

Life of a Particle : Quiz 2

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Question 1 : GitHub Perform the following steps to create GitHub repository. Feel free to use the internet to search for how to do this if you don't remember.

- Create a GitHub repository using the online interface at github.com - be sure to include a README.md file when you create this repository. Call the repository "quiz2_NAME" where NAME is your name. Remember, *NO SPACES*!
- Clone this repository to your laptop (`git clone`)
- Go into this repository directory (`cd`) and write a file called *mycode.py* that contains some python code. What that code does is not of importance.
- Add this file to the repository for it to be tracked (`git add <filename>`).
- Check the status of the repository to make sure that the file is ready to be uploaded (`git status`)
- Commit these changes to the repository (`git commit -m 'Commit message here'`)
- Push these changes to the external repository on github.com (`git push origin master`)

When you have pushed this and verified that the file you created exists online, you will submit the URL of this repository when replying to the email. If you are successful in this, when solving the rest of the questions, please submit the solutions by adding them to your GitHub repository

Question 2 : Swapping Pretend that you have the little bit of python code already in your program.

```
x=4
y=9
print 'The value of x is : ',x
print 'The value of y is : ',y
```

On a piece of paper, extend this code by writing a few lines of code that will swap the values in `x` and `y`. Remember, you cannot hard code anything and write

```
x=4
y=9
print 'The value of x is : ',x
print 'The value of y is : ',y
x=9
y=4
```

In addition to writing this code, on the left side of the paper, draw and describe in words, a diagram that schematically describes what is happening internally in the computer at each step of your code. Make sure to be very clear about which lines of code are described by which diagrams. It is probably best to label the lines of code and make a separate drawing for each, showing which memory exists (is "allocated") and what is happening.