

Cyber Security

Lab 12.03 using packages

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In this lab we are going to use the package PyGitHub to interact with GitHub

It is easier than making all our own requests;

Install using

Pip install PyGithub

Documentation on this package:

- <https://pygithub.readthedocs.io/en/latest/introduction.html>

For examples

- <https://pygithub.readthedocs.io/en/latest/examples.html>

Full reference

- <https://pygithub.readthedocs.io/en/latest/reference.html>

Use your own github account make sure you do not put the token in any code you push

1. install pyGithub

```
pip install PyGithub
```

2. Write a python script called lab06.03.01-githubbymodule.py
3. Test that your pyGithub works

```
from github import Github
from conf import auth

token = auth['token']
# remove the minus sign from the key
g = Github(token)

for repo in g.get_user().get_repos():
    print(repo.name)
```

4. Modify the program to get the clone url of the repository on your account

```
g = Github(token)

repo = g.get_repo("datarepresentationstudent/yourone")
print(repo.clone_url)
```

5. Modify this to get the download url of the file in this repository called test.txt
6. I would comment out the print statements once you are happy the program is working

```
fileInfo = repo.get_contents("test.txt")
urlOfFile = fileInfo.download_url
print (urlOfFile)
```

7. Use the `download_url` to make a http request to the file can output the contents of the file (TEXT contents).

```
response = requests.get(urlOfFile)
contentOfFile = response.text
print (contentOfFile)
```

8. Append the text more stuff (with a newline character) to the contents of the file.

```
newContents = contentOfFile + " more stuff \n"
print (newContents)
```

9. Update the contents of the file on git up by using the function

`update_file(path, message, content, sha, branch=NotSet, committer=NotSet, author=NotSet)`

```
gitHubResponse=repo.update_file(fileInfo.path,"updated by prog",newContents
,fileInfo.sha)
print (gitHubResponse)
```