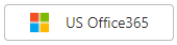
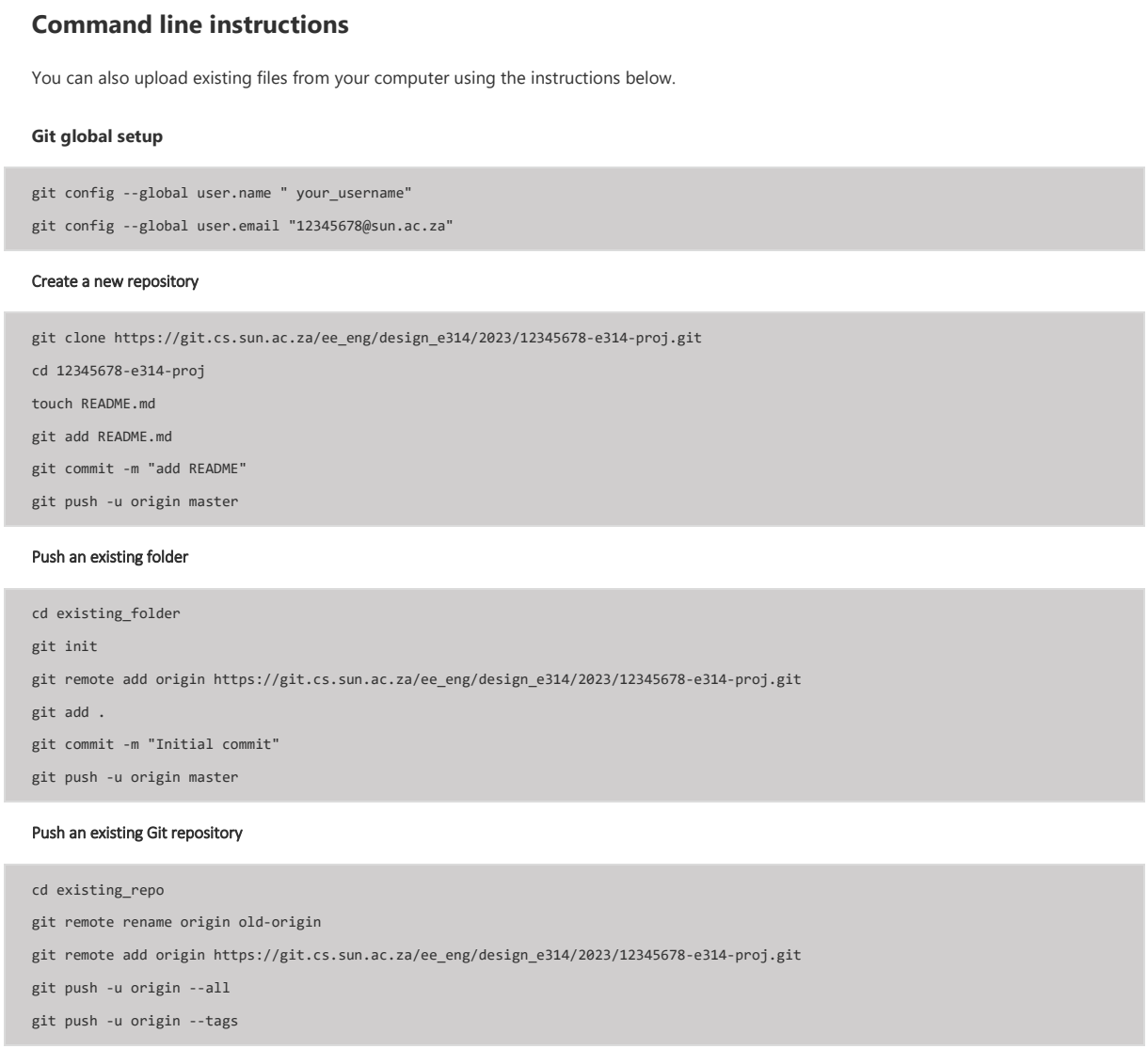
Setting up and using GitLab for Design E314 - The short 21 step version

1. Go to https://git.cs.sun.ac.za/users/sign_in
2. Click on the 

button to log in using your SU credentials.
3. You should now see a page similar to this:



Command line instructions

You can also upload existing files from your computer using the instructions below.

Git global setup

```
git config --global user.name " your_username"
git config --global user.email "12345678@sun.ac.za"
```

Create a new repository

```
git clone https://git.cs.sun.ac.za/ee_eng/design_e314/2023/12345678-e314-proj.git
cd 12345678-e314-proj
touch README.md
git add README.md
git commit -m "add README"
git push -u origin master
```

Push an existing folder

```
cd existing_folder
git init
git remote add origin https://git.cs.sun.ac.za/ee_eng/design_e314/2023/12345678-e314-proj.git
git add .
git commit -m "Initial commit"
git push -u origin master
```

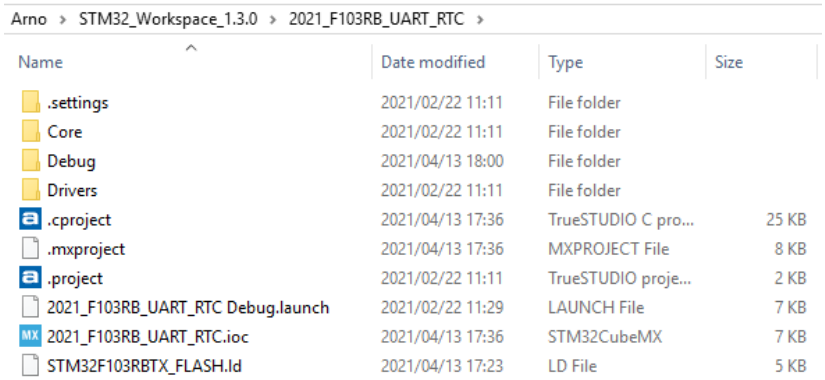
Push an existing Git repository

```
cd existing_repo
git remote rename origin old-origin
git remote add origin https://git.cs.sun.ac.za/ee_eng/design_e314/2023/12345678-e314-proj.git
git push -u origin --all
git push -u origin --tags
```

4. At the top of the page there should be a banner that tells you to “set your password” so that you can push and pull to your Git repository. Do that and login again.
5. If you need Git on your own machine:
    a. Go to https://git-scm.com/downloads
    b. Choose your OS and install
6. Open Git Bash command line on your machine – search for “Git Bash” in windows search
7. Go to the folder you WANT TO WORK IN using “cd” command eg. “cd c:\users” to go to the users folder.
8. If you are on your own machine set up git global settings, replacing the “…” with your GitLab username and you SUN email:

```
git config --global user.name "your_username”
git config --global user.email "12345678@sun.ac.za"
```

9. If you are on the lab PCs you should not set the global settings. However, you will be asked to provide your details when you want to interact with the online repository. Just use you GitLab username and password.
10. You all should have a SMT32CubeIDE project for your software, so follow the steps under “Push an existing folder”
11. Go to your SMT32CubeIDE project folder, eg. …/Workspace/Demo2/, in Windows Explorer it might look something like this:



12. In Git BASH navigate to your project folder

```
cd your_stm32cubeide_project_folder
```

13. Initialise a git repository in that folder

```
git init
```

14. Connect this local repository to the online “origin”

```
git remote add origin https://git.cs.sun.ac.za/ee_eng/design_e314/2023/12345678-e314-proj.git
```

15. Stage all the files

```
git add .
```

16. Make your initial commit to the local git repository

```
git commit -m "Initial commit"
```

17. Update the online repository from the local one

```
git push -u origin master
```

18. Now refresh you project view on the git.cs.sun.ac.za website, and you should see all you project files there too.
19. When you now continue to work on your project, the modified files will need to be committed. Just repeat the “add”, “commit” and “push” command listed above to update the repositories. Remember to type a good descriptive line for each “commit”.
20. When you are done working (after a final add, commit and push) you can delete the local project folder to keep it safe from being used without your permission.
21. Next time you want to work on the project just open Git BASH navigate to the directory you want to work in and do a “clone” command as shown on page 1.