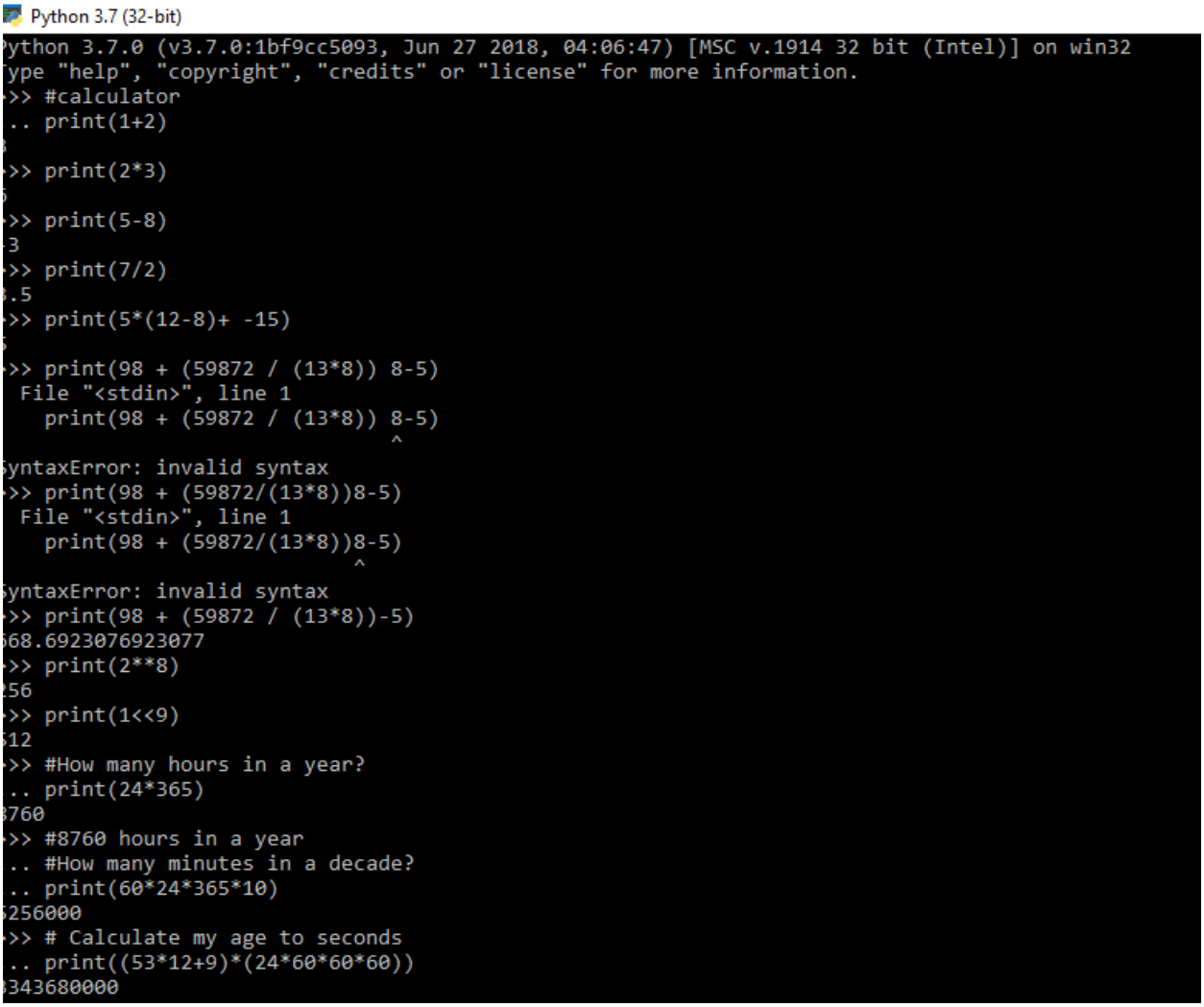
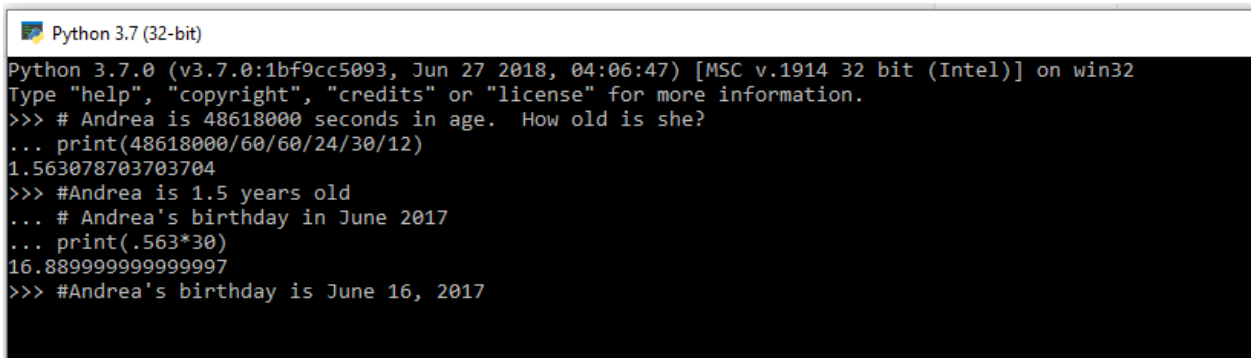
Frances Endencia July 18, 2018

1MillionWomentotech

Homework week1 day 1





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Q: How many days does it take a 32 bit system to time out if there is an integer overflow?

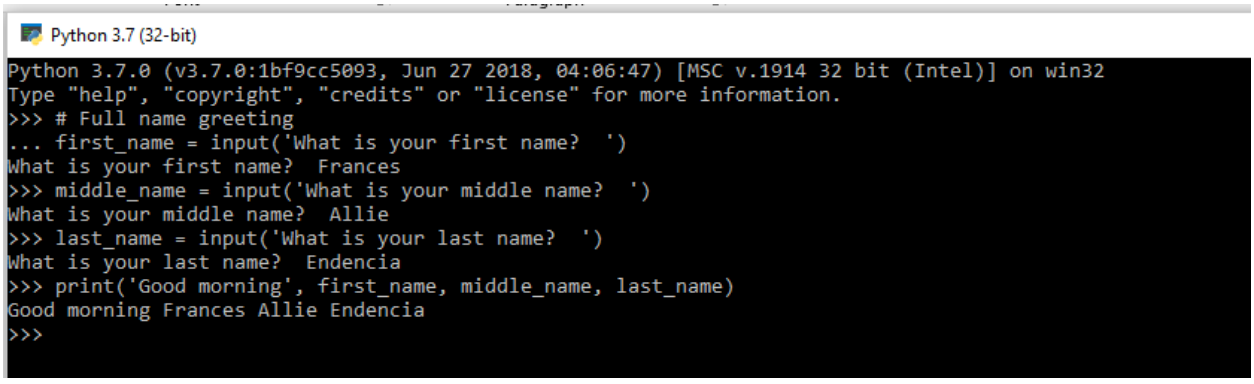
The latest time that can be represented in Unix's signed 32-bit integer time format is 03:14:07 UTC on Tuesday, 19 January 2038 (2^{31}-1 = 2,147,483,647 seconds after 1 January 1970).[1] Times beyond that will wrap around and be stored internally as a negative number, which these systems will interpret as having occurred on 13 December 1901 rather than 19 January 2038. This is caused by integer overflow. The counter runs out of usable digit bits, flips the sign bit instead, and reports a maximally negative number (continuing to count *up*, toward zero). Resulting erroneous calculations on such systems are likely to cause problems for users and other relying parties.

Programs that work with future dates will begin to run into problems sooner; for example a program that works with dates 20 years in the future would have to have been fixed no later than 19 January 2018.

Q: How about 64 bit? The integer overflow does not occur in a 64 bit because it is longer.

Day 3

#1 Full name greeting. Write a program that asks for the first name, middle name and last name. Then greet the person with the full name.



#2 Bigger is better. Write a program that asks a favorite number and add 1 to the number and then suggest the result is a bigger and better number (Do be tactful about it)

```
>>> number  = input('What is your favorite number? ')
What is your favorite number? 1
>>> y = sum([int(number),1])
>>> print(y, 'is better than ', number)
2 is better than  1
>>>
```

#3 Fancy string methods

Str.isalpha – returns true if all alphabetic, false if otherwise

```
08A0>
>>> str = 'hello'
>>> print(str.isalpha())
True
>>> str = 'birthday102192'
>>> print(str.isalpha())
False
>>>
```

#4 Angry Boss. Write a program of an angry boss that rudely asks what you want. Whatever your answer, the angry boss will yell it back and say 'You're fired"

```
>>>
>>>
>>> #Angry Boss
... answer = input('WHAT DO YOU WANT?  ')
WHAT DO YOU WANT?  a RAISE
>>> print(answer + " YOU'RE FIRED!")
a RAISE YOU'RE FIRED!
>>>
```

Program that generates a random number in python

```
>>>
>>> from random import randint
>>> print(randint(0, 9))
5
>>> from random import randint
>>> print(randint(0, 90))
29
>>>
```

Program with power base

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win3
Type "help", "copyright", "credits" or "license" for more information.
>>> # power base
... 6**9
10077696
>>> 1**90
1
>>> # Modulus (remainder of division)
... 789%5
4
>>> -1276%-3
-1
>>> -1235%5
0
>>> # Absolute Number
... abs(-326)
326
>>> abs(398)
398
>>>
```

Write a program that prints the “Table of Contents”

```
>>>
>>> print('Table of Contents'.center(60))
                    Table of Contents
>>>
>>> print('Numbers'.ljust(48, ' ') + str(1).rjust(4, ' '))
Numbers                                             1
>>> print('Arrays'.ljust(48, ' ') + str(2).rjust(4, ' '))
Arrays                                              2
>>> print('For Loops'.ljust(48, ' ') +  str(3).rjust(4, ' '))
For Loops                                           3
>>> print('Final Destination'.ljust(48, ' ') + str(4).rjust(4, ' '))
Final Destination                                   4
>>>
```

World Counter Hackathon

Create a multi-dimensional array in python

Create a 11 x 11 program that prints out the continents of the world. X=land 0=water

Where do you live?

Answer: There are 7 continents of the world:

a) North America b) Europe c) Africa d) Australia e) South America f) Antartica g) Asia
b) I live in North American Continent

```
world =  [['o','o','x','o','x','0','o','o','o','o','o'],
       ['o','o','o','x','o','o','o','x','x','x','x'],
       ['x','x','x','x','o','o','x','x','x','o','o'],
       ['o','x','x','x','o','x','x','x','x','x','o'],
       ['o','o','x','x','o','x','x','x','o','o','o'],
       ['o','o','x','o','o','x','x','x','o','o','o'],
       ['o','o','o','x','o','x','x','x','x','o','o'],
       ['o','o','x','x','o','o','x','o','x','x','o'],
       ['o','o','o','x','x','o','o','o','x','x','o'],
       ['o','o','x','x','o','o','x','x','x','x','o'],
       ['o','o','x','x','x','x','x','x','x','x','o']
      ]

print(world[0])
print(world[1])
print(world[2])
print(world[3])
print(world[4])
print(world[5])
print(world[6])
print(world[7])
print(world[8])
print(world[9])
print(world[10])
```

```
['o', 'o', 'x', 'o', 'x', '0', 'o', 'o', 'o', 'o', 'o']
['o', 'o', 'o', 'x', 'o', 'o', 'o', 'x', 'x', 'x', 'x']
['x', 'x', 'x', 'x', 'o', 'o', 'x', 'x', 'x', 'o', 'o']
['o', 'x', 'x', 'x', 'o', 'x', 'x', 'x', 'x', 'x', 'o']
['o', 'o', 'x', 'x', 'o', 'x', 'x', 'x', 'o', 'o', 'o']
['o', 'o', 'x', 'o', 'o', 'x', 'x', 'x', 'o', 'o', 'o']
['o', 'o', 'o', 'x', 'o', 'x', 'x', 'x', 'x', 'o', 'o']
['o', 'o', 'x', 'x', 'o', 'o', 'x', 'o', 'x', 'x', 'o']
['o', 'o', 'o', 'x', 'x', 'o', 'o', 'o', 'x', 'x', 'o']
['o', 'o', 'x', 'x', 'o', 'o', 'x', 'x', 'x', 'x', 'o']
['o', 'o', 'x', 'x', 'x', 'x', 'x', 'x', 'x', 'x', 'o']
```