



Learn Git and GitHub without any code!

Using the Hello World guide, you'll start a branch, write comments, and open a pull request.

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ilya-pchelintsev / ml-course

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Ilya Pchelintsev hometask 1

24e6321 on 3 Sep

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Exercise 15 (3 points)

Write a program (using functions!) that asks the user for a long string containing multiple words. Print back to the user the same string, except with the words in backwards order. For example, say I type the string:

My name is Michele

Then I would see the string:

Michele is name My

shown back to me.

```
In [1]: def reverse_word_order(text):  
        words_reversed = reversed(text.split(' '))  
        return ' '.join(words_reversed)
```

```
In [2]: print(reverse_word_order(input()))
```

```
My name is Michele  
Michele is name My
```

Exercise 16 (4 points)

Write a password generator in Python. Be creative with how you generate passwords - strong passwords have a mix of lowercase letters, uppercase letters, numbers, and symbols. The passwords should be random, generating a new password every time the user asks for a new password. Include your run-time code in a main method.

```
In [3]: import string  
import random  
  
def generate_password(password_length):  
    alphabet = string.ascii_letters + string.digits + '@_  
    return ''.join(random.sample(alphabet, password_length))
```

```
In [4]: print(generate_password(10))
```

```
IiUnoz@mW0
```

Exercise 17 (4 points)

Use the BeautifulSoup and requests Python packages to print out a list of all the article titles on the New York Times homepage.

```
In [5]: import bs4
import requests

def print_nytimes_headlines():
    request = requests.get('http://www.nytimes.com/')
    soup = bs4.BeautifulSoup(request.text)
    for title in soup.find_all('h2', attrs={'class': 'esl82me0'}):
        print(title.text)
```

```
In [6]: print_nytimes_headlines()
```

```
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Scenes of Destruction Emerge From Bahamas
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Texas Shooting Brings New Urgency to Gun Debate in Congress
Shooting Spree in West Texas Terrorized Two Towns and Killed 7
On the Job, 24 Hours a Day, 27 Days a Month
Does Biden Want to Be Doing This?
Why Some Unions Are Holding Back on 2020 Endorsements
Those Hurricane Maps Don't Mean What You Think They Mean
One Job Is Better Than Two
One Job Is Better Than Two
Texas Is a Leader in Mass Shootings. Why Is the Governor Silent?
A Change Is Gonna Come
The El Paso Shooting Was Racist Political Violence. Treat It That Way.
The El Paso Shooting Was Racist, Political Violence. Treat It That Way.
The Dignity of Disabled Lives
How We Frame Disability Decides How We Live It
That Beloved Hospital? It's Driving Up Health Care Costs
No One Threatens the Environment Like Donald Trump
The People of Hong Kong Will Not Be Cowed by China
The Police Can Arrest Us. But That Won't Stop the People of Hong Kong.
Mom and Dad, It's My (Digital) Life
What I Know About Famous Men's Penises
'The Weekly': How Tainted Gold May Be in Your Phone
The Chefs Pushing Japanese Food in Unexpected Directions
Summer's Not Over! How to Extend Your Vacation
```

Exercise 28 (1 point)

Implement a function that takes as input three variables, and returns the largest of the three. Do this without using the Python max() function!

The goal of this exercise is to think about some internals that Python normally takes care of for us. All you need is some variables and if statements!

```
In [7]: def max3(a, b, c):
        if a >= b and a >= c:
            return a
        elif b >= c:
            return b
        return c
```

```
In [8]: print(max3(3, 4, 1))
```