

Quiz: Syntactic Sugar

CSCI040: ~~Computing for the Web~~ Introduction to Hacking

Total Score: /5

Printed Name:

Quiz rules:

1. You MAY use any printed or handwritten notes.
2. You MAY NOT use a computer or any other electronic device.

Problem 1. What is the output of the following code:

```
sentence = 'python *is* *fun***'
accumulator = ''
for i,char in enumerate(sentence):
    if char == '*' and sentence[i-1] != '*':
        accumulator += '' # This is the empty string
    elif char == '*':
        accumulator += '!'
    else:
        accumulator += char
print('accumulator=', accumulator)
```

Problem 2. What is the output of the following code:

```
xs = [ 2*x for x in range(4) ]
num = sum(xs)
print('num=', num)
```

Problem 3. What is the output of the following code:

```
xs = [ 2*x for x in range(-5,5,3) if x%2 ]  
num = len(xs)  
print('num=', num)
```

Problem 4. What is the output of the following code:

```
xs = [2, 3, 4, 5, 6]  
xss = [[i//2 for i in range(x)] for x in xs if x%2 == 1]  
print('len(xss)=', len(xss))
```

Problem 5. What is the output of the following code:

```
tweets = [
    { "source": "Twitter_Web_Client"
      , "text": "From_Donald_Trump:_Wishing_everyone_a_wonderful_holiday_&_a_
        happy,_healthy,_prosperous_New_Year._Let\u2019s_think_like_champions_
        in_2010!"
      , "retweet_count": 28
    },
    { "source": "Twitter_Web_Client"
      , "text": "Trump_International_Tower_in_Chicago_ranked_6th_tallest_
        building_in_world_by_Council_on_Tall_Buildings_&_Urban_Habitat_http://
        bit.ly/sqvQq"
      , "retweet_count": 33
    },
    { "source": "Twitter_Web_Client"
      , "text": "Wishing_you_and_yours_a_very_Happy_and_Bountiful_Thanksgiving!"
      , "retweet_count": 13
    },
    { "source": "Twitter_for_iPhone"
      , "text": "RT_@realDonaldTrump:_Happy_Birthday_@DonaldJTrumpJr!\nhttps://t
        .co/uRxyCD3hBz"
      , "retweet_count": 9529
    },
    { "source": "Twitter_for_iPhone"
      , "text": "Happy_Birthday_@DonaldJTrumpJr!\nhttps://t.co/uRxyCD3hBz"
      , "retweet_count": 9529
    },
    { "source": "Twitter_for_Android"
      , "text": "Happy_New_Year_to_all,_including_to_my_many_enemies_and_those_
        who_have_fought_me_and_lost_so_badly_they_just_don't_know_what_to_do._
        Love!"
      , "retweet_count": 141853
    },
    { "source": "Twitter_for_Android"
      , "text": "Russians_are_playing_@CNN_and_@NBCNews_for_such_fools_-_funny_
        to_watch,_they_don't_have_a_clue!_@FoxNews_totally_gets_it!"
      , "retweet_count": 23213
    },
    { "source": "Twitter_for_iPhone"
      , "text": "Join_@AmerIcan32,_founded_by_Hall_of_Fame_legend_@JimBrownNFL32
        _on_1/19/2017_in_Washington,_D.C._\u2026_https://t.co/9WJZ8iTCQV"
      , "retweet_count": 7366
    }
]

texts = [tweet for tweet in tweets if 'Trump' in tweet['text'].lower()]
print('len(texts)=', len(texts))
```