



COMPSCI 105 S1 2017 Principles of Computer Science

15 Queue(1)



15.2 The Queue Abstract Data Type

Exercise 1

► What is the output of the following code fragment?

```
s = Queue()
print(s.is_empty())
s.enqueue(4)
s.enqueue('dog')
print(s.peek())
print(s.size())
print(s.is_empty())
s.dequeue()
s.enqueue(3)
s.dequeue()
print(s.size())
```

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15.2 The Queue Abstract Data Type

Exercise 1

► What is the output of the following code fragment?

```
s = Queue()
print(s.is_empty())
s.enqueue(4)
s.enqueue('dog')
print(s.peek())
print(s.size())
print(s.is_empty())
s.dequeue()
s.enqueue(3)
s.dequeue()
print(s.size())
```

True

4

2

False

4

dog

1

3

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15.3 The Queue Implementation

Exercise 2

► What is the output of the following code fragment?

```
from Queue import Queue
try:
    q = Queue()
    q.enqueue(2)
    q.enqueue(4)
    q.enqueue(6)
    while not q.is_empty():
        print(q.dequeue())
except IndexError:
    print('empty queue')
```

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Exercise 2

► What is the output of the following code fragment?

```
from Queue import Queue
try:
    q = Queue()
    q.enqueue(2)
    q.enqueue(4)
    q.enqueue(6)
    while not q.is_empty():
        print(q.dequeue())
except IndexError:
    print('empty queue')
```

```
2
4
6
empty queue
```