Open-Source Programming

#3: Open-source Management & Github Usage (2-1)

2024 Spring

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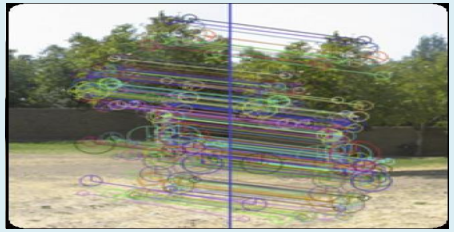
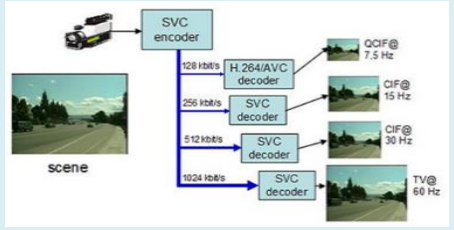
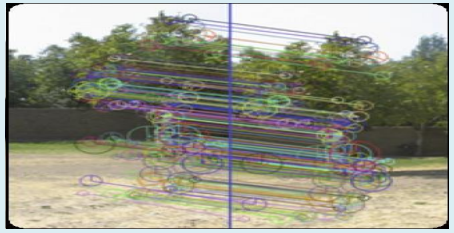
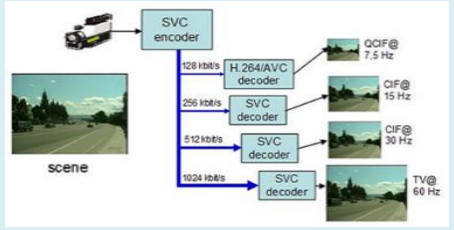




Contents

- How to use Git?
- Github + VS Code





Contents

- **How to use Git?**
- **Github + VS Code**

How to use Git? (1)

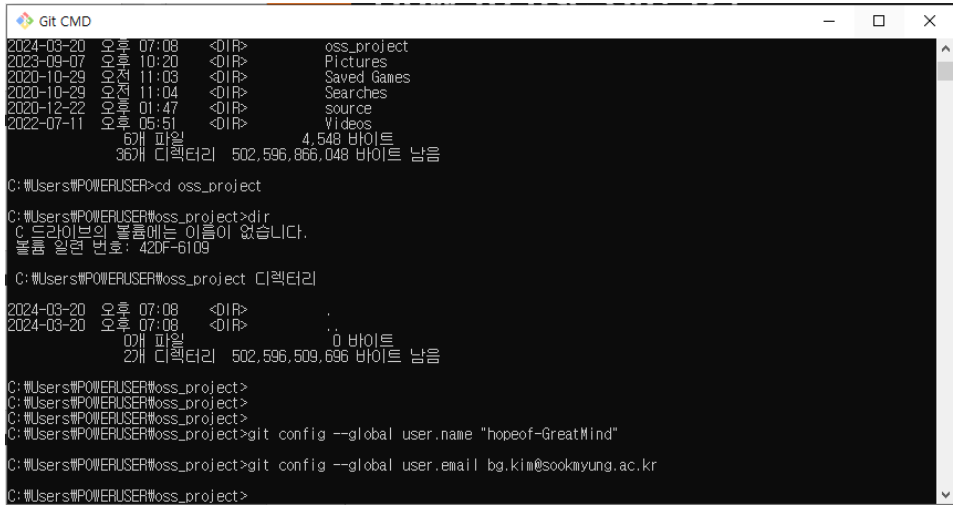
❖ Git Installation

- Git, Git Bash 쉬운 설치/ Git Bash 설치 쉽고 자세한 설명/ 윈도우 OS에서 리눅스 환경 구축하기/ Git Bash란 무엇인가 (tistory.com)
- Git Guides - install git (github.com)

❖ Github Account setup and activation

❖ Registration for Local User Infor.

```
$ git config --global user.name "Your Name"
$ git config --global user.email you@example.com
```

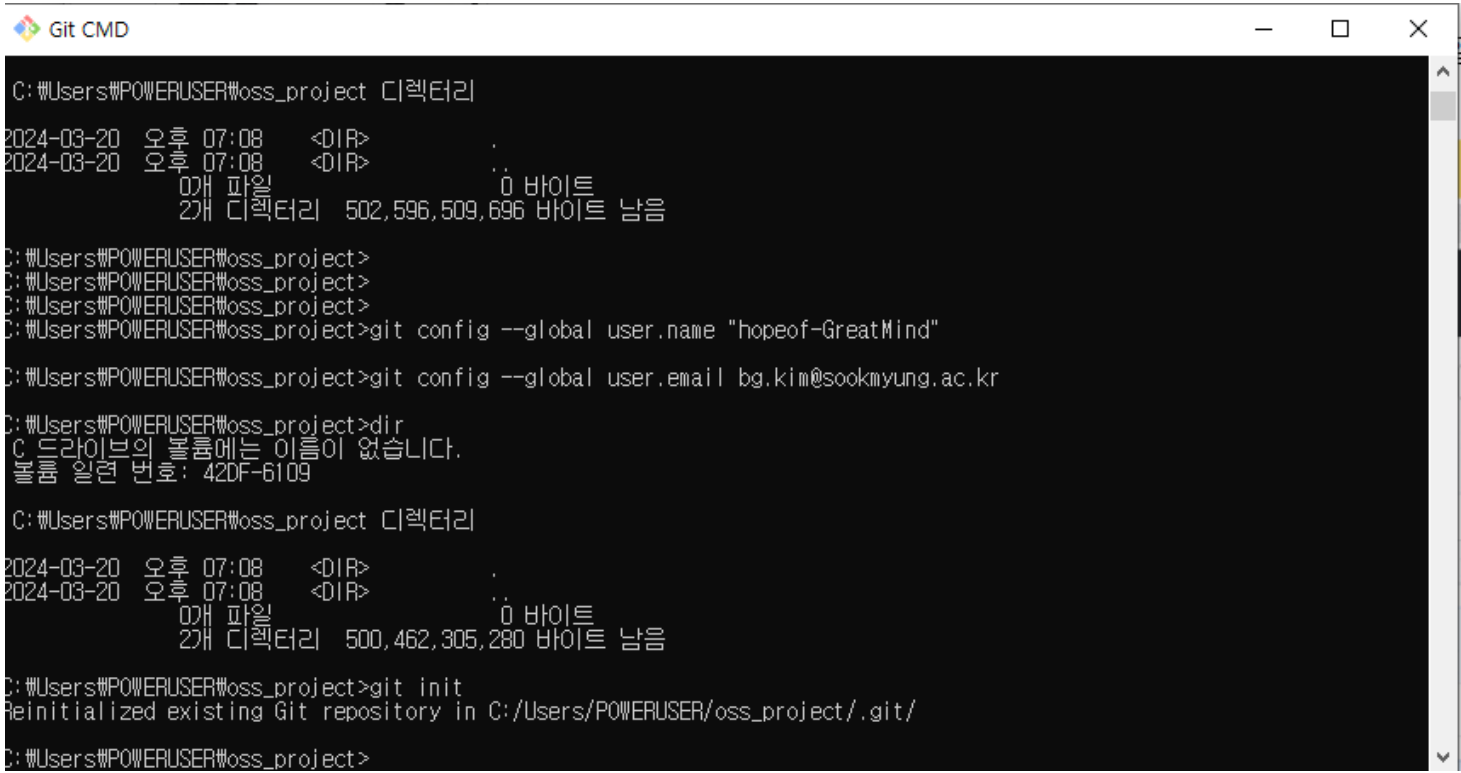


How to use Git? (2)

❖ The process of creating a repository on GitHub and linking it with a local Git repository

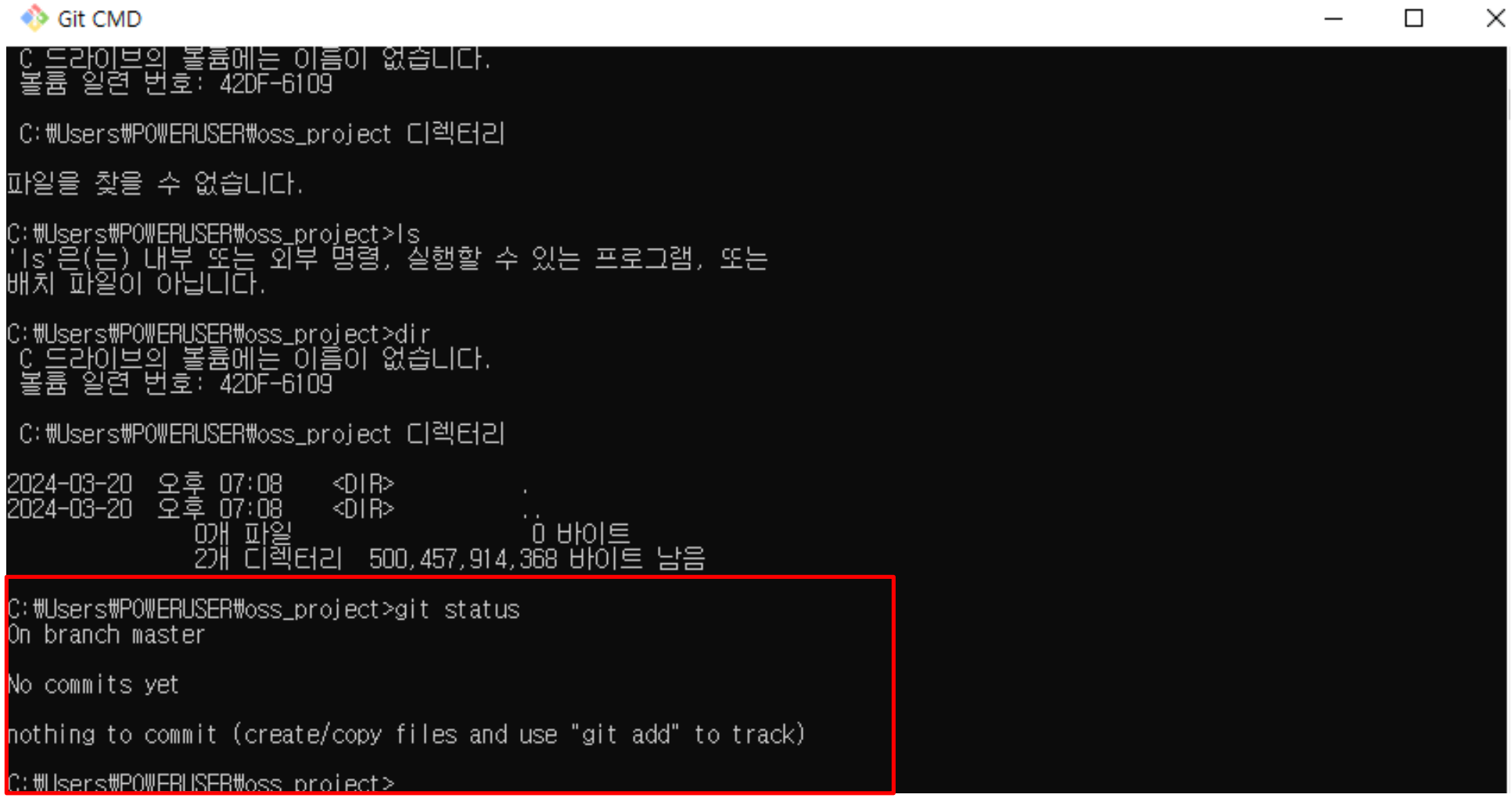
- **$git init** : Initialize your repository if you make the first repository.
- **$git clone**: Copy your own repository in Github.

- "$git init" commend:
  - 1] First, move to your work folder where you want.
  - 2] Type "git init" and click "enter".



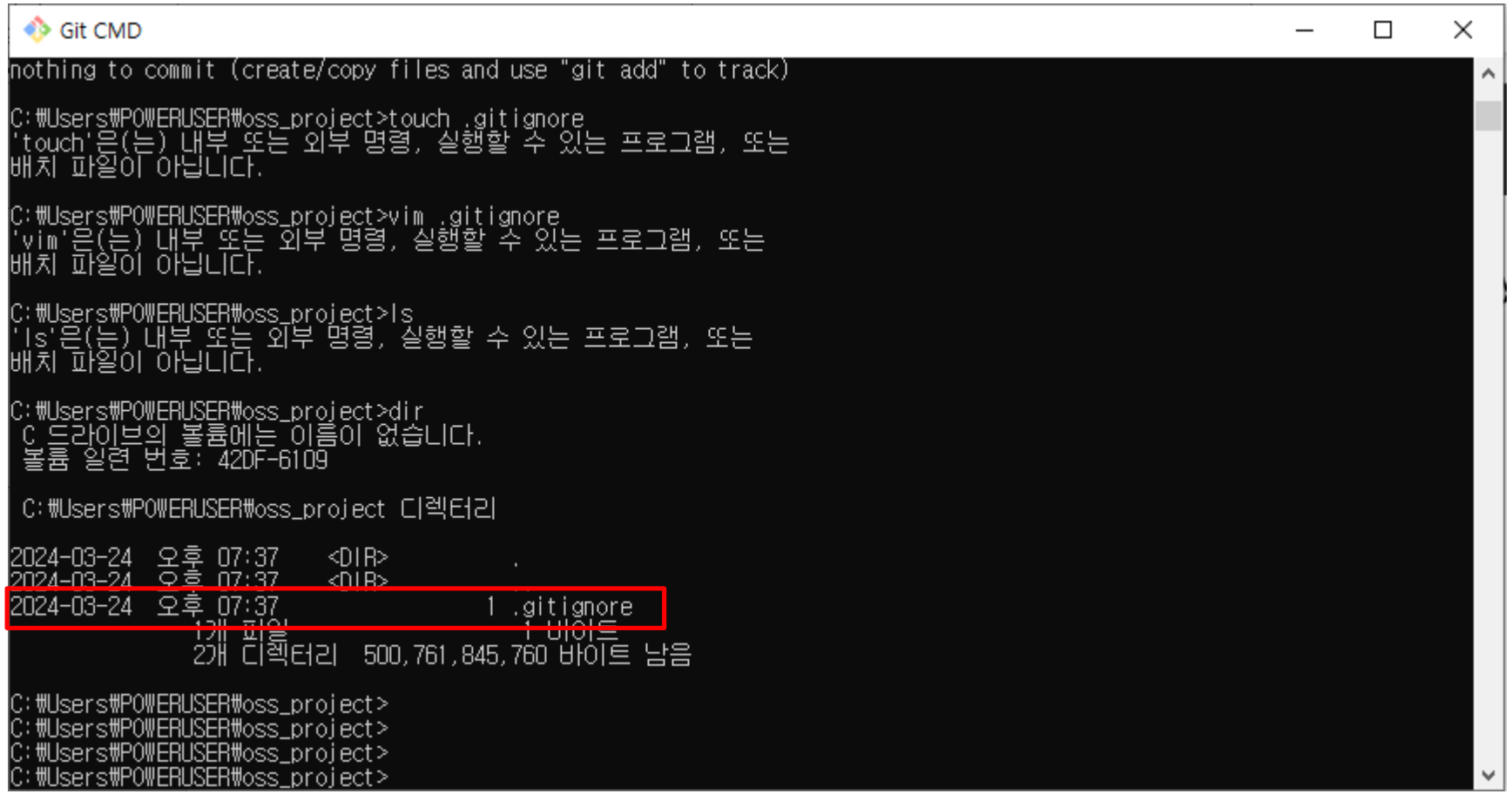
How to use Git? (3)

- 3] "git status" and check on the message!



How to use Git? (4)

- 4] Make one dummy file as ".gitiognore" in your folder, by using your editor.



How to use Git? (5)

- 5] Execute the following commands:

```
$ git add .gitignore
$ git commit –m 'Initialize Git repository'
```

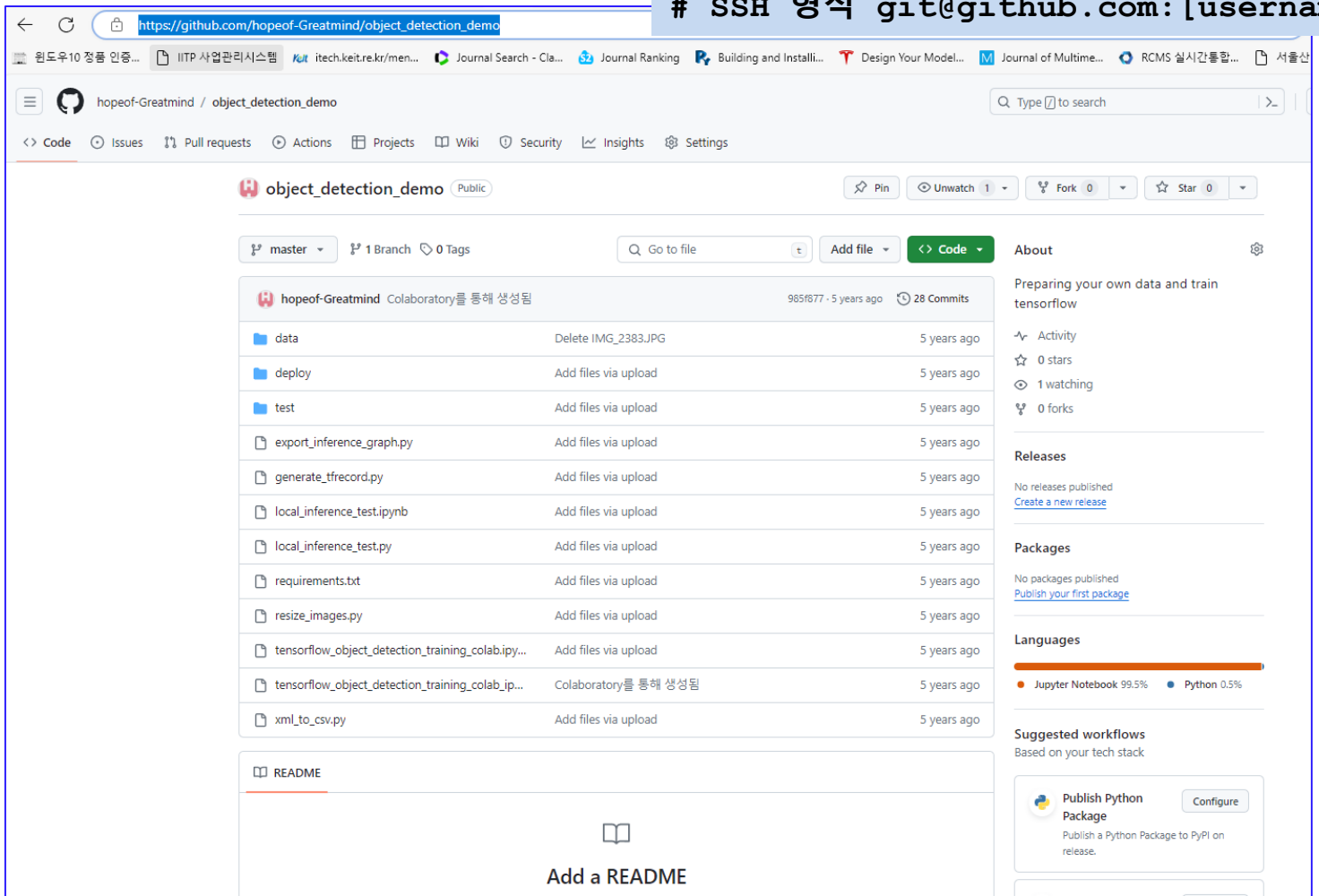
How to use Git? (6)

- **"$git clone" Command**

```
git clone [REPO_URL] [DIR]
```

```
# HTTPS 형식
https://github.com/[USERNAME]/[reps_name].git
# SSH 형식 git@github.com:[username]/[reps_name].git
```

- **1] Check your Github URL in Github!**

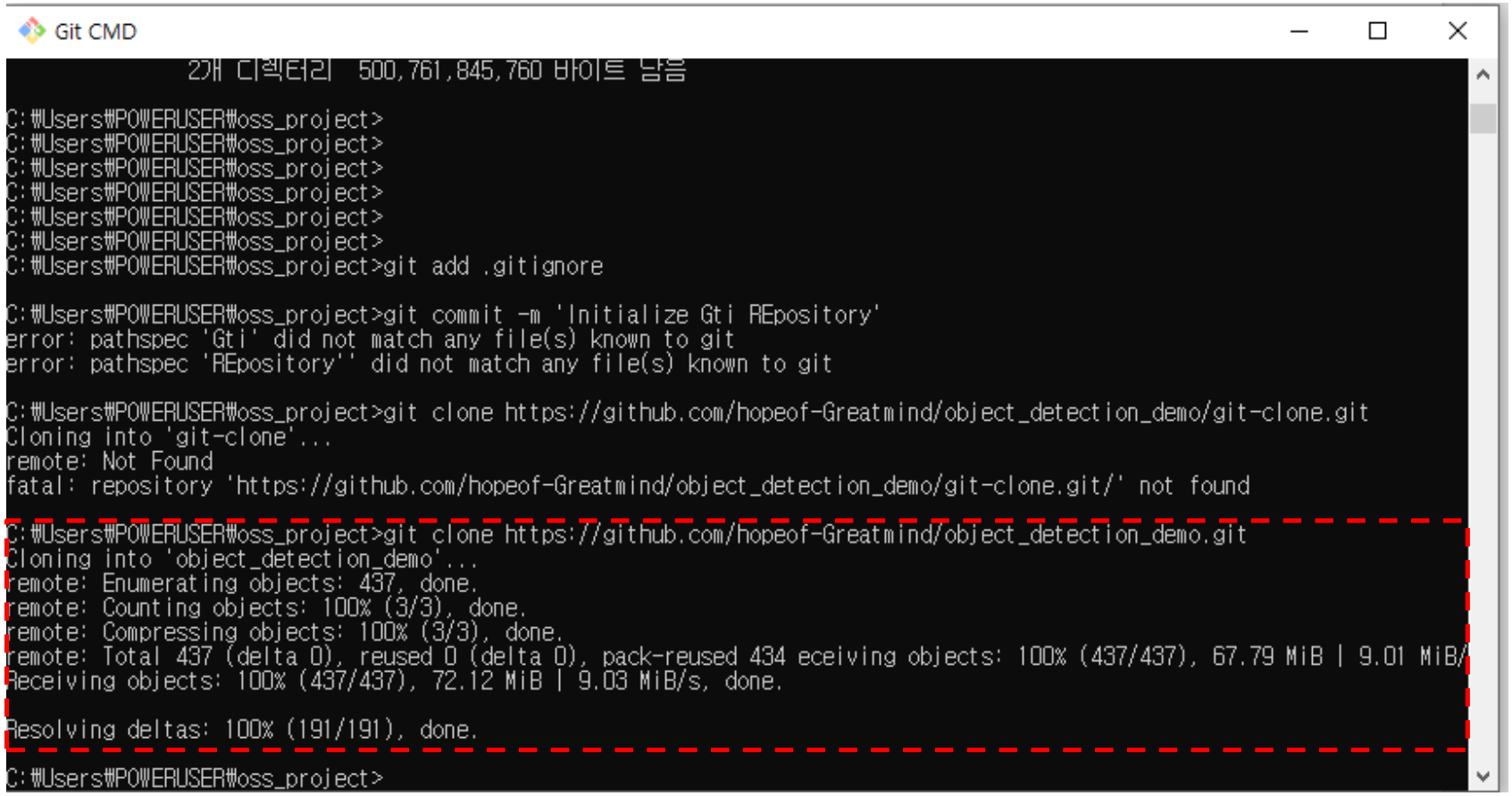


How to use Git? (7)

- 2] Copy the source using the following command:

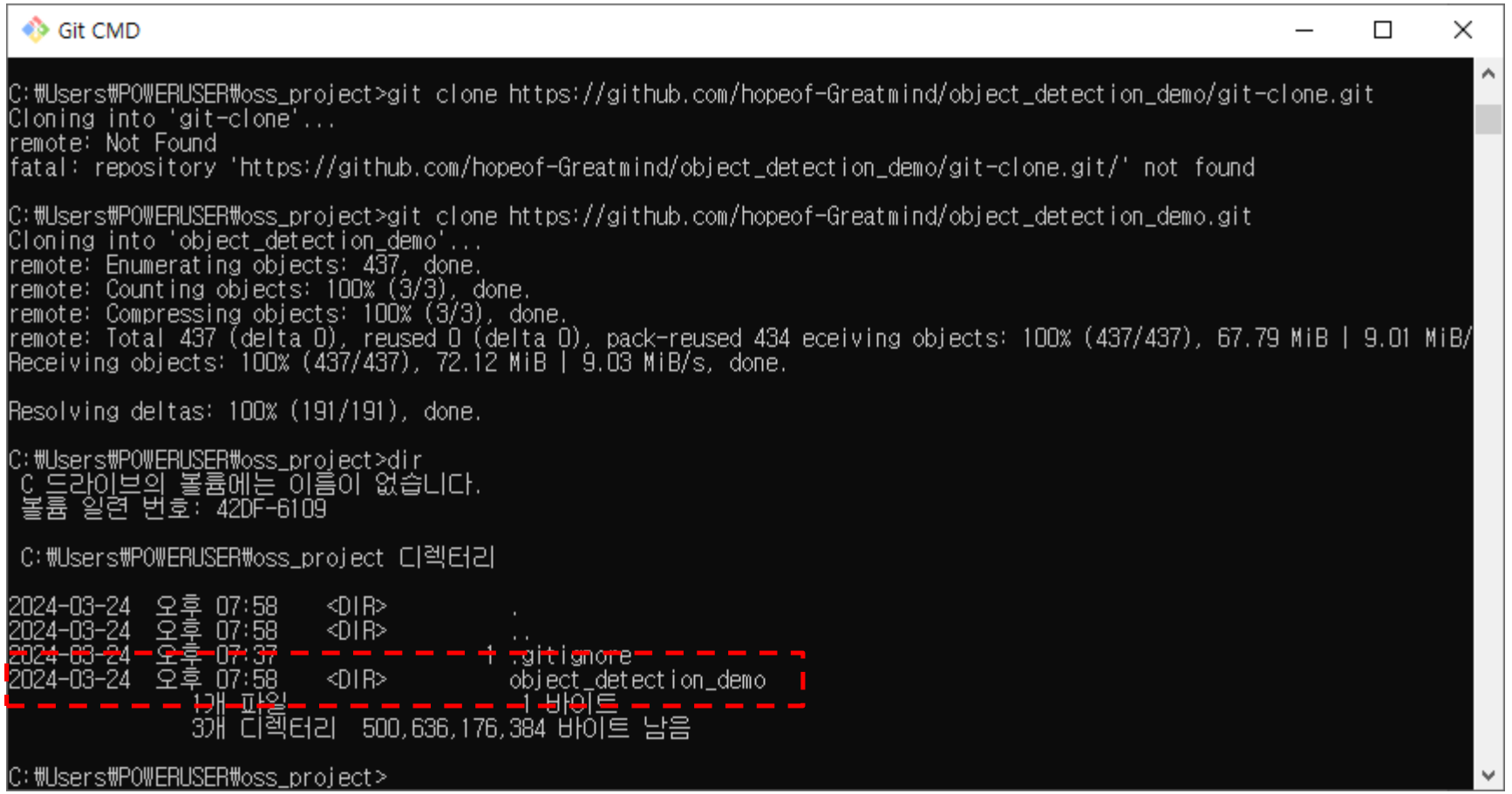
```
$ git clone https://github.com/hopeof-Greatmind/object_detection_demo.git
```

You can see cloning process as the following:



How to use Git? (8)

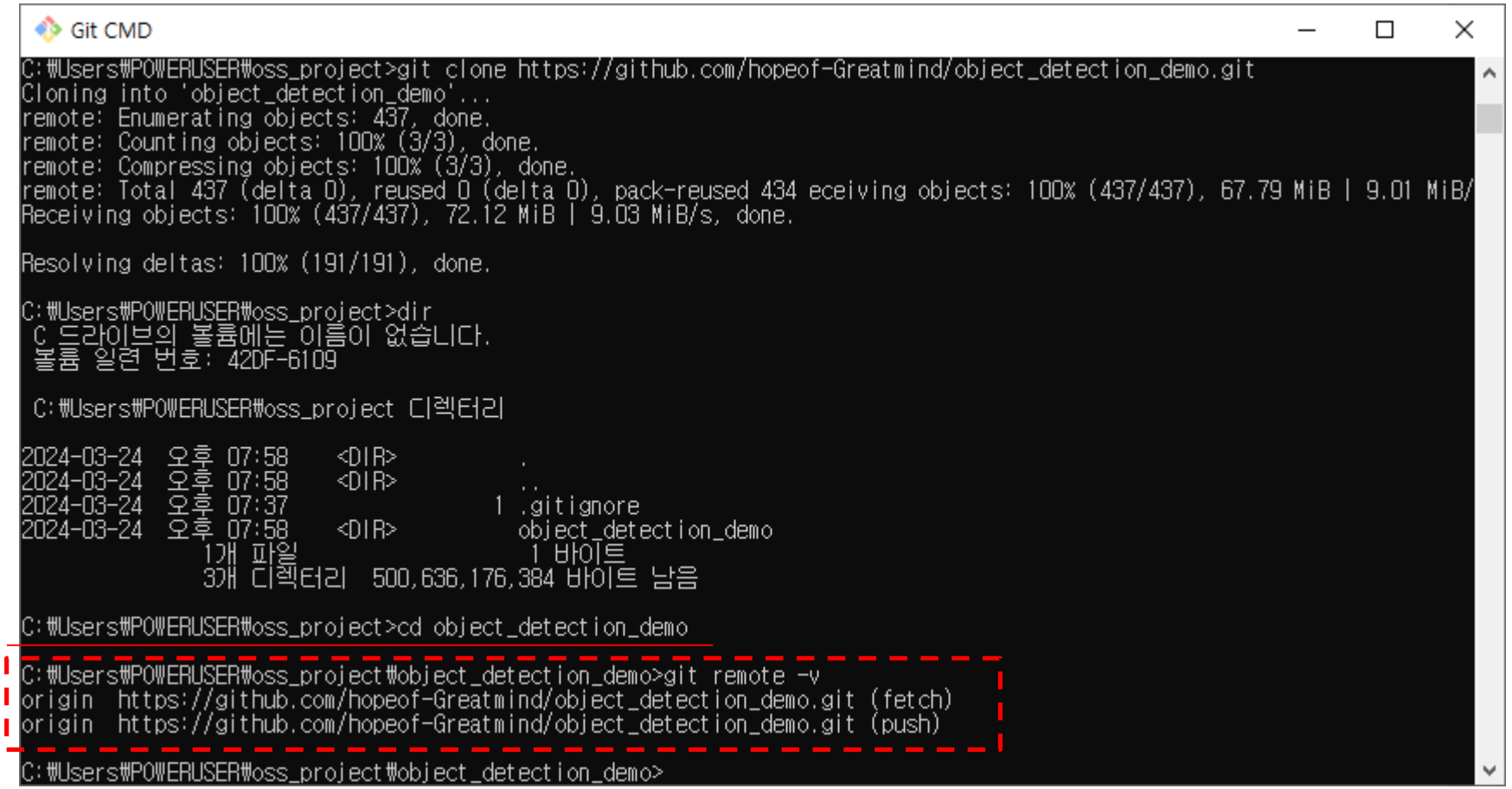
- 3] Check on your folder to verify the cloning!



How to use Git? (9)

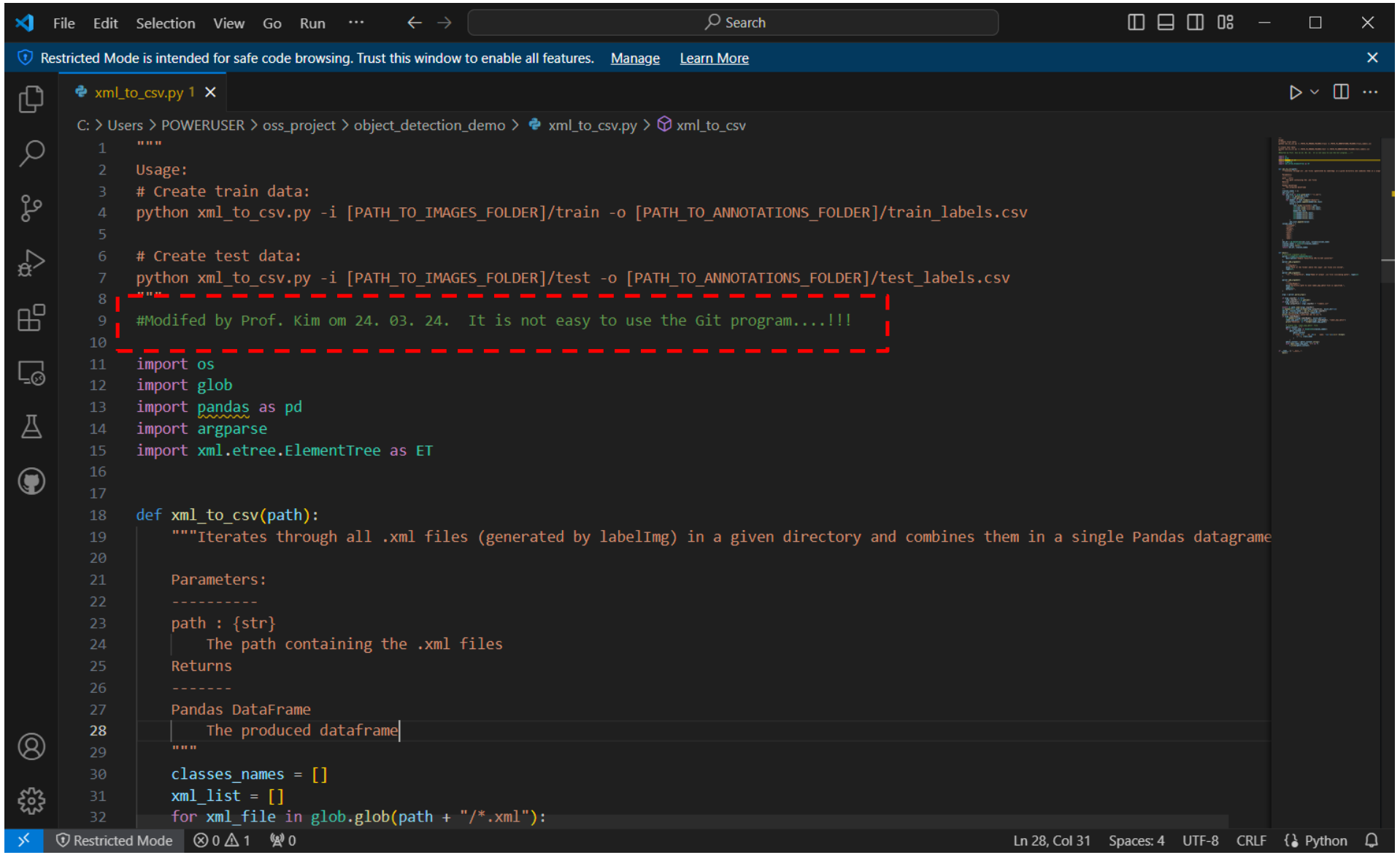
- 4] Verify the remote repository.

```
$ cd [your clone folder]
$ git remote -v
```



How to use Git? (10)

- 5] Edit your code and modification. Here, we use "xml_2_csv.py" file.

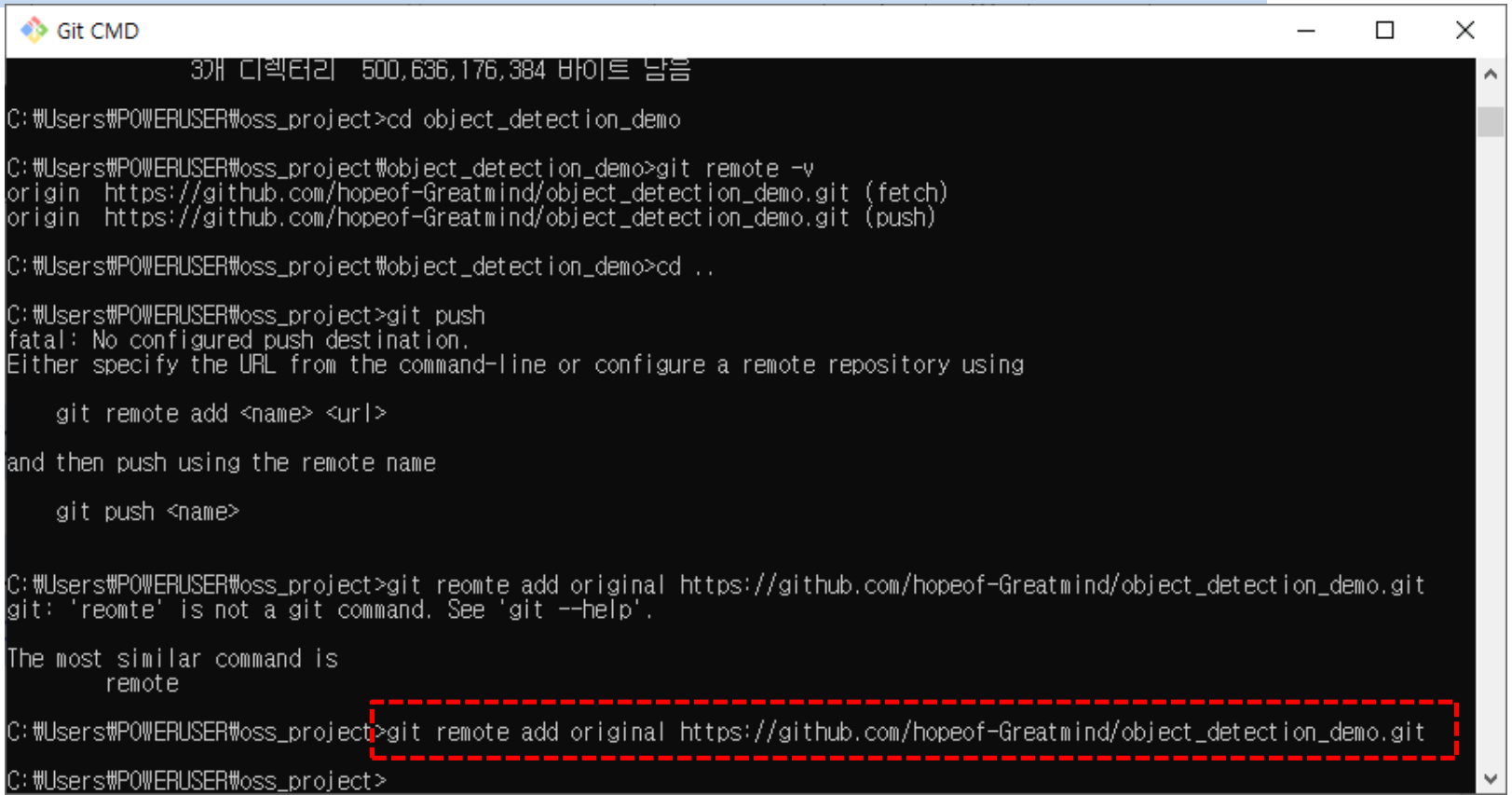


How to use Git? (11)

- 6] Before reflecting the change to the remote repository, **connect two repositories** based on "git remote" command.

```
$ git remote add [REMOTE_NAME] [REMOTE_GIT_URL]
```

```
$ git remote add original https://github.com/hopeof-Greatmind/object_detection_demo.git
```



How to use Git? (12)

- 6] Update git program when you meet an error...!!!!

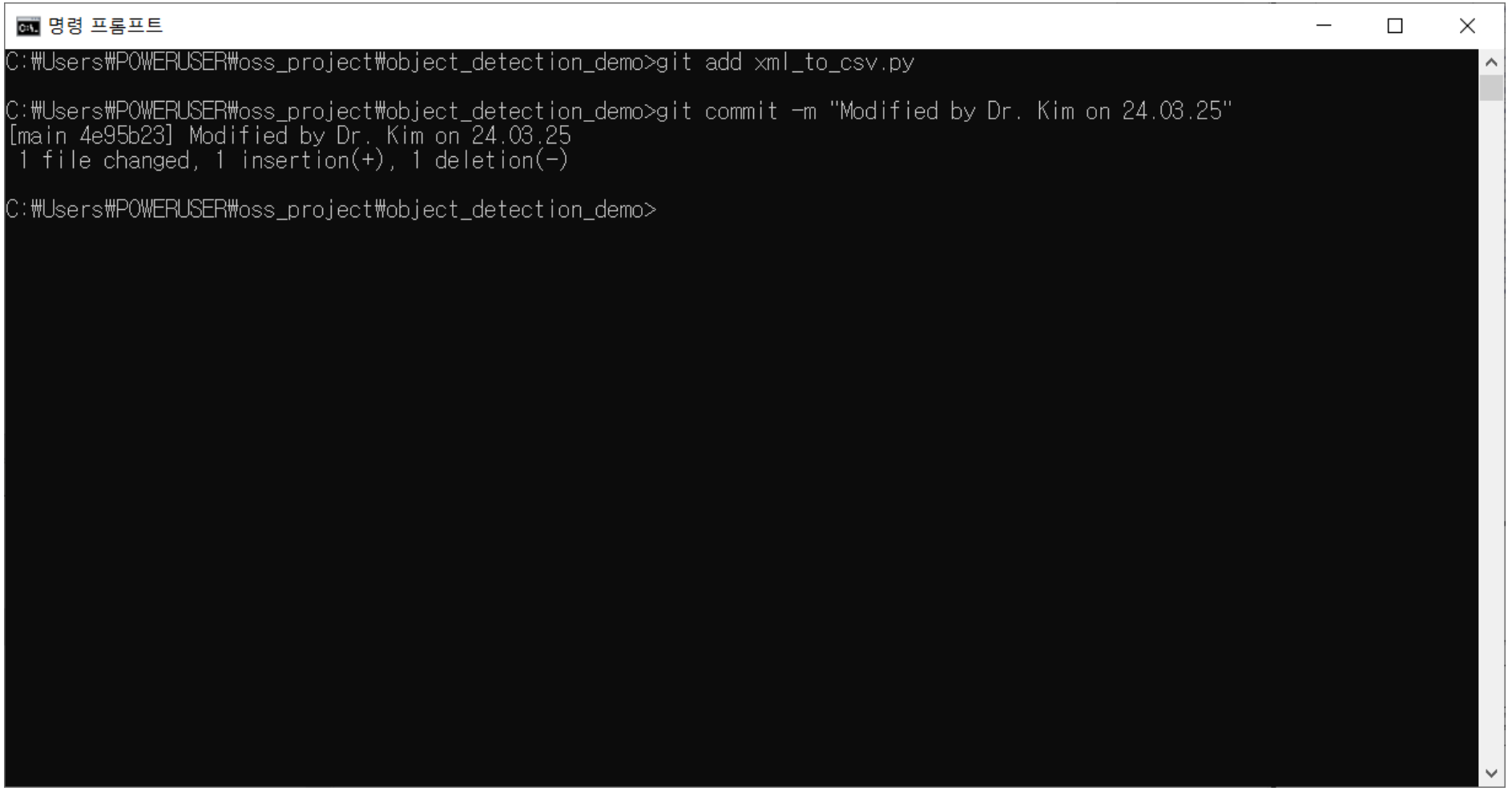
```
$ git update-git-for-windows
```

```
C:₩Users₩POWERUSER₩oss_project₩object_detection_demo>git update-git-for-windows
Git for Windows 2.30.0.windows.2 (64bit)
Update 2.44.0.windows.1 is available
Download and install Git for Windows v2.44.0.windows.1 [N/y]? y
######################################################################################################################################################## 100.0%
```

How to use Git? (13)

- 7] Reflect your change based on "git add <edited file>" and "git Commit –m <message>".

```
$ git add xml_2_csv.py
$ git commit -m "Modified by Dr. Kim on 24.03.25"
```



How to use Git? (14)

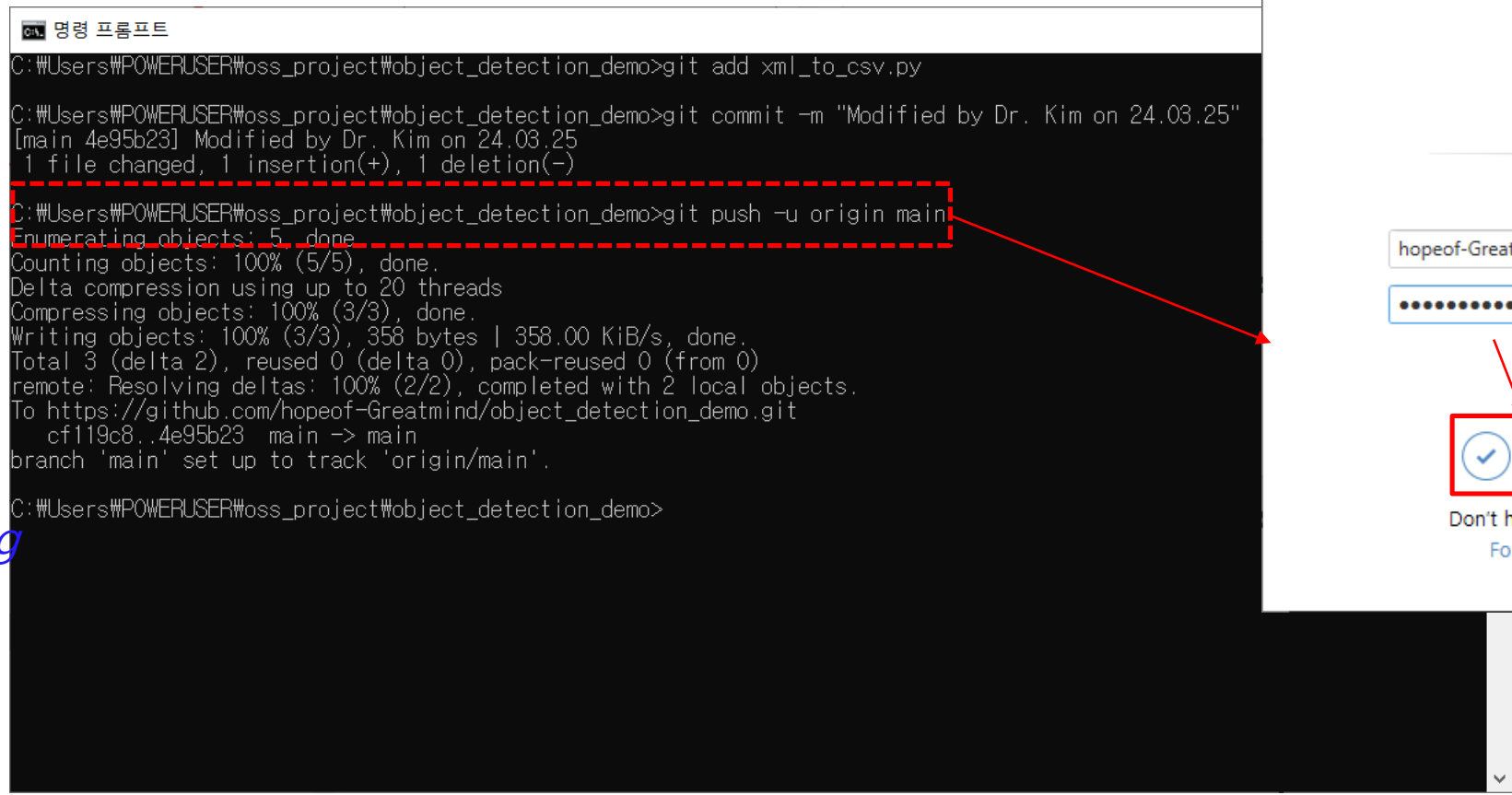
- 8] Reflect the change to the remote Github (your Github) using "**git push**~" command...!!

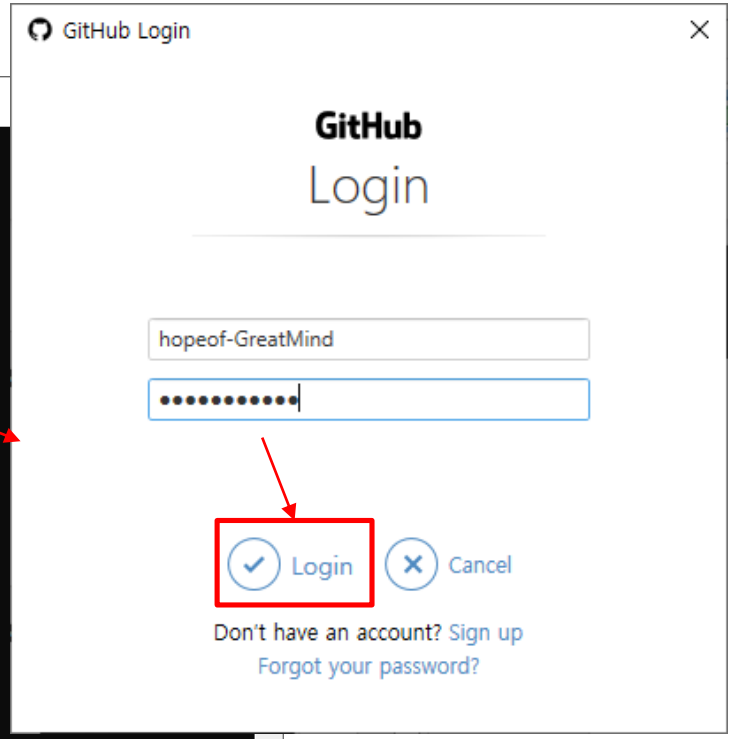
```
$ git push <remote> <branch name>

Example)) $ git push -u origin main
```

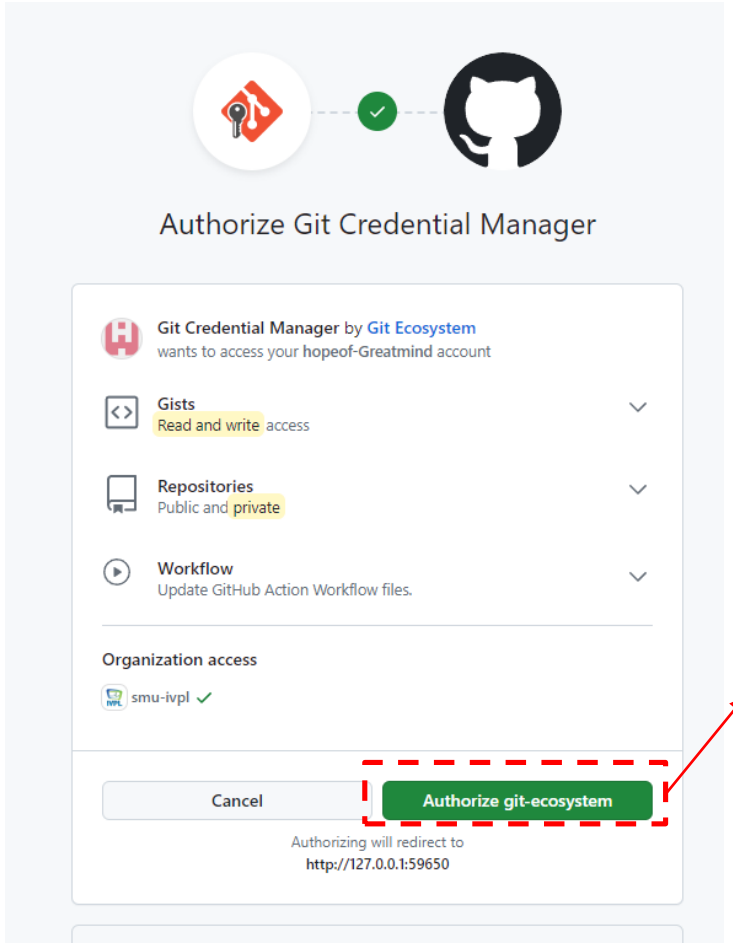
```
$ git push <options>
```

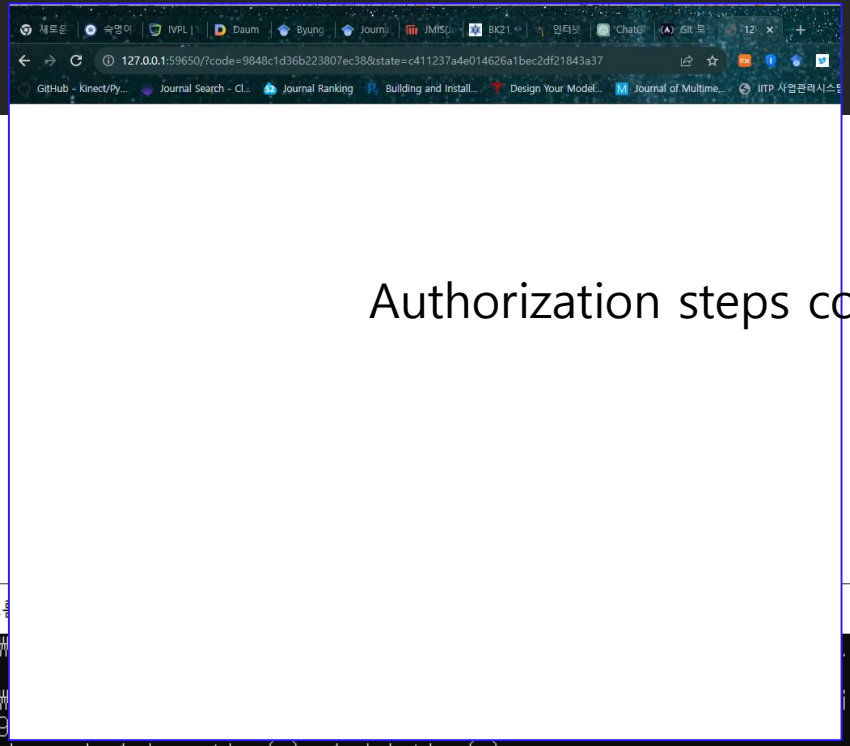
In your working Folder !



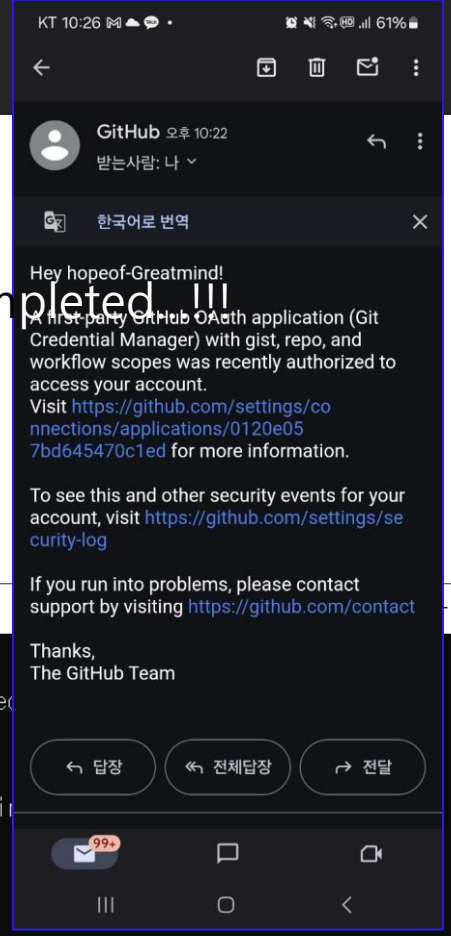


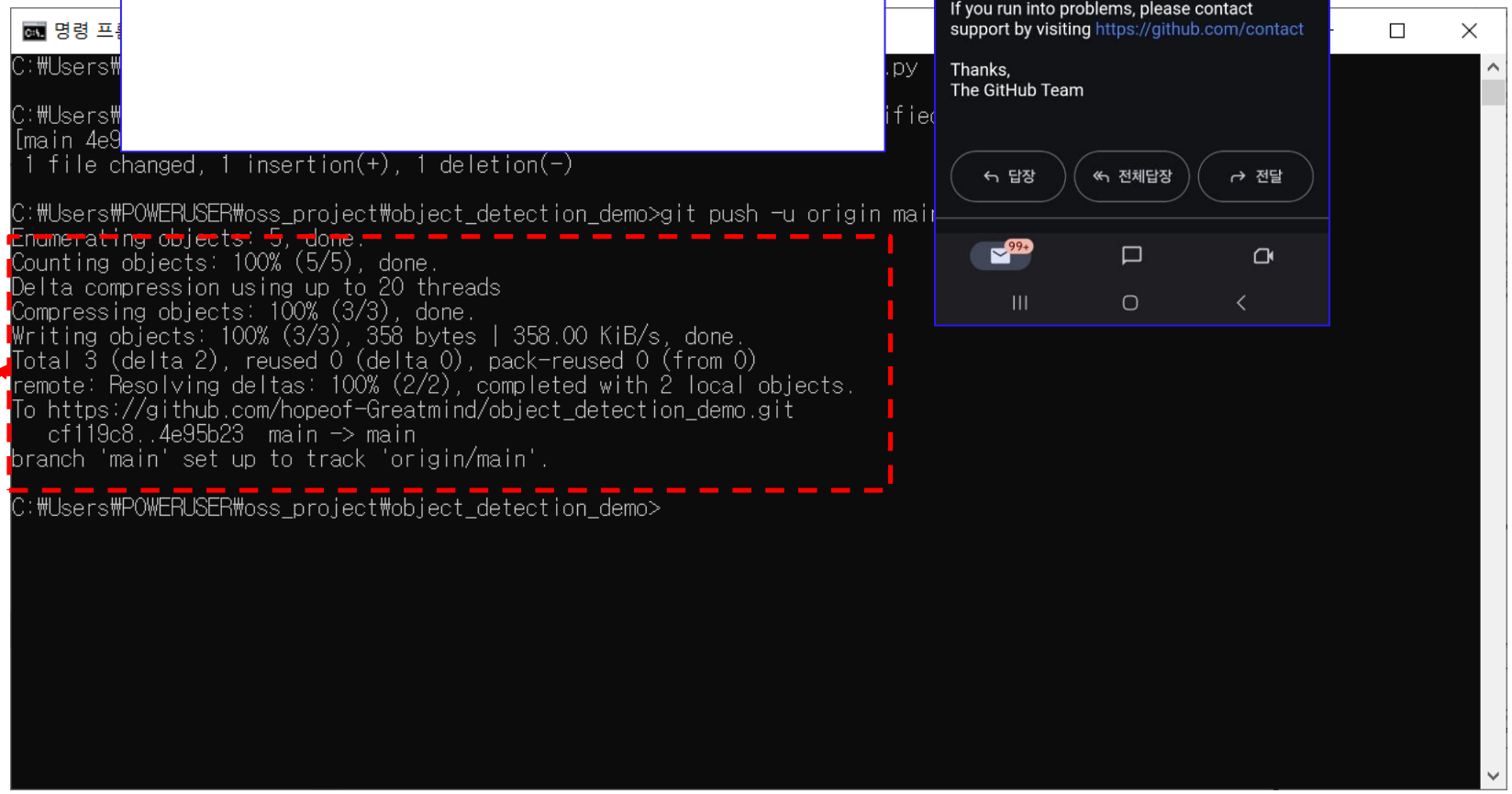
How to use Git? (15)





Authorization steps completed !!!





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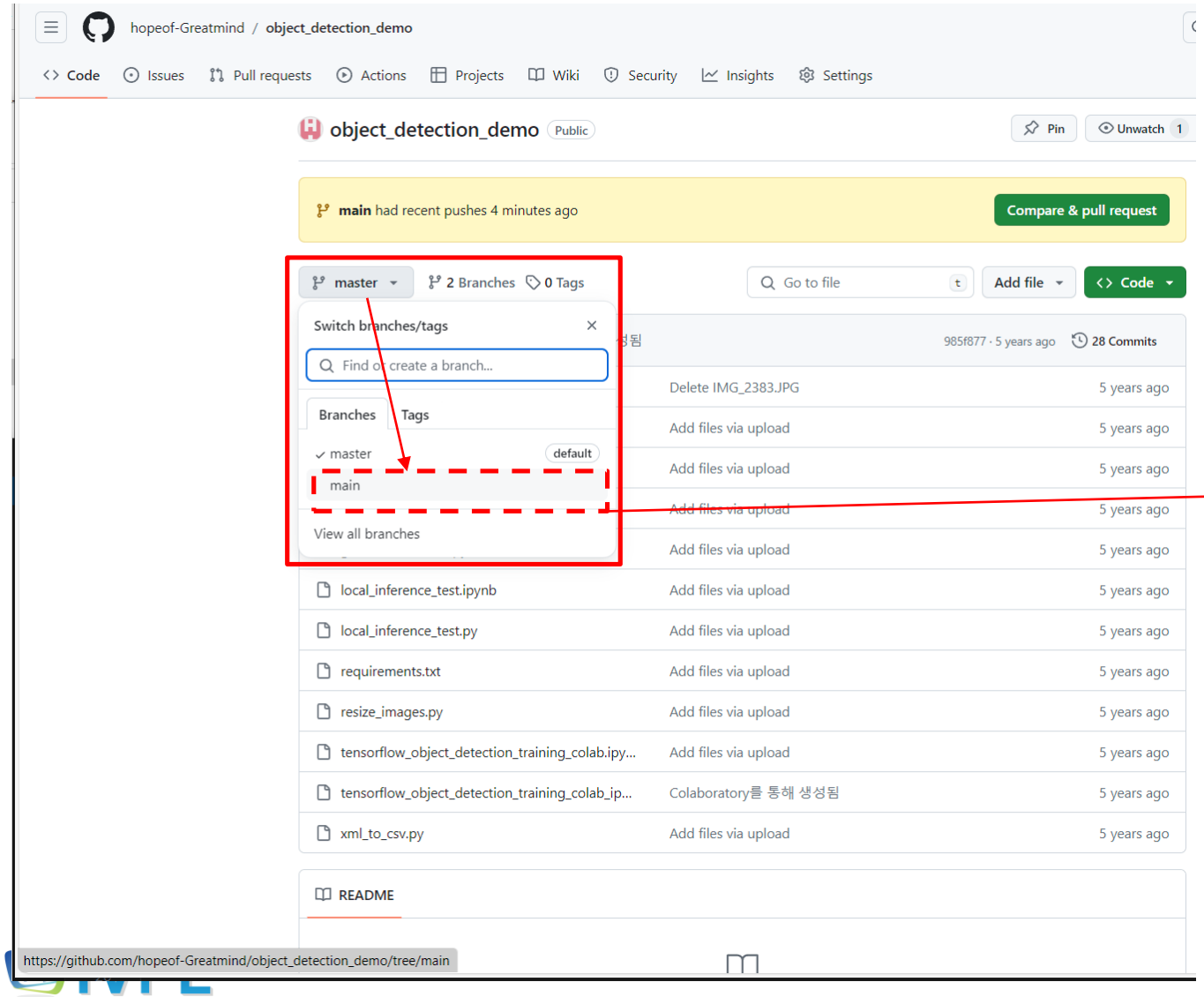
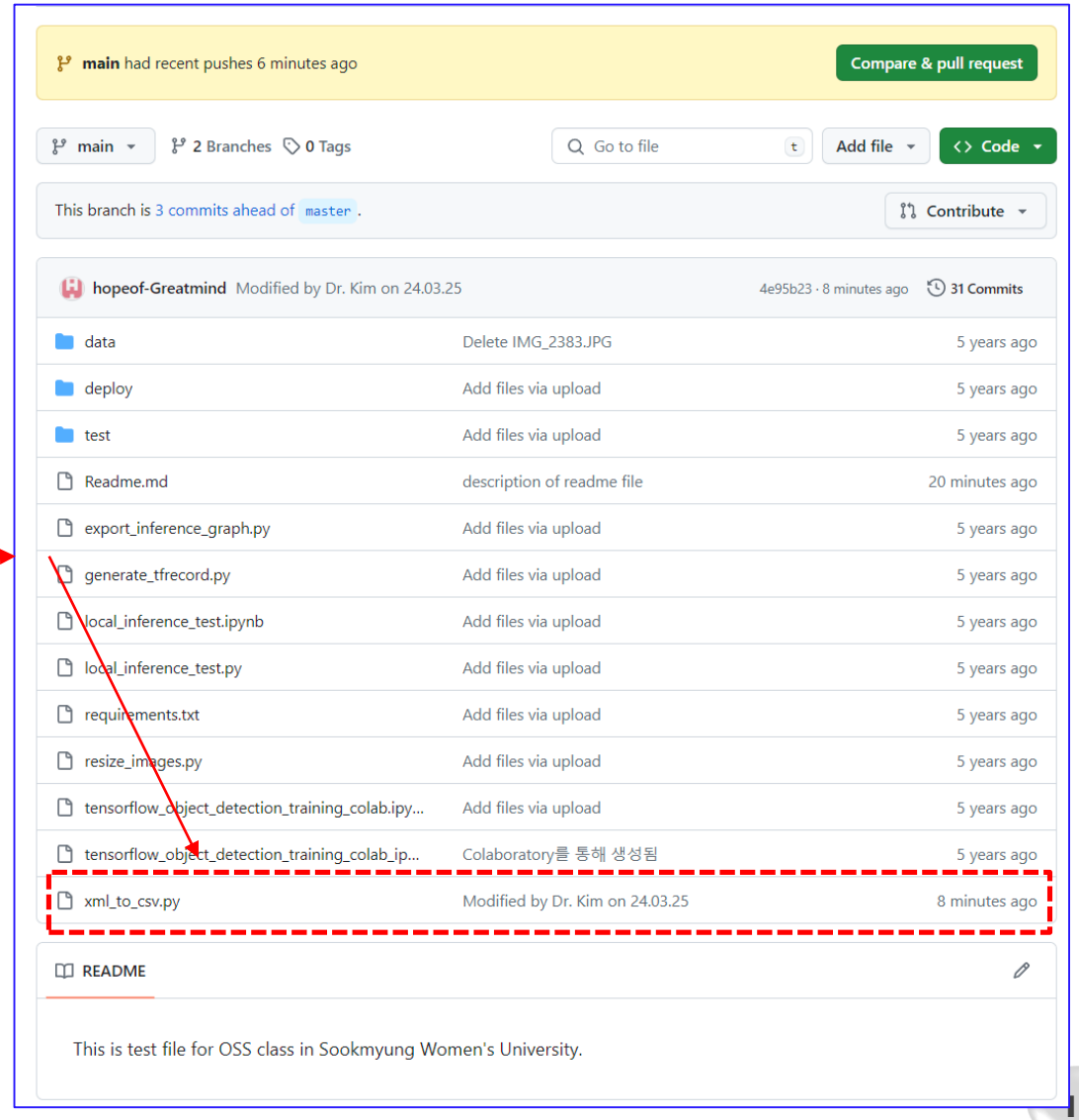
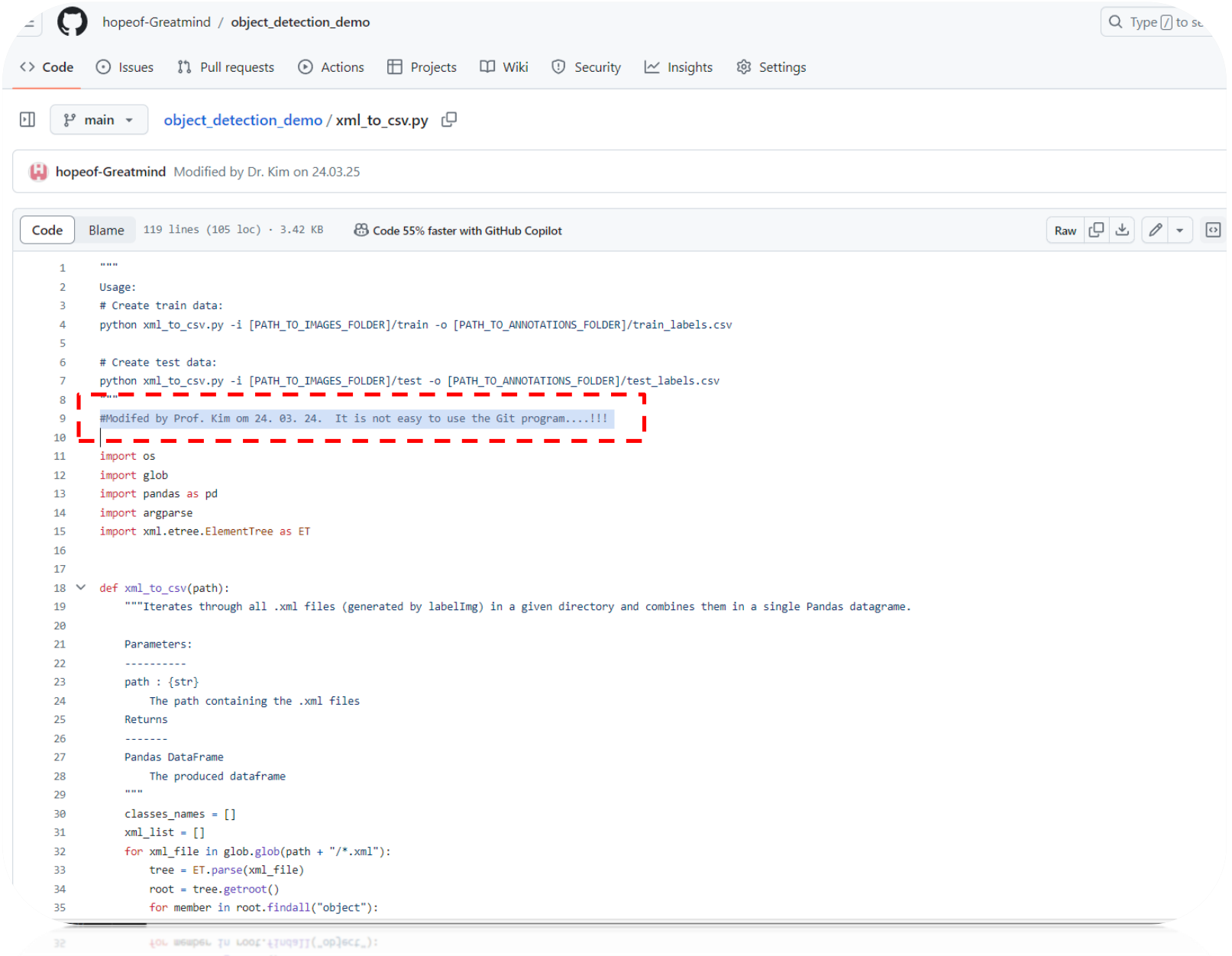
How to use Git? (16)

- 9] See the changes in your remote Github...!!!





How to use Git? (17)



hopeof-Greatmind / object_detection_demo

Code | Issues | Pull requests | Actions | Projects | Wiki | Security | Insights | Settings

main | object_detection_demo / xml_to_csv.py

hopeof-Greatmind Modified by Dr. Kim on 24.03.25

Code | Blame | 119 lines (105 loc) · 3.42 KB | Code 55% faster with GitHub Copilot | Raw

```
"""
Usage:
# Create train data:
python xml_to_csv.py -i [PATH_TO_IMAGES_FOLDER]/train -o [PATH_TO_ANNOTATIONS_FOLDER]/train_labels.csv

# Create test data:
python xml_to_csv.py -i [PATH_TO_IMAGES_FOLDER]/test -o [PATH_TO_ANNOTATIONS_FOLDER]/test_labels.csv
"""
#Modifed by Prof. Kim om 24. 03. 24.  It is not easy to use the Git program....!!!

import os
import glob
import pandas as pd
import argparse
import xml.etree.ElementTree as ET


def xml_to_csv(path):
    """Iterates through all .xml files (generated by labelImg) in a given directory and combines them in a single Pandas datagrame.

    Parameters:
    ----------
    path : {str}
        The path containing the .xml files
    Returns
    -------
    Pandas DataFrame
        The produced dataframe
    """
    classes_names = []
    xml_list = []
    for xml_file in glob.glob(path + "/*.xml"):
        tree = ET.parse(xml_file)
        root = tree.getroot()
        for member in root.findall("object"):
```

How to use Git? (18)

❖ Useful commands in **add & commit**

```
git add scripts/app.js images/logo.png
```

```
git add *
```

```
git add .
```

```
git commit -a -m "MY MESSAGE HERE"
```

```
git push origin master<branch name>
```

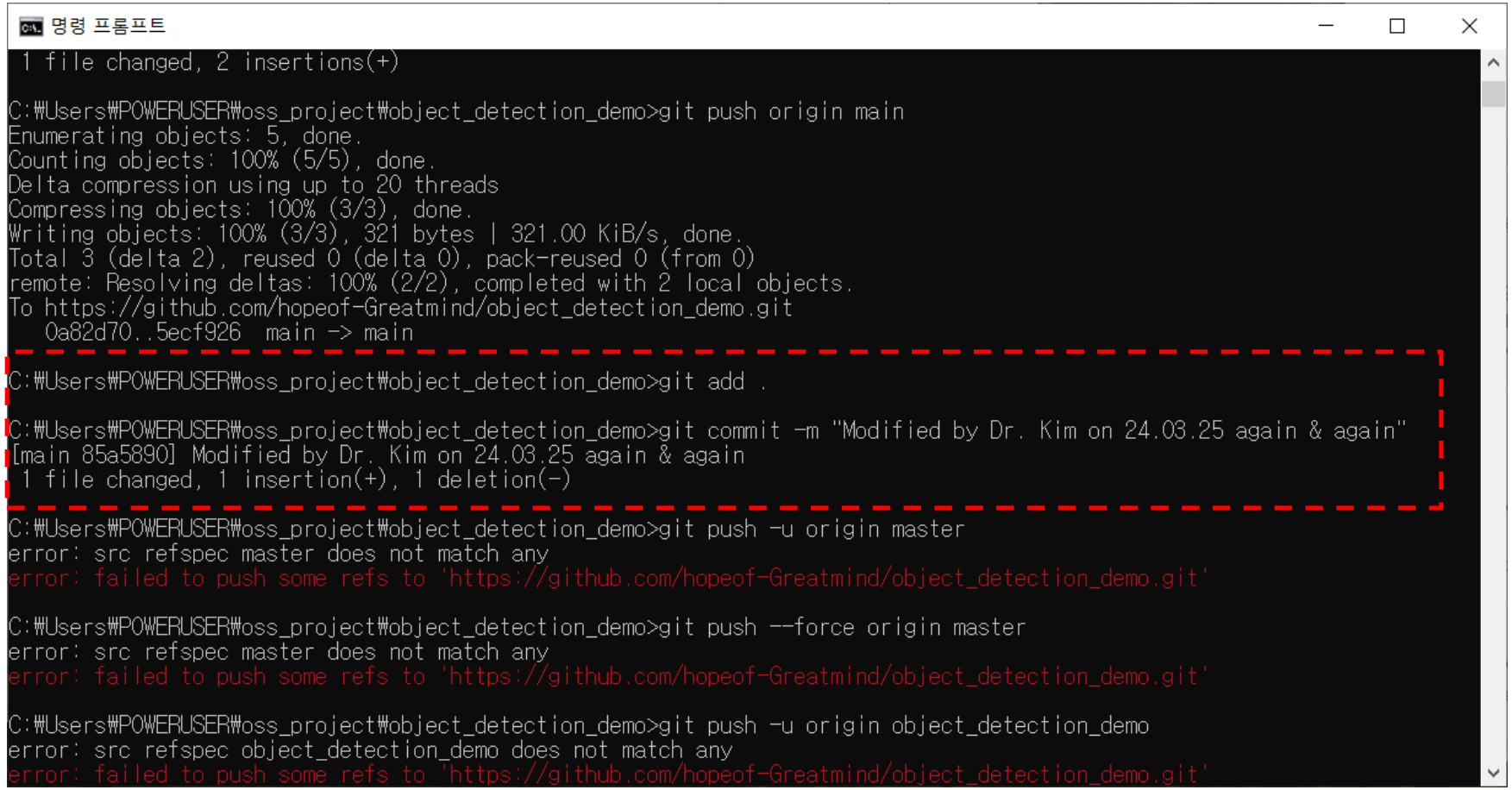
```
git push origin HEAD:<branch>

Ex) $ git push origin HEAD:master
```

How to use Git? (19)

- 9] change one source file and save...!!! Then using the following commands, we can push all changes to Github website.

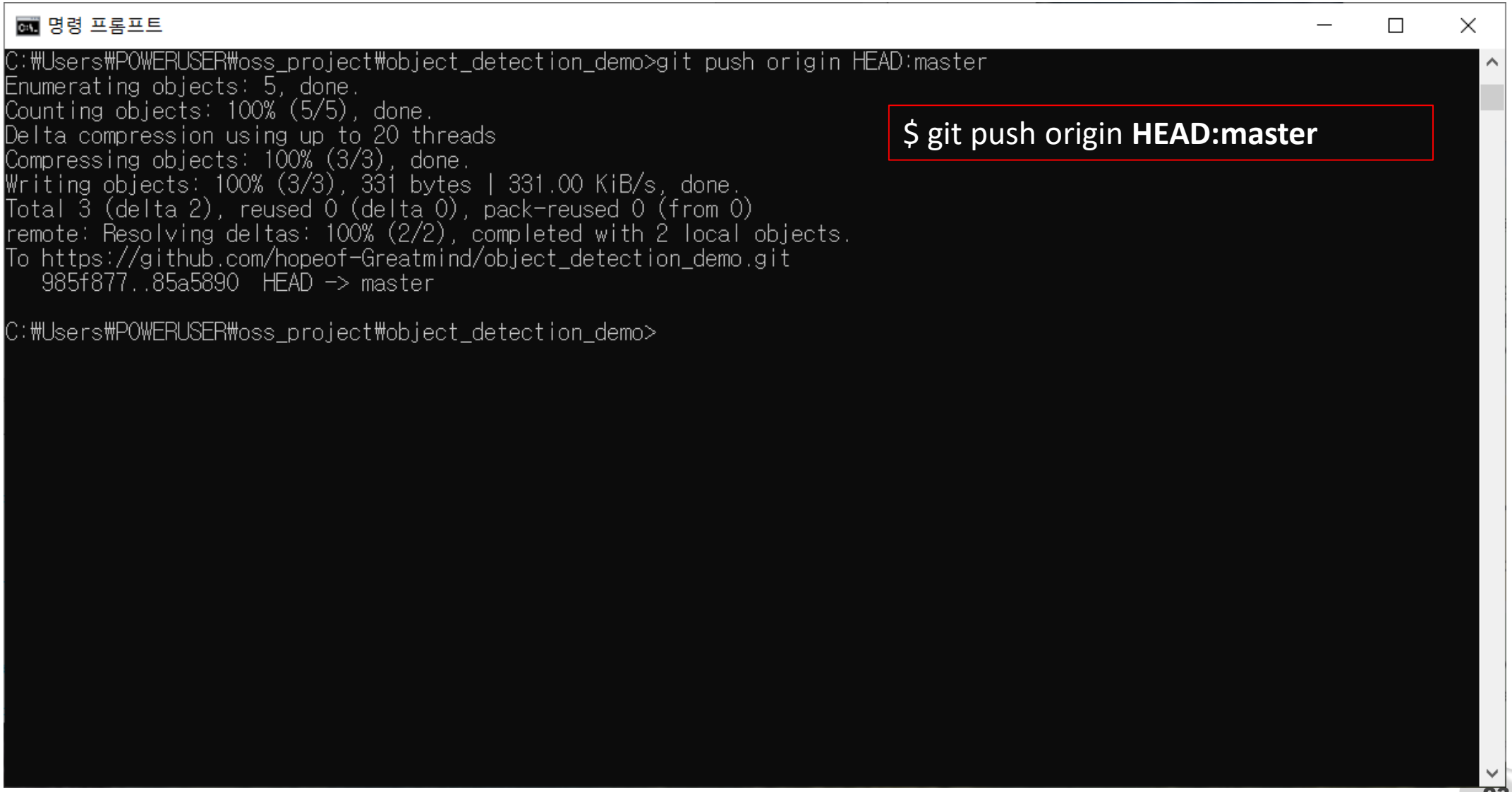
```
$ git add .
```

```
$ git commit -a -m "MY MESSAGE HERE"
```



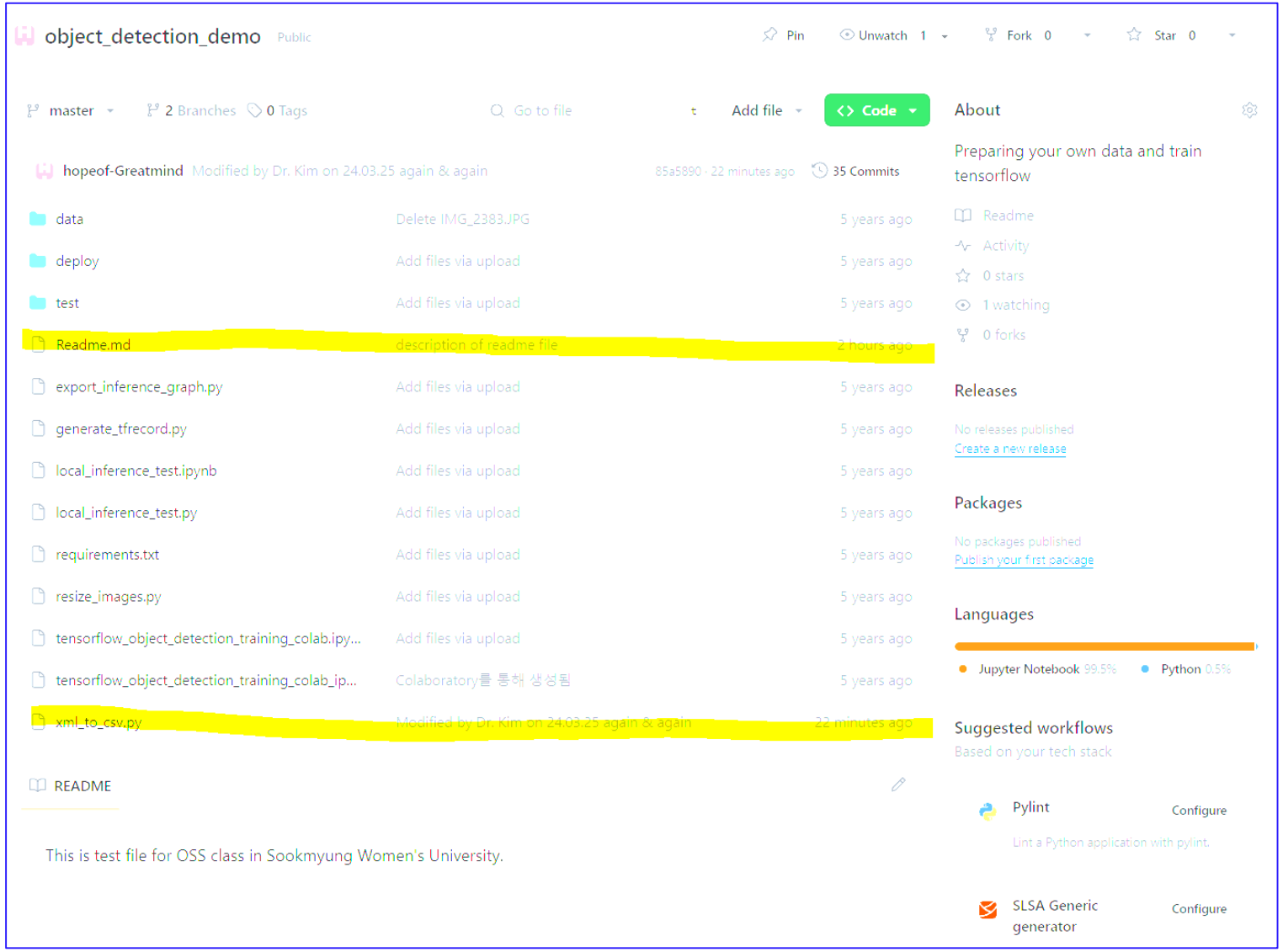
How to use Git? (20)

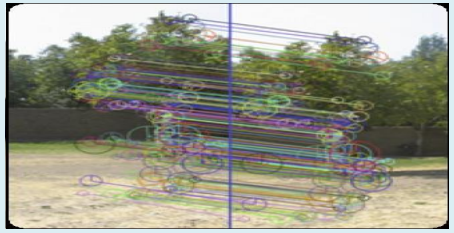
Then, you can push all changes to your Github site as:

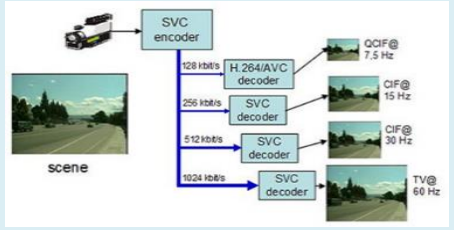


How to use Git? (21)

In your Github site and master branch, you can see the changed files and messages as:







Contents

- How to use Git?
- Github + VS Code

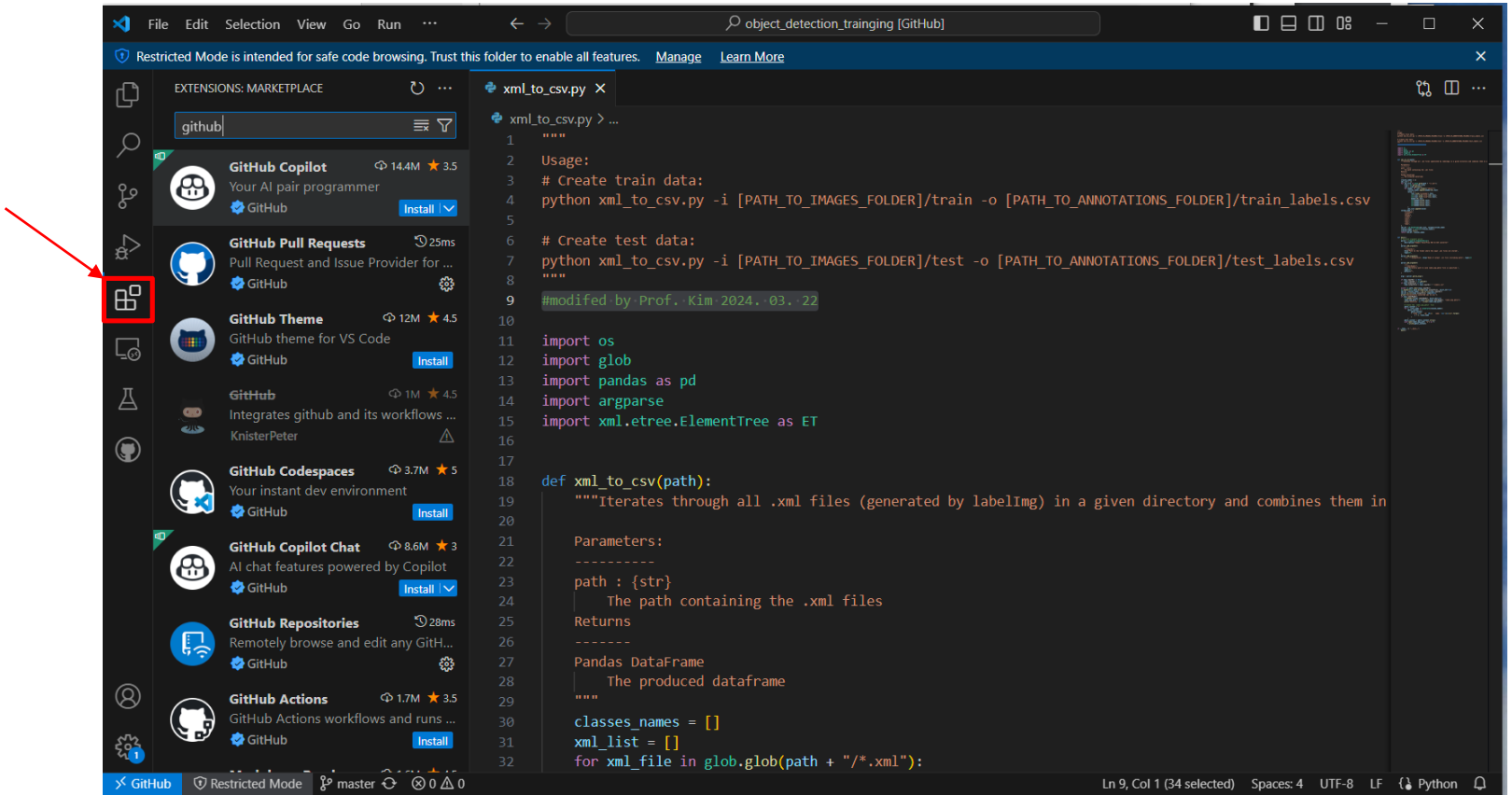
Github + VS Code (1)

❖ Requirements

- Install your VS code at Download Visual Studio Code - Mac, Linux, Windows.

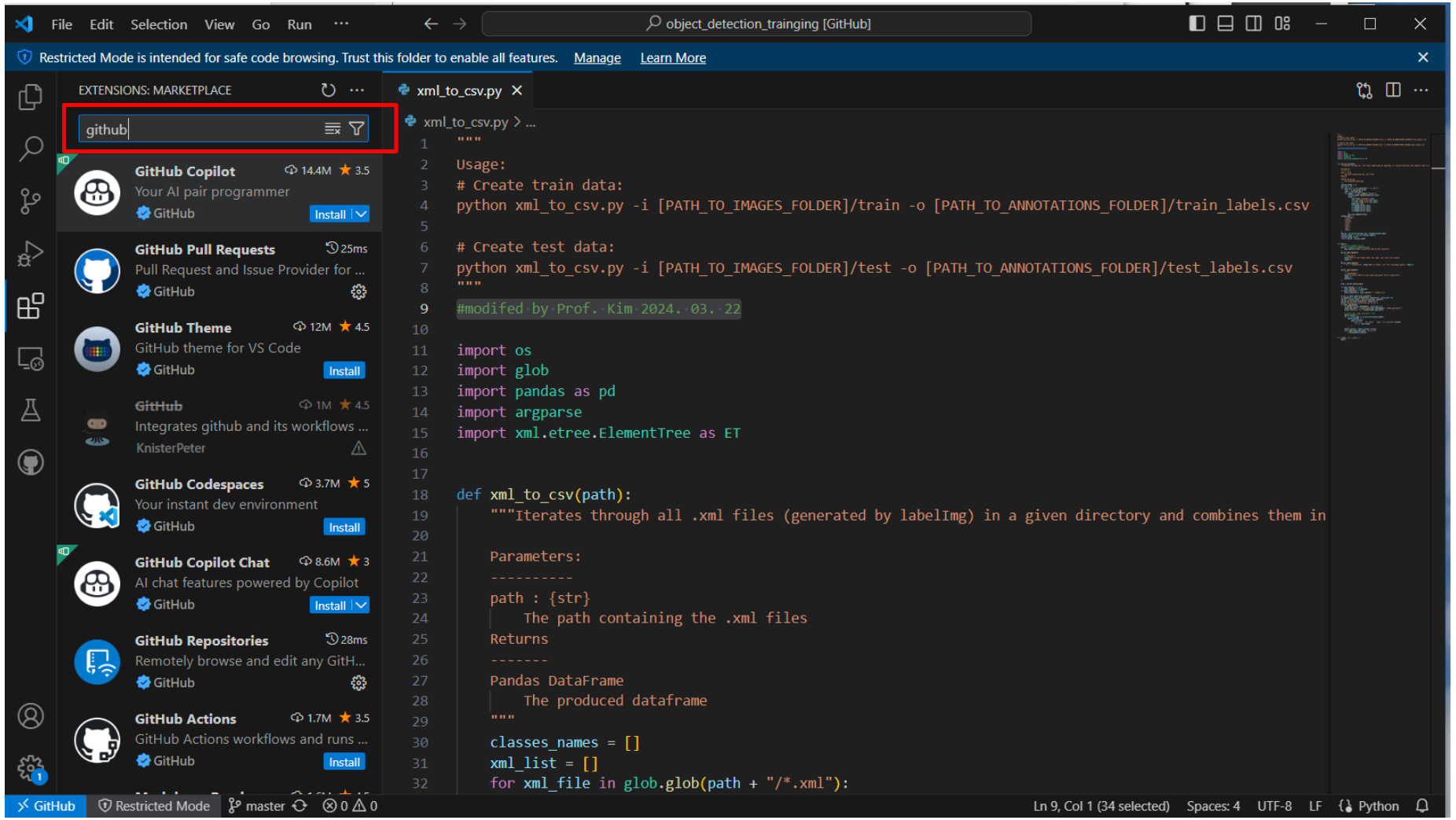
❖ Steps to Manage Your Github source in Your VS code

- 2] Open your VS code.
- 3] Click “Extension” tab on your VS code program!



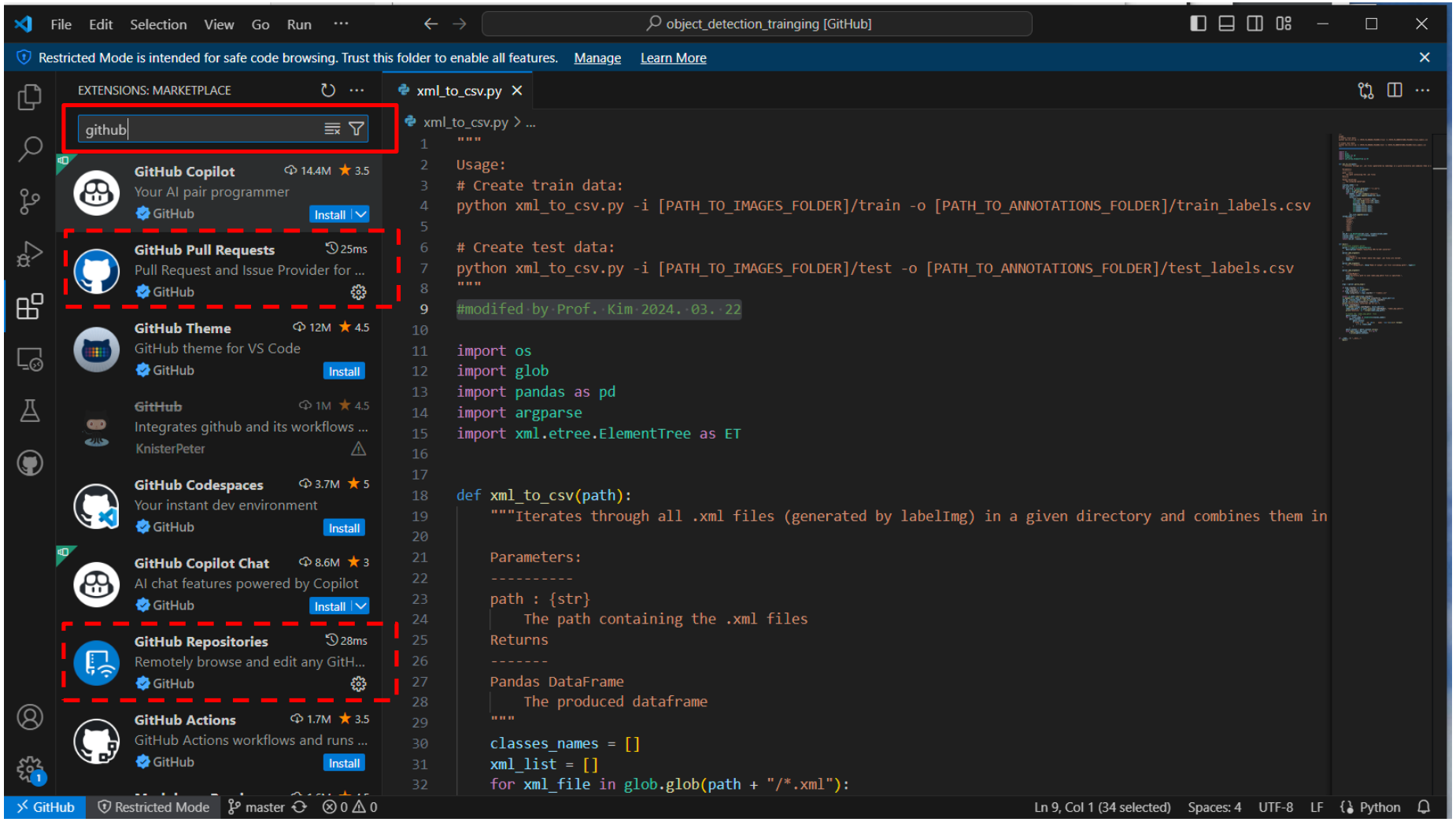
Github + VS Code (2)

- 4] Search Github extension in “search field”. You can see Github extension programs…!!!



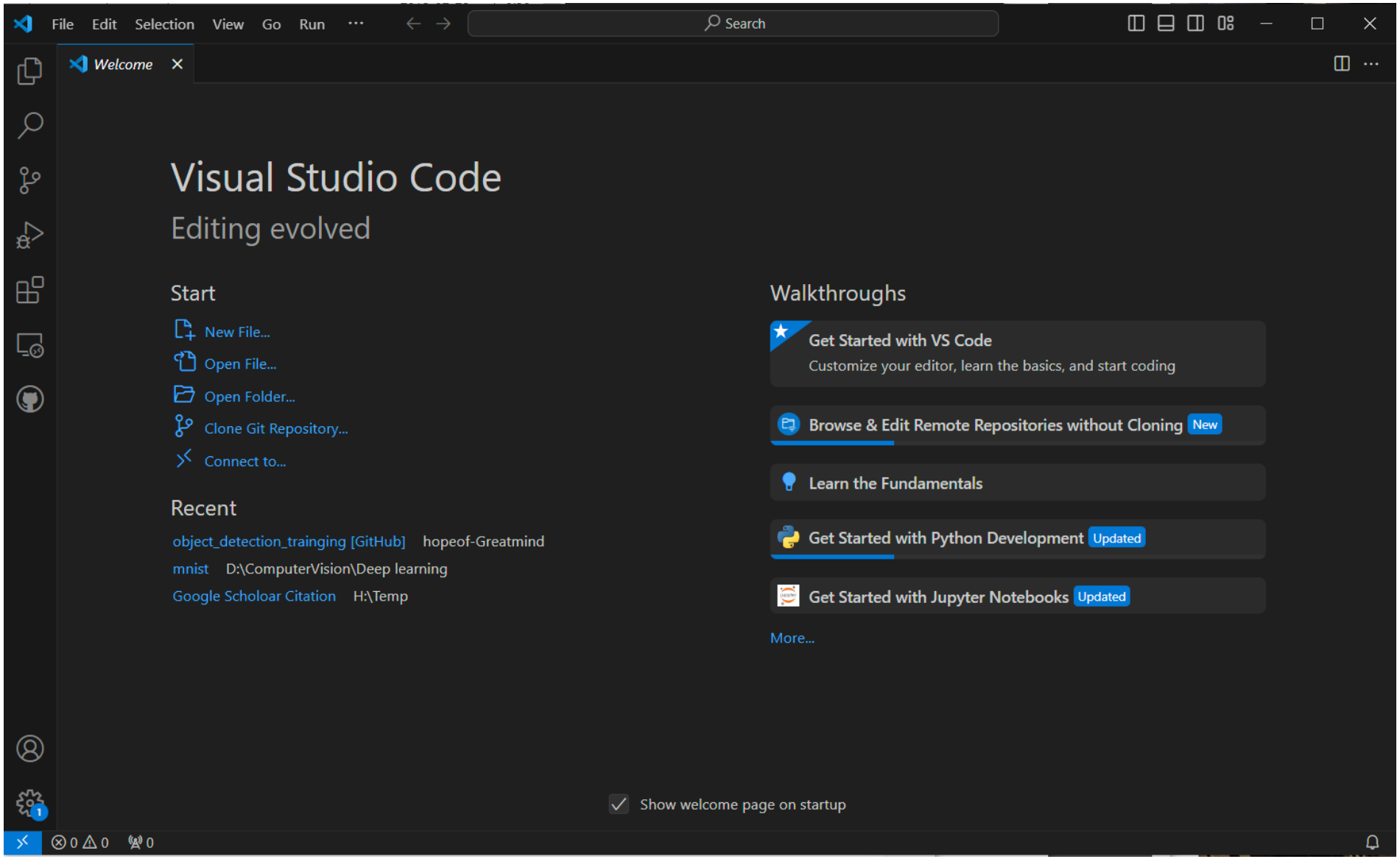
Github + VS Code (3)

- 5] Install the required packages by selecting them.



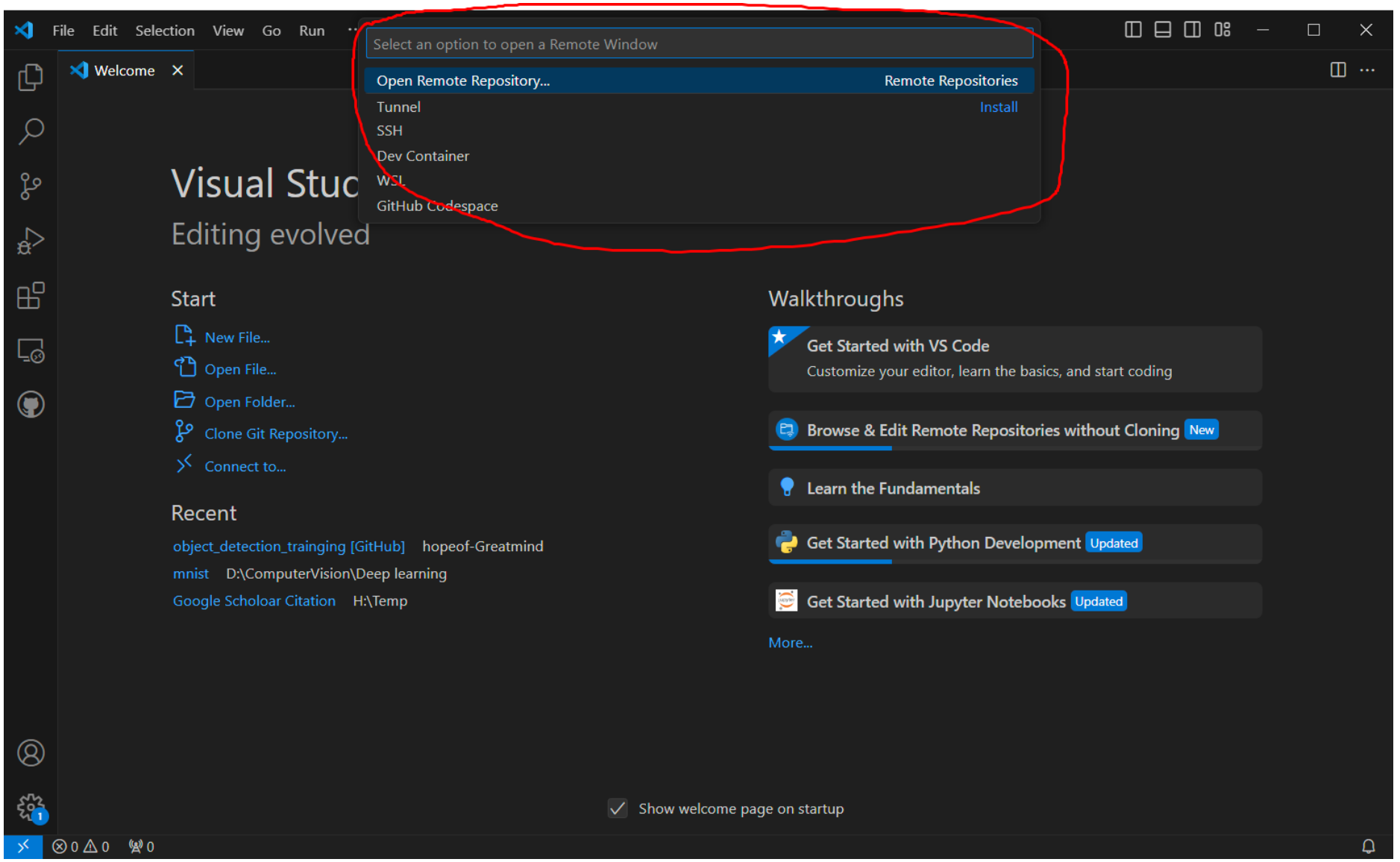
Github + VS Code (4)

- 6] In staring page of VS code, select start item as "Connect to…."



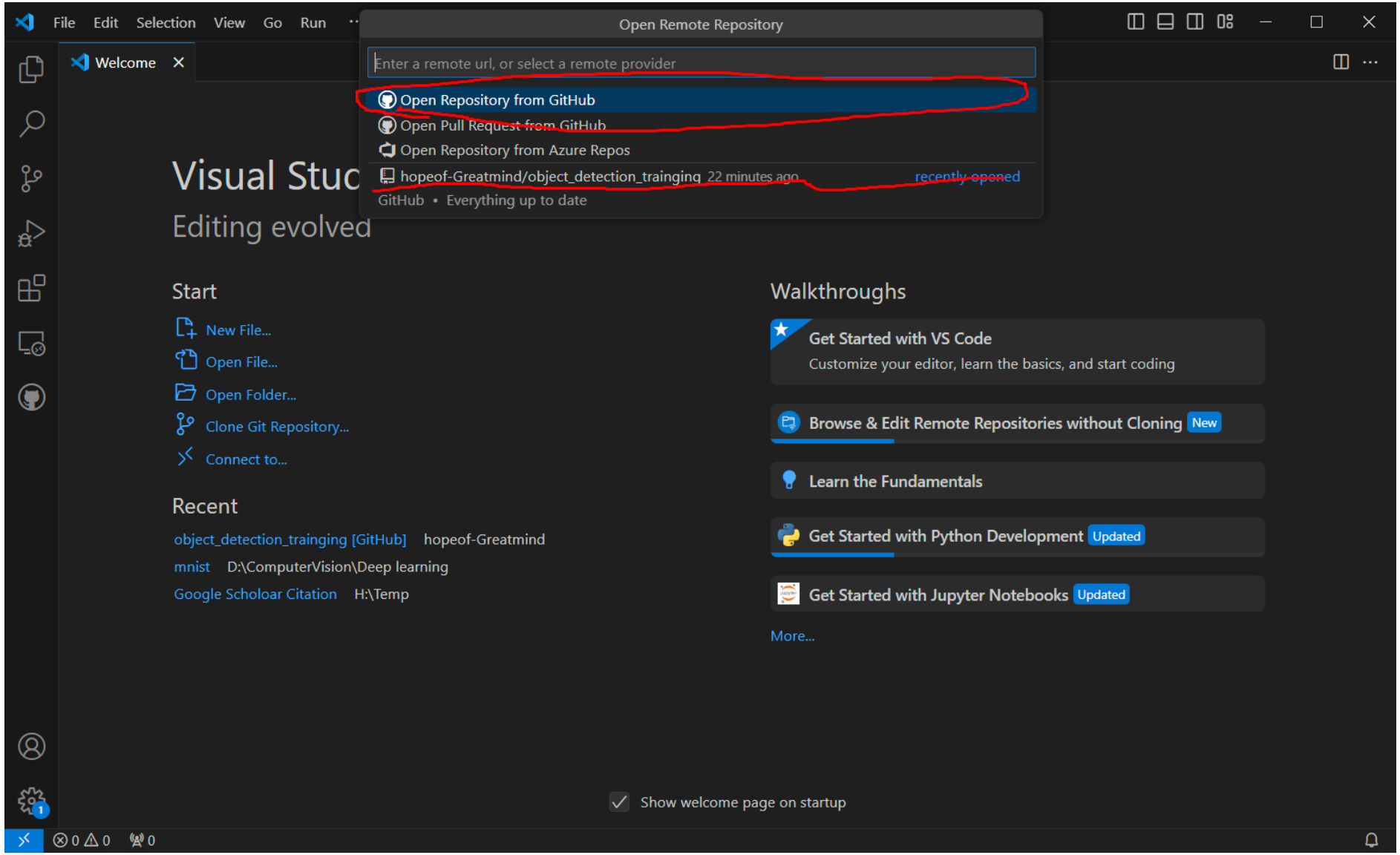
Github + VS Code (5)

- Select "Open Remote Repoistory"



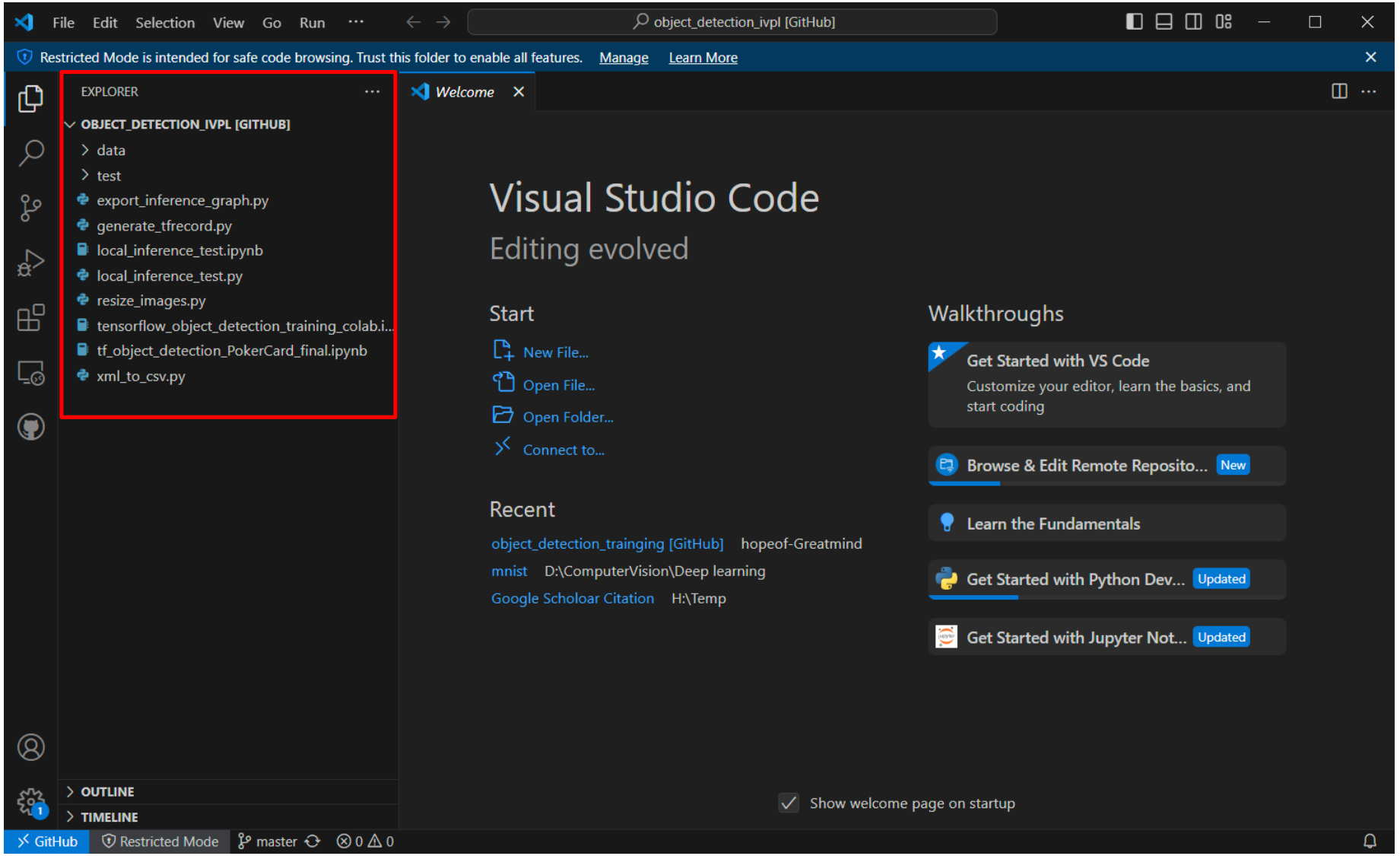
Github + VS Code (6)

- Select "Open Repository from Github."



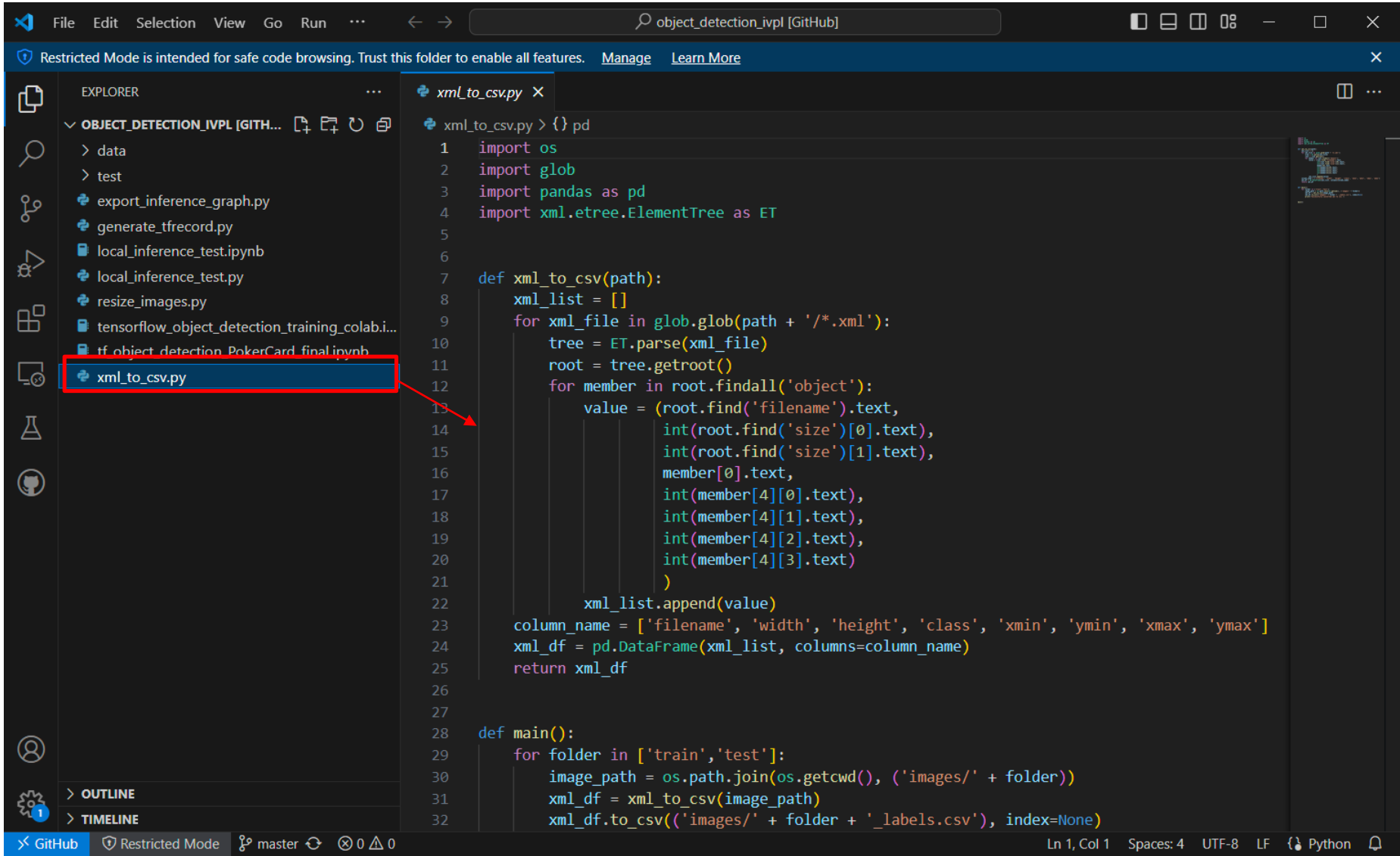
Github + VS Code (7)

- Then you can see the log-in page at Github. Just log-in (sign-in) on Github.
- Then, you see the work-folder selection for your job.



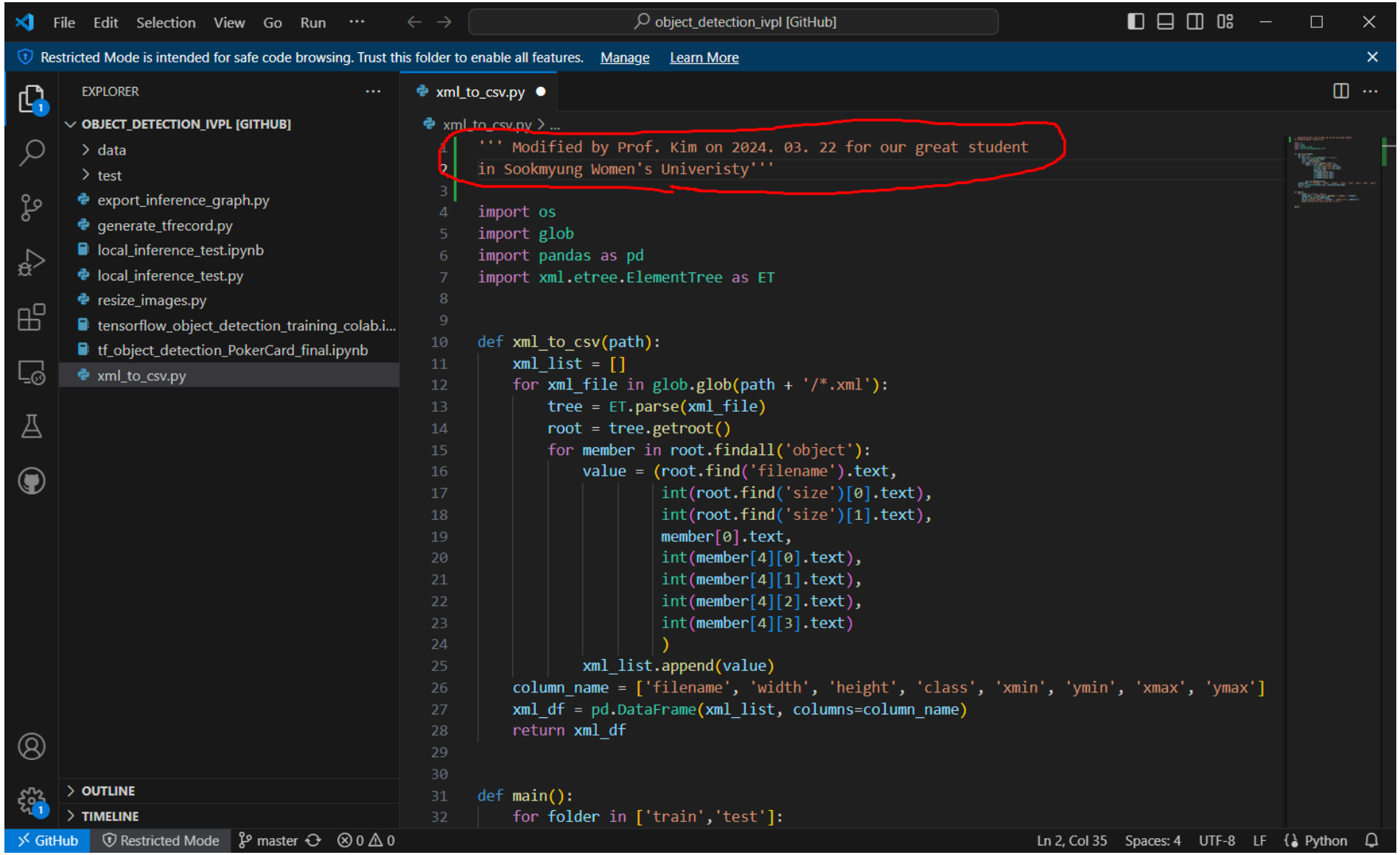
Github + VS Code (8)

- 7] Select one source file to modify the content (or program). In our example, I will select "xml_to_csv.py" file. Just click "xml_to_csv.py" file..!!!



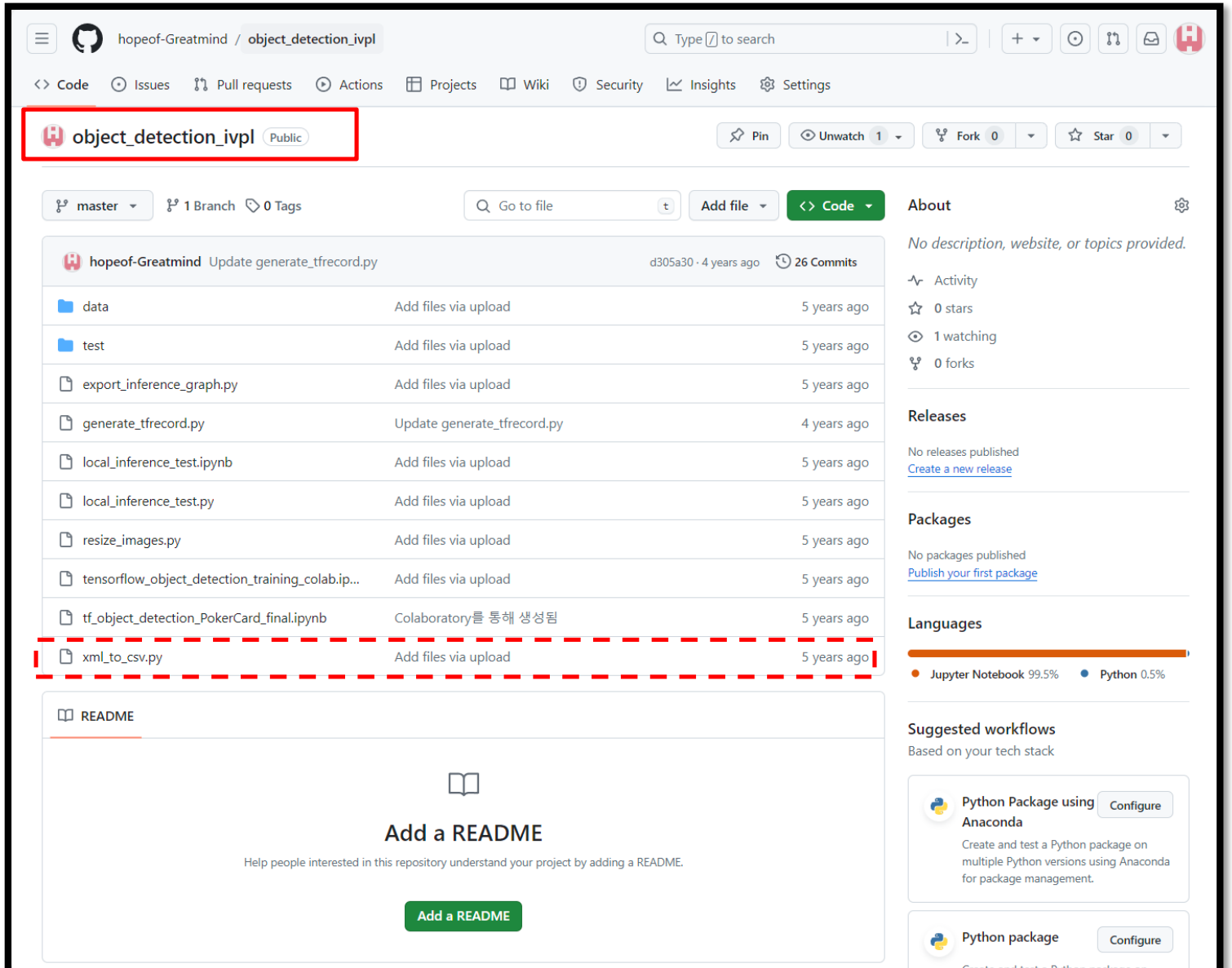
Github + VS Code (9)

- 8] Edit some part or add additional code (comment) line. And save it.



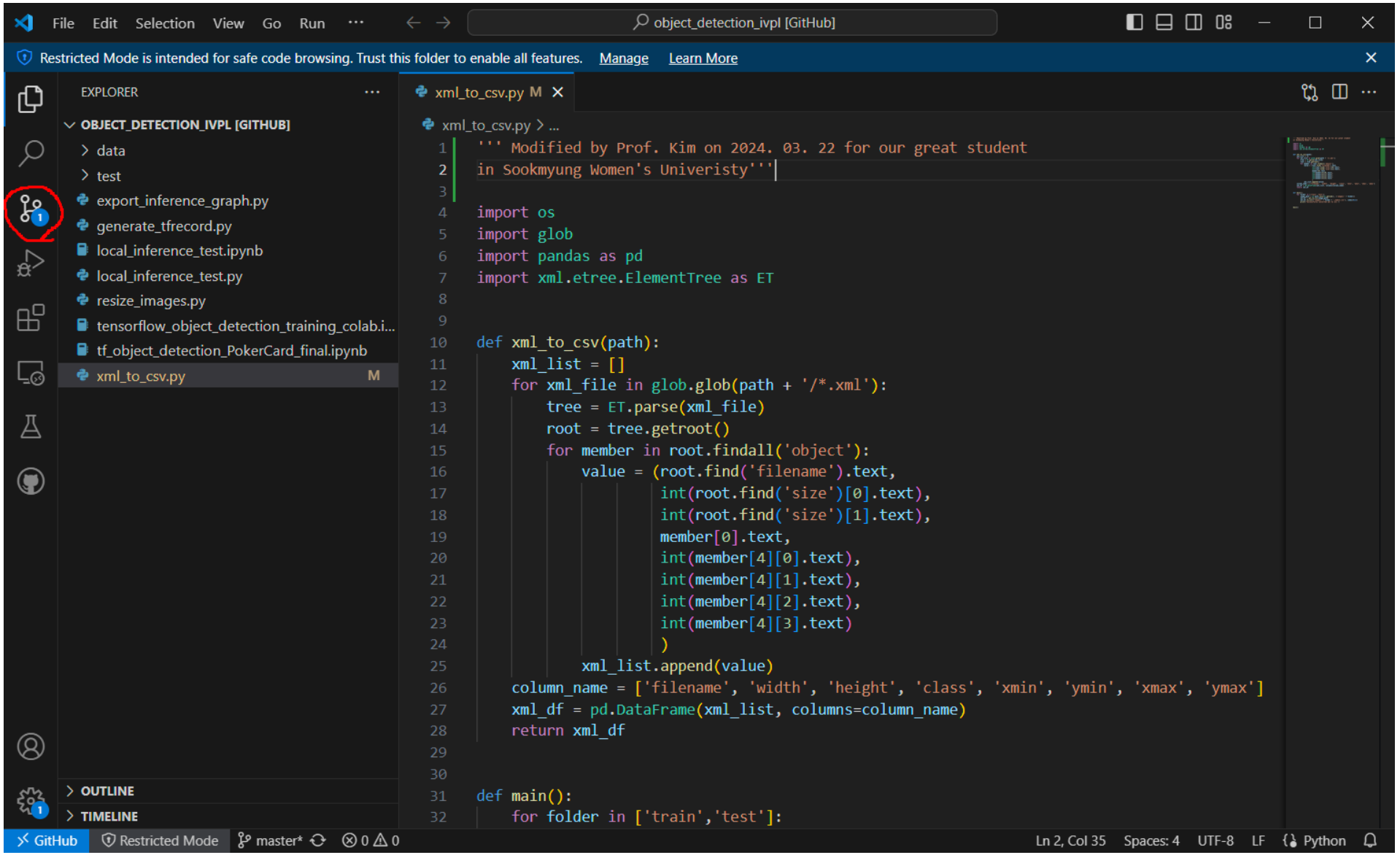
Github + VS Code (10)

- 9] Go to your Github (work-folder).



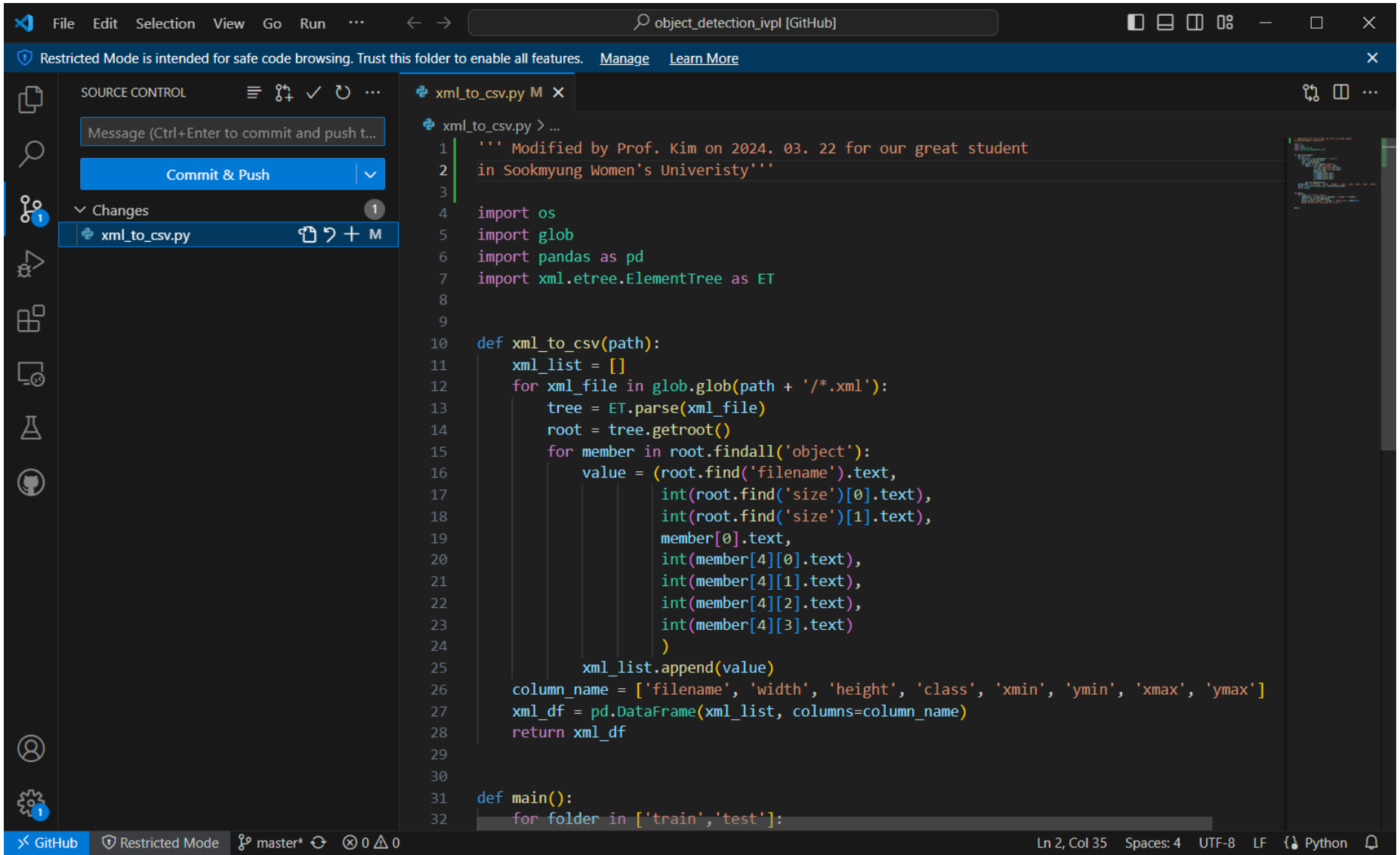
Github + VS Code (11)

- 10] Again go back to VS code and select “Source control” tab in left.



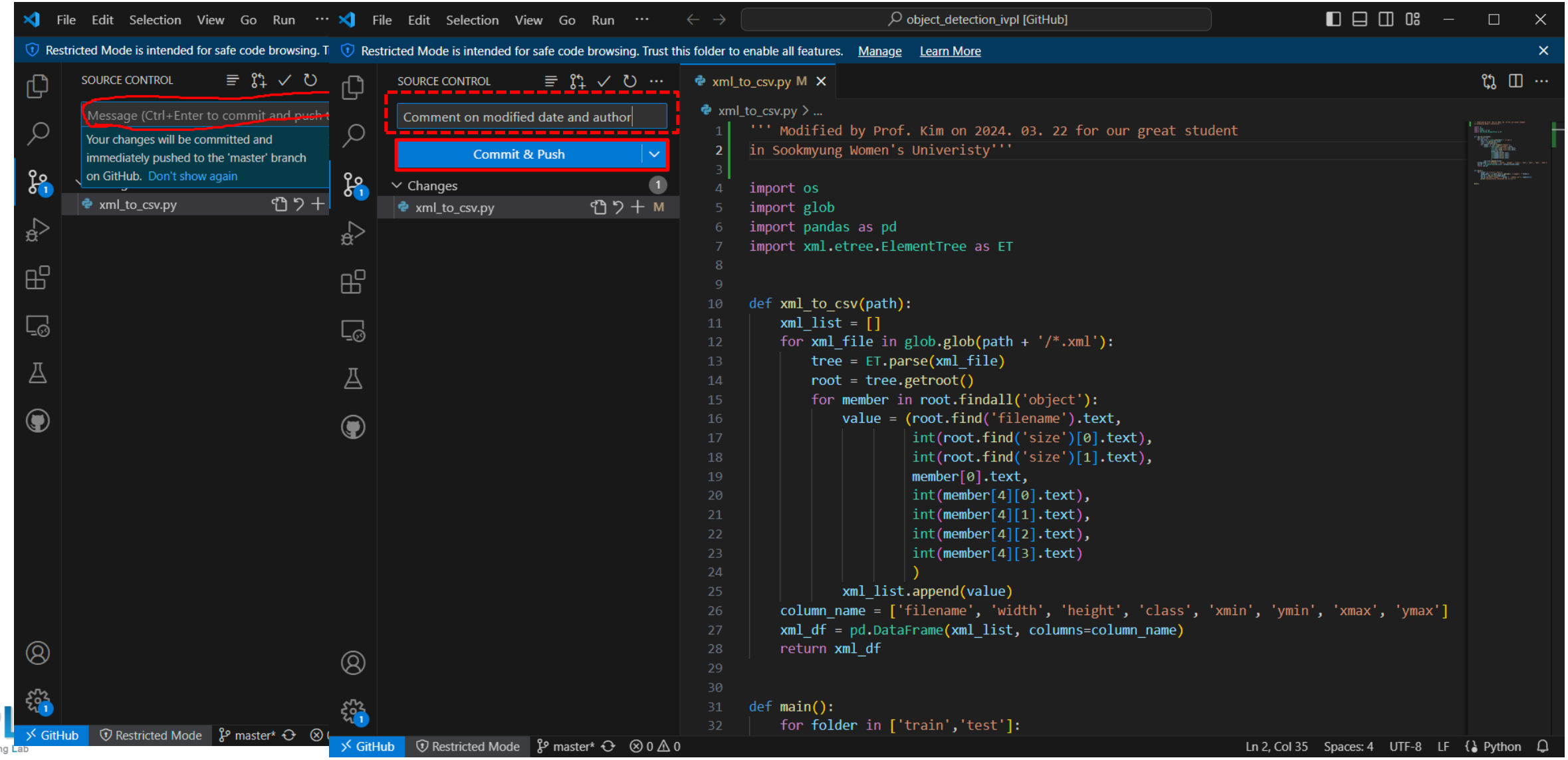
Github + VS Code (12)

- 11] Again go back to VS code and select “Source control” tab in left. You can see “message field’ and “Commit & Push” button!



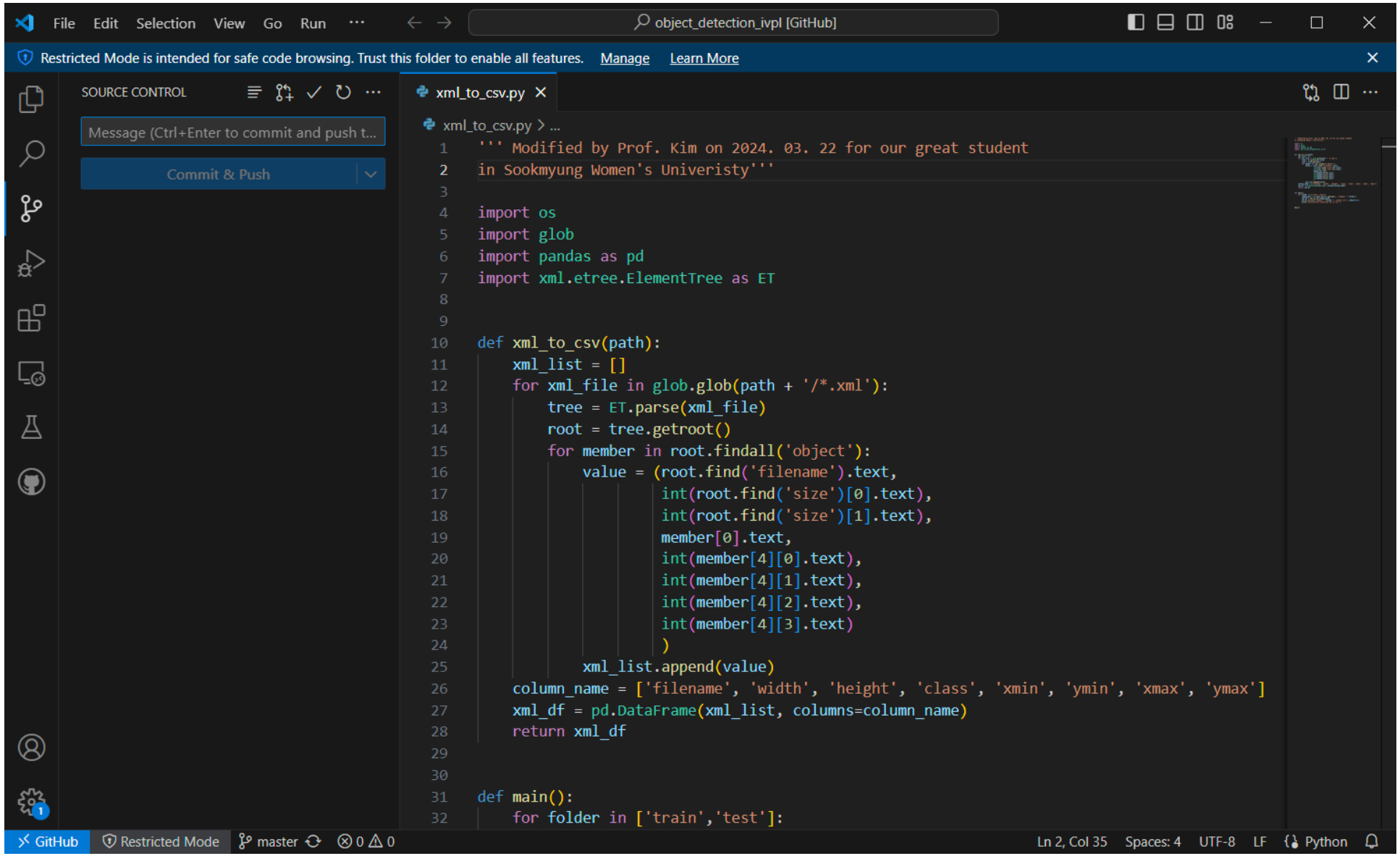
Github + VS Code (13)

- 12] First, give the message for commit and click “Commit & Push” button!



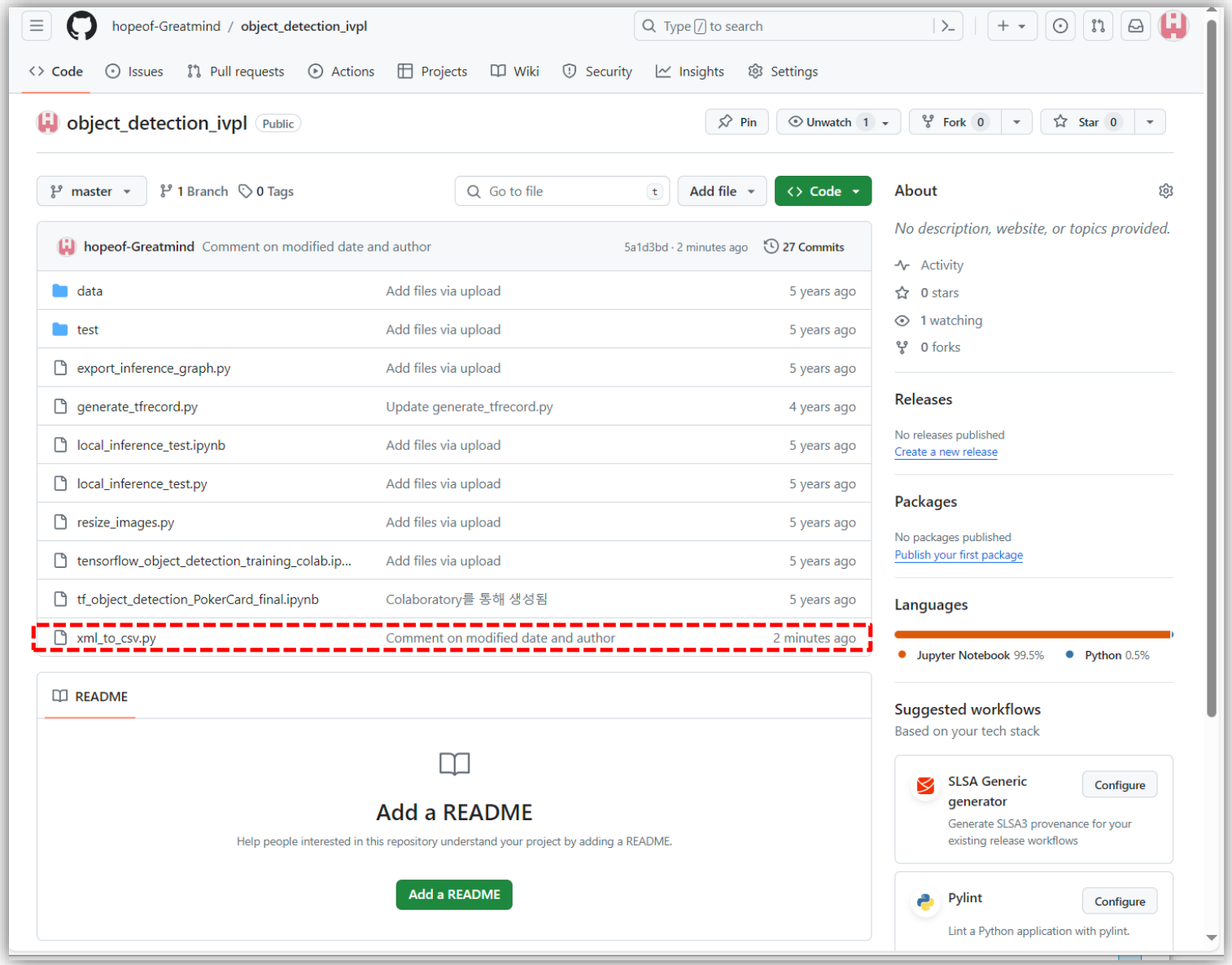
Github + VS Code (14)

- You can see the change file was disappeared.



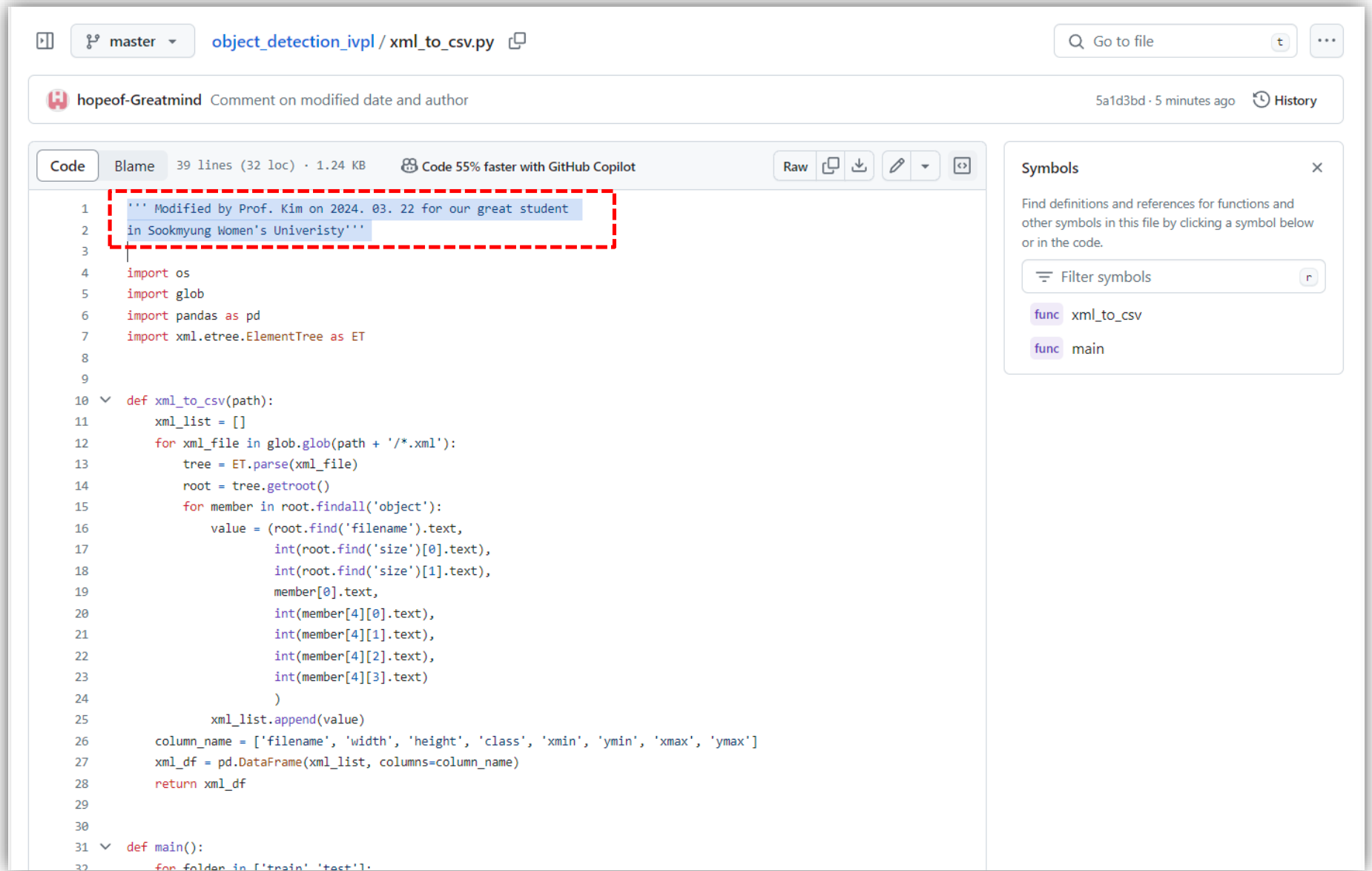
Github + VS Code (15)

- 13] Then let's go to Github site and check the change of yours…!



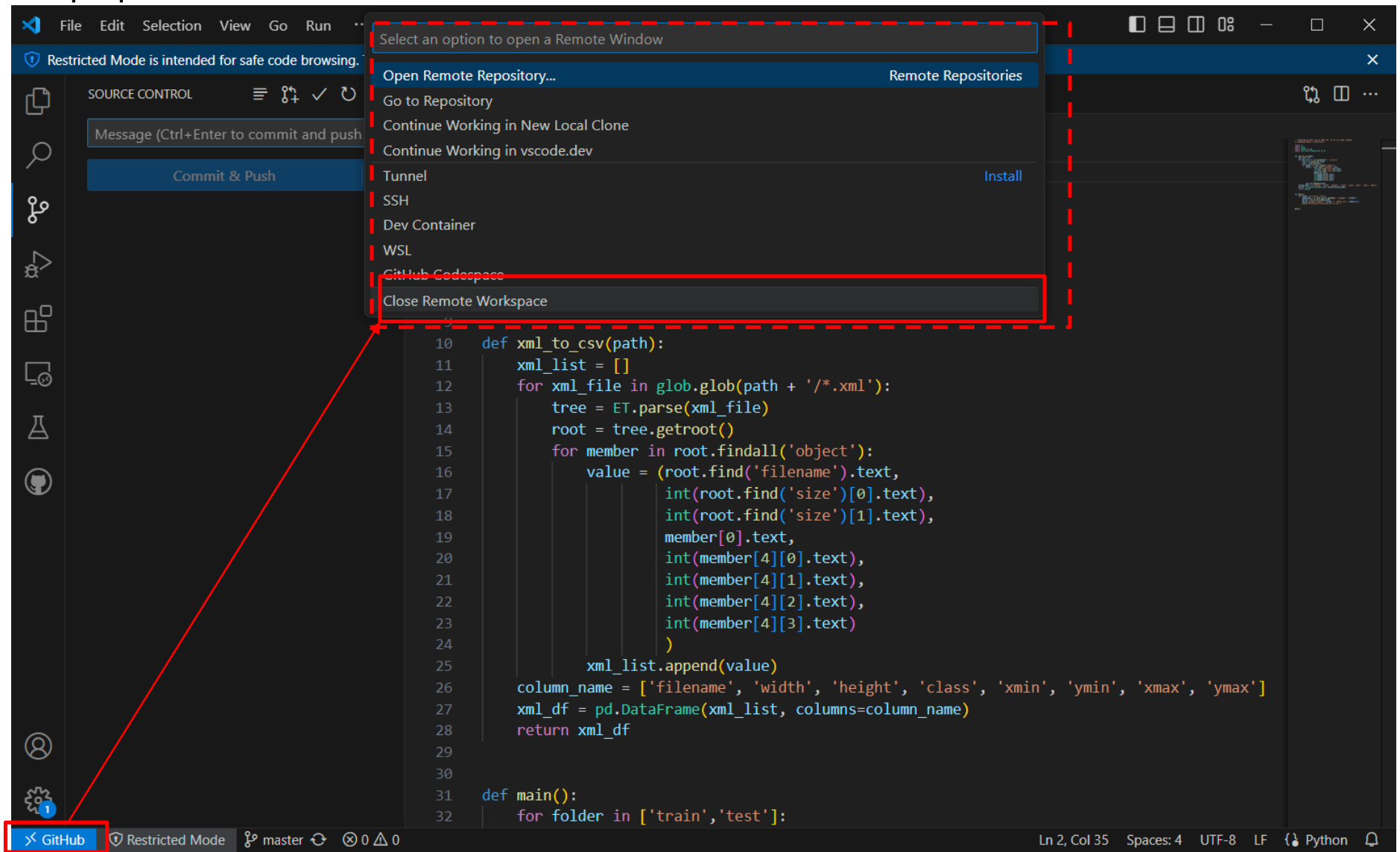
Github + VS Code (16)

- Just click “xml_to_csv.py” to see the change which was reflected.



Github + VS Code (17)

- 14] **In VS Code**, finish the Remote workspace: Just click GitHub on left-bottom. Then you can see the pop-down items to close it.



Thank you for your attention.!!!
QnA

http://ivpl.sookmyung.ac.kr