PY410 / 505
Computational Physics 1

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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.
GitHub education

- Will need to join the classroom and link your GitHub account to your email
- Then you click on the assignment link.
  - Example: Dummy assignment is here: https://classroom.github.com/a/DJa8X4ou
  - Then you will get something that looks like this: 

![GitHub Classroom](image)

Your name will be different

Click this
GitHub education

- After you accept you will get:

![GitHub Classroom](image)

**CompPhys1**
@ubsuny

Accepted the *DummyAssignment* assignment

You are ready to go!

You may receive an invitation to join @ubsuny via email invitation on your behalf. No further action is necessary.

Your assignment has been created here: https://github.com/ubsuny/dummyassignment-rappoccio
Assignment 1

• You’ll get a copy of the helloworld GitHub area for THIS assignment

helloworld

Description goes here.

Here is a section
Assignment 1

• You can then operate normally as any GitHub area

• 1. Copy clone link:

   git clone (link from above)

   – Example for me:
   
   git clone https://github.com/ubsuny/dummyassignment-rappoccio.git

   – Example output:

   Cloning into 'dummyassignment-rappoccio'...
   remote: Enumerating objects: 7, done.
   remote: Counting objects: 100% (7/7), done.
   remote: Compressing objects: 100% (4/4), done.
   remote: Total 7 (delta 0), reused 7 (delta 0), pack-reused 0
   Unpacking objects: 100% (7/7), done.

• 2. On command line (vidia or similar):

• 3: Edit files, run, etc, in command line
• 4: Then commit (we’ll go over this)
GitHub Workflow

- GitHub workflow:

Your GitHub repo
github.com/you/coolgame

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

1. Fork

6. Pull request

2. Clone

5. Push

Your computer

3. Update a file
4. Commit
GitHub Workflow

- Doing developments:

  - Create `feature` branch from `master`
  - Merge `feature` branch into `master`
  - Commit changes
  - Submit Pull Request
  - Discuss proposed 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 dummyassignment-rappoccio/

• Edit code

• 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.

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

• Looks like:

```plaintext
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 383 bytes | 383.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ubsuny/dummyassignment-rappoccio.git
  00e8313..4cab2cc master -> master
```

Done!
Assignments

• Now do your writeup:
  
  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.

• Submit to UBLearns:

  Code in GitHub

  HW Repository: [https://github.com/username/assignment-1-rappoccio](https://github.com/username/assignment-1-rappoccio)