

Erasmus
School of
Economics

GitHub

Introduction to GitHub
and GitHub Classroom



Erasmus University Rotterdam



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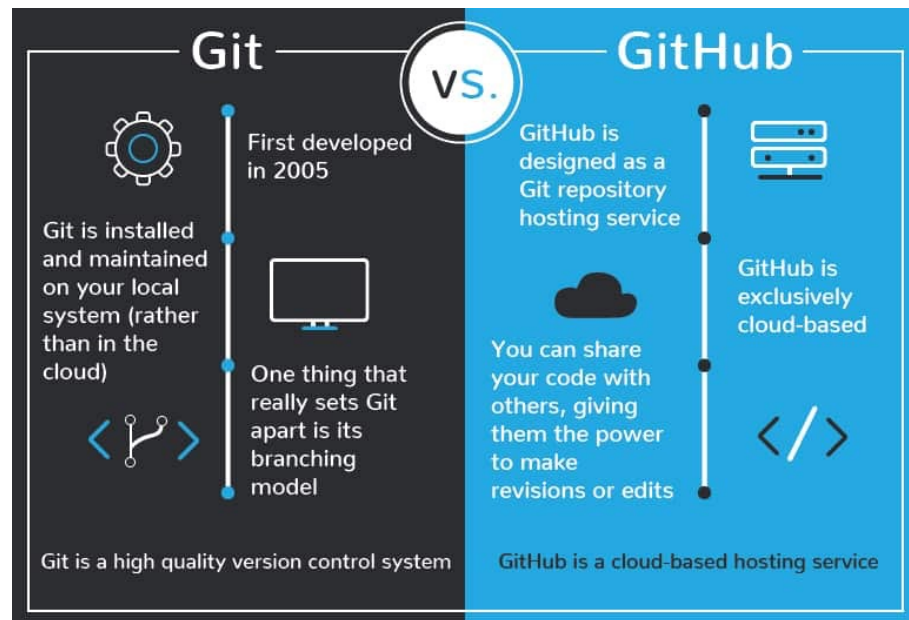


GitHub

Part 1

What is GitHub?

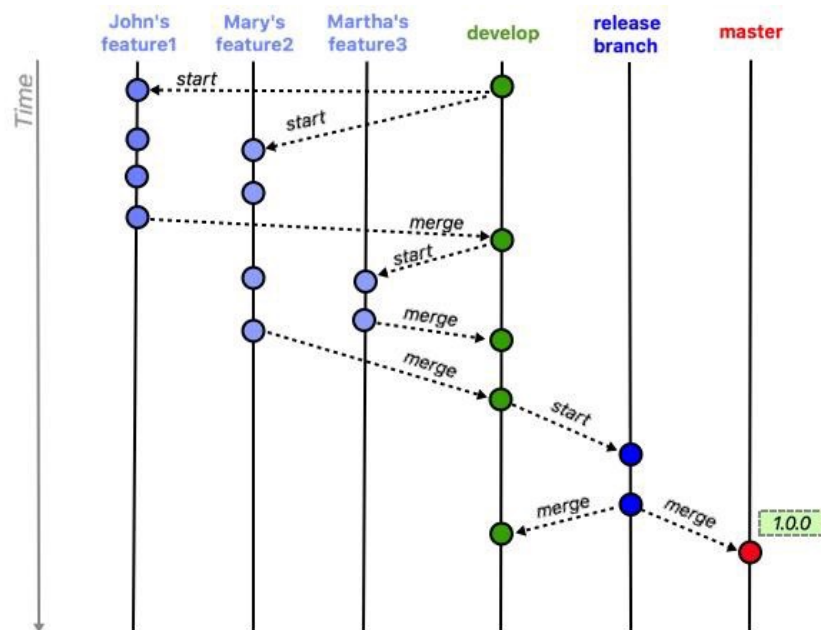
- GitHub is an online database that allows you to keep track of and share your Git projects outside of your local computer.
- Git (Global Information Tracker) is a version control tool for projects on your local computer.



What is GitHub?

How does Git work?

- Git uses a so-called branching model.
- Branching allows you to work on a project/file by working on a copy of it.
- Whereafter you can merge this updated copy to the main version.

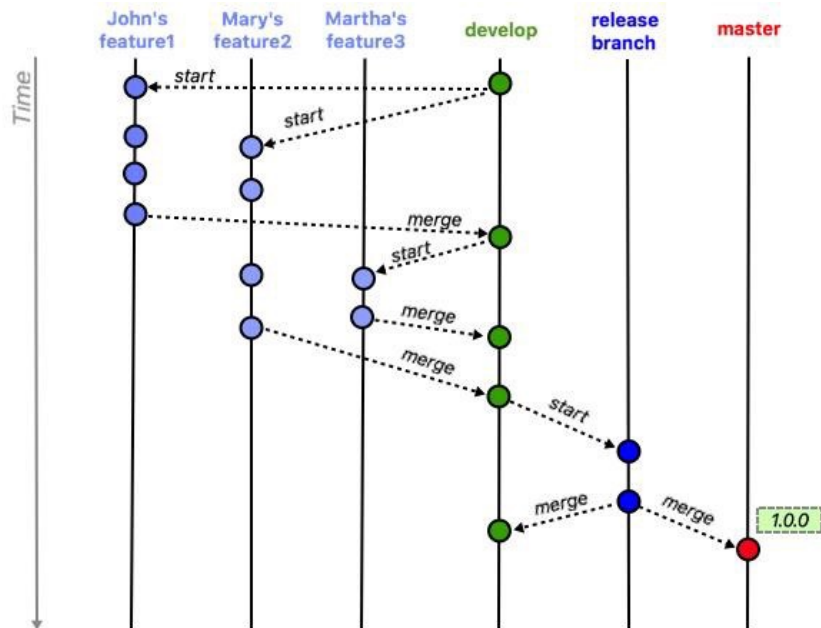


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What is GitHub?

How does Git work?

- Working on a copy instead of the main file, keeps the main file free of bugs and unfinished code.
- Furthermore, Git allows for version control, which lets you check older versions of a file.



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Why should we use GitHub?

- GitHub makes Git available in the cloud where it allows you to work on projects in teams.
- Here you can place comments on versions, discuss versions, update files, try out new ideas, and keep track of earlier work.
- GitHub is widely used by businesses, therefore, understanding how GitHub works can be valuable for your future career.



GitHub Classroom

- GitHub Classroom allows educational institutes to introduce GitHub to students.
- The Classroom will be used for the assignment.
- Here GitHub allows you to collaborate with teammates and work on the assignment in an online repository.



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Working on the assignment on GitHub

- The assignment for this course will be a group assignment (four members).
- Here you will work on code on your local computer and share updates to the GitHub repository of your group.
- In the repository you can discuss and keep track of the work done by your team.
- We provide a GitHub practice so that you can familiarize yourself with the GitHub workflow.



GitHub

Part 2

GitHub jargon

- **Repository (repo):** (noun) folder containing all tracked files as well as the version control history
- **Remote:** (noun) the version of your repository that is stored on a remote server; for instance, on GitHub
- **Clone:** (verb) to create a local copy of a remote repository on your personal computer
- **Local:** (noun) the version of your repository that is stored on your personal computer

GitHub jargon

- **fork:** (noun) a copy of another user's repository on GitHub; (verb) to copy a repository; for instance, from one user's GitHub account to your own
- **track:** (noun) a tracked file is one that is recognized by the Git repository
- **branch:** (noun) a parallel version of the files in a repository

GitHub jargon

- **stage:** (noun) the staging area holds the files to be included in the next commit; (verb) to mark a file to be included in the next commit
- **commit:** (noun) a snapshot of changes made to the staged file(s); (verb) to save a snapshot of changes made to the staged file(s)
- **push:** (verb) to send commits from a local repository to a remote repository

GitHub jargon

- **merge:** (verb) to update files by incorporating the changes introduced in new commits
- **pull:** (verb) to retrieve commits from a remote repository and merge them into a local repository
- **pull request:** (noun) pull requests let you tell others about changes you've pushed to a branch

GitHub workflow

To learn more about the GitHub workflow, have a look at the GitHub documentation:

- Overall documentation:
 - <https://docs.github.com/en>
- Quick start for your first repository:
 - <https://docs.github.com/en/get-started/quickstart/hello-world>
- Git for your local system:
 - <https://docs.github.com/en/get-started/using-git>
- Cloning a repository:
 - <https://docs.github.com/en/repositories/creating-and-managing-repositories/cloning-a-repository>
- Pull requests:
 - <https://docs.github.com/en/pull-requests>



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Part 3

Setting up a GitHub account as a student

- Go to: <https://github.com/>
- Click “Sign up”
- IMPORTANT!! Use your EUR email address to sign up to GitHub (also if you already have a GitHub account with your private email address).

Join GitHub

Create your account

Username *

XXXXXXXXXXXXX
X

Email address *

XXXXX @eur.nl

Password *

.....

Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

Email preferences

☐ Send me occasional product updates, announcements, and offers.



Setting up a GitHub account as a student

Select 'Student' and the programming experience that is applicable to you

What kind of work do you do, mainly?

Software Engineer I write code	Student I go to school
Product Manager I write specs	UX & Design I draw interfaces
Data & Analytics I write queries	Marketing & Sales I look at charts
Teacher I educate people	Other I do my own thing

How much programming experience do you have?

None I don't program at all	A little I'm new to programming
A moderate amount I'm somewhat experienced	A lot I'm very experienced

A stylized, handwritten-style logo for Erasmus, featuring a large, flowing 'E' followed by the word 'Erasmus' in a cursive script.










Setting up a GitHub account as a student

Select the following:

- Learn Git and GitHub
- Host a project (repository)
- School work and student projects

What do you plan to use GitHub for?

(Select up to 3)

 Learn to code	 Learn Git and GitHub	 Host a project (repository)
 Create a website with GitHub Pages	 Collaborating with my team	 Find and contribute to open source
 School work and student projects	 Use the GitHub API	 Other

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Setting up a GitHub account as a student

Finalize the sign-up process

- GitHub will ask you to fill in your interests,
but this is not mandatory and can be skipped

I am interested in:

languages, frameworks, industries

We'll connect you with communities and projects that fit your interests.

For example: `3d` `font` `gis`

- To finalize setting up your account, click 'Complete setup'

A stylized, handwritten-style logo of the word "Erasmus" in a dark grey or black color.

Setting up a GitHub account as a student

- GitHub will verify your email address
- Open the email they send and click 'Verify email address'



Please verify your email address

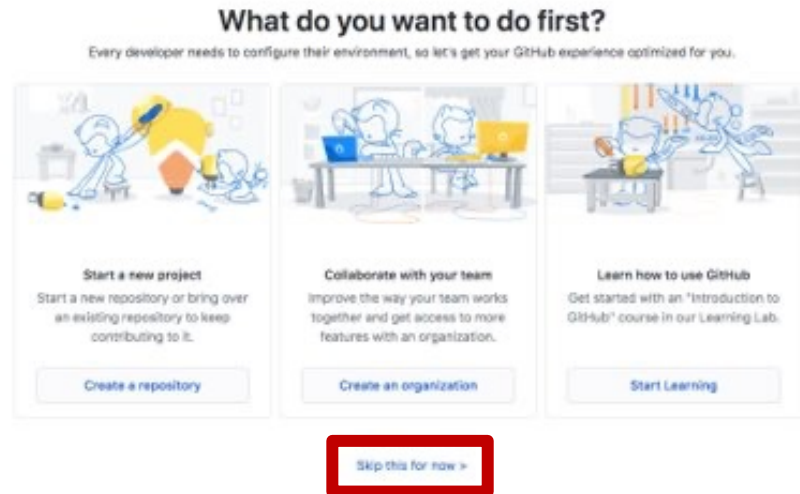
Before you can contribute on GitHub, we need you to verify your email address.

An email containing verification instructions was sent to 'xxxxx @eur.nl'.

[Resend verification email](#)[Change your email settings](#)A stylized, handwritten-style logo for Erasmus, featuring a large, flowing 'E' followed by the word 'Erasmus' in a cursive script.

Setting up a GitHub account as a student

- After you clicked 'Verify email address', you will see the following screen.
- You can click 'Skip this for now'
- Now you are signed up and ready to work with GitHub!




Getting in GitHub Classroom

- You will be able to find a link to GitHub Classroom in the assignment on Canvas.
- When you are signed into GitHub, you will see the following:

Accept the group assignment — Assignment

Before you can accept this assignment, you must create or join a team. Be sure to select the correct team as you won't be able to change this later.

Join an existing team

Team test 1 student	Join
	

OR Create a new team

Create a new team	+ Create team
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Getting in GitHub Classroom

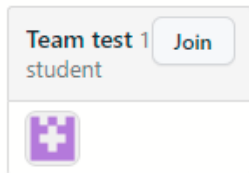
- Your team should assign one team member to set up the team on GitHub Classroom.
- This team member can create a team by filling in a team name and clicking the button.
- You can come up with your own team name!

OR Create a new team

+ Create team

- The other team members can join the team on GitHub Classroom when it is created.
- This is done by clicking on the Join button of an existing group.

Join an existing team



Getting in GitHub Classroom

- After you joined or created a team you will be directed to:

Accept the assignment —

Assignment

Once you accept this assignment, you will be granted access to the `assignment-student` repository in the [ESEMachinelLearning](#) organization on GitHub.

Accept this assignment


- Here you should accept the assignment, by clicking the button.

Signing up for GitHub Classroom

- After you accepted the assignment, you will be directed to a page where GitHub will configure your repository:



You accepted the assignment, **Assignment**. 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 **Oct 9, 2022, 23:00 CEST**

Signing up for GitHub Classroom

- After you refresh the page, you are ready to go!




You're ready to go —

Team test

You accepted the assignment, **Assignment**.

Your team's assignment repository has been created:

 <https://github.com/ESEMachineLearning/assignment-team-test>

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

 Your assignment is due by **Oct 9, 2022, 23:00 CEST**



Click this link to go to the repository

GitHub Classroom for FEM31002 and FEM21045

On GitHub Classroom, we provide two assignments:

- **GitHub practice**
 - The GitHub practice will help you become familiar with Git and GitHub.
 - It is provided as an individual assignment in GitHub Classroom.
 - The practice is not mandatory!
- **Assignment**
 - The assignment will be done in groups of four.
 - The assignment will be graded through CodeGrade.
 - We can see the contribution of students through GitHub to prevent freeriding.
 - **Deadline: October 9, at 11:59 PM**

Starting the assignment

- We provide you with a template repository with all information you will need for the assignment. Please carefully read the README file!!
- Make use of the GitHub functionalities as a group:
 - Pull, Commit, Push, and Merge!
 - Use GitHub Issues for discussions and assign team members to tasks!

Handing in the assignment

- You will have to set up a link with CodeGrade inside the assignment page on Canvas. More information can be found in the documentation on Canvas.
- Your repository should be linked with CodeGrade before **Semptember 15, at 10:00AM**

Handing in the assignment

- Key points of handing in the assignment:
 - Please do not remove any files from the template repository!
 - You should include everything needed to reproduce the predictions file in the main branch.
 - You are allowed to add additional files to the main branch.
 - You can update the hand-in files, report.pdf, questions.pdf, and predictions.txt.
However, they should keep their original names!
- If one of these requirements is not matched, we may not be able to grade your assignment and you may receive 0 points.

Questions regarding the assignment

- If you have any questions regarding the assignment, please post a message in the discussion forum on Canvas.

Bedankt
Thank you