

# Mechatronic Engineering

Object Oriented Programing and Software Engineering  
Laboratory instruction 13  
Git - distributed version control system - Part 2

AGH Kraków, 2020

Materials created for educational purposes.  
Dedicated for students attending Software Engineering course.  
Author would appreciate any feedback regarding errors of any kind found in the instruction script.  
Please report those to the following email address: [danielt@agh.edu.pl](mailto:danielt@agh.edu.pl)

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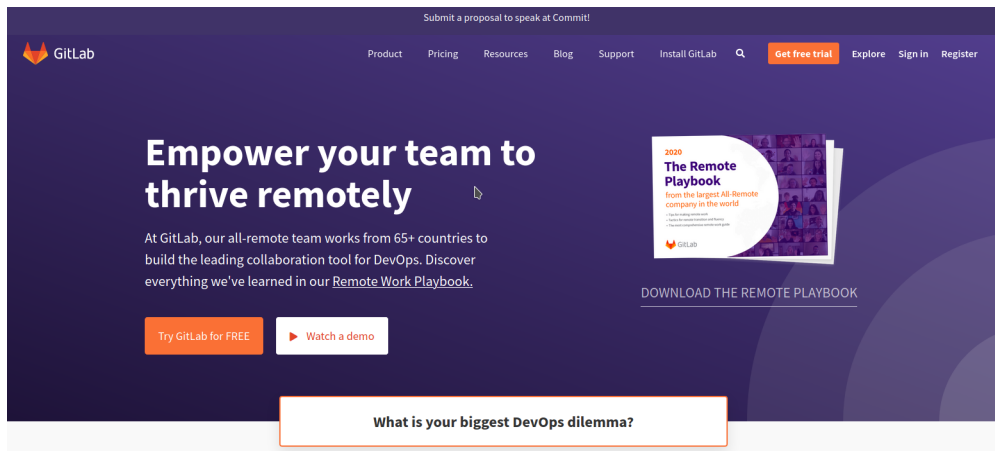


Figure 1: Main screen of GitLab website

# 1 GitLab

Until now, the git system has been used on @mops AGH servers. In order to facilitate group work, this manual will present the GitLab service and how to use it in class.

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<https://gitlab.com/>

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## 1.1 Account

To get started, create a user account on the website. To do this, click the Register button in the upper right corner of the main page (Fig. 1). This will take you to the registration page (Fig. 2). Please fill the required fields (for the purpose of the course, please use the address in the domain **student.agh.edu.pl**) and press the green register button. You must also confirm your willingness to register by clicking the link that will come to the email address provided and you can start working on the GitLab website. You just need to sign in to your account.

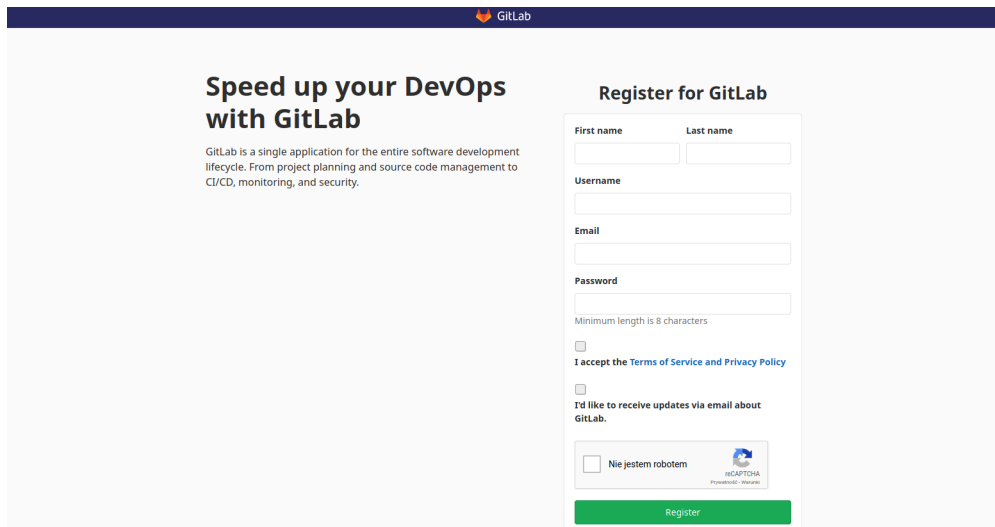


Figure 2: Main screen of GitLab website

## 1.2 Starting a project

After successfully logging into the GitLab website, the project preview should be displayed (Fig. 3). If you didn't get there automatically, you can go to it by clicking **Projects** in the upper left corner of the screen and select the **Your projects** option from the drop-down menu. To create a new project, press the green button **New project**.

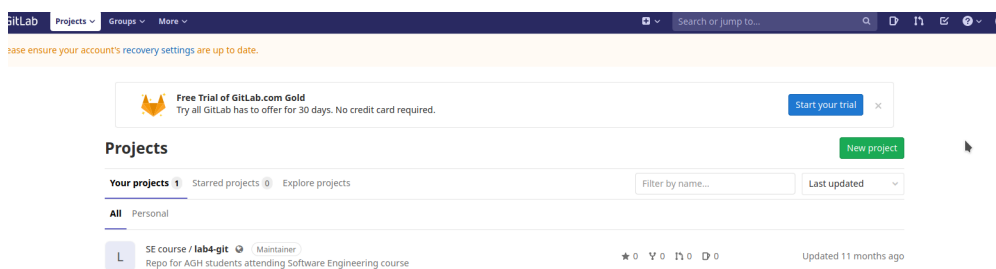


Figure 3: Main screen of GitLab website

The page for creating new projects (Fig. 4) is very intuitive. Enter the name you want to give the repository in the **Project name** field. **Project URL** and **Project slug** fields are generated automatically and do not require editing. Optionally, you can add a description to the project you are creating.

An important setting option regarding the visibility of our repository is un-

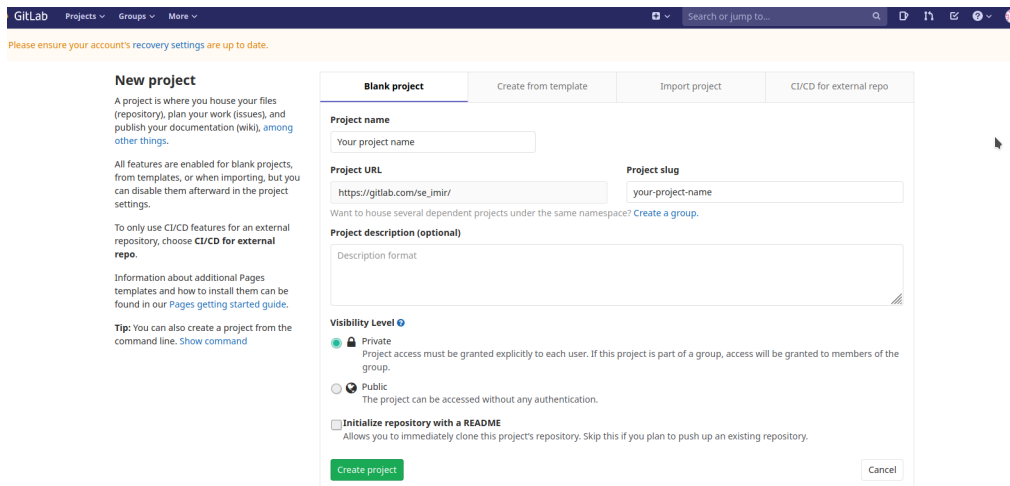


Figure 4: Main screen of GitLab website

der section **Visibility Level**. It determines the privacy of the repository.  
**Private** - sets a private level, authorization will be required for gitlab account data to make changes.  
**Public** - sets a public level, such a repository does not require authorization.

To create a repository, one needs to press the green **Create project** button

### 1.3 Pushing repository to the GitLab remote

Having created a project on gitlab, all you have to do is upload the local repository files. To do this, you can use the commands given in manual 4. The necessary commands are also displayed on the page that appears after creating a new project. As a reminder, I also provide them below:

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```
git remote -v //used to check if any remote macros are implemented
git remote rename origin old-origin // renames remote macros
storen under 'origin' name
git remote add origin https://gitlab.com/project_address //adding
macro for repo address under 'origin' name
git push -u origin // pushing repo to 'origin' address
```

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Figure 5 presents the project overview after a repo has been pushed into it.

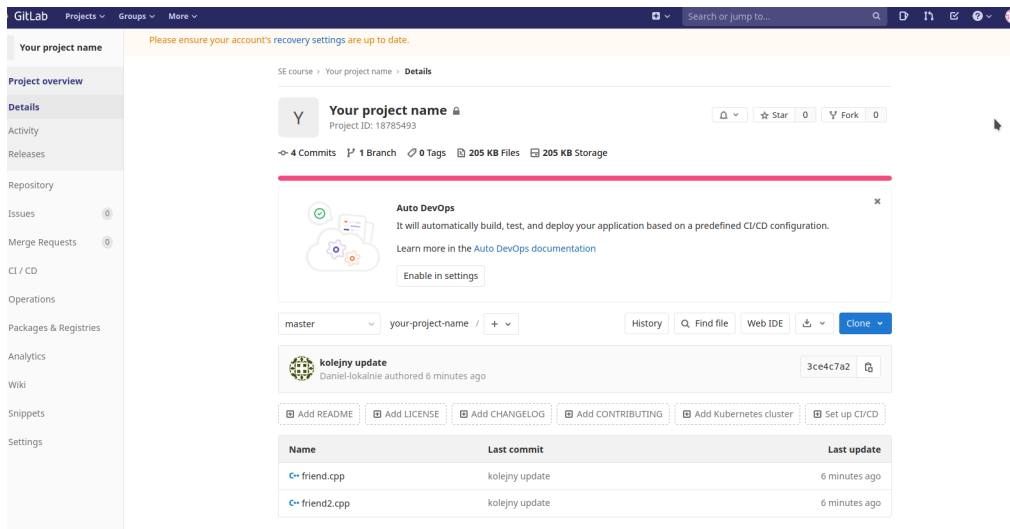


Figure 5: Main screen of GitLab website

## 1.4 Adding members

To provide access to a private project to other GitLab users, add them as project members. To do this, select the **Setting** option from the menu on the left of the screen and click **Members** from the context menu (Fig. 6).

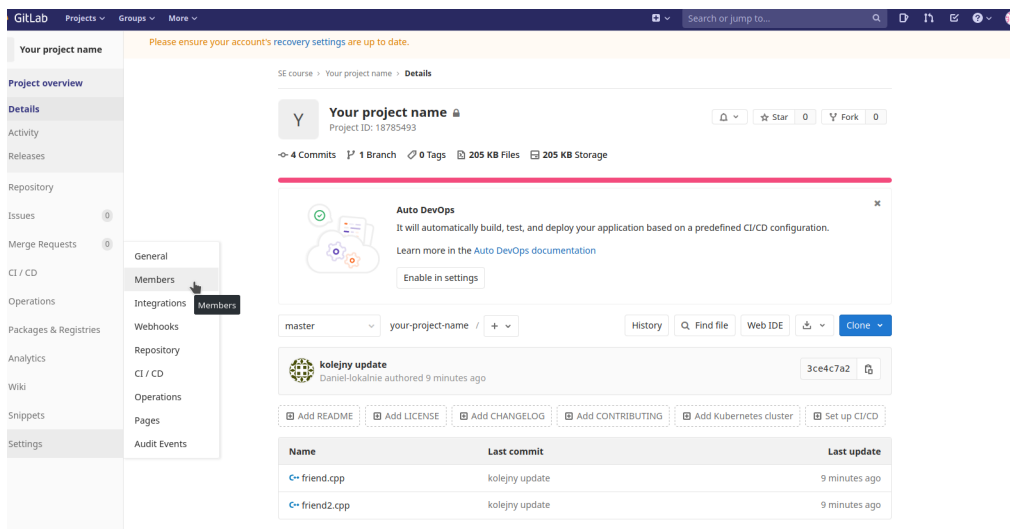


Figure 6: Main screen of GitLab website

On the Project members page that opens (Fig. 8) we can add participants of our project. This can be done by entering the email address or GitLab

username in the **GitLab member or Email address** field. The **Choose a role permission** field is used to grant appropriate permissions to the invited user. The **Access expiration date** field allows you to set a time limit for the entered permissions. After setting all options to finalize the user adding process, press the green **Invite** button. A list of all project members is displayed at the bottom of the page (Fig. 7).

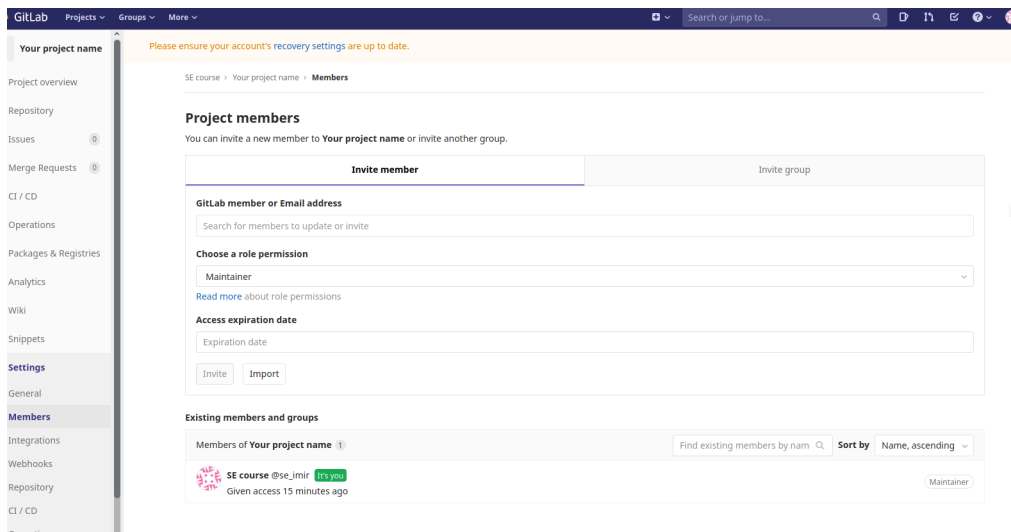


Figure 7: Main screen of GitLab website

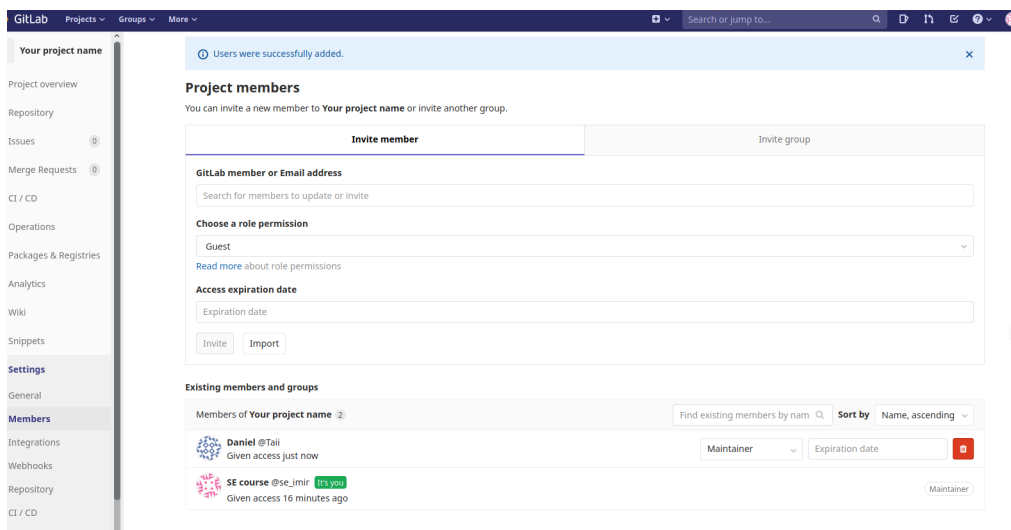


Figure 8: Main screen of GitLab website



## Task

Based on the informations provided in this manual, please create a project on GitLab and push your repository from @mops server.

Add your laboratory supervisor as a member of the project (can be added by agh email address).

Also please update all your previously created tasks and examples into your original repository before pushing it to GitLab.