-santini$ git status
```

```
On branch main
```

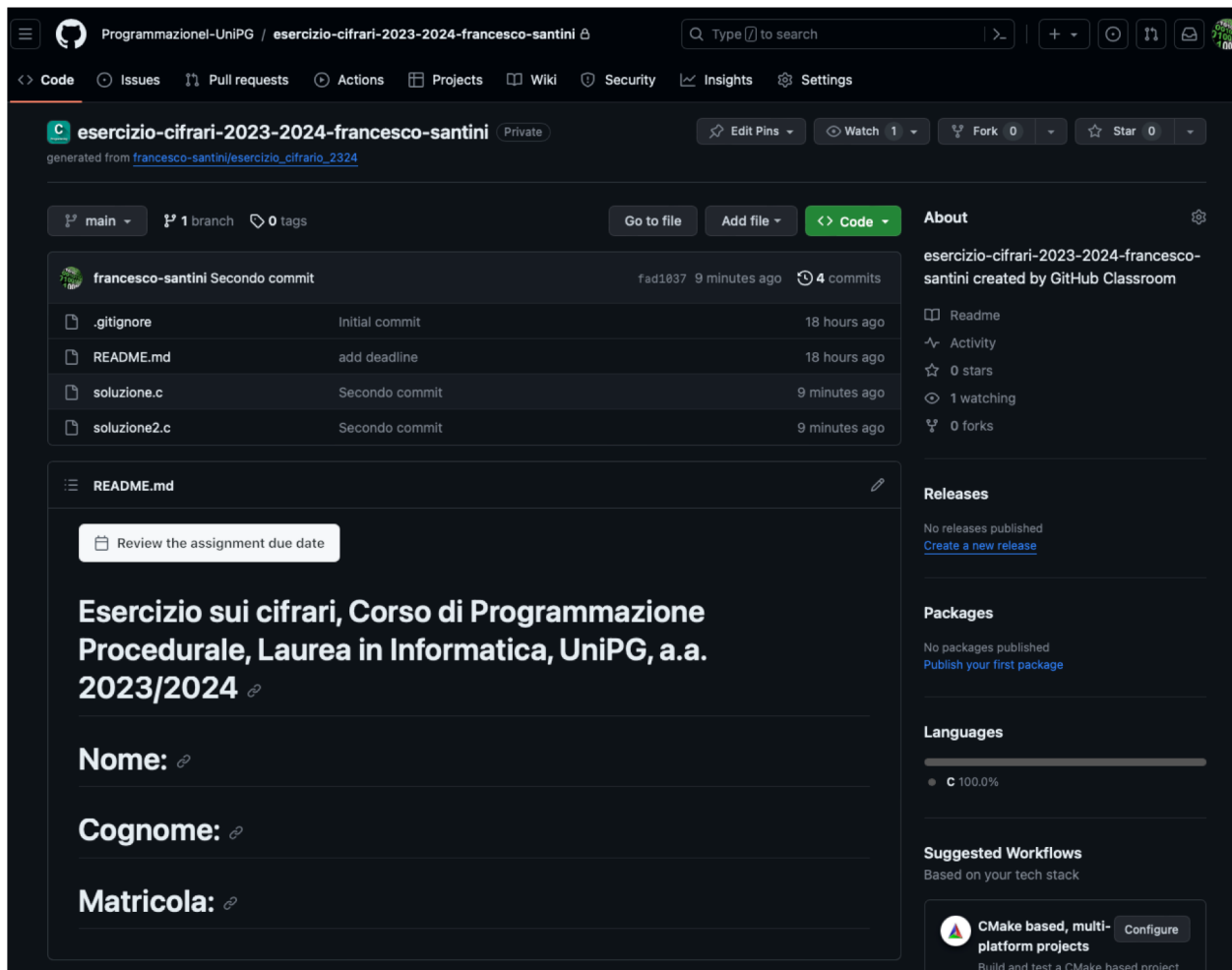
```
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

Con l'ultimo comando, controlliamo da terminale che tutto sia ok

CONTROLLARE LE MODIFICHE IN GITHUB

🔗 Nel browser https://github.com/ProgrammazioneUniPG/esercizio-cifrari-2023-2024-vostro_username



The screenshot shows a GitHub repository page for 'esercizio-cifrari-2023-2024-francesco-santini'. The repository is private and was generated from 'francesco-santini/esercizio_cifrario_2324'. The main branch is 'main' with 1 branch and 0 tags. The repository contains 4 commits, with the most recent being 'Secondo commit' by francesco-santini 9 minutes ago. The commit history shows files: .gitignore (Initial commit, 18 hours ago), README.md (add deadline, 18 hours ago), soluzione.c (Secondo commit, 9 minutes ago), and soluzione2.c (Secondo commit, 9 minutes ago). The README.md file is open, showing a button to 'Review the assignment due date' and the title 'Esercizio sui cifrari, Corso di Programmazione Procedurale, Laurea in Informatica, UniPG, a.a. 2023/2024'. Below the title are input fields for 'Nome:', 'Cognome:', and 'Matricola:'. The right sidebar shows repository statistics: 1 watch, 0 forks, 0 stars, and 0 releases. A 'Suggested Workflows' section is visible at the bottom right, showing a workflow for 'CMake based, multi-platform projects'.

DOCS SU GIT E GITHUB

- ② <https://www.atlassian.com/git/glossary>
- ② <https://git-scm.com/docs>
- ② <https://dzone.com/articles/top-20-git-commands-with-examples>
- ② <https://githubtraining.github.io/training-manual/book.pdf>
- ② <https://www.programmareinpython.it/blog/come-usare-git-e-github/>