

# Gainesville Python Ninjas

May 27 2015




# Monthly Python Meetup

## Agenda:

- (0) Introductions
- (1) Eat food
- (2) Connect to Internet (optional)
- (3) Solve Coding Challenge
- (4) Discuss/Examine Solution from Challenge
- (5) Announcements
- (6) Fin

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# Coding Challenge

## Instructions:

Given an array **A** of **N** integers, make a Python function that returns the minimal positive integer **Z** that does not occur in A.

For example, given:  $A = [1, 3, 6, 4, 1, 2]$  , the function should return 5.

## Rules:

N is between 1 and 100,000

## Submit Answer Here:

[https://codility.com/demo/take-sample-test/missing\\_integer/](https://codility.com/demo/take-sample-test/missing_integer/)

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# Possible Solution

```
def solution(A):  
    #100%  
    """  
        I placed limits so numbers could not be too  
        high or low. Also, I went 1 beyond the  
        length of array to consider the missing  
        number  
    """  
    B = {}  
    length_of_A = len(A)  
    for index, item in enumerate(A):  
        if 0 < item < length_of_A+1:  
            B[item] = True  
  
    counter = 1  
    for item in xrange(length_of_A+1):  
        if not B.has_key(counter):  
            return counter  
        counter+=1  
  
    return 1
```

# Another Possible Solution


```
1  def solution(A):
2      seen = [False] * len(A)
3      for value in A:
4          if 0 < value <= len(A):
5              seen[value-1] = True
6
7      for idx in xrange(len(seen)):
8          if seen[idx] == False:
9              return idx + 1
10
11     return len(A)+1
```

**Taken From:**

<http://www.martinkysel.com/codility-missinginteger-solution/>

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# Announcements

- In my free time, I'm building a website to help students grade each other's homework in the web. It's called Peer2Grade. Here is a demo:

<http://youtu.be/3VPxN2VL3uE>

**Do Announcements Here:**

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