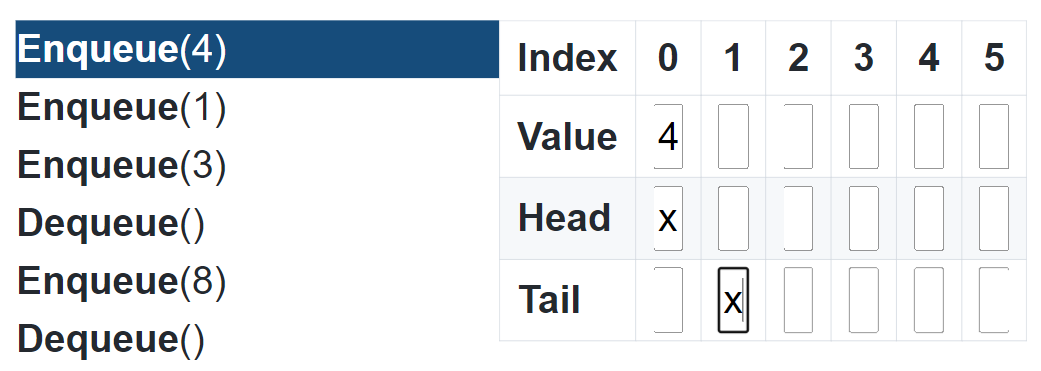
CAB301 Tutorial 3

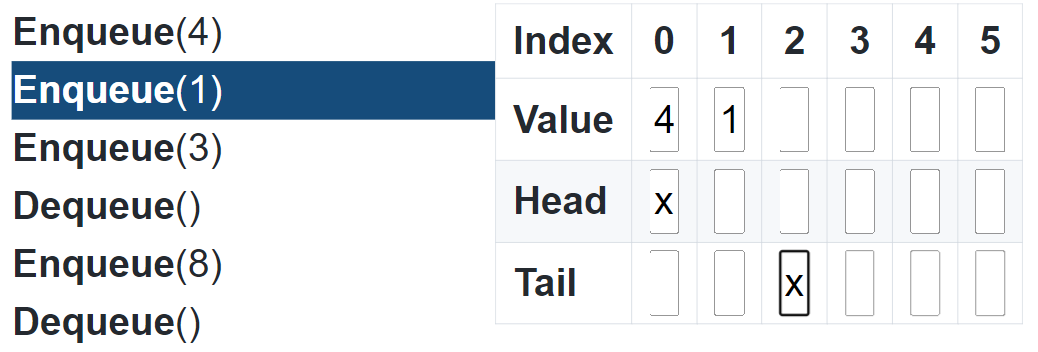
Time: 13:00 Monday, 18/03/2024

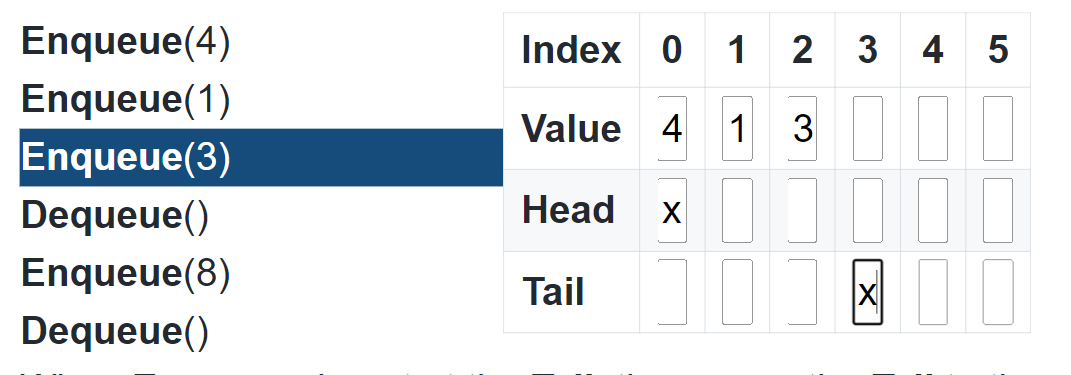
**Question 1:** Queue Operations

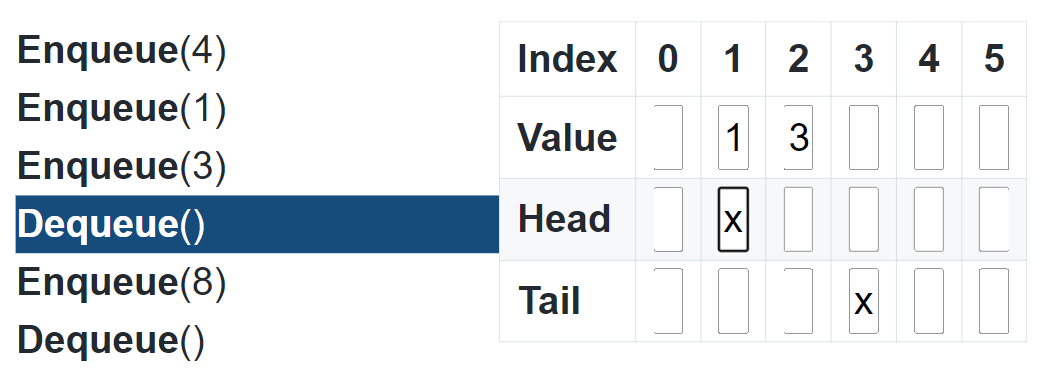
Originally, before any operation, Head and Tail are both at index 0.

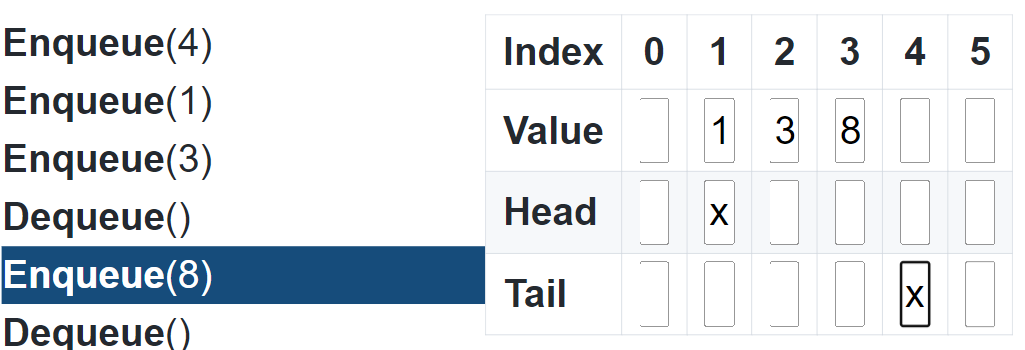


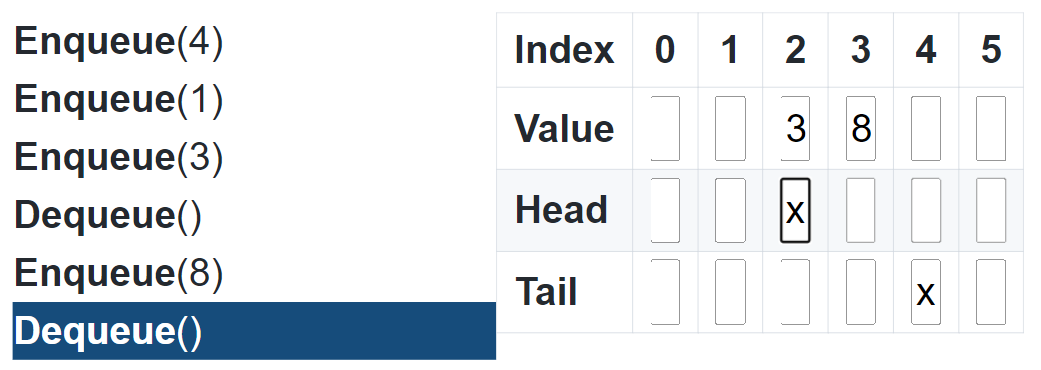












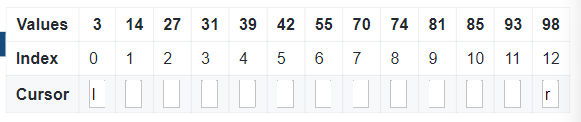
**Question 2: Binary Search**

**Search in:**

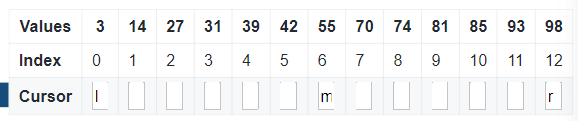
[3, 14, 27, 31, 39, 42, 55, 70, 74, 81, 85, 93, 98]

Search key = 70.

Initially, and (since there are 13 elements)



Iteration 1:

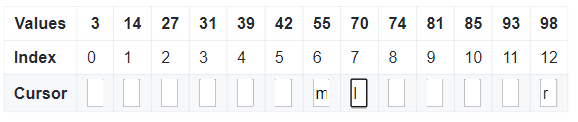


Is the same as 70?

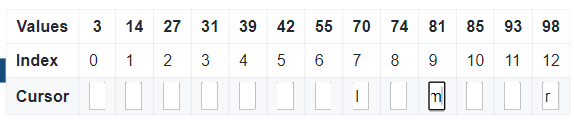
> False

Is less than ?

> True,



Iteration 2:



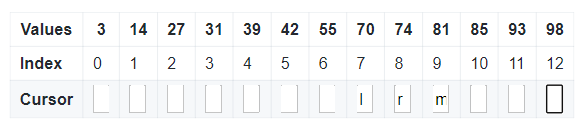
Is the same ?

> False

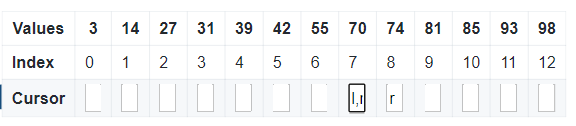
Is less than 70?

> False

Execute the “else”:



Iteration 3:



Is the same as ?

> True, return