GitHub education

GitHub Classroom
Your course assignments on GitHub

• We will be using GitHub classroom for our assignments
• GitHub education: https://education.github.com
• GitHub classroom: https://classroom.github.com/classrooms

• First thing today: make a GitHub account if you don’t have one: https://github.com
• Then make a GitHub education account: https://education.github.com/students
GitHub

- Go to https://github.com
- Create account:

Built for developers

GitHub is a development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside 31 million developers.
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• Will need to join the classroom and link your GitHub account to your UB email

• Then you click on the assignment link.
  – Example: Dummy assignment is here: https://classroom.github.com/a/B4_2x-45

Find your username and associate your github account!
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• Should get something like this:

You're ready to go!

You accepted the assignment, Dummy assignment.

Your assignment repository has been created:

https://github.com/ubsuny/dummy-assignment-rappoccio

We've configured the repository associated with this assignment (update).

Note: You may receive an email invitation to join ubsuny on your behalf. No further action is necessary.
Quick setup — if you’ve done this kind of thing before

Set up in Desktop or HTTPS SSH

git@github.com:ubsuny/dummy-assignment-rappoccio.git

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

...or create a new repository on the command line

```
echo "# dummy-assignment-rappoccio" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin git@github.com:ubsuny/dummy-assignment-rappoccio.git
```
```
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin git@github.com:ubsuny/dummy-assignment-rappoccio.git
```
```
git branch -M main
```
```
git push -u origin main
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code
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dummy-assignment-rappoccio created by GitHub Classroom

Readme
- 0 stars
- 2 watching
- 0 forks

Releases
No releases published
Create a new release

Packages
No packages published
Publish your first package
GitHub Workflow

- GitHub workflow:

  1. Fork
  2. Clone
  3. Update a file
  4. Commit
  5. Push
  6. Pull request

Your GitHub repo
github.com/you/coolgame

Joe's GitHub repo
github.com/joe/coolgame
GitHub Workflow

- Doing developments:

  - Create 'feature' branch from 'master'
  - Submit Pull Request
  - Discuss proposed changes
  - Merge 'feature' branch into 'master'
  - 'master' branch
  - Commit changes
Assignments

• Won’t need to make your own branch for assignments (that’s already done for you)
• Go to your current directory
  – Here’s mine:
    
    ```
    cd dummy-assignment-rappoccio/
    ```

• Edit code from the jupyter example into “matplotlib_example.py”:

```python
import matplotlib.pyplot as plt
import array
x = array.array('f', [1,2,3])
y = array.array('f', [1,4,9])
plt.plot(x,y)
plt.show
```

• Then commit (up next!)
Assignments

• Now we check status:

• Then:
  – Add the file.
  – Commit to your local git (with a message).
  – Push to your GitHub area for the assignment.

```
saruman:dummy-assignment-rappoccio rappoccio$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    matplotlib_example.py

nothing added to commit but untracked files present (use "git add" to track)
```

```
saruman:dummy-assignment-rappoccio rappoccio$ git push origin main
Warning: Permanently added 'github.com' (ED25519) to the list of known hosts.
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 393 bytes | 393.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:ubsuny/dummy-assignment-rappoccio.git
  2de4091..e487a2b  main -> main
```

`git add matplotlib_example.py`
`git commit -m"Dummy assignment complete"
`git push origin main`

Done!
Assignments

• Now do your writeup:

• Submit to UBLearns:

Assignment 1
Problem 1:
Here, I simulated the electrostatic potential for a dipole in a grounded box. I put a positive charge at N/4 and a negative charge at 3N/4.

Code in GitHub

HW Repository: https://github.com/obyruny/comphy2-assignment-1-rappoccio