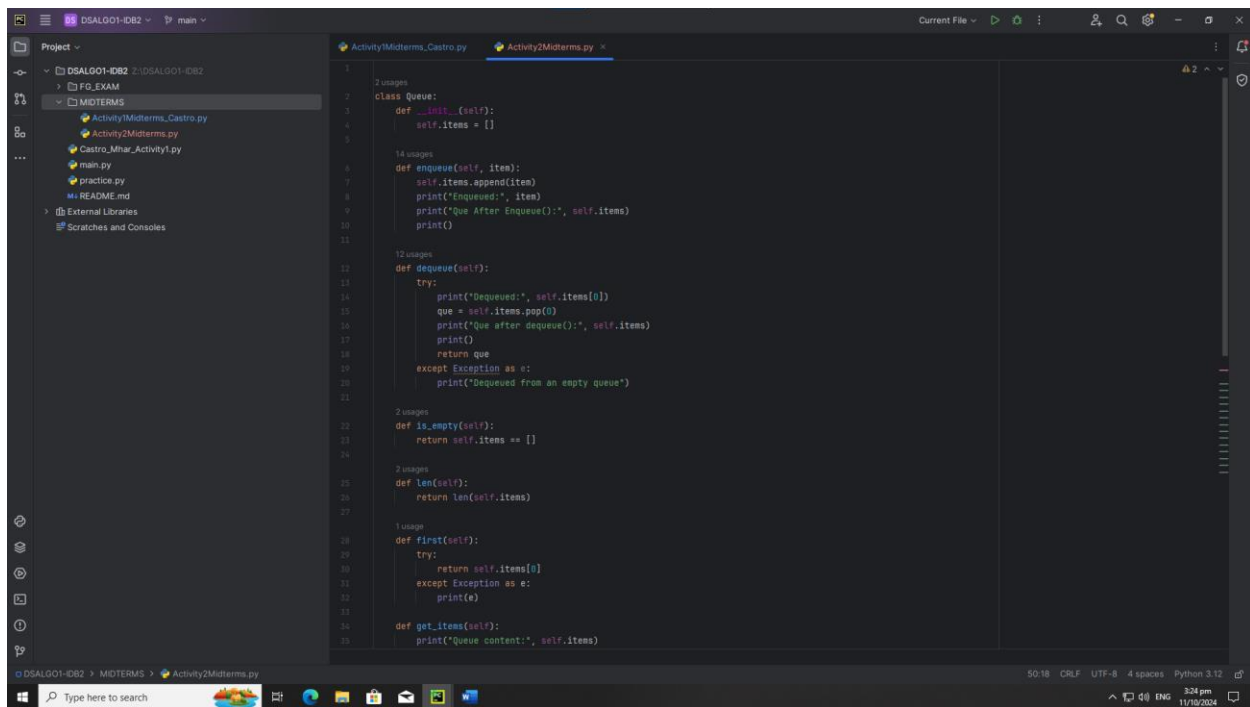
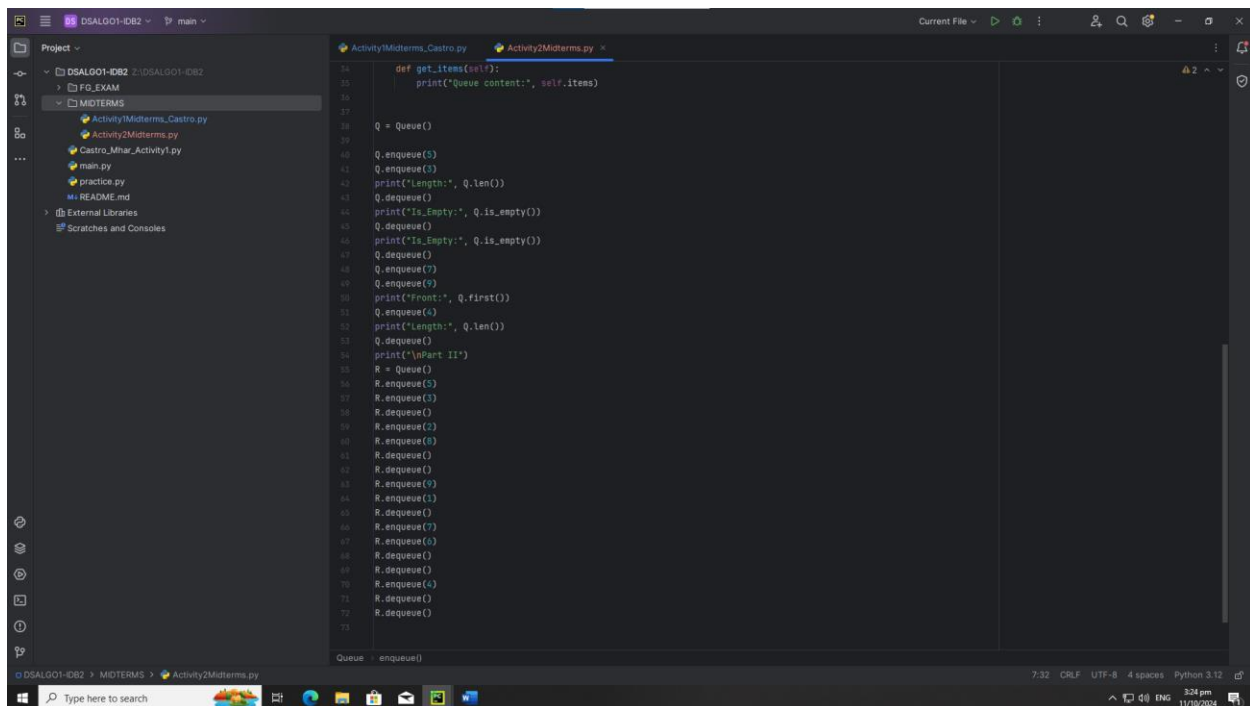


Source Code:



```
1 7 usages
2 class Queue:
3     def __init__(self):
4         self.items = []
5
6 14 usages
7     def enqueue(self, item):
8         self.items.append(item)
9         print("Enqueued:", item)
10        print("Que After Enqueue():", self.items)
11        print()
12
13 12 usages
14     def dequeue(self):
15         try:
16             print("Dequeued:", self.items[0])
17             que = self.items.pop(0)
18             print("Que after dequeue():", self.items)
19             print()
20             return que
21         except Exception as e:
22             print("Dequeued from an empty queue")
23
24 2 usages
25     def is_empty(self):
26         return self.items == []
27
28 2 usages
29     def len(self):
30         return len(self.items)
31
32 1 usage
33     def first(self):
34         try:
35             return self.items[0]
36         except Exception as e:
37             print(e)
38
39     def get_items(self):
40         print("Queue content:", self.items)
```



```
34     def get_items(self):
35         print("Queue content:", self.items)
36
37
38 Q = Queue()
39
40 Q.enqueue(5)
41 Q.enqueue(3)
42 print("Length:", Q.len())
43 Q.dequeue()
44 print("Is_Empty:", Q.is_empty())
45 Q.dequeue()
46 print("Is_Empty:", Q.is_empty())
47 Q.dequeue()
48 Q.enqueue(2)
49 Q.enqueue(9)
50 print("Front:", Q.first())
51 Q.enqueue(4)
52 print("Length:", Q.len())
53 Q.dequeue()
54 print("\nPart II")
55 R = Queue()
56 R.enqueue(5)
57 R.enqueue(3)
58 R.dequeue()
59 R.enqueue(2)
60 R.enqueue(9)
61 R.dequeue()
62 R.dequeue()
63 R.enqueue(9)
64 R.enqueue(1)
65 R.dequeue()
66 R.enqueue(7)
67 R.enqueue(6)
68 R.dequeue()
69 R.dequeue()
70 R.enqueue(4)
71 R.dequeue()
72 R.dequeue()
73
```

Output:

```
Project: DSALGO1-IDB2 > main
Run: Activity2Midterms
Activity2Midterms.py
"C:\Program Files\Python312\python.exe" Z:\DSALGO1-IDB2\MIDTERMS\Activity2Midterms.py
Enqueued: 5
Que After Enqueue(): [5]

Enqueued: 3
Que After Enqueue(): [5, 3]

Length: 2
Dequeued: 5
Que after dequeue(): [3]

Is_Empty: False
Dequeued: 5
Que after dequeue(): []

Is_Empty: True
Dequeued from an empty queue
Enqueued: 7
Que After Enqueue(): [7]

Enqueued: 9
Que After Enqueue(): [7, 9]

Front: 7
Enqueued: 4
Que After Enqueue(): [7, 9, 4]

Length: 3
Dequeued: 7
Que after dequeue(): [9, 4]

Part II
Enqueued: 5
Que After Enqueue(): [5]

Enqueued: 3
Que After Enqueue(): [5, 3]
```

```
Project: DSALGO1-IDB2 > main
Run: Activity2Midterms
Activity2Midterms.py
Part II
Enqueued: 5
Que After Enqueue(): [5]

Enqueued: 3
Que After Enqueue(): [5, 3]

Dequeued: 5
Que after dequeue(): [3]

Enqueued: 2
Que After Enqueue(): [3, 2]

Enqueued: 8
Que After Enqueue(): [3, 2, 8]

Dequeued: 3
Que after dequeue(): [2, 8]

Dequeued: 2
Que after dequeue(): [8]

Enqueued: 9
Que After Enqueue(): [8, 9]

Enqueued: 1
Que After Enqueue(): [8, 9, 1]

Dequeued: 8
Que after dequeue(): [9, 1]

Enqueued: 7
Que After Enqueue(): [9, 1, 7]

Enqueued: 6
Que After Enqueue(): [9, 1, 7, 6]
```

```
Project: DSALGO1-IDB2 - main
Run: ActivityMidterms_Castro.py, Activity2Midterms.py

Dequeued: 3
Que after dequeue(): [2, 8]

Dequeued: 2
Que after dequeue(): [8]

Enqueued: 9
Que After Enqueue(): [8, 9]

Enqueued: 4
Que After Enqueue(): [8, 9, 3]

Dequeued: 8
Que after dequeue(): [9, 3]

Enqueued: 7
Que After Enqueue(): [9, 3, 7]

Enqueued: 6
Que After Enqueue(): [9, 3, 7, 6]

Dequeued: 9
Que after dequeue(): [3, 7, 6]

Dequeued: 3
Que after dequeue(): [7, 6]

Enqueued: 4
Que After Enqueue(): [7, 6, 4]

Dequeued: 7
Que after dequeue(): [6, 4]

Dequeued: 6
Que after dequeue(): [4]

Process finished with exit code 0
```

DSALGO1-IDB2 > MIDTERMS > Activity2Midterms.py 7:32 CRLF UTF-8 4 spaces Python 3.12 3:25 pm 11/19/2024