Steps.

1. Go to your GitHub and log into your account. If you do not have an account you should obviously create one.
2. Open a private repository named “os\_practice\_2022” with cmake gitignore, MIT license, descriptive readme and add me as a contributor.
3. Generate a new token for your account to use in the terminal during the git login process. Save the token in a secure place because you will not be able to see it again according to GitHub policy. Note that the token is password-level utility and you must not share it with anyone.
4. Open your Linux distro (or any other UNIX-compatible OS) terminal.
5. Create a new directory, for example, homework\_1 (homework\_i for each consecutive homework)   
   *mkdir homework\_1*
6. Go to your homework directory:  
   *cd homework\_1*
7. Create a cmake file called CMakeLists.txt:  
   *touch CMakeLists.txt*
8. Add the following content in your CMakeLists.txt file.  
     
   *cmake\_minimum\_required(VERSION 3.5)*  
   *project(homework\_1)  
   add\_executable(homework\_1 {source files separated with a space})  
   target\_include\_directories(homework\_1 PRIVATE “./include”)*Note that this is the bare minimum CMakeLists.txt you need to build your homeworks. We will discuss more complex ones throughout the course. In addition to that you can use any name instead of *homework\_1* in project(...). Here is an example of listing source files from the 3rd line:  
   add\_executable(homework\_1 main.c hello.c).
9. Create a new directory for solely include files called include:  
   *mkdir include*
10. Add your header files in the include directory.
11. Add your source files in the root directory of your homework. Note that these source files should correspond with the ones declared in the *CMakeLists.txt*.
12. Create a build directory for cmake:  
    *mkdir build*
13. Go to the build directory:  
    *cd build*
14. Execute cmake:  
    *cmake ..*
15. Execute make:  
    *make*
16. Now you will see that make generated an executable file named *homework\_1*.
17. Call the generated executable file and make sure that it works as it is expected:  
    *./homework\_1*
18. Go to your homework directory:  
    *cd ../*
19. Remove build folder:  
    *rm -r -f build*
20. Go to the parent directory next to your homework\_1 folder  
    *cd ../*
21. Clone your GitHub repository. Note that you need to do this only one once. Then you can just reuse your local repository.  
    *git clone {Your GitHub repository URL}*
22. At this point git will ask you to paste your username and password. Note that GitHub no longer supports password-authentication, therefore you need to paste the previously generated token from the 3rd step.
23. After git successfully cloned your remote repository, create a new branch for your repository (homework\_i):  
    *git branch homework\_1*
24. Checkout to the newly created branch. This way you will not make any unnecessary and unwanted changed to your main branch:  
    *git checkout homework\_1*
25. Push the new branch to the origin so that you can see it in the GitHub UI as well.  
    *git push -u origin homework\_1*
26. Copy or move your homework here in the repository.
27. Add your files to a new commit:  
    *git add .*
28. Commit the new changes:  
    *git commit -m “{Properly formulated description message}”*Note that you can repeat steps 27 and 28 as much as you want. The key is you want to commit if and only if you know that the current changes are final. The concept is that you can do your homeworks part by part and commit each part separately to your branch.
29. To make your commits appear in GitHub, push them:  
    *git push*
30. At this point if you have done all your changes and successfully committed and pushed them, you need to create a pull-request for your branch in the GitHub, add me as a reviewer and send me the pull-request link on Telegram privately and NOT in the group chat. I strongly advise against doing homework with each other and/or copy-pasting from each other. Your homework will be checked by a plagiator tool.
31. Alongside with the pull-request link you need to send me the screenshot of your Linux terminal showing the results of this commands:  
    *ls -l  
    whoami*
32. I will check your homework, add comments if necessary, grade it, merge your branch with the main and send the results back to you.