

Tools

- VS Code and notebook demonstration (also GitHub Copilot)
- GitHub Pages
- GitHub Classroom

GitHub Pages

- Our current best option for creating websites (easy + free)
- Very powerful tool for collaboration and customization
- All source code in a GitHub repository
- Instructions for “building” a website defined in a workflow file
- GitHub Actions carries out procedure with a cloud server
- Let’s take a look at our “MUDE in Madras” websites

Book the one and only solution?



- How to work with your own Python environment?
- How to work with your own file system?
- Which IDE to use? And how to use it?
- How to collaborate with git?
- How to communicate using code?



Programming on own device with open-source tools



eum



Assignments via git

- MUDE group 2023-2024
- Personal groups for students
 - One repository per assignment
- Student group
 - One repository per assignment
- Repository are forks of central repository
- Linked to online file explorer with improved rendering



git



GitLab

Distribution via git

Distribution via python scripts using GitLab API

- Only 2 people could use them on fixed moments in time
- NetID is used for students
- Preferred git environment TU Delft

☐ MUDE 2023-24 Q1-Q2

M

MUDE 2023-24 Q1-Q2



New subgroup

New project

Subgroups and projects

Shared projects

Archived projects

Q Search

Updated

>	•	F	FALL4	🔒		• 0	📁 8	👤 5	⋮
			Group FALL4						
>	•	R	ROUT10	🔒		• 0	📁 8	👤 6	⋮
			Group ROUT10						
>	•	B	BEVY6	🔒		• 0	📁 8	👤 5	⋮
			Group BEVY6						
>	•	H	HOST1	🔒		• 0	📁 8	👤 5	⋮
			Group HOST1						
>	•	T	TRIP9	🔒		• 0	📁 8	👤 5	⋮
			Group TRIP9						



Assignments via git

GitHub Classroom

- Students can start at any time
- GUI for administration and student overview
- Requires GitHub accounts for students
- Requested whether this workflow allow GitHub over GitLab

Coding the Matrix Method in Python - Week 1

Individual assignment • Active

https://classroom.github.com/a/3jKvq3_M

Edit

Download

Assignment Details

Students total 3

2 Rostered

1 Added students

Accepted assignments 3

3 Students

Assignment submissions 3

2 Submitted

1 Not submitted

Filter by unlinked accounts


Filter by accepted

Filter by passing


Sort

Filters Search for an assignment


Classroom roster

 id_luri Not submitted
@ibcmrocha 0 commits

Repository Feedback

 id_Tom Submitted
@Tom-van-Woudenberg Latest commit 2 months ago 1 commit

Repository Feedback

 rlanzafame Submitted
[Link to student](#) Latest commit 2 months ago 1 commit

Repository Feedback



Feedback via git?

Solutions can be provided as:

- Branches
- Additional files

Feedback:

- Scripted automatic grading for programming assignments
- In a markdown file in their repo, or feedback via Brightspace



Tips for IIT Madras

- Consider the many open source tools available
- Our way is not the best way
- Make sure several people are capable of using the tools
- It is important to be able to easily read the files/assignments
- Version control and making corrections can be challenging