Data Representation
Lab 06.03: using a package

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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

The key is now on learnonline

The key that we are using is now on learnonline

I put the minus sign in because as a security measure GitHub removes access for the key if it is uploaded to GitHub

Please make sure you do not push a file with this key to the repository, because GitHub will disable it for security reasons. (This has happened with the last one already)

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

# remove the minus sign from the key
g = Github("7aa146eafee094d3a7b1e81aa1d8fcb0eec8b91-0")

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

4. Modify the program to get the clone url of the repository aPrivateOne

This API key no longer works. See top of lab for key that does (hopefully still)

```
g = Github("7aa146eafee094d3a7b1e81aa1d8fcb0eec8b91-0")


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

5. Modify this to get the download url of the file in this repository called test.txt

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

6. I would comment out the print statements once you are happy the program is working

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)
```