Assignment 3

Group 33

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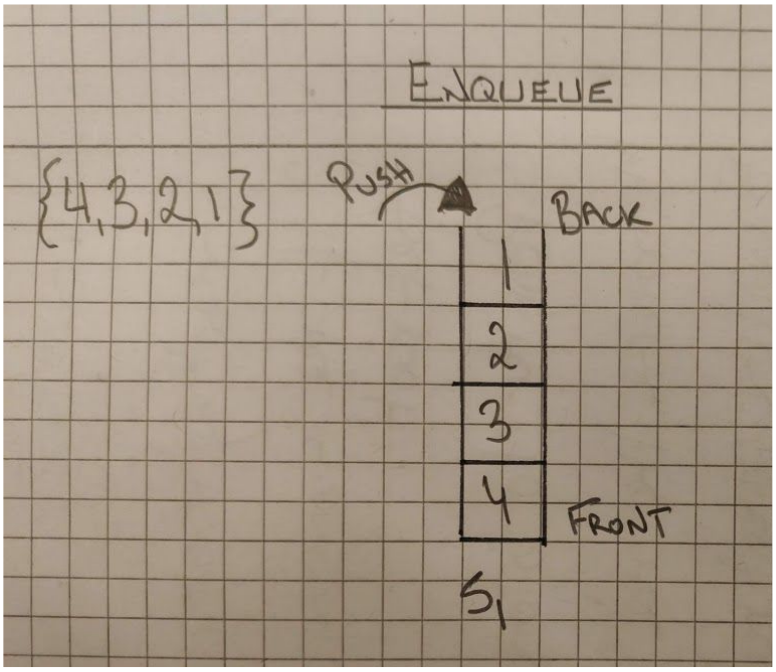
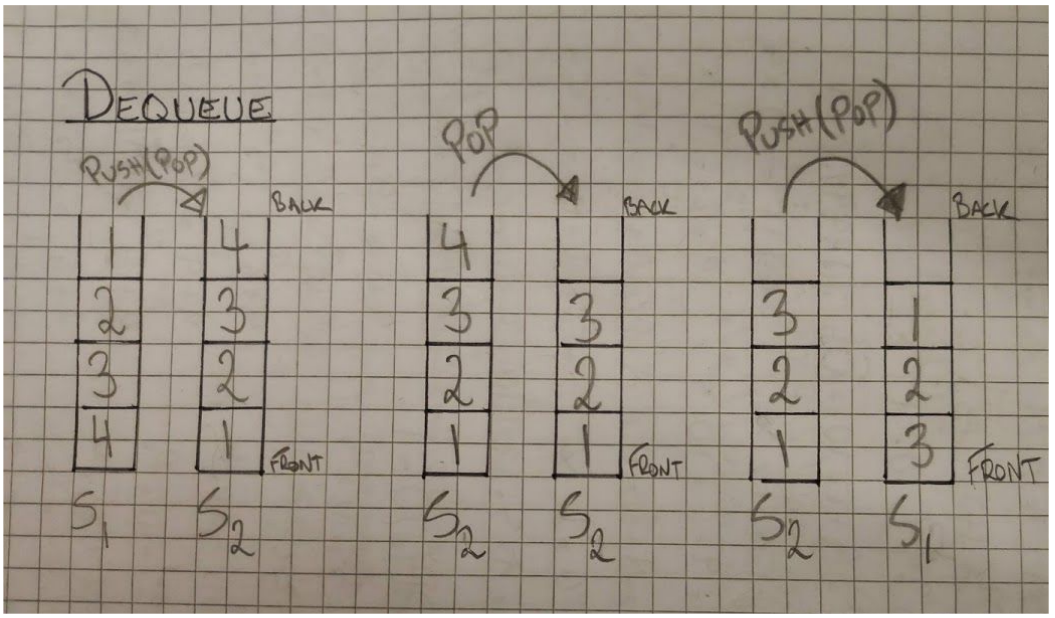
Question 1.

explanation:

In order to implement a queue stacks we choose the set {1,2,3,4} and to simulate enqueue you push the elements into the first stack.
The complexity of enqueue will be O(1).



To simulate dequeue we push the removed elements from stack 1 into stack 2 . Next step would be to pop element(4). Then we move the remaining elements from stack 2 into stack 1 to order it.
The complexity of dequeue will be O(n)



Pseudo Code :

```
deQueue(int x){

        if  both stacks are empty
                return undefined ;

        if stack 2 is empty , remove all elements from stack 1 to stack 2 while stack 1
        contains elements

        pop element on stack 2

        remove the elements from stack 2 and move them into stack 1

        return stack 1 ;


enQueue (){
        push elements into stack 1

}
```

Question 3:

complexity of the method is O(N).

Question 4:

complexity of the method is O(N).

Question 5:

complexity of the method is O(N).

Question 6:

complexity of the method is O(N).

Question 7:

complexity of the method is O(N).

Question 8:

complexity of the method is O(N).

Question 9:

complexity of the method is O(N).