Data Representation

Lab 06.03: using a package

Lecturer: Andrew Beatty

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>

The key is now on learnonline

Full reference

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

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

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

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

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)

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

g = Github("7aa146eafee094d3a7b1e81aa1d8fcb0eec8b91-0")

repo = g.get\_repo("datarepresentationstudent/aPrivateOne")

print(repo.clone\_url)

1. 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)

1. I would comment out the print statements once you are happy the program is working
2. 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)

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

newContents = contentOfFile + " more stuff \n"

print (newContents)

1. 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)