Assignment 5

독어교육과 2014-19498 정은주

Problem 1

In [1]:
```
#problem 1
```

In [2]:
```
def func(index, num):
    Arr = [1,2,3,4,5]
    try:
        Arr[index] = num
        return Arr
    except IndexError:
        print("Don't try buffer overflow attacks in Phthon")
```

In [3]:
```
my_num = func(3, 10)
```

In [4]:
```
print(my_num)
```

```
[1, 2, 3, 10, 5]
```

In [5]:
```
my_num = func(7, 10)
```

```
Don't try buffer overflow attacks in Phthon
```

Problem 2

push(5)
push(3)
pop() #return 3
push(2)
push(8)
pop() #return 8
pop() #return 2
push(9)
push(1)
pop() #return 1
push(7)
push(6)
pop() #return 6
pop() #return 7
push(4)
pop() #return 4
pop() #return 9
5 still remaining in stack!

Problem 3

current size of Q = 22

Problem 4

In [13]:
```
#problem 4
```

In [14]:
```
import queue
class Empty(Exception):
    pass
class MyQueue:
    def __init__(self):
        self._myqueue = queue.Queue()
    def __len__(self):
        return self._myqueue.qsize()
    def is_empty(self):
        return self._myqueue.empty()
    def enqueue(self, e):
        self._myqueue.put(e)
    def dequeue(self):
        if self.is_empty():
            raise Empty("this queue is empty")
        else:
            return self._myqueue.get()
```

In [15]:
```
my_queue = MyQueue()
```

In [16]:
```
my_queue.dequeue()
```

```
---------------------------------------------------------------------------
Empty                                     Traceback (most recent call last)
<ipython-input-16-71104c446c8d> in <module>
----> 1 my_queue.dequeue()

<ipython-input-14-61cd55dd6a5d> in dequeue(self)
     13     def dequeue(self):
     14         if self.is_empty():
---> 15             raise Empty("this queue is empty")
     16         else:
     17             return self._myqueue.get()

Empty: this queue is empty
```

In [17]:
```
my_queue.enqueue(14)
```

In [18]:
```
my_queue.enqueue(19)
```

In [19]:
```
my_queue.dequeue()
```

Out[19]: 14

In [20]:
```
my_queue.dequeue()
```

Out[20]: 19