LAPORAN PRAKTIKUM ALGORITMA DAN STRUKTUR DATA MODUL 8 QUEUES

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Nomor 4 Queue

```
class Queue(object):
    def __init__(self):
        self.qlist = []
    def isEmpty(self):
        return len(self)==0
    def __len__(self):
        return len(self.qlist)
    def enqueue(self,data):
        self.qlist.append(data)
    def dequeue(self):
        assert not self.isEmpty()
        return self.qlist.pop(0)
    def getFront(self):
        return self.qlist[-1]
    def getRear(self):
        return self.qlist[0]

a = Queue()
a.enqueue('aa')
a.enqueue('bb')
a.enqueue('cc')

print(a.qlist)
a.dequeue()
print(a.qlist)

print(a.getFront())
print(a.getRear())
```

Hasil

```
['aa', 'bb', 'cc']
['bb', 'cc']
cc
bb
>>>
```

Nomer 4 Prior Queue

```
import heapq
class Prior(object):
    def __init__(self):
        self.qlist= []
    def __len__(self):
        return len(self.qlist)
    def isEmpty(self):
        return len(self)==0
    def enqueue(self, data, prior):
        heapq.heappush(self.qlist, (prior, data))
        self.qlist.sort()
    def dequeue(self):
        return self.qlist.pop(-1)
    def getFront(self):
        return self.qlist[-1]
    def getRear(self):
        return self.qlist[0]

a = Prior()

a.enqueue('aa', 5)
a.enqueue('bb', 1)
a.enqueue('cc', 2)

print(a.qlist)
a.dequeue()
print(a.qlist)
```

Hasil:

```
>>>
[(1, 'bb'), (2, 'cc'), (5, 'aa')]
[(1, 'bb'), (2, 'cc')]
>>>
```

Nomer 5

```
import heapq
class Prior(object):
    def __init__(self):
        self.qlist= []
    def __len__(self):
        return len(self.qlist)
    def isEmpty(self):
        return len(self)==0
    def enqueue(self, data, prior):
        heapq.heappush(self.qlist, (prior, data))
        self.qlist.sort()
    def dequeue(self):
        return self.qlist.pop(-1)

a = Prior()

a.enqueue('aa', 5)
a.enqueue('bb', 1)
a.enqueue('cc', 2)

print(a.qlist)
a.dequeue()
print(a.qlist)
```

Hasil:

```
[(1, 'bb'), (2, 'cc'), (5, 'aa')]
[(1, 'bb'), (2, 'cc')]
>>>
```